
RESIDENTIAL AIR-CONDITIONING TECHNICAL MANUAL & PARTS LIST

**WALL MOUNTED TYPE
RESIDENTIAL AIR-CONDITIONERS
(Split system, air to air heat pump type)**

SRK52HSBP-S

SRK71HSBP-S

SRK90HSBP-S

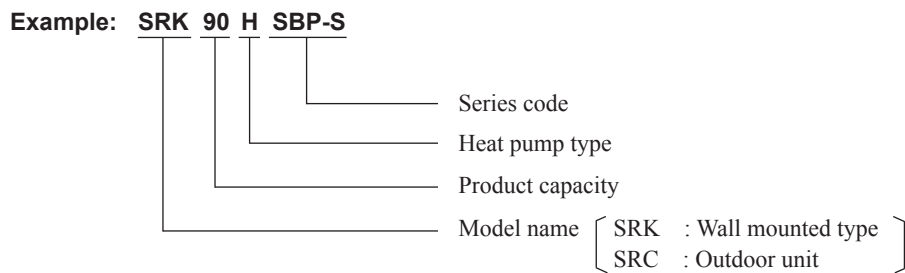
TECHNICAL MANUAL

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■ How to read the model name



1. SPECIFICATIONS

Item		Model	SRK52HSBP-S			
			Indoor unit SRK52HSBP-S	Outdoor unit SRC52HSBP-S		
Power source			1 Phase, 230V, 60Hz			
Operation data	Nominal cooling capacity (T1)	Btu/h	18000			
		kW	5.28			
	Nominal cooling capacity (T3)	Btu/h	15500			
		kW	4.54			
	Nominal heating capacity	Btu/h	18400			
		kW	5.4			
	Power consumption	Cooling(T1)	kW	1.48		
		Cooling(T3)		1.79		
		Heating		1.28		
	Max power consumption			1.96		
	Running current	Cooling(T1)	A	6.6		
		Cooling(T3)		7.9		
		Heating		5.7		
	Max running current			Max. 8.7		
Power factor	Cooling	%	98			
	Heating		98			
EER	Cooling(T1)	Btu/h·W	12.2			
	Cooling(T3)		8.66			
COP	Heating	W/W	4.22			
Sound pressure level	Cooling	dB(A)	Hi: 40 Me: 37 Lo: 34	52		
	Heating		Hi: 41 Me: 37 Lo: 34	49		
Exterior dimensions (Height x Width x Depth)		mm	339 x 1197 x 262	640 x 850(+65) x 290		
Exterior appearance (Munsell color)			Fine snow (8.0Y 9.3/0.1) near equivalent	Stucco white (4.2Y 7.5/1.1) near equivalent		
Net weight		kg	15.5	45.5		
Compressor type & Q'ty			—	GJS160KAA (Rotary type) x 1		
Compressor motor		kW	—	1.31		
Refrigerant oil (Amount, type)		ℓ	—	0.44 (FVC68D)		
Refrigerant (Type, amount, pre-charge length)		kg	R410A 1.65 in outdoor unit (incl. the amount for the piping of 15m)			
Heat exchanger			Louver fins & inner grooved tubing	M fins & inner grooved tubing		
Refrigerant control			Capillary tubes + Electronic expansion valve			
Fan type & Q'ty			Tangential fan x 1	Propeller fan x 1		
Fan motor		W	56 x1	32 x1		
Air flow	Cooling	m³/min	Hi: 19.5 Me: 17.6 Lo: 15.7	38		
	Heating		Hi: 20.5 Me: 18.6 Lo: 16.7	36		
Available external static pressure		Pa	0	0		
Outside air intake			Not possible	—		
Air filter, Quality / Quantity			Polypropylene net (washable) x 2	—		
Shock & vibration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (compressor)		
Electric heater			—	—		
Operation control	Remote control		Wireless-Remote control			
	Room temperature control		Microcomputer thermostat			
	Operation display		RUN: Green , TIMER: Yellow , HI POWER: Green ,3D AUTO: Green			
Safety equipments			Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection(High pressure control), Cooling overload protection			
Installation data	Refrigerant piping size (O.D)	mm	Liquid line: ϕ 6.35 (1/4")	Gas line: ϕ 12.7 (1/2")		
	Connecting method		Flare connection	Flare connection		
	Attached length of piping	m	Liquid line : 0.78 / Gas line : 0.71	—		
	Insulation for piping		Necessary (Both sides), independent			
	Refrigerant line (one way) length	m	Max.25			
	Vertical height diff. between O.U. and I.U.	m	Max.15(Outdoor unit is higher) / Max.15 (Outdoor unit is lower)			
Drain hose		Hose connectable (VP 16)	Holes ϕ 20 x 3 pcs			
Drain pump, max lift height		mm	—	—		
Recommended breaker size		A	16			
L.R.A. (Locked rotor ampere)		A	40			
Interconnecting wires		Size x Core number	1.5mm ² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)			
IP number			IPX0	IPX4		
Standard accessories			Mounting kit, Clean filter (Natural enzyme filter x 1, Photocatalytic washable deodorizing filter x 1)			
Option parts			Interface kit (SC-BIKN-E)			
Notes (1) The data are measured at the following conditions. The pipe length is 5m.						
	Item	Indoor air temperature		Outdoor air temperature		Standards
Operation		DB	WB	DB	WB	
Cooling(T1)		27°C	19°C	35°C	24°C	
Cooling(T3)		29°C	19°C	46°C	24°C	
Heating		20°C	—	7°C	6°C	
(2) This air-conditioner is manufactured and tested in conformity with the ISO.						
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.						
(4) Select the breaker size according to the own national standard.						

RWA000Z261 

Item		Model		SRK71HSBP-S	
		Indoor unit SRK71HSBP-S		Outdoor unit SRC71HSBP-S	
Power source		1 Phase, 230V, 60Hz			
Operation data	Nominal cooling capacity (T1)	Btu/h	24000		
		kW	7.03		
	Nominal cooling capacity (T3)	Btu/h	21000		
		kW	6.15		
	Nominal heating capacity	Btu/h	24600		
		kW	7.20		
	Power consumption	Cooling(T1)	2.07		
		Cooling(T3)	2.50		
		Heating	1.89		
	Max power consumption		2.80		
	Running current	Cooling(T1)	9.2		
		Cooling(T3)	11.1		
		Heating	8.4		
	Max running current		Max. 12.4		
Power factor	Cooling	98			
	Heating	98			
EER	Cooling(T1)	11.6			
	Cooling(T3)	8.40			
COP	Heating	3.81			
Sound pressure level	Cooling	Hi: 43 Me: 40 Lo: 37		55	
	Heating	Hi: 42 Me: 39 Lo: 35		57	
Exterior dimensions (Height x Width x Depth)		mm	339 x 1197 x 262		
Exterior appearance (Munsell color)			Fine snow		
Net weight		kg	15.5		
Compressor type & Q'ty			GVS215KAA (Rotary type) x 1		
Compressor motor		kW	1.9		
Refrigerant oil (Amount, type)		ℓ	0.6 (FVC68D)		
Refrigerant (Type, amount, pre-charge length)		kg	R410A 1.65 in outdoor unit (incl. the amount for the piping of 15m)		
Heat exchanger			Louver fins & inner grooved tubing		
Refrigerant control			Capillary tubes + Electronic expansion valve		
Fan type & Q'ty			Tangential fan x 1		
Fan motor		W	56 x1		
Air flow	Cooling	m³/min	Hi: 21.0 Me: 18.8 Lo: 16.7		
	Heating		Hi: 22.0 Me: 19.8 Lo: 17.7		
Available external static pressure		Pa	0		
Outside air intake			Not possible		
Air filter, Quality / Quantity			Polypropylene net (washable) x 2		
Shock & vibration absorber			Rubber sleeve (for fan motor)		
Electric heater			-		
Operation control	Remote control		Wireless-Remote control		
	Room temperature control		Microcomputer thermostat		
	Operation display		RUN: Green , TIMER: Yellow , HI POWER: Green ,3D AUTO: Green		
Safety equipments			Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection(High pressure control), Cooling overload protection		
Installation data	Refrigerant piping size (O.D)	mm	Liquid line: ϕ 6.35 (1/4") Gas line: ϕ 15.88 (5/8")		
	Connecting method		Flare connection		
	Attached length of piping	m	Liquid line : 0.78 / Gas line : 0.72		
	Insulation for piping		Necessary (Both sides), independent		
	Refrigerant line (one way) length	m	Max.25		
	Vertical height diff. between O.U. and I.U.	m	Max.15(Outdoor unit is higher) / Max.15 (Outdoor unit is lower)		
Drain hose			Hose connectable (VP 16)		
Drain pump, max lift height		mm	-		
Recommended breaker size		A	20		
L.R.A. (Locked rotor ampere)		A	60		
Interconnecting wires		Size x Core number	1.5mm² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)		
IP number			IPX0		
Standard accessories			Mounting kit, Clean filter (Natural enzyme filter x 1, Photocatalytic washable deodorizing filter x 1)		
Option parts			Interface kit (SC-BIKN-E)		
Notes (1) The data are measured at the following conditions. The pipe length is 5m					
	Item	Indoor air temperature		Outdoor air temperature	
Operation		DB	WB	DB	WB
	Cooling(T1)	27°C	19°C	35°C	24°C
	Cooling(T3)	29°C	19°C	46°C	24°C
	Heating	20°C	-	7°C	6°C
				Standards	
					ISO5151-T1
					ISO5151-T3
					ISO5151-H1
(2) This air-conditioner is manufactured and tested in conformity with the ISO.					
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.					
(4) Select the breaker size according to the own national standard.					

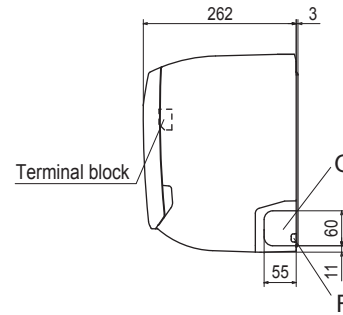
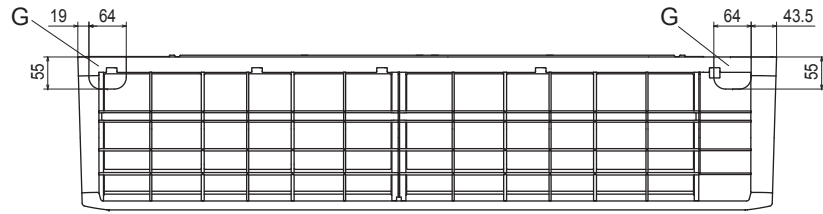
Item		Model		SRK90HSBP-S		
		Indoor unit SRK90HSBP-S		Outdoor unit SRC90HSBP-S		
Power source		1 Phase, 230V, 60Hz				
Operation data	Nominal cooling capacity (T1)	Btu/h	30000			
		kW	8.79			
	Nominal cooling capacity (T3)	Btu/h	26000			
		kW	7.62			
	Nominal heating capacity	Btu/h	31200			
		kW	9.15			
	Power consumption	Cooling(T1)	2.59			
		Cooling(T3)	3.07			
		Heating	2.42			
	Max power consumption	3.40				
	Running current	Cooling(T1)	11.5			
		Cooling(T3)	13.6			
		Heating	10.7			
	Max running current	Max. 15.1				
Power factor	Cooling	98				
	Heating	98				
EER	Cooling(T1)	11.6				
	Cooling(T3)	8.47				
COP	Heating	3.78				
Sound pressure level	Cooling	Hi: 46 Me: 43 Lo: 40	56			
	Heating	Hi: 47 Me: 44 Lo: 41	57			
Exterior dimensions (Height x Width x Depth)		mm	339 x 1197 x 262			
Exterior appearance (Munsell color)			Fine snow / Stucco white			
Net weight		kg	(8.0Y 9.3/0.1) near equivalent / (4.2Y 7.5/1.1) near equivalent			
Compressor type & Q'ty			-			
Compressor motor		kW	-			
Refrigerant oil (Amount, type)		ℓ	-			
Refrigerant (Type, amount, pre-charge length)		kg	R410A 2.2 in outdoor unit (incl. the amount for the piping of 10m)			
Heat exchanger			Louver fins & inner grooved tubing / M fins & inner grooved tubing			
Refrigerant control			Capillary tubes + Electronic expansion valve			
Fan type & Q'ty			Tangential fan x 1 / Propeller fan x 1			
Fan motor		W	56 x1 / 72 x1			
Air flow	Cooling	m³/min	Hi: 24.5 Me: 22.0 Lo: 19.5 / 70			
	Heating		Hi: 26.7 Me: 24.2 Lo: 21.7 / 66			
Available external static pressure		Pa	0 / 0			
Outside air intake			Not possible / -			
Air filter, Quality / Quantity			Polypropylene net (washable) x 2 / -			
Shock & vibration absorber			Rubber sleeve (for fan motor) / Rubber sleeve (compressor)			
Electric heater			-			
Operation control	Remote control		Wireless-Remote control			
	Room temperature control		Microcomputer thermostat			
	Operation display		RUN: Green , TIMER: Yellow , HI POWER: Green ,3D AUTO: Green			
Safety equipments			Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection(High pressure control), Cooling overload protection			
Installation data	Refrigerant piping size (O.D)	mm	Liquid line: φ 6.35 (1/4") / Gas line: φ 15.88 (5/8")			
	Connecting method		Flare connection / Flare connection			
	Attached length of piping	m	Liquid line : 0.78 / Gas line : 0.72 / -			
	Insulation for piping		Necessary (Both sides), independent			
	Refrigerant line (one way) length	m	Max.25			
	Vertical height diff. between O.U. and I.U.	m	Max.15(Outdoor unit is higher) / Max.15 (Outdoor unit is lower)			
Drain hose		Hose connectable (VP 16) / Holes φ 20 x 3 pcs				
Drain pump, max lift height		mm	-			
Recommended breaker size		A	20			
L.R.A. (Locked rotor ampere)		A	62			
Interconnecting wires		Size x Core number	1.5mm² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)			
IP number			IPX0 / IPX4			
Standard accessories			Mounting kit, Clean filter (Natural enzyme filter x 1, Photocatalytic washable deodorizing filter x 1)			
Option parts			Interface kit (SC-BIKN-E)			
Notes (1) The data are measured at the following conditions. The pipe length is 5m.						
	Item	Indoor air temperature		Outdoor air temperature		Standards
Operation		DB	WB	DB	WB	
Cooling(T1)		27°C	19°C	35°C	24°C	
Cooling(T3)		29°C	19°C	46°C	24°C	
Heating		20°C	-	7°C	6°C	
(2) This air-conditioner is manufactured and tested in conformity with the ISO.						
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.						
(4) Select the breaker size according to the own national standard.						

2. EXTERIOR DIMENSIONS

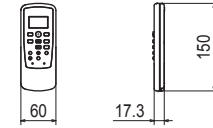
(1) Indoor units

Models SRK52HSBP-S, 71HSBP-S, 90HSBP-S

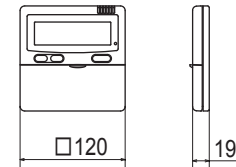
Symbol	Content	
A	Gas piping	Model 52 ϕ 12.7(1/2")(Flare) Model 71,90 ϕ 15.88(5/8")(Flare)
B	Liquid piping	ϕ 6.35(1/4")(Flare)
C	Hole on wall for right rear piping	(ϕ 65)
D	Hole on wall for left rear piping	(ϕ 65)
E	Drain hose	VP16
F	Outlet for wiring	
G	Outlet for piping (on both side)	



Wireless remote control

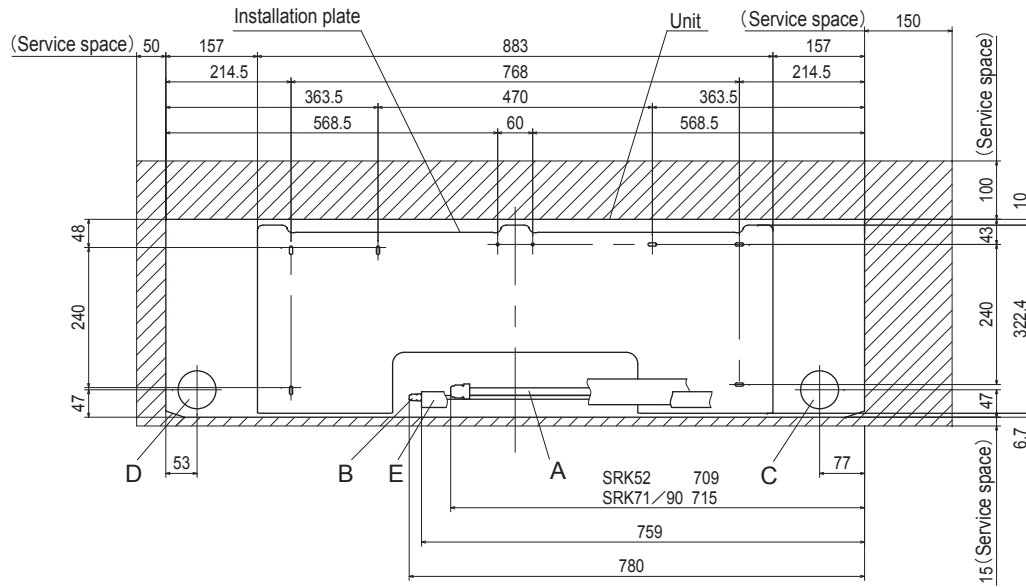


Wired remote control
(Option)



Note(1) The model name label is attached on the underside of the indoor unit.

Unit:mm

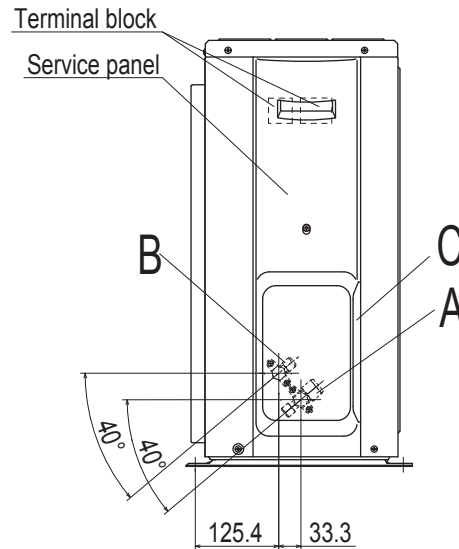
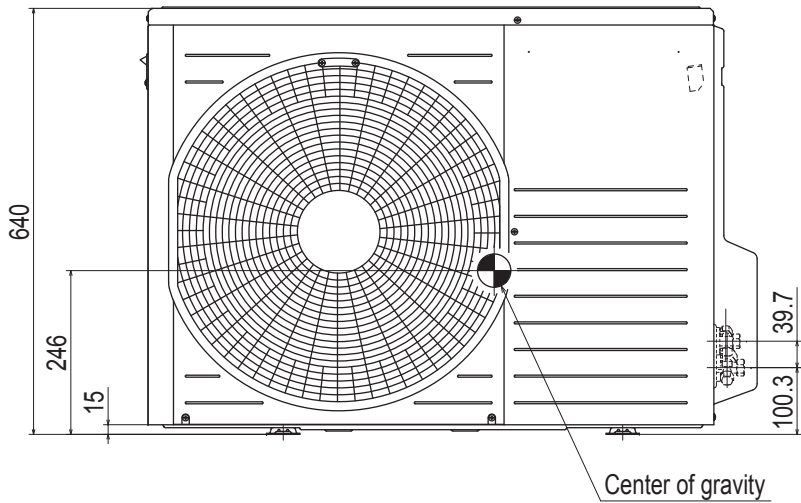
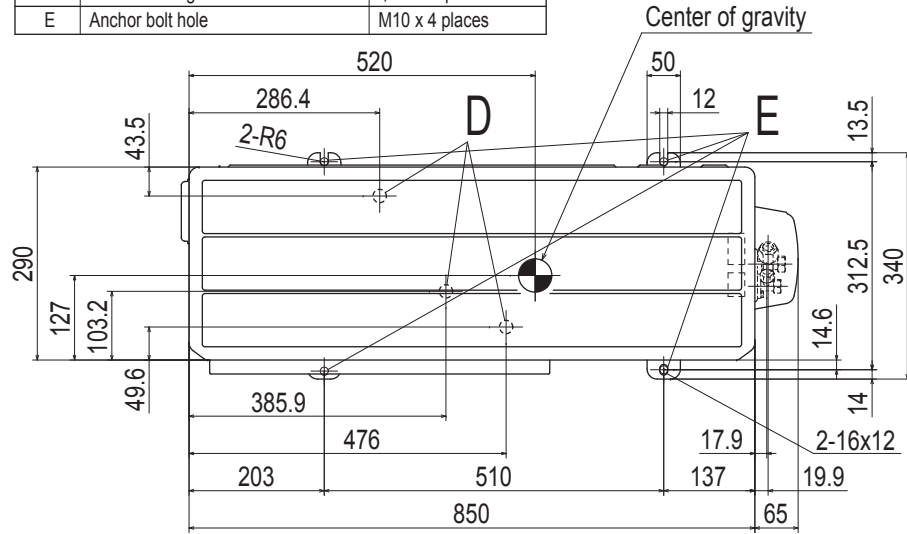


Space for installation and service when viewing from the front

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RWC000Z283/A

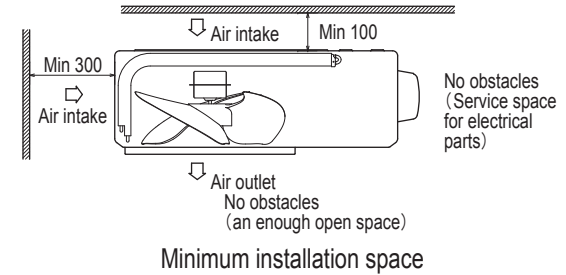
Symbol	Content	
A	Service valve connection(gas side)	φ 12.7(1/2")(Flare)
B	Service valve connection(liquid side)	φ 6.35(1/4")(Flare)
C	Pipe/cable draw-out hole	
D	Drain discharge hole	φ 20 x 3 places
E	Anchor bolt hole	M10 x 4 places



Unit:mm

Note

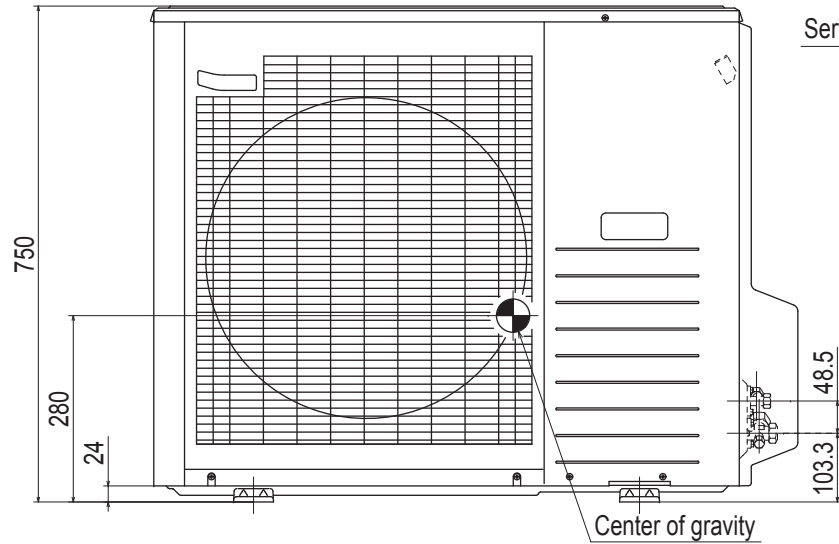
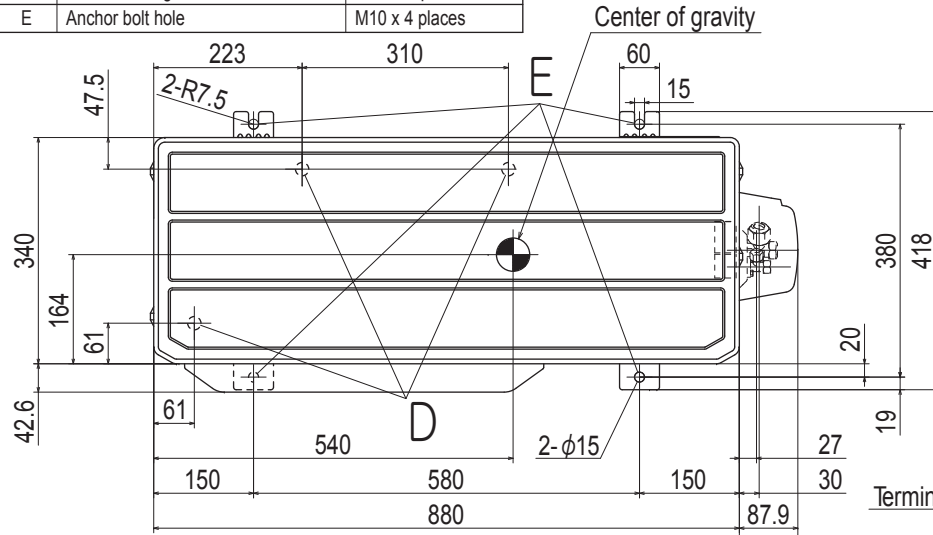
- (1) It must not be surrounded by walls on four sides.
- (2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
- (3) Where the unit is subjected to strong winds, lay it in such a direction that the blower outlet face is perpendicular to the dominant wind direction.
- (4) Leave 1.2m or more space above the unit.
- (5) A wall in front of the blower outlet must not exceed the unit's height.
- (6) The model name label is attached on the service panel.



(2) Outdoor units
Model SRC52HSBP-S

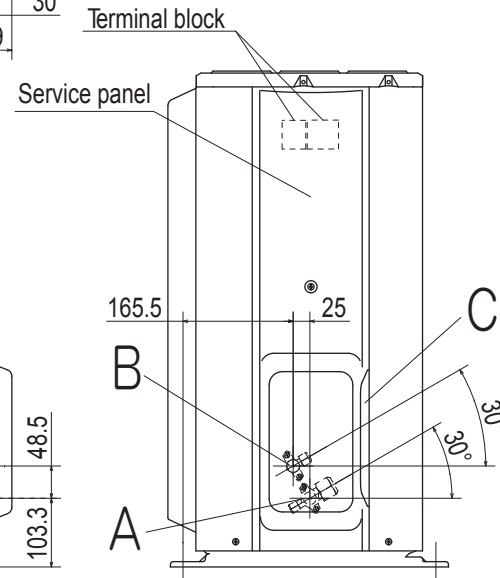
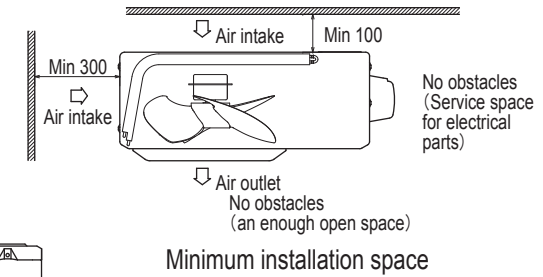
RCR000Z015
B

Symbol	Content	
A	Service valve connection (gas side)	φ 15.88 (5/8") (Flare)
B	Service valve connection (liquid side)	φ 6.35 (1/4") (Flare)
C	Pipe/cable draw-out hole	
D	Drain discharge hole	φ 20 x 3 places
E	Anchor bolt hole	M10 x 4 places



Note

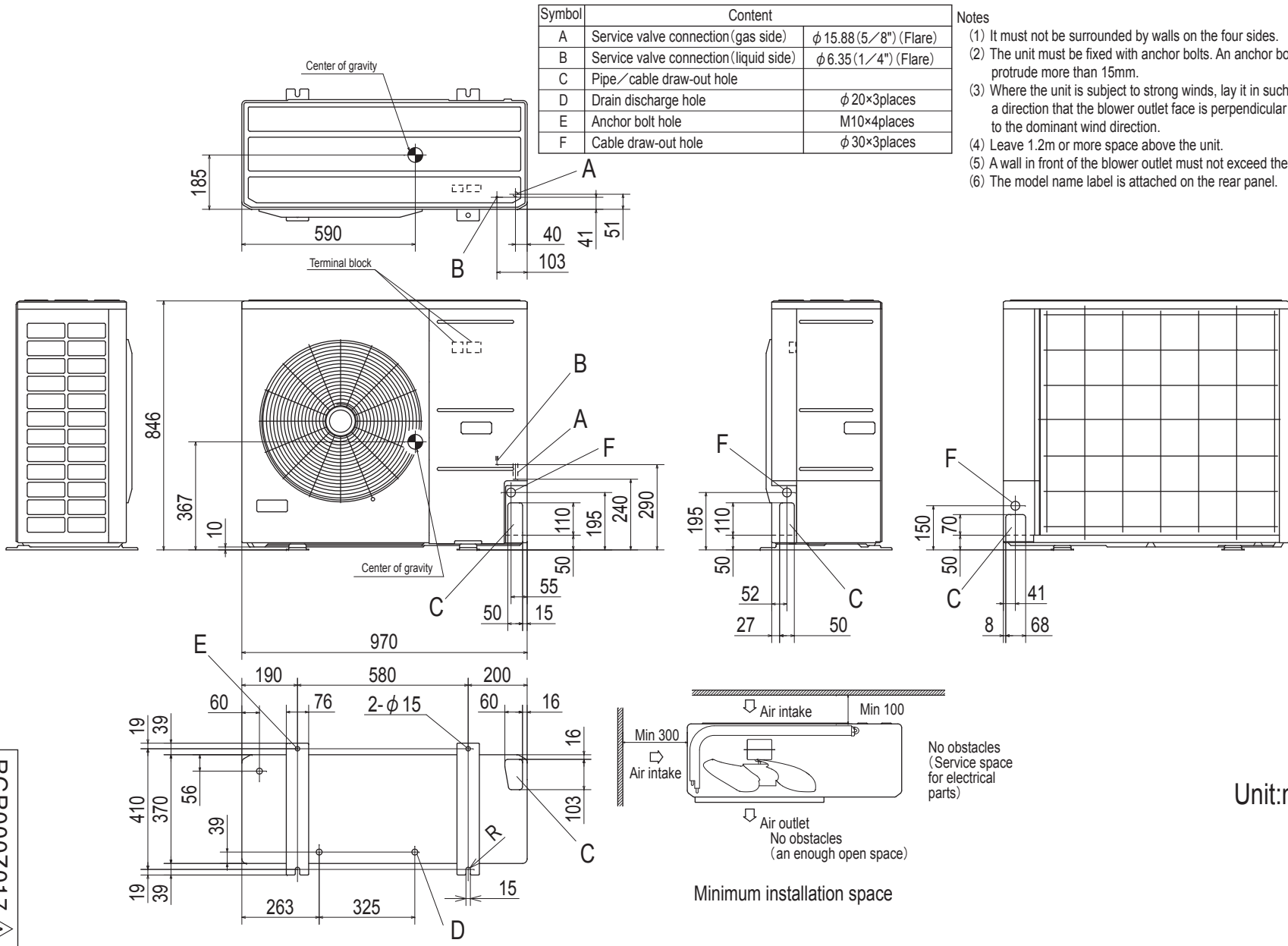
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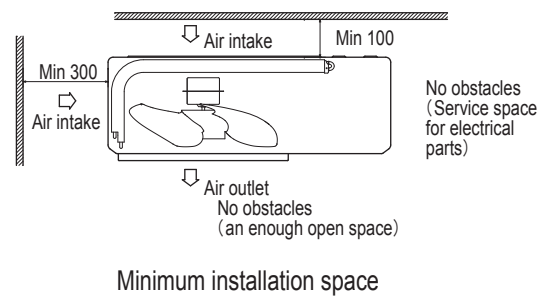
Unit:mm

Model SRC71HSBP-S

RCR000Z017
A



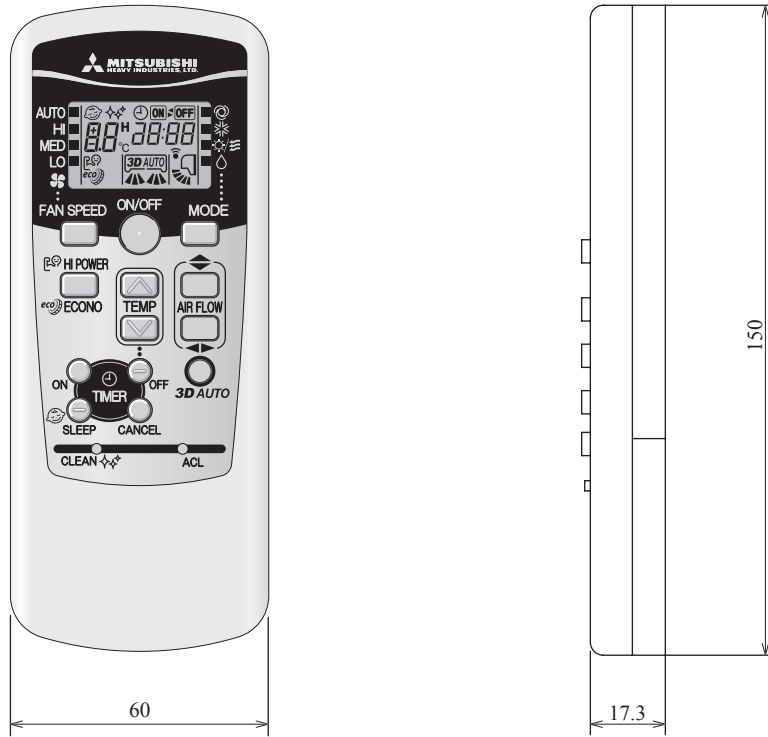
Unit:mm



Model SRC90HSP-S

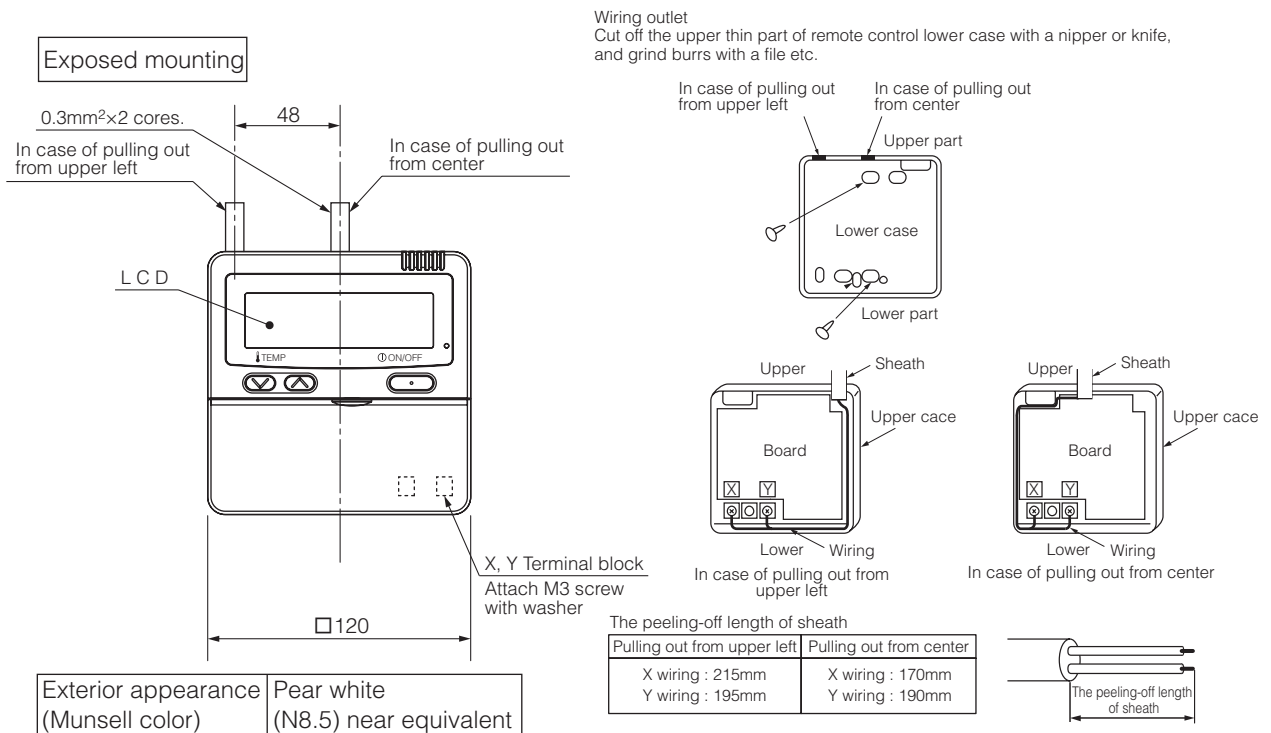
(3) Remote control
(a) Wireless remote control

Unit: mm

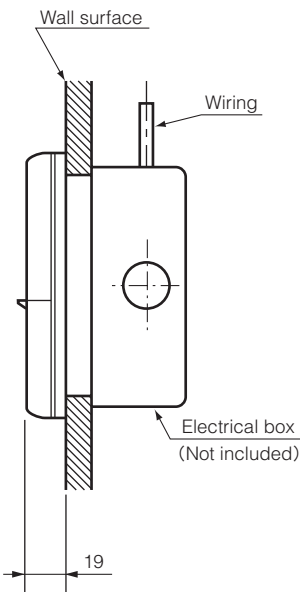


(b) Wired remote control (option parts)

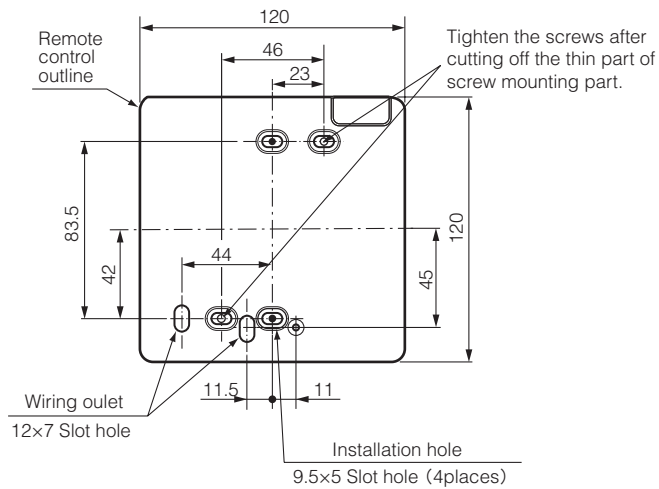
Interface kit (SC-BIKN-E) is required to use the wired remote control.



Embedded mounting



Remote control installation dimensions



(1) Installation screw for remote control
M4 screw (2 pieces)

Unit:mm

Wiring specifications

(1) If the prolongation is over 100m, change to the size below.
But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

Length	Wiring thickness
100 to 200m	0.5mm ² ×2 cores
Under 300m	0.75mm ² ×2 cores
Under 400m	1.25mm ² ×2 cores
Under 600m	2.0mm ² ×2 cores

PJZ000Z274

3. ELECTRICAL WIRING

(1) Indoor units

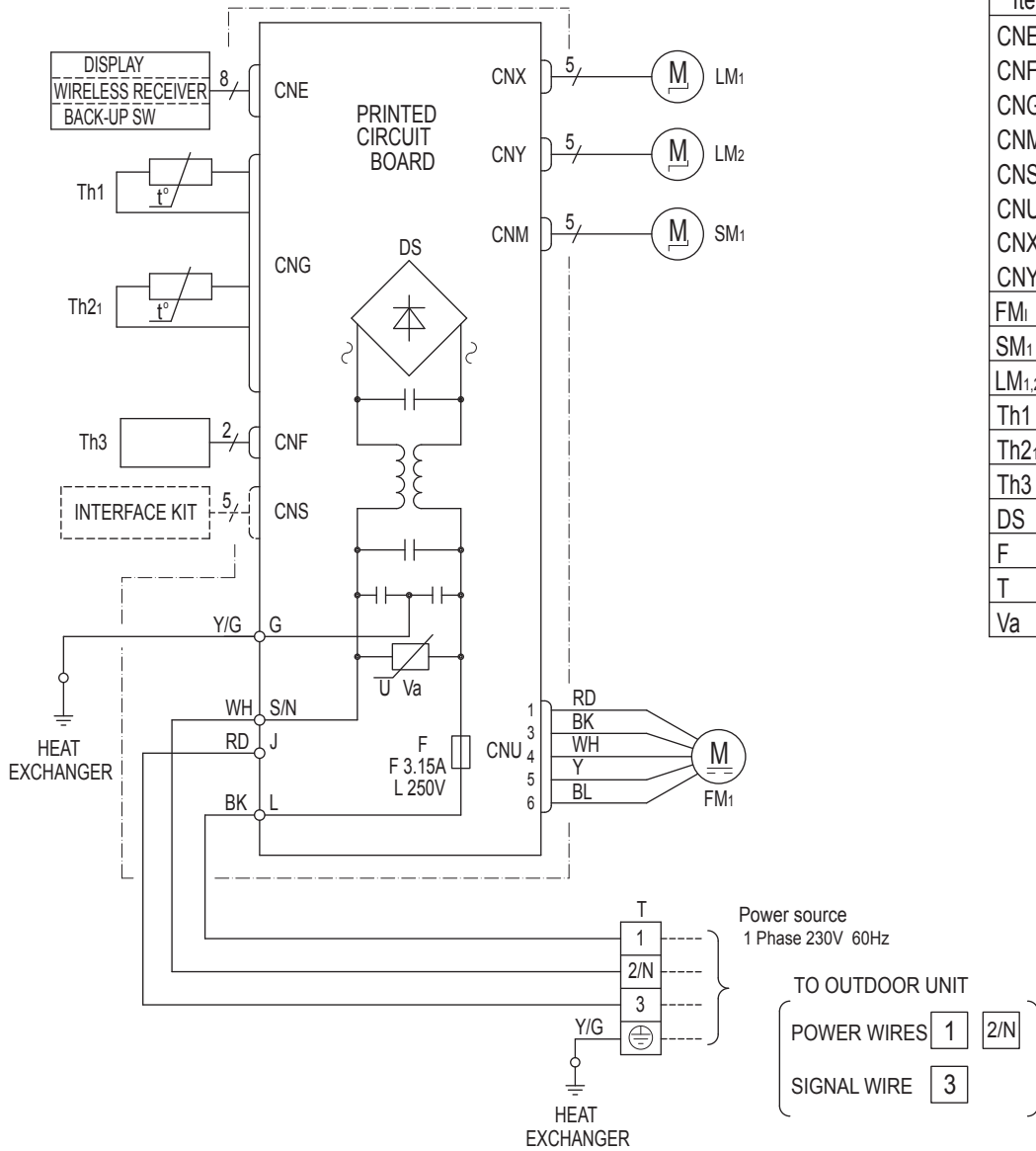
Models SRK52HSBP-S, 71HSBP-S, 90HSBP-S

Meaning of marks

Item	Description
CNE	Connector
CNF	
CNG	
CNM	
CNS	
CNU	
CNX	
CNY	
FM ₁	Fan motor
SM ₁	Flap motor
LM _{1,2}	Louver motor
Th ₁	Room temp. sensor
Th _{2,1}	Heat exch. sensor
Th ₃	Humidity sensor
DS	Diode stack
F	Fuse
T	Terminal block
Va	Varistor

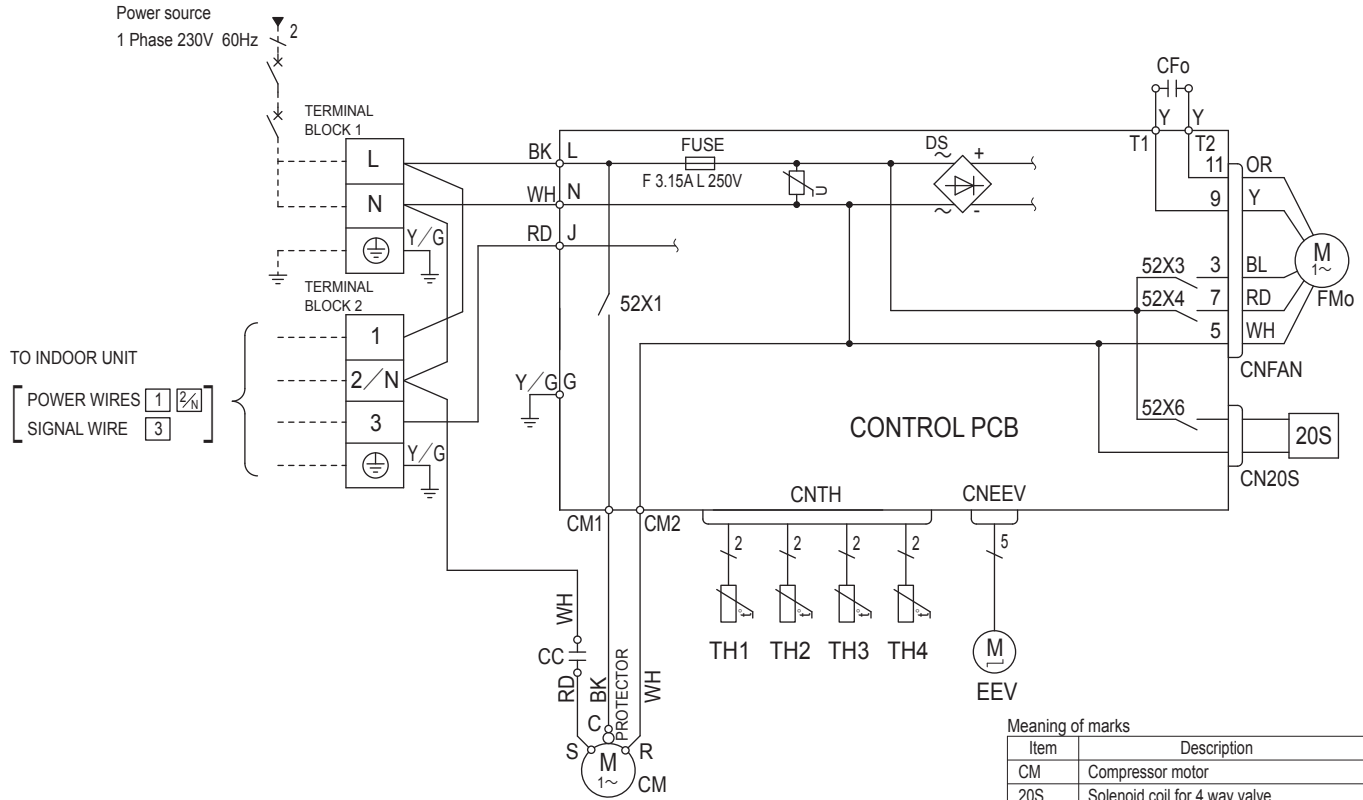
Color marks

Mark	Color
BK	Black
BL	Blue
RD	Red
WH	White
Y	Yellow
Y/G	Yellow/Green



RWA0002407/A

(2) Outdoor units
Model SRC52HSBP-S



Power cable, indoor-outdoor connecting wires

MAX running current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm ²)
8.7	2.5	30	1.5mm ² x 4	2.5

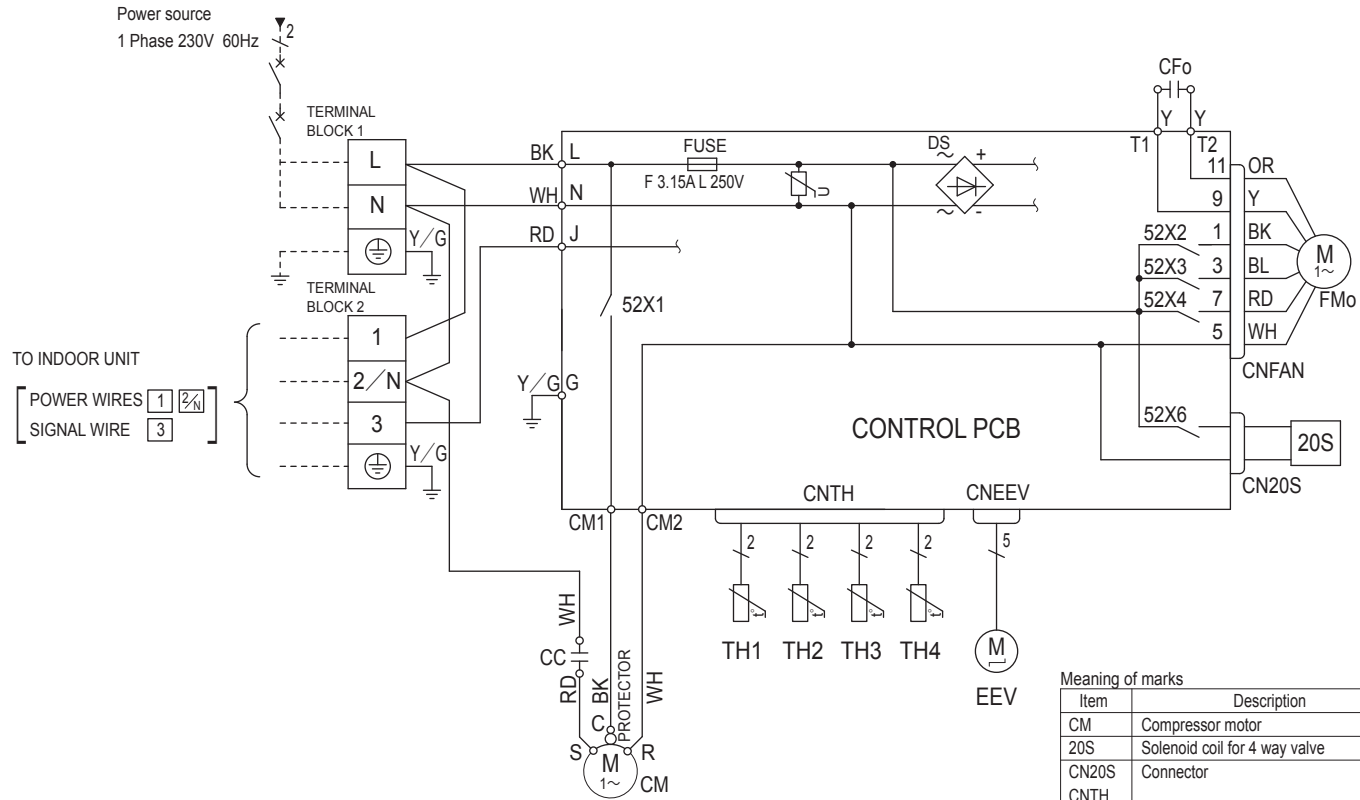
- The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	Y	Yellow
OR	Orange	Y/G	Yellow / Green
RD	Red		

Meaning of marks

Item	Description
CM	Compressor motor
20S	Solenoid coil for 4 way valve
CN20S	Connector
CNTH	
CNEEV	
CNFAN	
FMo	Fan motor
EEV	Electric expansion valve (coil)
TH1	Heat exchanger gas pipe temp. sensor
TH2	Outdoor air temp. sensor
TH3	Discharge pipe temp. sensor
TH4	Heat exchanger liquid pipe temp. sensor
DS	Diode stack
CC	Running capacitor for compressor
CFo	Running capacitor for fan motor



Power cable, indoor-outdoor connecting wires

MAX running current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm ²)
12.4	2.5	21	1.5mm ² x 4	2.5

- The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

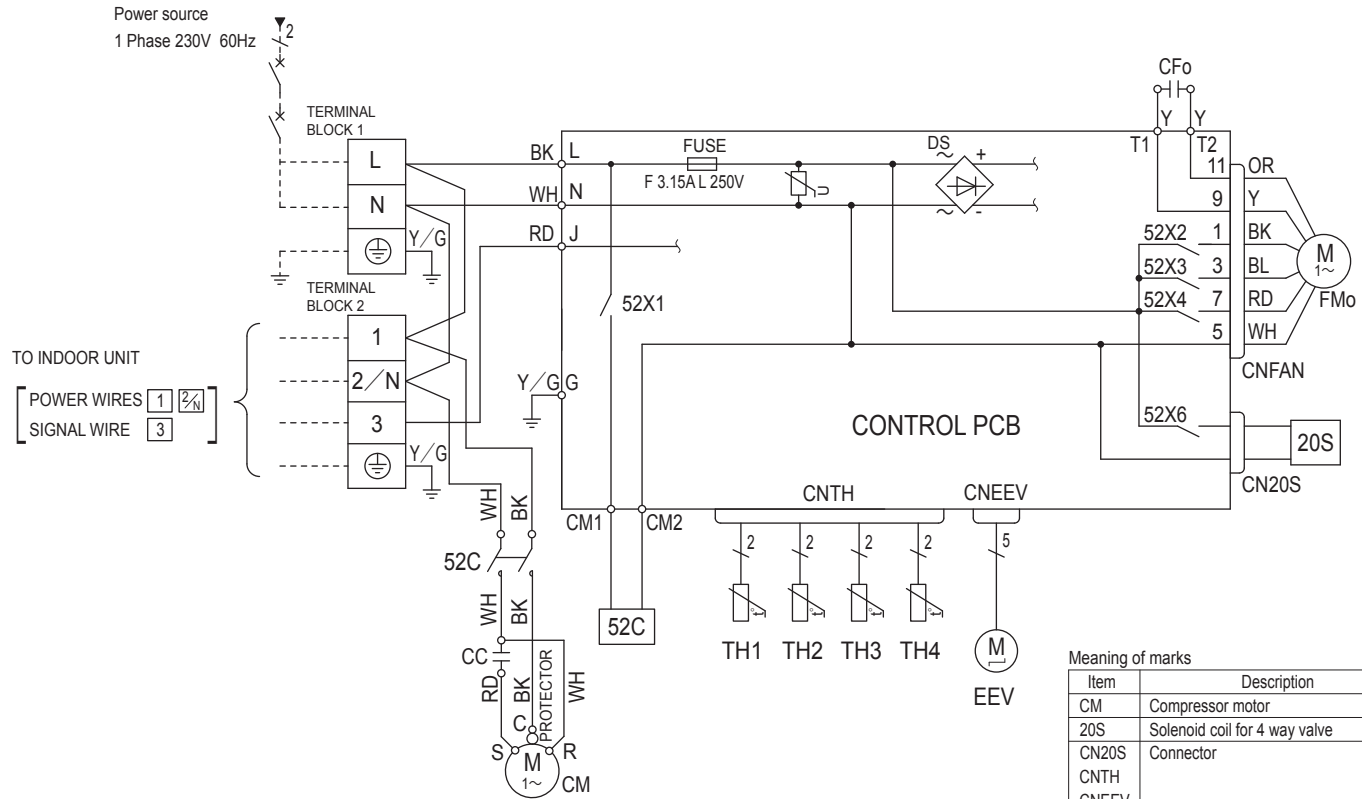
Meaning of marks

Item	Description
CM	Compressor motor
20S	Solenoid coil for 4 way valve
CN20S	Connector
CNTH	
CNEEV	
CNFAN	
FMo	Fan motor
EEV	Electric expansion valve (coil)
TH1	Heat exchanger gas pipe temp. sensor
TH2	Outdoor air temp. sensor
TH3	Discharge pipe temp. sensor
TH4	Heat exchanger liquid pipe temp. sensor
DS	Diode stack
CC	Running capacitor for compressor
CFo	Running capacitor for fan motor

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	Y	Yellow
OR	Orange	Y/G	Yellow / Green
RD	Red		

RCR000Z032



Power cable, indoor-outdoor connecting wires

MAX running current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm ²)
15.1	2.5	17	1.5mm ² x 4	2.5

- The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	Y	Yellow
OR	Orange	Y/G	Yellow / Green
RD	Red		

Meaning of marks

Item	Description
CM	Compressor motor
20S	Solenoid coil for 4 way valve
CN20S	Connector
CNTH	
CNEEV	
CNFAN	
FMo	Fan motor
EEV	Electric expansion valve (coil)
TH1	Heat exchanger gas pipe temp. sensor
TH2	Outdoor air temp. sensor
TH3	Discharge pipe temp. sensor
TH4	Heat exchanger liquid pipe temp. sensor
DS	Diode stack
CC	Running capacitor for compressor
CFo	Running capacitor for fan motor
52C	Electromagnetic contact for compressor

4. NOISE LEVEL

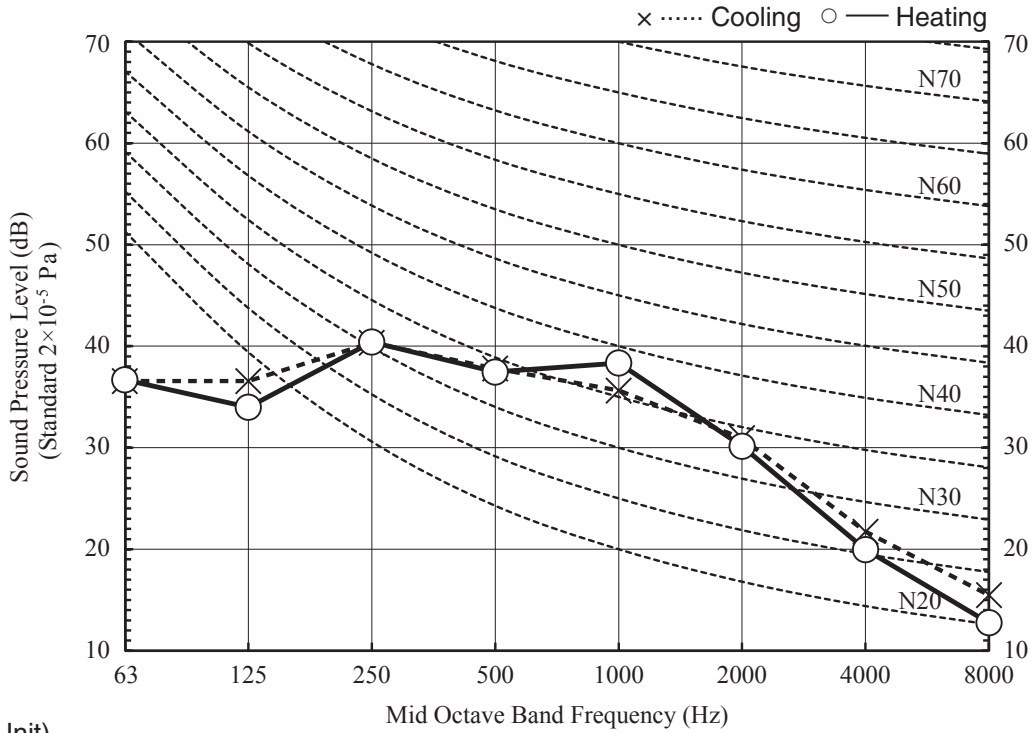
Model SRK52HSBP-S

Condition	Cooling	ISO5151 T3
	Heating	ISO5151 H1

(Indoor Unit)

Model	SRK52HSBP-S	
Noise Level	Cooling	40 dB(A)
	Heating	41 dB(A)

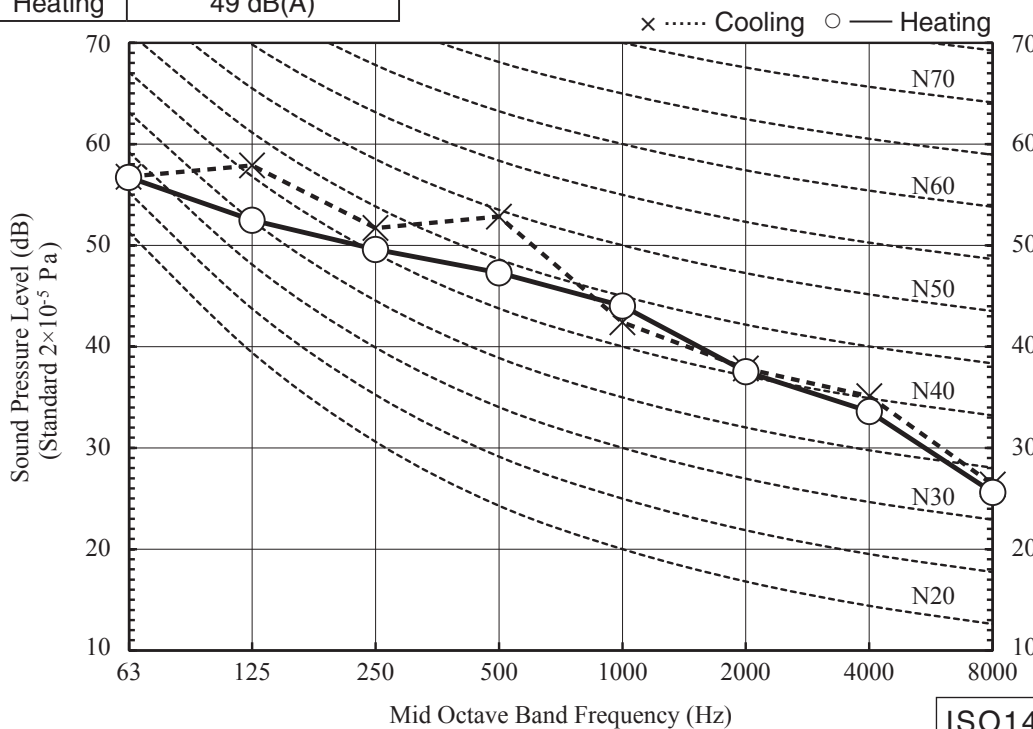
●Mike position as below



(Outdoor Unit)

Model	SRC52HSBP-S	
Noise Level	Cooling	52 dB(A)
	Heating	49 dB(A)

●Mike position: at highest noise level in position as mentined below
Distance from front side 1m



ISO14124

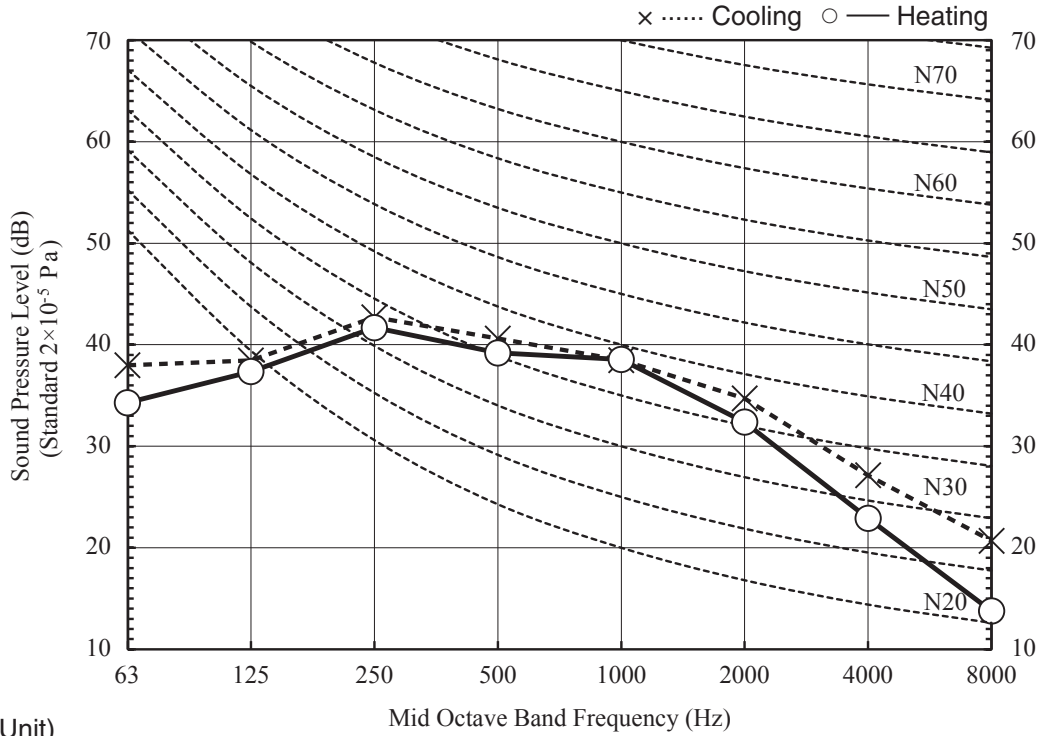
Model SRK71HSBP-S

Condition	Cooling	ISO5151 T3
	Heating	ISO5151 H1

(Indoor Unit)

Model	SRK71HSBP-S	
Noise Level	Cooling	43 dB(A)
	Heating	42 dB(A)

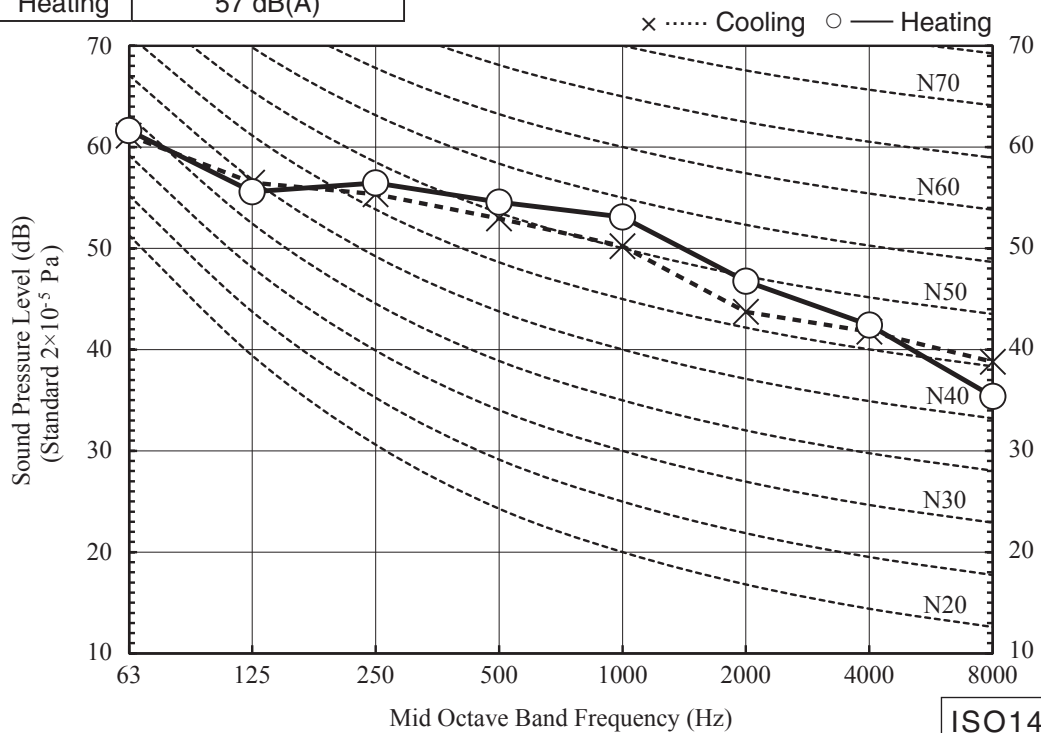
●Mike position as below



(Outdoor Unit)

Model	SRC71HSBP-S	
Noise Level	Cooling	55 dB(A)
	Heating	57 dB(A)

●Mike position: at highest noise level in position as mentined below
Distance from front side 1m



ISO14124

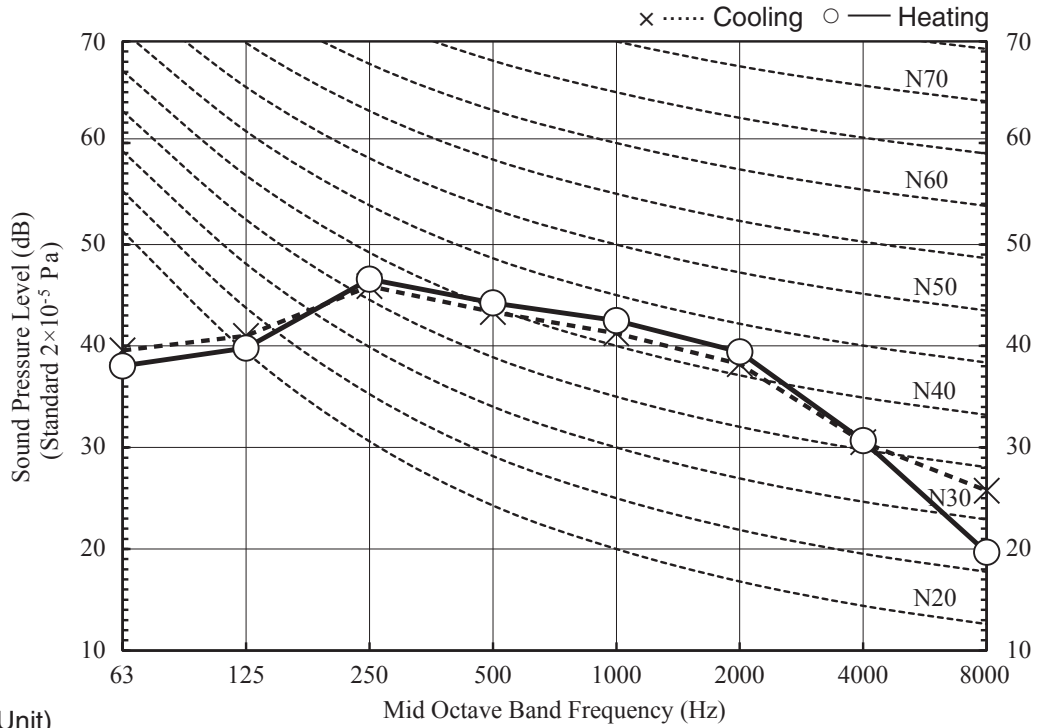
Model SRK90HSBP-S

Condition	Cooling	ISO5151 T3
	Heating	ISO5151 H1

(Indoor Unit)

Model	SRK90HSBP-S	
Noise Level	Cooling	46 dB(A)
	Heating	47 dB(A)

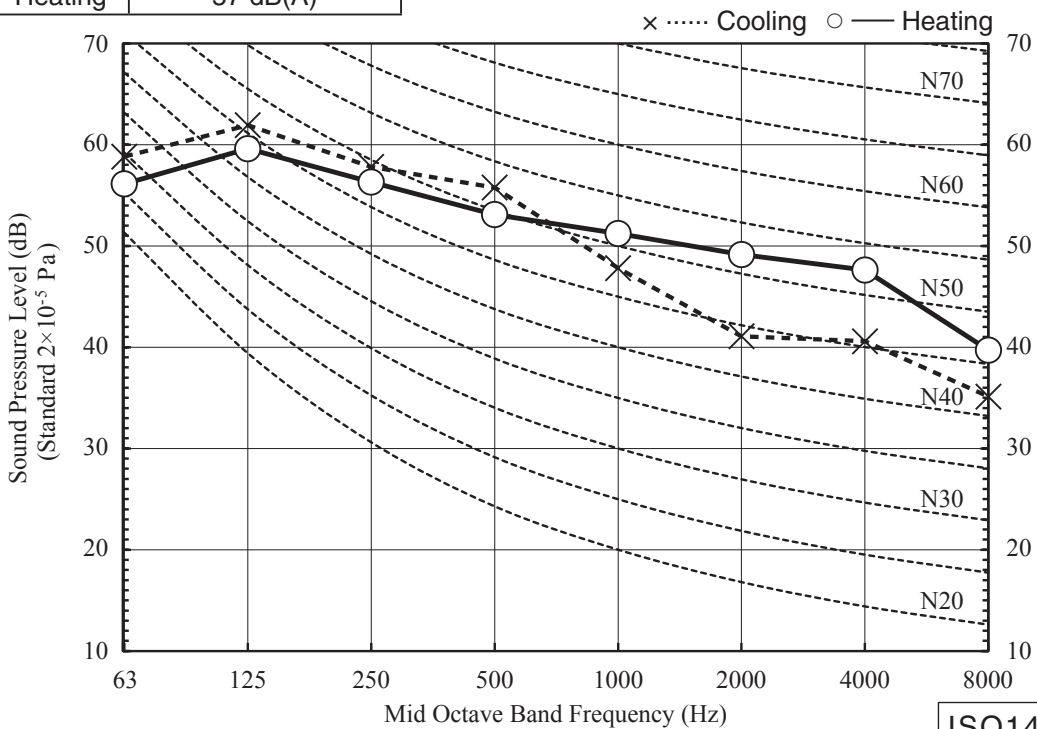
●Mike position as below



(Outdoor Unit)

Model	SRC90HSBP-S	
Noise Level	Cooling	56 dB(A)
	Heating	57 dB(A)

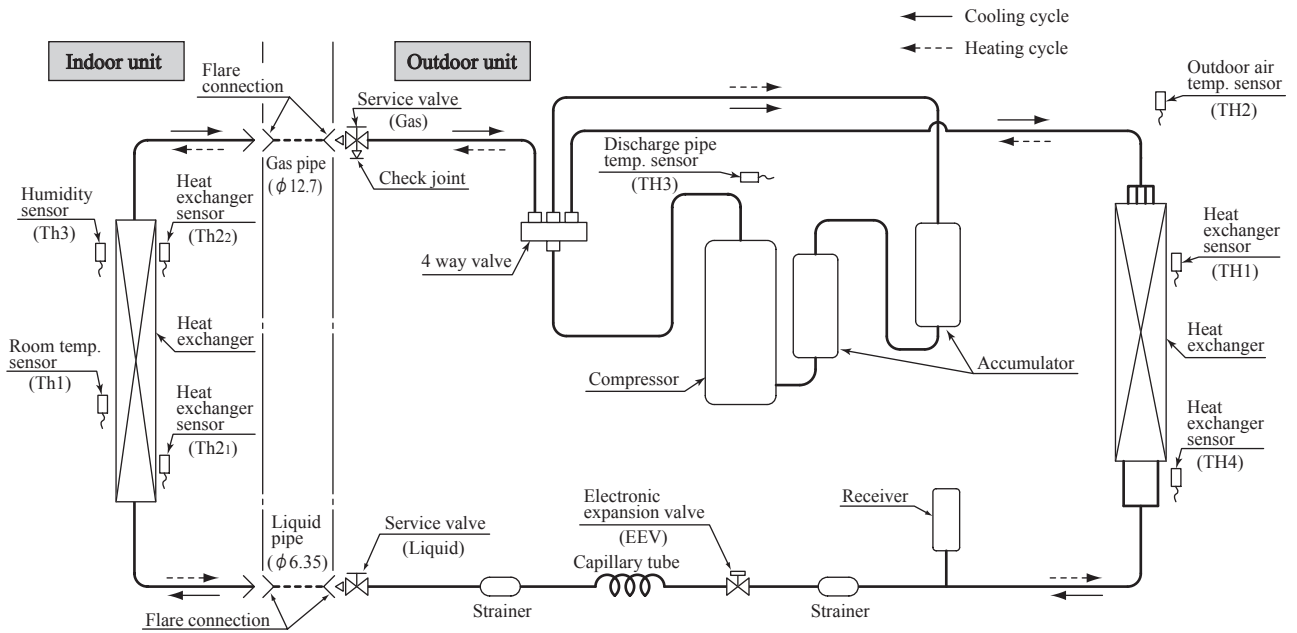
●Mike position: at highest noise level in position as mentined below
Distance from front side 1m



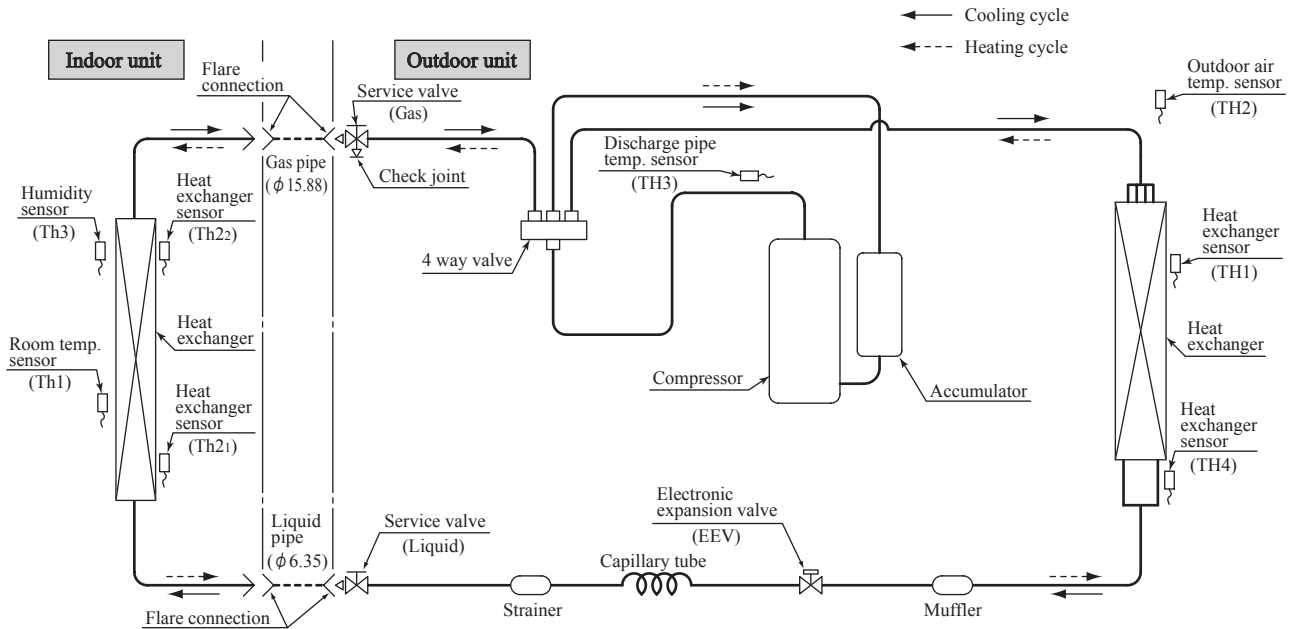
ISO14124

5. PIPING SYSTEM

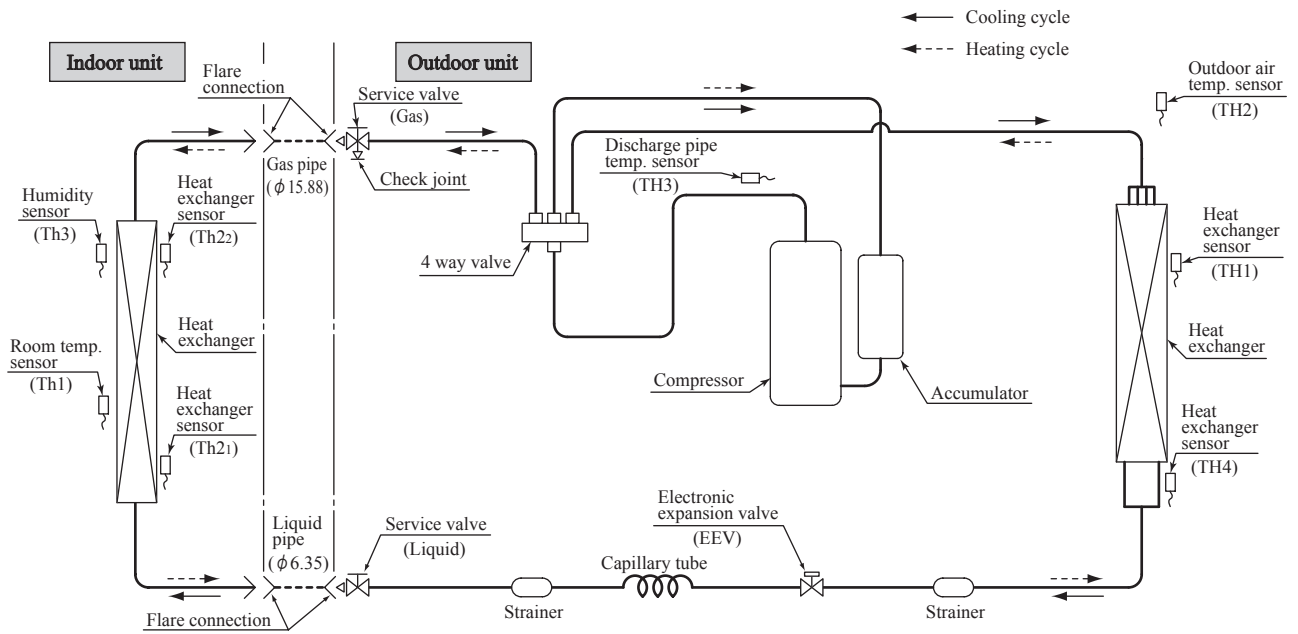
Model SRK52HSBP-S



Model SRK71HSBP-S



Model SRK90HSBP-S



6. RANGE OF USAGE & LIMITATIONS

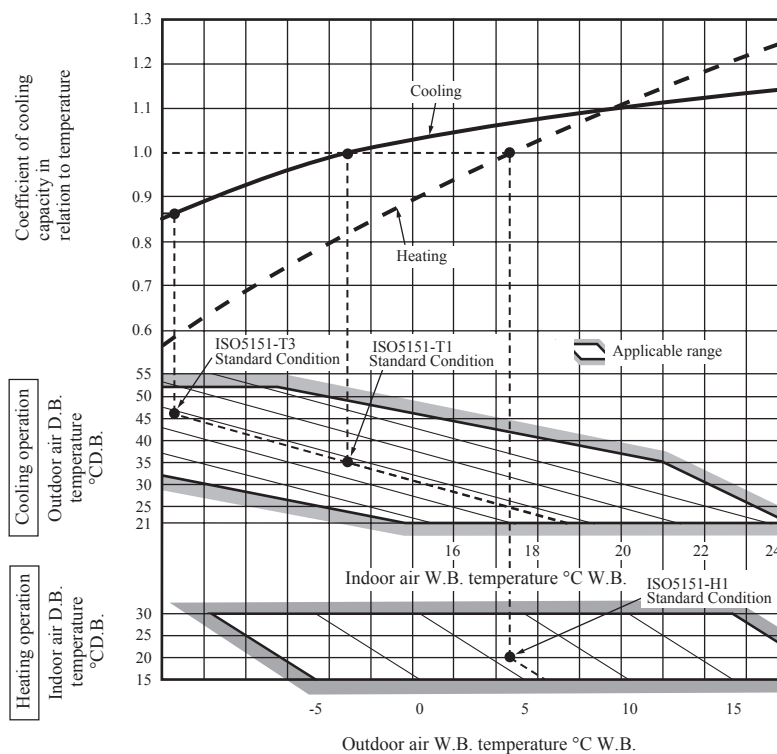
Model	SRK52HSBP-S,71HSBP-S,90HSBP-S
Item	
Indoor return air temperature (Upper, lower limits)	Cooling operation : Approximately 21 to 32°C D.B. Heating operation : Approximately 15 to 30°C D.B. (Refer to the selection chart)
Outdoor air temperature (Upper, lower limits)	Cooling operation : Approximately 21 to 52°C D.B. Heating operation : Approximately -5 to 24°C D.B. (Refer to the selection chart)
Refrigerant line (one way) length	Max. 25m
Vertical height difference between outdoor unit and indoor unit	Max. 15m (Outdoor unit is higher) Max. 15m (Outdoor unit is lower)
Power source voltage	Rating ±10%
Voltage at starting	Min. 85% of rating
Frequency of ON-OFF cycle	Max. 10 times/h
ON and OFF interval	Min. 3 minutes

Selection chart

Correct the cooling and heating capacity in accordance with the conditions as follows. The net cooling and heating capacity can be obtained in the following way.

$$\text{Net capacity} = \text{Capacity shown on specification} \times \text{Correction factors as follows.}$$

(1) Coefficient of cooling and heating capacity in relation to temperatures



(2) Correction of cooling and heating capacity in relation to one way length of refrigerant piping

It is necessary to correct the cooling and heating capacity in relation to the one way piping length between the indoor and outdoor units.

Piping length [m]	7	10	15	20	25
Cooling	1.0	0.99	0.975	0.965	0.95
Heating	1.0	1.0	1.0	1.0	1.0

(3) Correction relative to frosting on outdoor heat exchanger during heating

In additions to the foregoing corrections (1), (2) the heating capacity needs to be adjusted also with respect to the frosting on the outdoor heat exchanger.

Air inlet temperature of outdoor unit in °CWB	-5	-3	-1	1	3	5 or more
Adjustment coefficient	0.91	0.88	0.86	0.87	0.92	1.00

How to obtain the cooling and heating capacity

Example : The net cooling capacity of the model SRK90HSBP-S with the piping length of 15m, indoor wet-bulb temperature at 19.0°C and outdoor dry-bulb temperature 35°C is Net cooling capacity =

$$\begin{array}{ccccccc}
 & \frac{8.79}{\uparrow} & \times & \frac{0.975}{\uparrow} & \times & \frac{1.0}{\uparrow} & \doteq 8.57\text{kW} \\
 & \text{SRK90HSBP-S} & & \text{Length 15m} & & \text{Factor by air} & \\
 & \text{1Phase 230V} & & & & \text{temperatures} & \\
 & \text{(ISO5151-T1)} & & & & &
 \end{array}$$

7. CAPACITY TABLES

Model SRK52HSBP-S

		Cooling mode (kW)													
Air flow	Outdoor air temp.	Indoor air temp.													
		21°CDB		23°CDB		26°CDB		27°CDB		28°CDB		31°CDB		33°CDB	
		14°CDB	16°CDB	18°CDB	19°CDB	20°CDB	22°CDB	24°CDB	TC	SHC	TC	SHC	TC	SHC	TC
Hi 19.5 (m ³ /min)	20	5.38	4.61	5.67	4.56	5.97	4.81	6.11	4.77	6.23	4.72	6.47	4.92	6.69	4.80
	22	5.26	4.55	5.55	4.50	5.86	4.76	6.01	4.72	6.13	4.67	6.39	4.89	6.60	4.77
	24	5.13	4.48	5.42	4.43	5.75	4.72	5.90	4.68	6.03	4.64	6.29	4.85	6.52	4.75
	26	5.00	4.43	5.29	4.38	5.64	4.67	5.80	4.64	5.92	4.59	6.20	4.83	6.42	4.71
	28	4.87	4.37	5.16	4.32	5.52	4.62	5.69	4.60	5.81	4.56	6.10	4.78	6.33	4.69
	30	4.74	4.30	5.03	4.27	5.40	4.57	5.57	4.55	5.70	4.51	6.00	4.75	6.23	4.66
	32	4.60	4.24	4.89	4.21	5.28	4.52	5.46	4.51	5.58	4.47	5.89	4.72	6.13	4.62
	34	4.46	4.17	4.74	4.15	5.15	4.45	5.34	4.44	5.47	4.40	5.79	4.68	6.03	4.59
	35	4.38	4.14	4.67	4.11	5.09	4.43	5.28	4.41	5.40	4.38	5.73	4.66	5.97	4.58
	36	4.31	4.11	4.60	4.08	5.02	4.40	5.22	4.39	5.34	4.36	5.68	4.64	5.92	4.56
	38	4.16	4.04	4.45	4.02	4.89	4.35	5.09	4.35	5.22	4.32	5.56	4.60	5.81	4.52
	39	4.09	4.01	4.37	3.98	4.82	4.33	5.03	4.33	5.15	4.29	5.50	4.58	5.75	4.50

		Heating mode (kW)				
Air flow	Outdoor air temp.	Indoor air temp.				
		16°C DB	18°C DB	20°C DB	22°C DB	24°C DB
Hi 20.5 (m ³ /min)	-5°CWB	4.07	4.01	3.93	3.89	3.82
	0°CWB	4.27	4.21	4.13	4.08	4.02
	5°CWB	5.44	5.38	5.35	5.24	5.17
	6°CWB	5.53	5.46	5.40	5.33	5.27
	10°CWB	5.87	5.82	5.78	5.70	5.64
	15°CWB	6.39	6.33	6.29	6.22	6.16
20°CWB	6.87	6.81	6.78	6.70	6.65	

Model SRK71HSBP-S

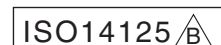
		Cooling mode (kW)													
Air flow	Outdoor air temp.	Indoor air temp.													
		21°CDB		23°CDB		26°CDB		27°CDB		28°CDB		31°CDB		33°CDB	
		14°CDB	16°CDB	18°CDB	19°CDB	20°CDB	22°CDB	24°CDB	TC	SHC	TC	SHC	TC	SHC	TC
Hi 21.0 (m ³ /min)	20	7.17	5.94	7.55	5.86	7.95	6.18	8.13	6.12	8.29	6.06	8.62	6.29	8.90	6.13
	22	7.00	5.86	7.39	5.79	7.80	6.12	8.00	6.07	8.16	6.00	8.50	6.25	8.79	6.09
	24	6.83	5.79	7.22	5.72	7.66	6.06	7.86	6.02	8.02	5.95	8.38	6.21	8.67	6.06
	26	6.66	5.70	7.05	5.64	7.51	6.00	7.72	5.96	7.88	5.90	8.25	6.16	8.55	6.02
	28	6.49	5.62	6.87	5.57	7.35	5.93	7.57	5.89	7.74	5.84	8.12	6.12	8.43	5.98
	30	6.31	5.53	6.69	5.49	7.19	5.86	7.42	5.83	7.59	5.78	7.99	6.07	8.30	5.94
	32	6.12	5.44	6.51	5.41	7.03	5.79	7.27	5.78	7.43	5.72	7.85	6.02	8.16	5.90
	34	5.93	5.36	6.32	5.32	6.86	5.73	7.11	5.71	7.28	5.67	7.70	5.98	8.03	5.86
	35	5.84	5.31	6.22	5.28	6.77	5.69	7.03	5.68	7.20	5.64	7.63	5.95	7.96	5.83
	36	5.74	5.27	6.12	5.24	6.69	5.65	6.95	5.65	7.11	5.61	7.56	5.93	7.88	5.81
	38	5.54	5.18	5.92	5.15	6.51	5.58	6.78	5.58	6.95	5.53	7.40	5.87	7.74	5.77
	39	5.44	5.13	5.82	5.11	6.42	5.55	6.70	5.55	6.86	5.50	7.33	5.85	7.66	5.74

		Heating mode (kW)				
Air flow	Outdoor air temp.	Indoor air temp.				
		16°C DB	18°C DB	20°C DB	22°C DB	24°C DB
Hi 22.0 (m ³ /min)	-5°CWB	5.43	5.35	5.24	5.19	5.10
	0°CWB	5.69	5.61	5.51	5.44	5.37
	5°CWB	7.25	7.17	7.13	6.99	6.89
	6°CWB	7.37	7.28	7.20	7.11	7.02
	10°CWB	7.83	7.75	7.70	7.60	7.53
	15°CWB	8.52	8.45	8.39	8.29	8.22
20°CWB	9.16	9.08	9.04	8.94	8.86	

Model SRK90HSBP-S

		Cooling mode (kW)													
Air flow	Outdoor air temp.	Indoor air temp.													
		21°CDB		23°CDB		26°CDB		27°CDB		28°CDB		31°CDB		33°CDB	
		14°CDB	16°CDB	18°CDB	19°CDB	20°CDB	22°CDB	24°CDB	TC	SHC	TC	SHC	TC	SHC	TC
Hi 24.5 (m ³ /min)	20	8.96	7.36	9.44	7.27	9.94	7.63	10.17	7.56	10.37	7.48	10.78	7.78	11.13	7.58
	22	8.76	7.26	9.24	7.17	9.76	7.56	10.00	7.49	10.20	7.41	10.63	7.73	10.99	7.53
	24	8.55	7.16	9.03	7.08	9.57	7.48	9.83	7.42	10.03	7.34	10.48	7.67	10.85	7.48
	26	8.33	7.05	8.81	6.98	9.38	7.40	9.65	7.35	9.86	7.28	10.32	7.61	10.70	7.43
	28	8.11	6.95	8.59	6.88	9.19	7.32	9.47	7.28	9.68	7.20	10.15	7.56	10.54	7.38
	30	7.89	6.84	8.37	6.78	8.99	7.23	9.28	7.20	9.49	7.13	9.99	7.50	10.38	7.33
	32	7.65	6.73	8.14	6.68	8.79	7.15	9.09	7.12	9.30	7.06	9.81	7.43	10.21	7.28
	34	7.42	6.62	7.90	6.57	8.58	7.06	8.89	7.05	9.10	6.98	9.63	7.37	10.04	7.22
	35	7.30	6.56	7.78	6.52	8.47	7.02	8.79	7.01	9.00	6.95	9.54	7.34	9.95	7.19
	36	7.18	6.51	7.65	6.47	8.36	6.97	8.69	6.97	8.90	6.91	9.45	7.29	9.86	7.16
	38	6.93	6.39	7.40	6.36	8.14	6.88	8.48	6.88	8.69	6.83	9.26	7.23	9.67	7.10
	39	6.81	6.33	7.28	6.30	8.03	6.84	8.38	6.84	8.58	6.79	9.16	7.19	9.58	7.07

		Heating mode (kW)				
Air flow	Outdoor air temp.	Indoor air temp.				
		16°C DB	18°C DB	20°C DB	22°C DB	24°C DB
Hi 26.7 (m ³ /min)	-5°CWB	6.90	6.80	6.66	6.59	6.48
	0°CWB	7.23	7.13	7.00	6.92	6.82
	5°CWB	9.21	9.11	9.06	8.88	8.75
	6°CWB	9.36	9.25	9.15	9.03	8.92
	10°CWB	9.95	9.85	9.79	9.66	9.56
	15°CWB	10.83	10.73	10.66	10.54	10.44
20°CWB	11.64	11.54	11.49	11.36	11.26	



8. APPLICATION DATA

WALL TYPE AIR CONDITIONER
R410A REFRIGERANT USED

RLD012A003B

(1) English version

• While installing the unit, be sure to check the selection of installation place, power source specifications, usage limitation (piping length, height differences between indoor and outdoor units, power source voltage etc.) and installation spaces.

SAFETY PRECAUTIONS

- Before installation, read the "SAFETY PRECAUTIONS" carefully and strictly follow it during the installation work in order to protect yourself.
 - The precautionary items mentioned below are distinguished into two levels, **⚠ WARNING** and **⚡ CAUTION**.
 - **⚠ WARNING**: Wrong installation would cause serious consequences such as injuries or death.
 - **⚡ CAUTION**: Wrong installation might cause serious consequences depending on circumstances.
- Both mention the important items to protect your health and safety so strictly follow them by any means.
- Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.

- Keep the installation manual together with owner's manual at a place where any user can read at any time.
- Moreover if necessary, ask to hand them to a new user.
- Before starting the installation work, proper precautions (using suitable protective clothing, groves etc.) should be taken by qualified installer.
- Please pay attention not to fall down the tools, etc. when installing the unit at the high position.
- If unusual noise can be heard during operation, consult the dealer.
- The meanings of "Marks" used here are shown as follows:

⊘	Never do it under any circumstances.	⚠	⚡	Always do it according to the instruction.
---	--------------------------------------	---	---	--

⚠ WARNING

<p>⚠</p> <ul style="list-style-type: none"> • Installation must be carried out by the qualified installer. If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system malfunction. Do not carry out the installation and maintenance work except by the qualified installer. • Install the system in full accordance with the installation manual. Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire. • Be sure to use only for household and residence. If this appliance is installed in inferior environment such as machine shop etc., it can cause malfunction. • Use the original accessories and the specified components for installation. If parts other than those prescribed by us are used, it may cause water leaks, electric shocks, fire and personal injury. • Install the unit in a location with good support. Unsuitable installation locations can cause the unit to fall resulting in material damage and personal injury. • Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds. Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury. • Ventilate the working area well in the event of refrigerant leakage during installation. If the refrigerant comes into contact with naked flames, poisonous gas is produced. • When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149). If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accident. • After completing installation, check that no refrigerant leaks from the system. If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced. • Tighten the flare nut by torque wrench with specified method. If the flare nuts were tightened with excess torque, this may cause burst and refrigerant leakage after a long period. • Do not open the service valves for liquid line and gas line until completed refrigerant piping work, air tightness test and evacuation. If the compressor is operated in state of opening service valves before completed connection of refrigerant piping work, air can be sucked into refrigerant circuit, which can cause burst or personal injury due to anomalously high pressure in the refrigerant. 	<ul style="list-style-type: none"> • The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit. Power source with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire. • Be sure to shut off the power before starting electrical work. Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment. • Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work. Unconformable cables can cause electric leak, anomalous heat production or fire. • This appliance must be connected to main power source by means of a circuit breaker or switch (fuse:30A) with a contact separation of at least 3mm. • When plugging this appliance, a plug conforming to the norm IEC60884-1 must be used. • Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent overloading the terminal blocks. Loose connections or cable mountings can cause anomalous heat production or fire. • Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly. Incorrect installation may result in overheating and fire. • Be sure to fix up the service panels. Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water. • Be sure to switch off the power source in the event of installation, inspection or servicing. If the power source is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan. • Stop the compressor before removing the pipe after shutting the service valve on pump down work. If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle. • Only use prescribed optional parts. The installation must be carried out by the qualified installer. If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire. • Be sure to wear protective goggles and gloves while at work. • Earth leakage breaker must be installed. If the earth leakage breaker is not installed, it can cause electric shocks.
<p>⊘</p> <ul style="list-style-type: none"> • Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulphide gas can occur. Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak. • Ensure that no air enters in the refrigerant circuit when the unit is installed and removed. If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and personal injury. • Do not process or splice the power cord, or share the socket with other power plugs. 	<p>This may cause fire or electric shock due to defecting contact, defecting insulation and over-current etc.</p> <ul style="list-style-type: none"> • Do not bundle or wind or process the power cord. Do not deform the power cord by treading it. This may cause fire or heating. • Do not run the unit with removed panels or protections. Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks. • Do not perform any change of protective device itself or its setup condition. The forced operation by short-circuiting protective device of pressure switch and temperature controller or the use of non specified component can cause fire or burst.

⚡ CAUTION

<p>⚡</p> <ul style="list-style-type: none"> • Carry out the electrical work for ground lead with care. Do not connect the ground lead to the gas line, water line, lightning conductor or telephone line's ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting. 	<p>If the unit weights more than 20kg, it must be carried by two or more persons. Do not carry by the plastic straps, always use the carry handle when carrying the unit by hand. Use gloves to minimize the risk of cuts by the aluminum fins.</p> <ul style="list-style-type: none"> • Dispose of any packing materials correctly. Any remaining packing materials can cause personal injury as it contains nails and wood. And to avoid danger of suffocation, be sure to keep the plastic wrapper away from children and to dispose after tear it up. • For installation work, be careful not to get injured with the heat exchanger, piping flare portion or screws etc. • Be sure to insulate the refrigerant pipes so as not to condense the ambient air moisture on them. Insufficient insulation can cause condensation, which can lead to moisture damage on the ceiling, floor, furniture and any other valuables. • When perform the air-conditioner operation (cooling or drying operation) in which ventilator is installed in the room. In this case, using the air-conditioner in parallel with the ventilator, there is the possibility that drain water may backflow in accordance with the room lapse into the negative pressure status. Therefore, set up the opening port such as incorporate the air into the room that may appropriate to ventilation (For example, Open the door a little). In addition, just as above, so set up the opening port if the room lapse into negative pressure status due to register of the wind for the high rise apartment etc. • Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work. If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
<p>⚠</p> <ul style="list-style-type: none"> • Use the circuit breaker of correct capacity. Circuit breaker should be able to disconnect all poles under over current. Using the incorrect one could cause the system failure and fire. • Install isolator or disconnect switch on the power source wiring in accordance with the local codes and regulations. The isolator should be locked in OFF state in accordance with EN60204-1. • Be sure to install indoor unit properly according to instruction manual so that drainage can run off smoothly. Improper installation of indoor unit can cause dropping water into the room and damaging personal property. • Install the drainage pipe to run off drainage securely according to the installation manual. Incorrect installation of the drainage pipe can cause dropping water into the room and damaging personal property. • Be sure to install the drainage pipe with descending slope of 1/100 or more, and not to make traps and air-bleedings. Check if the drainage runs off securely during commissioning and ensure the space for inspection and maintenance. • After maintenance, all wiring, wiring ties and the like, should be returned to their original state and wiring route, and the necessary clearance from all metal parts should be secured. • Secure a space for installation, inspection and maintenance specified in the manual. Insufficient space can result in accident such as personal injury due to falling from the installation place. • Take care when carrying the unit by hand. 	<ul style="list-style-type: none"> • Do not install the unit near the location where leakage of combustible gases can occur. If leaked gases accumulate around the unit, it can cause fire. • Do not install the unit where corrosive gas (such as sulphurous acid gas etc.) or combustible gas (such as thinner and petroleum gases) can accumulate or collect, or where volatile combustible substances are handled. Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause fire. • Do not use the indoor unit at the place where water splashes may occur such as in laundries. Since the indoor unit is not waterproof, it can cause electric shocks and fire. • Do not install nor use the system close to the equipment that generates electromagnetic fields or high frequency harmonics. Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns. The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause jamming. • Do not place any variables which will be damaged by getting wet under the indoor unit. When the relative humidity is higher than 80% or drainage pipe is clogged, condensation or drainage water can drop and it can cause the damage of valuables. • Do not install the remote control at the direct sunlight. It can cause malfunction or deformation of the remote control. • Do not use the unit for special purposes such as storing foods, cooling precision instruments and preservation of animals, plants or art. It can cause the damage of the items. • Do not install the outdoor unit in a location where insects and small animals can inhabit. Insects and small animals can enter the electric parts and cause damage or fire. Instruct the user to keep the surroundings clean. • Do not use the base frame for outdoor unit which is corroded or damaged due to long periods of operation. Using an old and damage base frame can cause the unit falling down and cause personal injury. • Do not use any materials other than a fuse with the correct rating in the location where fuses are to be used. Connecting the circuit with copper wire or other metal thread can cause unit failure and fire. • Do not touch any buttons with wet hands. It can cause electric shocks. • Do not touch any refrigerant pipes with your hands when the system is in operation. During operation the refrigerant pipes become extremely hot or extremely cold depending the operating condition, and it can cause burn injury or frost injury. • Do not touch the suction or aluminum fin on the outdoor unit. This may cause injury. • Do not put anything on the outdoor unit and operating unit. This may cause damage the objects or injury due to falling to the object. • Do not clean up the unit with water.
<p>⊘</p> <ul style="list-style-type: none"> • Do not install the unit in the locations listed below. <ul style="list-style-type: none"> • Locations where carbon fiber, metal powder or any powder is floating. • Locations where any substances that can affect the unit such as sulphide gas, chloride gas, acid and alkaline can occur. • Vehicles and ships. • Locations where cosmetic or special sprays are often used. • Locations with direct exposure of oil mist and steam such as kitchen and machine plant. • Locations where any machines which generate high frequency harmonics are used. • Locations with salty atmospheres such as coastlines. • Locations with heavy snow (If installed, be sure to provide base flame and snow hood mentioned in the manual). • Locations where the unit is exposed to chimney smoke. • Locations at high altitude (more than 1000m high). • Locations with ammoniac atmospheres (e.g. organic fertilizer). • Locations with calcium chloride (e.g. snow melting agent). • Locations where heat radiation from other heat source can affect the unit. • Locations without good air circulation. • Locations with any obstacles which can prevent inlet and outlet air of the unit. • Locations where short circuit of air can occur (in case of multiple units installation). • Locations where strong air blows against the air outlet of outdoor unit. • Locations where something located above the unit could fall. • It can cause remarkable decrease in performance, corrosion and damage of components, malfunction and fire. • Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation). <ul style="list-style-type: none"> • Locations with any obstacles which can prevent inlet and outlet air of the unit. • Locations where vibration can be amplified due to insufficient strength of structure. • Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam (in case of the infrared specification unit). • Locations where an equipment affected by high harmonics is placed (TV set or radio receiver is placed within 1m). • Locations where drainage cannot run off safely. • It can affect performance or function and etc. • Do not install the outdoor unit in the locations listed below. <ul style="list-style-type: none"> • Locations where discharged hot air or operating sound of the outdoor unit can bother neighborhood. • Locations where outlet air of the outdoor unit blows directly to plants. The outlet air can affect adversely to the plant etc. • Locations where vibration can be amplified and transmitted due to insufficient strength of structure. • Locations where vibration and operation sound generated by the outdoor unit can affect seriously (on the wall or at the place near bed room). • Locations where an equipment affected by high harmonics is placed (TV set or radio receiver is placed within 1m). • Locations where drainage cannot run off safely. • It can affect surrounding environment and cause a claim. 	<ul style="list-style-type: none"> • Do not install the outdoor unit in the locations listed below. <ul style="list-style-type: none"> • Locations where vibration can be amplified and transmitted due to insufficient strength of structure. • Locations where vibration and operation sound generated by the outdoor unit can affect seriously (on the wall or at the place near bed room). • Locations where an equipment affected by high harmonics is placed (TV set or radio receiver is placed within 1m). • Locations where drainage cannot run off safely. • It can affect surrounding environment and cause a claim.

Check before installation work

- Model name and power source
- Refrigerant piping length
- Piping, wiring and miscellaneous small parts

Standard accessories (installation kit)		Q'ty
Accessories for indoor unit		
①	Installation board (Attached to the rear of the indoor unit)	1
②	Wireless remote control	1
③	Remote control holder	1
④	Tapping screws (for installation board ø4 X 25mm)	10
⑤	Wood screws (for remote control holder ø3.5 X 16mm)	2
⑥	Battery [R03 (AAA, Micro) 1.5V]	2
⑦	Air-cleaning filters	2
⑧	Filter holders	2
⑨	Insulation (#486 50 x 100 13)	1
Accessories for outdoor unit		Q'ty
⑩	Grommet (Heat pump type only)	1
⑪	Drain elbow (Heat pump type only)	1
⑫	Edging (SRC 90 model only)	1

Option parts		Q'ty
Ⓐ	Sealing plate	1
Ⓑ	Sleeve	1
Ⓒ	Inclination plate	1
Ⓓ	Putty	1
Ⓔ	Drain hose (extension hose)	1
Ⓕ	Piping cover (for insulation of connection piping)	1

Necessary tools for the installation work	
1	Plus headed driver
2	Knife
3	Saw
4	Tape measure
5	Hammer
6	Spanner wrench
7	Torque wrench [14.0-82.0N·m (1.4-8.2kgf·m)]
8	Hole core drill (65mm in diameter)
9	Wrench key (Hexagon) [4m/m]
10	Vacuum pump
11	Vacuum pump adapter (Anti-reverse flow type) (Designed specifically for R410A)
12	Gauge manifold (Designed specifically for R410A)
13	Charge hose (Designed specifically for R410A)
14	Flaring tool set (Designed specifically for R410A)
15	Gas leak detector (Designed specifically for R410A)
16	Gauge for projection adjustment (Used when flare is made by using conventional flare tool)
17	Pipe bender

SELECTION OF INSTALLATION LOCATION

(Install at location that meets the following conditions, after getting approval from the customer)

Indoor unit

- Where there is no obstructions to the air flow and where the cooled and heated air can be evenly distributed.
- A solid place where the unit or the wall will not vibrate.
- A place where there will be enough space for servicing. (Where space mentioned below can be secured)
- Where wiring and the piping work will be easy to conduct.
- The place where receiving part is not exposed to the direct rays of the sun or the strong rays of the street lighting.
- A place where it can be easily drained.
- A place separated at least 1m away from the television or the radio. (To prevent interference to images and sounds.)
- Places where this unit is not affected by the high frequency equipment or electric equipment.
- Avoid installing this unit in place where there is much oil mist.
- Places where there is no electric equipment or household under the installing unit.
- Install the indoor unit on the wall where the height from the floor to the bottom of the unit is more than 1.8m.

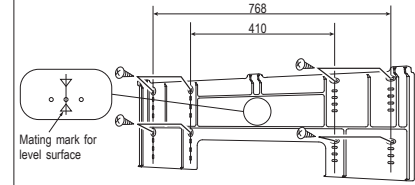
Wireless remote control

- A place where the air-conditioner can be received the signal surely during operating the wireless remote control.
- Places where there is no affected by the TV and radio etc.
- Do not place where exposed to direct sunlight or near heat devices such as a stove.

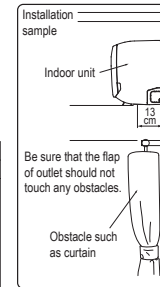
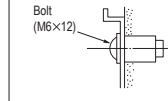
INSTALLATION OF INDOOR UNIT

Installation of Installation board

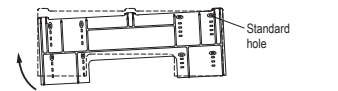
Look for the inside wall structures (Intermediate support or pillar and firmly install the unit after level surface has been checked.)



Fixing on concrete wall
Use of nut anchor

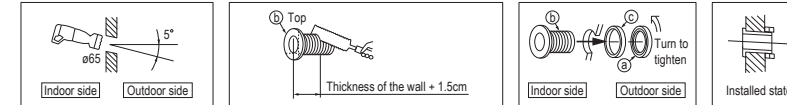


- Adjustment of the installation board in the horizontal direction is to be conducted with eight screws in a temporary tightened state.
- Adjust so the board will be level by turning the board with the standard hole as the center.



Drilling of hole and fixture of sleeve (Option parts)

When drilling the wall that contains a metal lath, wire lath or metal plate, be sure to use pipe hole sleeve sold separately.

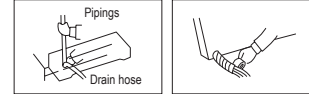


- Drill a hole with whole core drill.
- In case of rear piping draw out, cut off the lower and the right side portions of the sleeve collar.

Installing the support of piping

In case of piping in the right rear direction

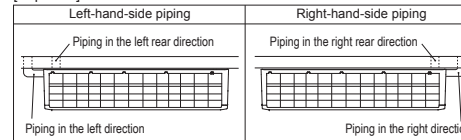
Shaping of pipings Taping of the exterior



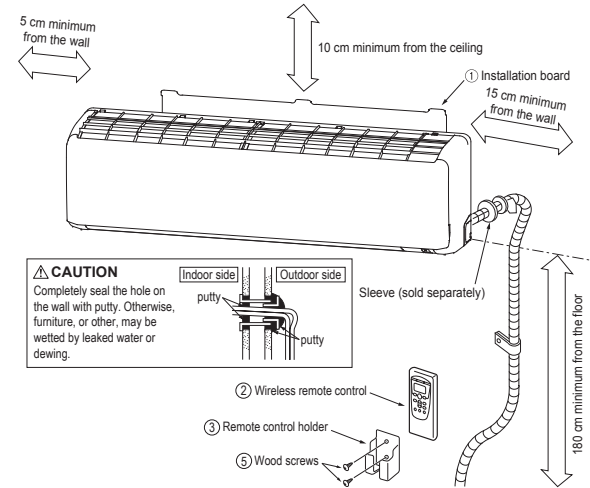
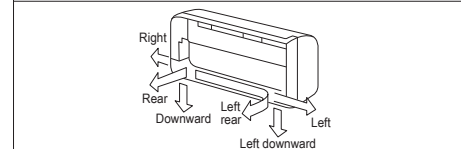
- Hold the bottom of the piping and fix direction before stretching it and shaping it.
- Tape only the portion that goes through the wall.
- Always tape the wiring with the piping.

Sufficient care must be taken not to damage the panel when connecting pipes.

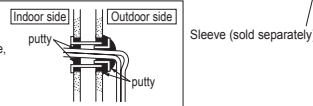
- Matters of special notice when piping from left or central/rear of the unit. [Top view]



Piping is possible in the rear, left, left rear, left downward, right or downward direction.

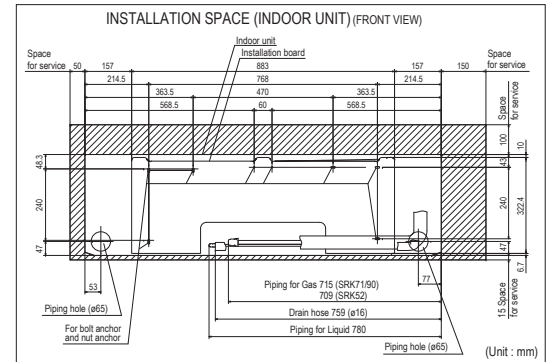


CAUTION
Completely seal the hole on the wall with putty. Otherwise, furniture, or other, may be wetted by leaked water or dewing.

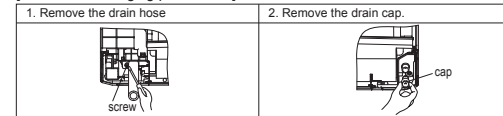


- ① Installation board
- ② Wireless remote control
- ③ Remote control holder
- ⑤ Wood screws

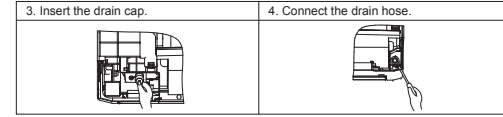
Relation between setting plate and indoor unit



[Drain hose changing procedures]

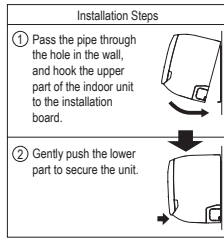
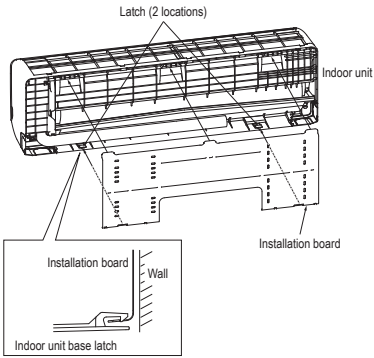


- Remove the screw and drain hose, making it rotate.
- Remove it with hand or pliers.



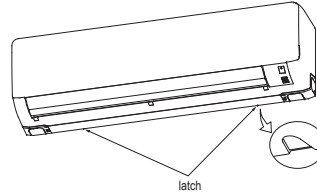
- Insert the drain cap which was removed at procedure "2" securely using a hexagonal wrench etc.
 - Insert the drain hose securely, making rotate. And install the screw.
- Note: Be careful that If it is not inserted securely, water leakage may occur.

Fixing of indoor unit

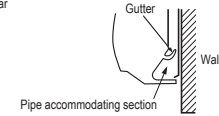


• How to remove the indoor unit from the installation board

- Push up at the marked portion of the indoor unit base lower latch, and slightly pull it toward you, (both right and left hand sides) (The indoor unit base lower latch can be removed from the installation board)
- Push up the indoor unit upward so that it can be removed from installation board.



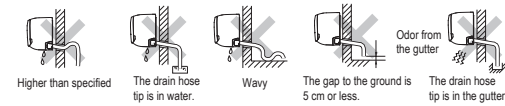
Since this air-conditioner has been designed to collect dew drops on the rear surface to the drain pan, do not attach the power cord above the gutter.



Drainage

- Arrange the drain hose in a downward angle.
- Avoid the following drain piping.

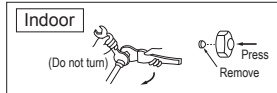
CAUTION Go through all installation steps and check if the drainage is all right. Otherwise water leak may occur.



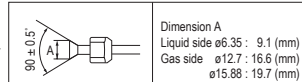
- Pour water to the drain pan located under the heat exchanger, and ensure that the water is discharged outdoor.
- When extended drain hose is present inside the room, insulate it securely with heat insulator available in the market.

CONNECTION OF REFRIGERANT PIPINGS

Preparation Keep the openings of the pipes covered with tapes etc. to prevent dust, sand, etc. from entering them.



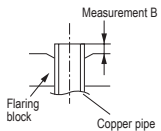
- Remove the flared nuts. (on both liquid and gas sides)



- Install the removed flared nuts to the pipes to be connected, then flared the pipes.

CAUTION
Do not apply refrigerating machine oil to the flared surface.

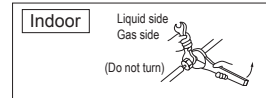
• Flaring work



Copper pipe diameter	Measurement B (mm)	
	Clutch type flare tool for R410A	Conventional (R22) flare tool
ø6.35	0.0 - 0.5	Clutch type: 1.0 - 1.5 Wing nut type: 1.5 - 2.0
ø12.7	0.0 - 0.5	1.0 - 1.5 2.0 - 2.5
ø15.88	0.0 - 0.5	1.0 - 1.5 2.0 - 2.5

Use a flare tool designed for R410A or a conventional flare tool.
Please note that measurement B (protrusion from the flaring block) will vary depending on the type of a flare tool in use.
If a conventional flare tool is used, please use a copper pipe gauge or a similar instrument to check protrusion so that you can keep measurement B to a correct value.

Connection

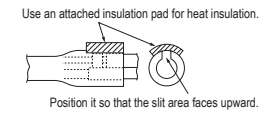
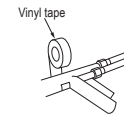


- Connect the pipes on both liquid and gas sides.
- Tighten the nuts to the following torque.
Liquid side (ø6.35) : 14.0 - 18.0 N·m (1.4 - 1.8 kgf·m)
Gas side (ø12.7) : 49.0 - 61.0 N·m (4.9 - 6.1 kgf·m)
(ø15.88) : 68.0 - 82.0 N·m (6.8 - 8.2 kgf·m)

CAUTION
Do not apply excess torque to the flared nuts. Otherwise, the flared nuts may crack.

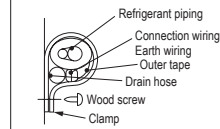
Insulation of the connection portion

Cover the coupling with insulator and then cover it with tapes.



- Cover the indoor unit's flare-connected joints, after they are checked for a gas leak, with an indoor unit heat insulating material and then wrap them with a tape with an attached insulation pad placed over the heat insulating material's slit area.

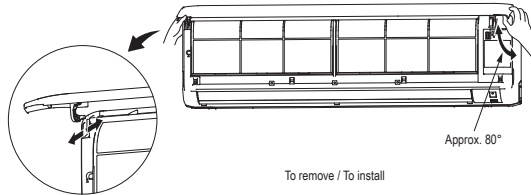
Finishing work and fixing



Cover the exterior portion with outer tape and shape the piping to match with the contours of the route that piping will take. Also fix the wiring and pipings to the wall with clamps.

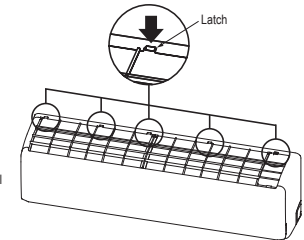
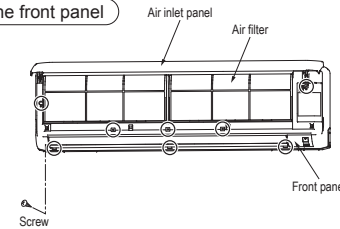
Open/close and detachment/attachment of the air inlet panel

- To open, pull the panel at both ends of lower part and release latches, then pull up the panel until you feel resistance. (The panel stops at approx. 60° open position)
- To close, hold the panel at both ends of lower part to lower downward and push it slightly until the latch works.
- To remove, pull up the panel to the position shown in right illustration and pull it toward you.
- To install, insert the panel arm into the slot on the front panel from the position shown in right illustration, hold the panel at both ends of lower part, lower it downward slowly, then push it slightly until the latch works.



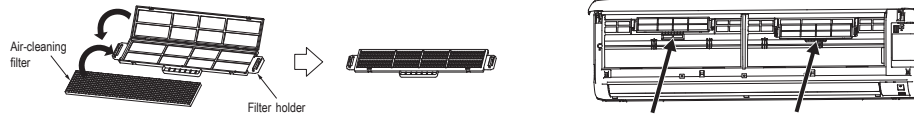
How to remove and install the front panel

- Removing
 - Remove the air inlet panel.
 - Remove the 8 screws fixing to the front panel.
 - Remove the 5 latches in the upper section of the front panel and then remove the front panel from the unit.
- Installing
 - Remove the air filter.
 - Cover the unit with the front panel.
 - Tighten the 8 screws to fix the front panel.
 - Install the air filter.
 - Install the air inlet panel.



Installing the air-cleaning filters

1. Open the air inlet panel and remove the air filters.
2. Install the air-cleaning filter in the filter holders, and then install the filter holders in the air-conditioner.
 - Each air-cleaning filter can be installed in the left or right filter holder.
3. Install the air filters and close the inlet panel.



ELECTRICAL WIRING WORK

Preparation of indoor unit

Mounting of connecting wires

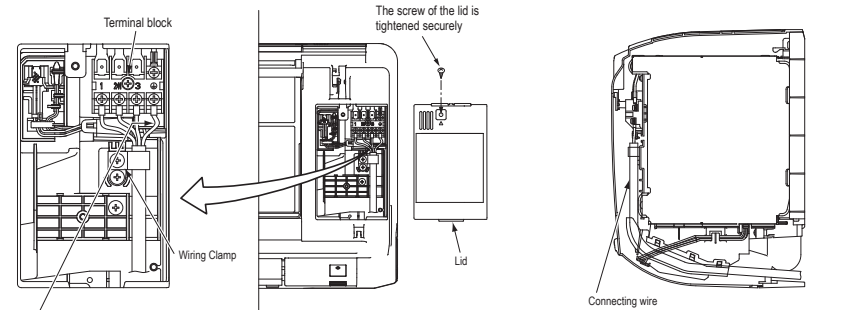
1. Open the air inlet panel.
2. Remove the lid.
3. Remove the wiring clamp.
4. Connect the connecting wire securely to the terminal block.
 - 1) Connect the connection wire securely to the terminal block. If the wire is not affixed completely, contact will be poor, and it is dangerous as the terminal block may heat up and catch fire.
 - 2) Take care not to confuse the terminal numbers for indoor and outdoor connections.
5. Fix the connecting wire by wiring clamp.
6. Attach the lid.
7. Close the air inlet panel.

CAUTION

In case of faulty wiring connection, indoor unit stops. Then, run lamp turns on and timer lamp blinks.

Use cables for interconnection wiring to avoid loosening of the wires. CENELEC code for cables Required field cables.

H05RN4G1.5 (example) or 245IEC57
 H Harmonized cable type
 05 300/500 volts
 R Natural-and/or synth. rubber wire insulation
 N Polychloroprene rubber conductors insulation
 R Stranded core
 4or5 Number of conductors
 G One conductor of the cable is the earth conductor (yellow/green)
 1.5 Section of copper wire (mm²)



• Earth wire shall be Yellow/Green (Y/G) in color and longer than other AC wires for safety reason.

• Pass the connecting wire through the path from the bottom of the control box to the front part as shown in the illustration.

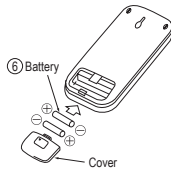
INSTALLATION OF WIRELESS REMOTE CONTROL

Mounting method of battery

- Uncover the wireless remote control, and mount the batteries [R03 (AAA, Micro), ×2 pieces] in the body regularly. (Fit the poles with the indication marks, ⊕ & ⊖ without fail)

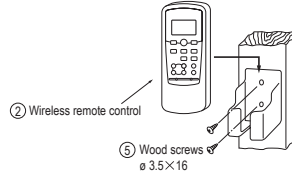
CAUTION

Do not use new and old batteries together.



Fixing to pillar or wall

- Conventionally, operate the wireless remote control by holding in your hand.
- Avoid installing it on a clay wall etc.

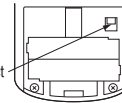


INSTALLING TWO AIR-CONDITIONERS IN THE SAME ROOM

When two air-conditioners are installed in the same room and these are not operated with one wireless remote control, use this setting. Set the wireless remote control and indoor unit.

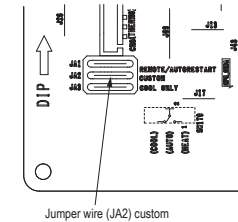
Setting the wireless remote control

1. Pull out the cover and take out batteries.
2. Disconnect the switching line next to the battery with wire cutters.
3. Insert batteries. Close the cover.



Setting an indoor unit

1. Remove the air inlet panel, lid and front panel.
2. Remove the control cover. (Remove the screw.)
3. Cut jumper wire JA2 (marked CUSTOM on the PCB) on the indoor control board. Do not allow the cut wires to contact any other wiring.
4. Install the control box, lid and front panel.



Jumper wire (JA2) custom

HOW TO RELOCATE OR DISPOSE OF THE UNIT

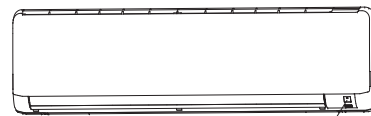
- In order to protect the environment, be sure to pump down (recovery of refrigerant).
- Pump down is the method of recovering refrigerant from the indoor unit to the outdoor unit when the pipes are removed from the unit.

<How to pump down>

1. Connect charge hose to check joint of outdoor unit.
2. Liquid side : Close the service valve with hexagon wrench key.
 Gas side : Fully open the service valve.
 Carry out cooling operation. (If indoor temperature is low, operate forced cooling operation.)
3. After low pressure gauge become 0.01MPa, stop cooling operation and close the gas valve.

• Forced cooling operation

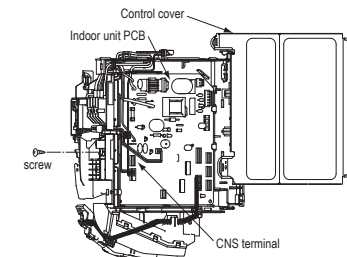
Turn off power source. Turn on power source again after a while. Then, press the ON/OFF button continuously for at least 5 seconds. (The operation will start.)



Unit ON/OFF button

CONCERNING TERMINAL CONNECTION FOR AN INTERFACE

1. Remove the air inlet panel, lid and front panel.
2. Remove the control cover. (Remove the screw.)
3. There is a terminal (respectively marked with CNS) for the indoor control board. In connecting an interface, connect to the respective terminal securely with the connection harness supplied with an option "Interface connection kit SC-BIKN-E" and fasten the connection harness onto the indoor control box with the clamp supplied with the kit. For more details, please refer to the user's manual of your "Interface connection kit SC-BIKN-E".



Note as a unit designed for R410A

- Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.
- A cylinder containing R410A has a pink indication mark on the top.
- A unit designed for R410A has adopted a different size indoor unit service valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake.
- The processed dimension of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been altered to raise strength against pressure.
- Accordingly, you are required to arrange dedicated R410A tools listed in the table on the page1 before installing or servicing this unit.

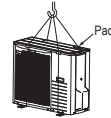
- Do not use a charge cylinder. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.
- In charging refrigerant, always take it out from a cylinder in the liquid phase.
- All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)

HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

CAUTION When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position. If not properly balanced, the unit can be thrown off-balance and fall.

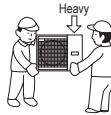
1) Delivery

- Deliver the unit as close as possible to the installation site before removing it from the packaging.
- When you have to unpack the unit for a compelling reason before you haul it to the installation point, hoist the unit with nylon slings or ropes and protection pads so that you may not damage the unit.



2) Portage

- The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the corner column section.



3) Selecting the installation location

Be careful of the following conditions and choose an installation place.

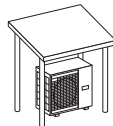
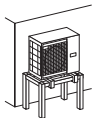
- Where air is not trapped.
- Where the installation fittings can be firmly installed.
- Where wind does not hinder the intake and outlet pipes.
- Out of the heat range of other heat sources.
- A place where stringent regulation of electric noises is not applicable.
- Where it is safe for the drain water to be discharged.
- Where noise and hot air will not bother neighboring residents.
- Where snow will not accumulate.
- Where strong winds will not blow against the outlet pipe.
- A place where no TV set or radio receiver is placed within 1m. (If electrical interference is caused, seek a place less likely to cause the problem)
- If an operation is conducted when the outdoor air temperature is -5°C lower, the outdoor unit should be installed at a place where it is not influenced by natural wind.
- Where it is likely that the unit is subjected to strong winds, provide wind guards according to the following guidelines. Strong winds can cause performance degradation, an accidental stop due to a rise of high pressure and a broken fan.
- Do not install the unit in places which exposed to sea breeze (e.g. coastal area) or calcium chloride (e.g. snow melting agent), exposed to ammonia substance (e.g. organic fertilizer).

4) Caution about selection of installation location

- (1) If the unit is installed in the area where the snow will accumulate, following measures are required.
The bottom plate of unit and intake, outlet may be blocked by snow.

1 Install the unit on the base so that the bottom is higher than snow cover surface.

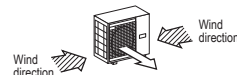
2 Install the unit under eaves or provide the roof on site.



- Since drain water generated by defrost control may freeze, following measures are required.
- Do not execute drain piping work by using a drain elbow and drain grommets (accessories). [Refer to Drain piping work.]

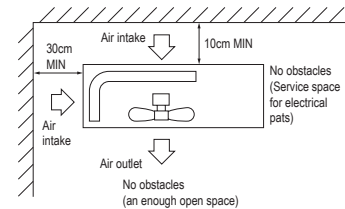
- (2) If the unit can be affected by strong wind, following measures are required.
Strong wind can cause damage of fan (fan motor), or can cause performance degradation, or can trigger anomalous stop of the unit due to rising of high pressure.

Install so the direction of the air from the blowing outlet will be perpendicular to the direction of the wind.



5) Installation space

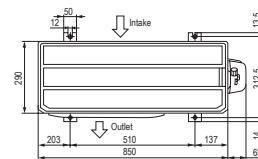
- A place where good air circulation can be obtained and where rain, snow or sunshine will not directly strike the unit.
- A place where discharged hot air or unit's operating sound will not be a nuisance to the neighborhood.
- A place where servicing space can be secured.
- A place where vibration will not be enlarged.
- Avoid installing in the following places.
 - A place near the bedroom and the like, so that the operation noise will cause no trouble.
 - A place where there is possibility of flammable gas leakage.
 - A place exposed to strong wind.
 - In a salt-laden atmosphere or a place where the generation of oil mist, vapor or fume is expected.
- Blowing out port and suction port on the back side of the unit can be installed at a distance of 10cm from walls. (In case the barrier is 1.2m or above in height, or is overhead, the sufficient space between the unit and wall shall be secured.)
- When the unit is installed, the space of the following dimension and above shall be secured.



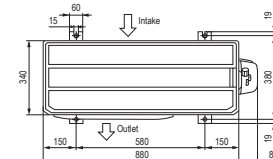
6) Installation

- ① Anchor bolt fixed position

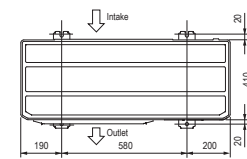
SRC 52 model



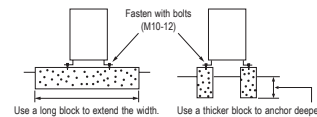
SRC 71 model



SRC 90 model



- ② Notes for installation



- In installing the unit, fix the unit's legs with bolts specified on the above.
- The protrusion of an anchor bolt on the front side must be kept within 15mm.
- Securely install the unit so that it does not fall over during earthquakes or strong winds, etc.
- Refer to the above illustrations for information regarding concrete foundations.
- Install the unit in a level area. (With a gradient of 5mm or less.) Improper installation can result in a compressor failure, broken piping within the unit and abnormal noise generation.

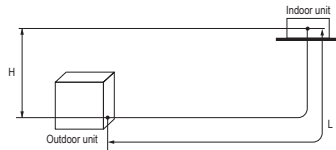
REFRIGERANT PIPING WORK

1) Restrictions on unit installation and use

- Check the following points in light of the indoor unit specifications and the installation site.
- Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

Restrictions		Dimensional restrictions	Marks appearing in the drawing on the right
Main pipe length		25m or less	L
Elevation difference between indoor and outdoor units	When the outdoor unit is positioned higher,	15m or less	H
	When the outdoor unit is positioned lower,	15m or less	H

CAUTION The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below.



2) Determination of pipe size

Determine refrigerant pipe size according to the following guidelines based on the indoor unit specifications.

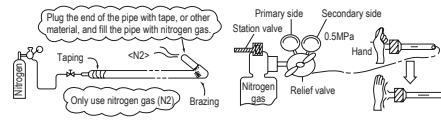
	SRC 52 model		SRC 71, 90 models	
	Gas pipe	Liquid pipe	Gas pipe	Liquid pipe
Outdoor unit connected	ø12.7 Flare	ø6.35 Flare	ø15.88 Flare	ø6.35 Flare
Refrigerant piping (branch pipe L)	ø12.7	ø6.35	ø15.88	ø6.35
Indoor unit connected	ø12.7	ø6.35	ø15.88	ø6.35

When pipe is brazing.

About brazing

Brazing must be performed under a nitrogen gas flow.

Without nitrogen gas, a large quantity of foreign matters (oxidized film) are created, causing a critical failure from capillary tube or expansion valve clogging.



3) Refrigerant pipe wall thickness and material

- Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.

NOTE Select pipes having a wall thickness larger than the specified minimum pipe thickness.

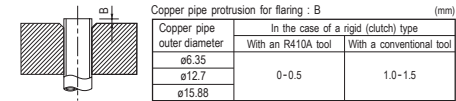
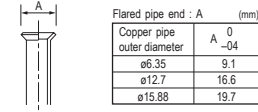
Pipe diameter [mm]	ø6.35	ø12.7	ø15.88
Minimum pipe wall thickness [mm]	0.8	0.8	1.0
Pipe material*	O-type pipe	O-type pipe	O-type pipe

*Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30

4) On-site piping work

IMPORTANT Take care so that installed pipes may not touch components within a unit. If touching with an internal component, it will generate abnormal sounds and/or vibrations.

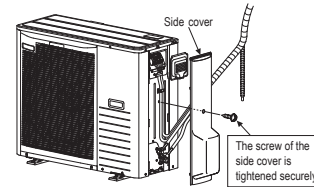
- Carry out the on site piping work with the service valve fully closed.
- Give sufficient protection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may not enter the piping.
- Bend a pipe to a radius as large as practical (R100-R150). Do not bend a pipe repeatedly to correct its form.
- Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimensions for R410A are different from those for conventional R22. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion control gauge.
- The pipe should be anchored every 1.5m or less to isolate the vibration.
- Tighten the flare joint securely.



SRC 52, 71 models

How to remove the side cover

Remove the screw of a side cover and remove to the front.



Do not hold the valve cap area with a spanner.

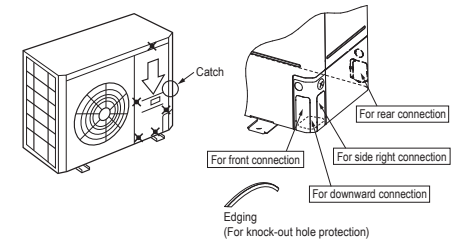
Use a torque wrench. If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide.

SRC 90 model

How to remove the service panel

First remove the five screws (x mark) of the service panel and push it down into the direction of the arrow mark and then remove it by pulling it toward you.

- The pipe can be laid in any of the following directions: side right, front, rear and downward.
- Remove a knock-out plate provided on the pipe penetration to open a minimum necessary area and attach an edging material supplied as an accessory by cutting it to an appropriate length before laying a pipe.



Do not hold the valve cap area with a spanner.

Use a torque wrench. If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide.

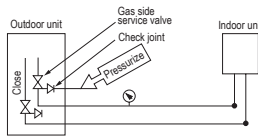
CAUTION Do not apply force beyond proper fastening torque in tightening the flare nut.

Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque.

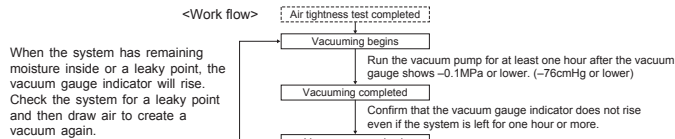
Service valve size (mm)	Tightening torque (N·m)	Tightening angle (°)	Recommended length of a tool handle (mm)
ø6.35 (1/4")	14-18	45-60	150
ø12.7 (1/2")	49-61	30-45	250
ø15.88 (5/8")	68-82	15-20	300

5) Air tightness test

- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the service valve's check joint equipped on the outdoor unit side. While conducting a test, keep the service valve shut all the time.
 - a) Raise the pressure to 0.5MPa, and then stop. Leave it for five minutes to see if the pressure drops.
 - b) Then raise the pressure to 1.5MPa, and stop. Leave it for five more minutes to see if the pressure drops.
 - c) Then raise the pressure to the specified level (4.15MPa), and record the ambient temperature and the pressure.
 - d) If no pressure drop is observed with an installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient temperature fall 1°C, the pressure also fall approximately 0.01MPa. The pressure, if changed, should be compensated for.
 - e) If a pressure drop is observed in checking e) and a) - d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air tightness test again.
- ② In conducting an air tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances.



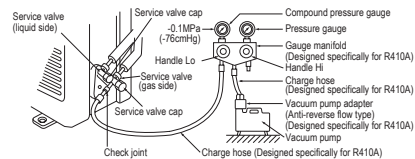
6) Evacuation



Pay attention to the following points in addition to the above for the R410A and compatible machines.

- To prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.).
- Use a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system.

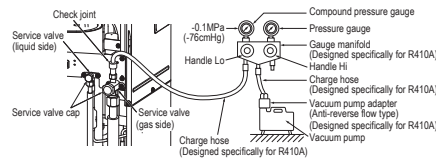
SRC 52, 71 models



Securely tighten the service valve cap and the check joint blind nut after adjustment.

Service valve size (mm)	Service valve cap tightening torque (N·m)	Check joint blind nut tightening torque (N·m)
ø6.35 (1/4")	20-30	10-12
ø12.7 (1/2")	25-30	
ø15.88 (5/8")	30-40	

SRC 90 model



Securely tighten the service valve cap and the check joint blind nut after adjustment.

Service valve size (mm)	Service valve cap tightening torque (N·m)	Check joint blind nut tightening torque (N·m)
ø6.35 (1/4")	20-30	10-12
ø15.88 (5/8")	30-40	

7) Additional refrigerant charge

- (1) Each unit contains 'Factory charged refrigerant' in accordance with 'Reference installation pipe length'. Weight of 'Factory charged refrigerant' is given on the model name label of the outdoor unit.

Model	Reference installation pipe length (m)	Additional charge per meter of refrigerant piping (kg/m)
SRC 52	15	0.020
SRC 71	15	0.025
	CRBN-S models(only)*	
SRC 90	10	0.025

*All SRC 71 models (except SRC71CRBN-S) have 'Reference installation pipe length' equal to 15m.

- Additional refrigerant charge on the installation site is not required for an installation with 'Main pipe length' less than or equal to 'Reference installation pipe length'.
- When 'Main pipe length' exceeds 'Reference installation pipe length', additional refrigerant charge needs to be added. Quantity of additional charge will be calculated using the formula given below:

$$\text{Additional charge (kg)} = [\text{Main pipe length(m)} - \text{Reference installation pipe length (m)}] \times \text{Additional charge per meter of refrigerant piping (kg/m)}$$

For example, if 'Main pipe length' for SRC71CRBP-S is 20 m, additional refrigerant charge will be calculated as follows:

$$\text{Additional charge (kg)} = [20 - 15] \text{ m} \times 0.025 \text{ kg/m} = 0.125 \text{ kg}$$

- For 'Main pipe length' less than 'Reference installation pipe length', always keep the refrigerant quantity equal to the 'Factory charged refrigerant'.

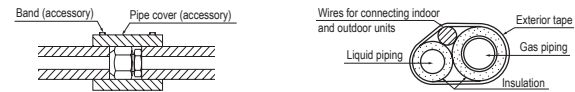
(2) Charging refrigerant

- Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.
 - Charge refrigerant always from the liquid side service port with the service valve shut. When you find it difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and charge refrigerant from the gas (suction) side service port, while running the unit in the cooling mode. In doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase all the time. When the cylinder valve is throttled down or a dedicated conversion tool to change liquid phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that refrigerant will gasify upon entering the unit.
 - In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume.
 - When refrigerant is charged with the unit being run, complete a charge operation within 30minutes.
- Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

NOTE Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the service panel.

8) Heating and condensation prevention

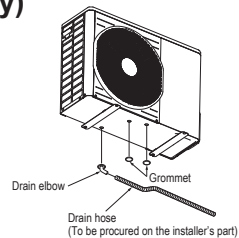
- (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.
 - Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
- (2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration.
 - All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation.
 - Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
 - Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.
 - **Both gas and liquid pipes need to be dressed with 20mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.**



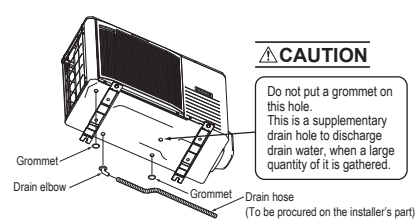
DRAIN PIPING WORK (Heat pump only)

- Execute drain piping by using a drain elbow and drain grommets supplied separately as accessories, where water drained from the outdoor unit is a problem.
- Water may drip where there is a larger amount of drain water. Seal around the drain elbow and drain grommets with putty or adequate caulking material.
- Condensed water may flow out from vicinity of service valve or connected pipes.
- Where you are likely to have several days of sub-zero temperatures in a row, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing inside and blocking the drain.)
- In areas where the temperatures drop below 0°C for several continuous days, do not install a drain elbow. (Water discharge could stop due to freezing.) (Heat pump type only)

SRC 52 model



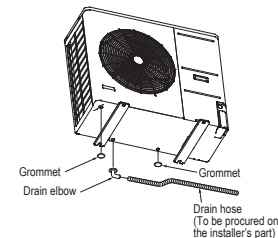
SRC 71 model



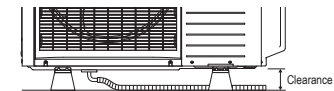
CAUTION

Do not put a grommet on this hole. This is a supplementary drain hole to discharge drain water, when a large quantity of it is gathered.

SRC 90 model



- When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks. Then, please secure space for the drain elbow and the drain hose.



ELECTRICAL WIRING WORK

Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country. Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country.

- Do not use any supply cord lighter than one specified in parentheses for each type below.
 - braided cord (code designation 60245 IEC 51)
 - ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
 - flat twin tinsel cord (code designation 60227 IEC 41)
- Use polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts of appliances for outdoor use.
- Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire. If improperly grounded, an electric shock or malfunction may result.
- A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
- The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an accident such as an electric shock or a fire.

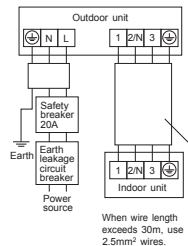
- Do not turn on the power until the electrical work is completed.
- Do not use a condensive capacitor for power factor improvement under any circumstances. (It does not improve power factor, while it can cause an abnormal overheat accident)
- For power source cables, use conduits.
- Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laying them together can result in the malfunctioning or a failure of the unit due to electric noises.
- Fasten the cables so that those may not touch the piping, etc.
- When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)
- Never use a shield cable.

CAUTION

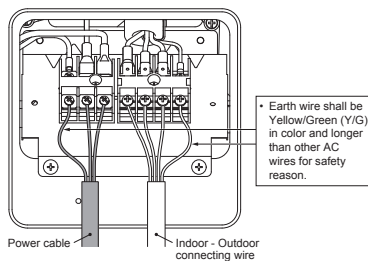
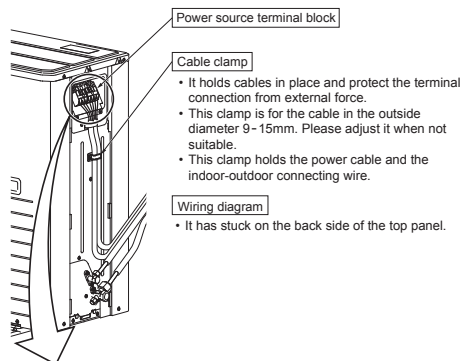
In case of faulty wiring connection, indoor unit stops. Then, run lamp turns on and timer lamp blinks.

Use cables for interconnection wiring to avoid loosening of the wires. CENELEC code for cables Required field cables.

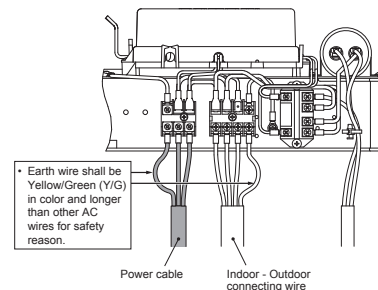
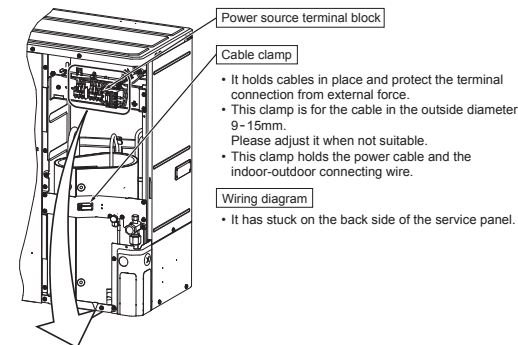
H05RNR4G1.5 (Example) or 245IEC57
 H Harmonized cable type
 05 300/500 volts
 R Natural-and/or synth. rubber wire insulation
 N Polychloroprene rubber conductors insulation
 R Stranded core
 4or5 Number of conductors
 G One conductor of the cable is the earth conductor (yellow/green)
 1.5 Section of copper wire (mm²)



SRC 52, 71 models



SRC 90 model



Power cable, indoor-outdoor connecting wires

- Always perform grounding system installation work with the power cord unplugged.
- Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.
- In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.
- Grounding terminals are provided in the terminal block.
- Use Polychloroprene sheathed flexible cord (code designation 60245 IEC57, IEC60335-2-40) with cross-sectional area of 2.5 mm² for power source cord of outdoor unit.

(POWER SOURCE CODE)
 CENELEC code for cables requiring fields cables.
 H05RNR3G2.5

INSTALLATION TEST CHECK POINTS

Check the following points again after completion of the installation, and before turning on the power. Conduct a test run again and ensure that the unit operates properly. Explain to the customer how to use the unit and how to take care of the unit following the installation manual.

After installation

- | | |
|--|---|
| <input type="checkbox"/> Power cables and connecting wires are securely fixed to the terminal block. (Both indoor and outdoor) | <input type="checkbox"/> The pipe joints for indoor and outdoor pipes have been insulated. |
| <input type="checkbox"/> The power source voltage is correct as the rating. | <input type="checkbox"/> The reverse flow check cap is attached. |
| <input type="checkbox"/> The drain hose is fixed securely. | <input type="checkbox"/> The cover of the pipe cover (A) faces downward to prevent rain from entering. |
| <input type="checkbox"/> Service valve is fully open. | <input type="checkbox"/> Gaps are properly sealed between the pipe covers (A) (B) and the wall surface / pipes. |
| <input type="checkbox"/> No gas leaks from the joints of the service valve. | <input type="checkbox"/> The screw of the side cover is tightened securely. |

Test run

- | | |
|--|---|
| <input type="checkbox"/> Air-conditioning operation is normal. | <input type="checkbox"/> Operation of the unit has been explained to the customer. (Three-minutes restart preventive timer) |
| <input type="checkbox"/> No abnormal noise. | When the air conditioner is restarted or when changing the operation, the unit will not start operating for approximately 3 minutes. This is to protect the unit and it is not a malfunction. |
| <input type="checkbox"/> Water drains smoothly. | |
| <input type="checkbox"/> Protective functions are not working. | |
| <input type="checkbox"/> The remote control is normal. | |

مكيف الهواء من الطراز الذي يركب على الحائط
استعمال مادة التبريد R410A

• أثناء تركيب الوحدة، احرص على التحقق من اختيار مكان التركيب ومواصفات إمداد التيار ومحددات الاستخدام (طول الأنابيب والارتفاعات المختلفة بين الوحدتين الداخلية والخارجية وفولطية إمداد التيار الخ) ومساحات التركيب.

إجراءات الأمان

- احتفظ بدليل التشغيل بالإضافة إلى دليل المالك في مكان جيد بحيث يمكن للمستخدم قراءته في أي وقت. بالإضافة إلى ذلك وفي حال كان ذلك ضرورياً، اطلب أن يتم اعطازهم لأي مستخدم جديد.
- قبل البدء بأعمال التركيب، ينبغي على الشخص المؤهل الذي سيقيم أعمال التركيب اتخاذ التدابير الصحيحة من خلال (استخدام الملابس الواقية المناسبة، القفازات الخ).
- يرجى الابتعاد إلى عدم سقوط الأدوات، إلخ أثناء تركيب الوحدة في موضع عالي.
- في حال سماع ضوضاء غير عادية أثناء التشغيل، قم بإشارة الوكيل.
- تكون معاني "العلامات" المستخدمة هنا مبنية كما يلي:

	لا تعتمد أبداً للقيام بذلك تحت أي ظروف.
	قم بذلك دائماً وفقاً للتعليمات.

تحذير

- الناتج من التركيب الحادق.
- احرص على إيقاف تشغيل القابل قبل البدء بأعمال التوصيلات الكهربائية.**
- الإنفاخ يتطلب تشغيل التيار الكهربائي قد تؤدي إلى حدوث صدمة كهربائية أو إنفاخ الوحدة أو الأداء غير الصحيح للجهاز.
- احرص على استخدام الكبلات المتوافقة مع معايير السلامة والسعة الأمبيرية لكليل الخاصة بأعمال توزيع التيار.**
- يمكن أن تتسبب الكبلات غير المتوافقة بحدوث تسرب كهربائي أو ارتفاع درجة الحرارة بشكل غير طبيعي أو نشوب حريق.
- يجب أن يتم توصيل هذا الجهاز بإمداد التيار الرئيسي بواسطة قاطع أو مفتاح الدائرة الكهربائية (جوز: ٢٠ أمبير) وبمسافة فاصلة قدرها ٣ م على الأقل.**
- عند توصيل قاطع غير ذلك الموصوفة من قبلنا، فإن ذلك قد يتسبب في تسرب الماء وحدوث صدمة كهربائية ونشوب حريق ووقوع إصابات شخصية.**
- استخدام الكبلات المصددة من أجل التوصيل الكهربائي، قم بإحكام شد الكبلات بكنة أطراف التوصيل وتخفيف الكبلات بشكل صحيح نحو زيادة الحمل على كتلة أطراف التوصيل.**
- يمكن أن تتسبب التوصيلات الرءوة أو حاملات الكبل بالرفع درجة الحرارة بشكل غير طبيعي أو نشوب حريق.
- قم بترتيب الأسلاك في صندوق التحكم حتى لا يتم دفعها بشكل زائد في الصندوق. قم بتركيب لوحة الصيانة بشكل صحيح.**
- قد يتسبب عن التركيب غير الصحيح ارتفاع درجة الحرارة ونشوب حريق.
- احرص على تثبيت لوحات الصيانة.**
- التثبيت غير الصحيحة يمكنه أن يتسبب بحدوث صدمة كهربائية أو نشوب حريق بتسرب الغاز أو الماء للداخل.
- احرص على إيقاف تشغيل إمداد التيار في حال التركيب أو الفحص أو الصيانة.**
- في حال عدم إيقاف تشغيل التيار، فيطوي على خطر حدوث صدمة كهربائية أو إنفاخ الوحدة أو وقوع إصابات شخصية بسبب عمل المروحة بشكل مفاجئ.
- قم بإيقاف الضاغط قبل نزع الأنابيب وذلك بعد إيقاف صمام الصيانة عند القيام بأعمال الضخ.**
- في حال نزع الأنابيب أثناء تشغيل الضاغط وكان صمام الصيانة مفتوحاً، فقد يتم خلط الهواء بدارة التبريد ومن الممكن أن يؤدي إلى حدوث انفجار ووقوع إصابات بسبب الضغط العالي غير الطبيعي في دائرة التبريد.
- قم باستخدام القطع الاختيارية المصددة فقط. يجب أن يتم عملية التبريد بواسطة فني مختص بالتركيب.**
- في حال فتح تركيب النظام بنفسك، فقد يتسبب عن ذلك مشاكل خطيرة مثل تسرب الماء وحدوث صدمة كهربائية ونشوب حريق.
- احرص على ارتداء نظارات واقية وقفازات أثناء العمل.**
- يجب أن يتم تركيب قاطع التأسيس.**
- في حال عدم تركيب قاطع التأسيس، فمن الممكن أن تتسبب بحدوث صدمة كهربائية.

- لا تعتمد إلى تجميع أو لف أو معالجة سلك التيار. لا تعتمد إلى تغيير شكل سلك التيار عن طريق الوسول عيب.
- قد يتسبب هذا بنشوب حريق أو ارتفاع درجة الحرارة.
- لا تعتمد إلى تشغيل الوحدة عندما تكون لوحات أو الواقيات منزوعة.
- يمكن للمس الأجهزة للدواء أو الأسطح الساخنة أو الأجزاء ذات القطعة المعدنية أن تتسبب بوقوع إصابات شخصية بسبب الاحتكاك أو الحرق أو حدوث صدمة كهربائية.
- لا تعتمد إلى إجراء أي تغيير على الأجهزة الواقية نفسها أو أوضاع تهيتها.
- التشغيل الإجباري بواسطة جهاز الحماية من التماس الكهربائي الخاص بمنفذ الضغط والتحكم بدرجة الحرارة أو استخدام المكونات غير تلك المحددة يمكن أن يتسبب بنشوب حريق أو حدوث انفجار.



تنبيه

- **قم بإجراء أعمال التوصيلات الكهربائية الخاصة بسلك التأريض بعناية.**
- لا تعتمد إلى توصيل سلك التأريض بخط الغاز أو خط الماء أو مداخل الصوامع أو سلك التأريض الخاص بخط الهاتف. التأريض غير الصحيح يمكن أن يؤدي إلى خلل في عمل الوحدة مثل حدوث صدمة كهربائية بسبب التماس الكهربائي.

- **قم باستخدام قاطع دائرة بالسة الصحيحة. يجب أن يكون قاطع الدائرة قادراً على فصل جميع الأقطاب عند وجود تيار زائد.**
- من الممكن أن يتسبب استخدام القاطع غير الصحيح بإفخاق النظام ونشوب حريق.
- **قم بتركيب عازل أو مفتاح الفصل على تمديدات أسلاك إمداد التيار وفقاً للرموز واللوائح الوظيفية.**
- ينبغي فصل العازل في الحالة OFF. في بترافق مع EN60204-1.
- احرص على تركيب الوحدة الداخلية بالشكل الصحيح وفقاً لدليل التعليمات وذلك لكي تتم عملية التصريف سلسة.**
- التركيب غير الصحيح للوحدة الداخلية من الممكن أن يتسبب بتسرب الماء إلى العروة وإتلاف الممتلكات الشخصية.
- **قم بتركيب أنبوب التصريف وفقاً لدليل التركيب تتم عملية التصريف بشكل آمن.**
- التركيب غير الصحيح لأنبوب التصريف يمكنه أن يتسبب بتساقط الماء في العروة وتلف الممتلكات الشخصية.
- احرص على تركيب أنبوب التصريف بميلان مقداره ١/١٠٠ أو أكثر، وعدم أحداث احتباسات أو تسربات هوائية.**
- تحقق ما إذا كانت عملية التصريف تتم بشكل آمن أثناء بدء التشغيل وتأكد من المساحة المخصصة للفحص والصيانة.
- بعد القيام بالصيانة، يجب إعادة جميع تمديدات الأسلاك ومرابطها وما شابه إلى حالتها الأصلية ولص مسارات تمديدات الأسلاك، ويجب تأمين الفراغ اللازم عن الأجزاء المعدنية.**
- **قم بتوفير مساحة من أجل التركيب والفحص والصيانة كما هي محددة في الدليل.**
- يمكن أن يتسبب عن التركيب الكافية وقوع حوادث مثل الإصابات الشخصية وذلك بسبب الوضع من مكان التركيب.
- احذر لدى قيامك بعمل الوحدة بالتوصيل، احرص على تركيب الوحدة بشكل صحيح.**
- في حال كانت الوحدة تزن أكثر من ٢٠ كجم، فيجب حملها بواسطة شخصين أو أكثر. لا تعتمد إلى حملها بواسطة

- لا تعتمد إلى تركيب الوحدة في الأماكن المرهجة أذناه.
- الأماكن حيث تظهر ألياف الكربون أو المساحيق المعدنية أو أي مسحوق.
- الأماكن حيث يمكن أن تتشكل فيها أي مواد تزن على الوحدة مثل غاز الكبريتيد وغاز الكلوريد والأملاح والفلوات.
- في التركيبات والسفن.
- الأماكن التي تستخدم فيها مسطحات التجميل أو الرشاشات الخاصة بكثرة.
- الأماكن التي تكون معرضة لأبخرة الزيت والبخار بشكل مباشر مثل المطبخ وصانع الآلات.
- الأماكن حيث يتم استخدام الآلات تقوم بتوليد لغات ذات موجات عالية.
- الأماكن التي يكون فيها غاز الهيدروجين مشبع بخلائب مثل المناطق الساحلية.
- الأماكن حيث تتساقط التبرج بكثافة (في حال تم التركيب، احرص على توفير القاعدة الحرارية والجوية المخصصة للفضيل.

- لا تعتمد إلى تركيب الوحدة حول الوحدة، فإن ذلك قد يتسبب بنشوب حريق.
- لا تعتمد إلى تركيب الوحدة حيث يمكن أن تتراكم أو تتجمع الغازات المسببة لتناكل (مثل غاز حمض الكبريتيك الخ) أو الغازات القابلة للاشتعال (مثل النثر والغازات البترولية) أو يتم استخدام المواد المتطيرة القابلة للاشتعال.
- من الممكن أن تتسبب الغازات المسببة لتناكل بخار الماء المعدل الحراري أو تكسر الأجزاء البلاستيكية والنج. ويمكن أن تتسبب الغازات القابلة للاشتعال بنشوب حريق.
- لا تعتمد إلى استخدام الداخلية في الأماكن قد تتشكل فيه قطرات ماء مثل الأماكن المخصصة للسفيل.
- يا أن الوحدة الداخلية ليست مفضاة للماء، فمن الممكن أن تحدث صدمة كهربائية أو يتسبب حريق.
- لا تعتمد إلى تركيب واستخدام بالقرب من أجهزة تولد مجالات كهرومغناطيسية أو الإشارات الكهربائية ذات التردد المرتفع.
- الأجهزة مثل عاكسات التيار الكهربائي والموصلات الاحتياطية والأجهزة الطبية ذات الترددات المرتفعة وأجهزة الاتصالات التي تؤثر على النظام وتتسبب بحدوث أعطال وأضرار. يمكن أن يكون للنظام أيضاً تأثير على الأجهزة الطبية والأجهزة والاتصالات وأن يعيق أداء وظيفتها أو يتسبب بحدوث نشوب.
- لا تعتمد إلى وضع أية مواد قابلة للتبريد تتلف في حال تعرضها للبلل أسفل الوحدة الداخلية.
- عندما تكون الرطوبة النسبية أكثر من 78% أو أن تكون أبخر التبريد مغلقة أو أن ماء التكاثف أو التصريف ينظر ومن الممكن أن يتسبب بالتلف للمواد القابلة للتغير.
- لا تعتمد إلى تركيب جهاز التحكم عن بعد تحت أشعة الشمس المباشرة.
- قد يتسبب ذلك بتعطيل أو نشوب جهاز التحكم عن بعد.
- لا تعتمد إلى استخدام الوحدة لغايات خاصة مثل حفظ الأطعمة أو تبريد أجهزة قياس الدقة أو حفظ الحيوانات والنباتات أو الأعمال الفنية.
- لا تعتمد إلى تركيب الوحدة الخارجية في الأماكن حيث يمكن للنشرات والحيوانات أن تعيش. يمكن للنشرات والحيوانات الصغيرة أن تدخل إلى الأجزاء الكهربائية وتتسبب في حدوث تلف أو نشوب حريق، اطلب إلى المستخدم إبقاء المكان المحيط بالوحدة نظيفاً.
- لا تعتمد إلى استخدام قاعدة حرارية للوحدة الخارجية متأكلة أو تالفة نتيجة لتشغيل لفترات طويلة.
- استخدام قاعدة حرارية قديمة أو تالفة يمكن أن يتسبب سقوط الوحدة ووقوع إصابات شخصية.
- لا تستخدم أية مواد أخرى غير الفيروز ذو التصريف الصحيح في الأماكن حيث يتسبب استخدام الفيوزات. توصيل الدارة بواسطة سلك نحاسي أو أي سلك معدني آخر يمكن أن يتسبب في إنفاخ الوحدة ونشوب حريق.
- لا تعتمد إلى لمس أي زر زيرين لمبليت.
- قد يؤدي ذلك إلى حدوث صدمة كهربائية.
- لا تعتمد إلى لمس أنابيب مادة التبريد يديك أثناء تشغيل النظام.
- أثناء التشغيل تصبح أنابيب مادة التبريد باردة جداً أو باردة جداً بحالة التشغيل. ومن الممكن أيضاً أن تتسبب بإصابات ناتجة عن الحرق أو البرودة الشديدة.
- لا تعتمد إلى لمس زعانف التشتف أو الأنابيب الموجودة في الوحدة الخارجية.
- قد يتسبب ذلك بوقوع إصابات.
- لا تعتمد إلى وضع أي شيء على الوحدة الخارجية وتشغيل الوحدة.
- قد يتسبب هذا في تلف الأنابيب أو وقوع إصابات نتيجة وقوع الأشياء.
- لا تعتمد إلى تنظيف الوحدة بالماء.

- لا تعتمد إلى فتح أنبوب التصريف بشكل مباشر في مجاري التصريف حيث من الممكن أن تتكون غازات سامة مثل غاز الكبريتيد.
- يستترب الغازات السامة إلى العروة من خلال أنبوب التصريف وسيكون لها تأثير خطير على صحة وسلامة المستخدم. من الممكن أن يتسبب هذا أيضاً بصدأ الوحدة الداخلية وإنفاخ الوحدة أو تسرب مادة التبريد.
- احرص على عدم دخول الهواء إلى دائرة التبريد أثناء تركيب وإزالة الوحدة.**
- في حال دخول الهواء إلى دائرة التبريد، فإن الضغط في دائرة التبريد يصبح أعلى جداً مما قد يتسبب بحدوث انفجار وإصابات شخصية.
- لا تعتمد إلى معالجة أو لمس سلك التيار، أو مشاركة مقبس مع قوايس تيار أخرى.
- قد يؤدي هذا إلى نشوب حريق أو حدوث صدمة كهربائية بسبب عيوب في التوصيل والعزل والتيار الزائد الخ.

التحقق قبل القيام بأعمال التركيب

- اسم الموديل وإمداد التيار
- طول أنبوب مادة التبريد
- الأنابيب والأسلاك والقطع الصغيرة المتوفرة

الكميات القياسية (طبق التركيب)	الكميات المخصصة لوحدة الداخلية	الكمية
1	لوح التركيب (مبيت على الجهة الخلفية للوحدة الداخلية)	1
2	جهاز التحكم عن بعد اللاسلكي	1
3	حامل جهاز التحكم عن بعد	1
4	براغي ملونة (خاصة بلوح التركيب بقطر 4 × 25 مم)	10
5	براغي خشب (خاصة بحامل جهاز التحكم عن بعد بقطر 3 × 16 مم)	2
6	البطارية (Micro.AAA R03) [V 1.5]	2
7	مرشحات تنظيف أفواء	2
8	حالات الرشع	2
9	عازل (13 100 x 50 486t3)	1
الكميات المخصصة لوحدة الخارجية	الكمية	
10	عروة التثبيت (طراز المنضقة الحرارية فقط)	1
11	أنبوب تصريف مياه (طراز المنضقة الحرارية فقط)	1
12	حافة (للموديل SRC 90 فقط)	1

الأجزاء الاختيارية	الكمية
a	لوحة سقف
b	غلاف
c	لوحة ميل
d	المعجون
e	خرطوم التصريف (أنبوب تصريف مياه)
f	غطاء أنابيب (لعمل أنابيب التوصيل)

الأدوات الضرورية لعمل التركيب	الكمية
مفك مصلب إضافي	1
سكينة	2
منشار	3
شرط قياس	4
مطرقة	5
مفتاح ربط	6
مفتاح ربط لقياس عزم الالي [١٤٠ ~ ٨٢,٠٠ ن.م (١,٤ ~ ٨,٢ كجم.م)]	7
مقاييس الفتحة الرئيسية (قطره ٦٥ سم)	8
مفتاح مفك (سداسي) [٤ م/م]	9
المنضقة المفرغة	10
وصلة مضخة مفرغة (طراز مضاد التدفق العكسي) (مصمم خصيصاً لادة R410A)	11
مقياس متشعب (مصمم خصيصاً لادة R410A)	12
خرطوم شحن (مصمم خصيصاً لادة R410A)	13
جموعة أدوات التسوية (مصمم خصيصاً لادة R410A)	14
كاشف تسرب الغاز (مصمم خصيصاً لادة R410A)	15
مقياس لقياس البروز (يستخدم عند عمل التسوية باستعمال أداة تسوية تقليدية)	16
أداة ثني الأنابيب	17

اختيار مكان التركيب

(قم بتركيب المكيف في مكان تتوفر فيه الشروط التالية، بعد الحصول على موافقة الزبون)

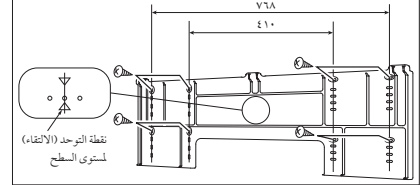
الوحدة الداخلية

- مكان لا توجد فيه إصابات لحجرتي الهواء الجاف، وحيث يمكن توزيع الهواء البارد بشكل متساوي.
- مكان سلب حيث لا يمكن حدوث الرجح في الوحدة أو في الجدار.
- مكان يكون فيه مساحة كافية للحدود (حيث يمكن تأيين المساحة المذكورة أثناء)
- حيث يمكن توصيل شبكة الأسلاك والأنابيب بسهولة.
- مكان لا يكون فيه الجزء المكيف عرضة لأشعة الشمس المباشرة أو إنارة الشارع القوية.
- مكان سهل تحفيفه.
- مكان يبعد متر واحد على الأقل عن التناز أو المدافع (لمنع حدوث تشويش في الصورة والصوت)
- في الأماكن التي لن تتأثر فيها هذه الوحدة بالأجهزة ذات الترددات العالية أو الأجهزة الكهرومغناطية.
- تجنب تركيب هذه الوحدة في مكان يوجد فيه الكثير من أجهزة التبريد.
- الأماكن التي لا يوجد فيها معدات كهربائية أو منزلية تحت وحدة التركيب.
- قم بتركيب الوحدة الداخلية على الحائط بحيث يكون الارتفاع من الأرضية إلى أسفل الوحدة أكثر من 1,8 متر.

تركيب الوحدة الداخلية

تركيب لوح التركيب

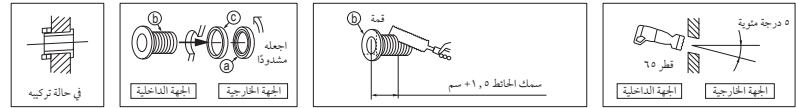
ابحث في تركيب الداخلية للجدار (مع دعم في الوسط أو عمود وتحت) قم بتركيب بعد التحقق من مستوى السطح.



- يتم ضبط لوح التركيب في الاتجاه الأفقي بواسطة أربع براغي في حالة التثبيت المؤقتة.
- أضيف، بحيث تكون الوحدة مستوية وذلك بتدوير اللوحة جاعلاً القياس في المركز.

حفر الثقوب وتثبيت الغلاف (أجزاء اختيارية)

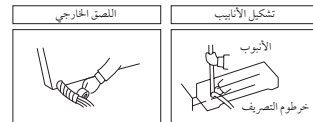
عند حفر الحائط الذي يحتوي على لوح معدني، ولوح الأسلاك أو اللوحة المعدنية، تأكد من استخدام غلاف فتحة الأنابيب الذي يباع بشكل منفصل.



- في حال برزت الأنابيب الخلفية إلى الخارج، أقطع الجزء الجانبي الأسفل والأيمن من حافة الغلاف.
- أمور ذات إشعار خاص عند تقيد الأنابيب من اليسار أو من وسط/خلف الوحدة.

تركيب ركيزة الأنابيب

عند تركيب الأنابيب من الجهة الخلفية الميمن

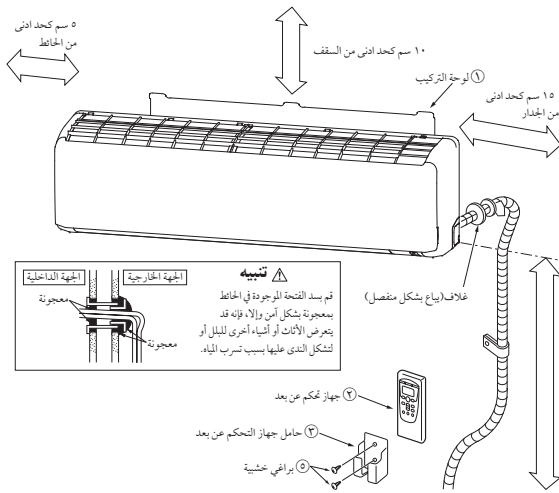


- قم بحمل الأنابيب من القاع وعدل الاتجاه قبل مدعا وتشكيلها.
- قم دائمًا بملصق الأسلاك مع الأنابيب.

ينبغي اتخاذ الحرص الكافي كي لا يتم تعريض اللوحة للضرر أثناء توصيل الأنابيب.

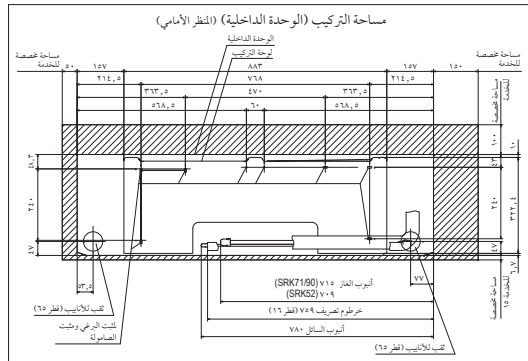
جهاز التحكم عن بعد اللاسلكي

- المكان الذي يمكن لكيف الهواء أن يقوم باستقبال الإشارة بشكلٍ موثّق أثناء تشغيل جهاز التحكم عن بعد اللاسلكي.
- الأماكن التي لا تتأثر بالتلفزيون والراديو إلخ.
- لا تقم بوضعه في أماكن معرضة لأشعة الشمس المباشرة أو بالقرب من أجهزة التدفئة كما هو الحال في المرقد.

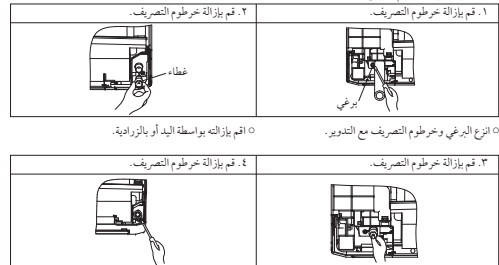


- جهاز تحكم عن بعد
- حامل جهاز التحكم عن بعد
- براغي خشبية

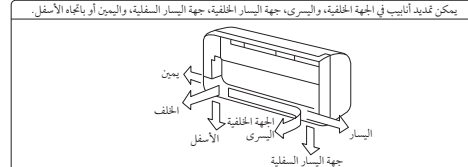
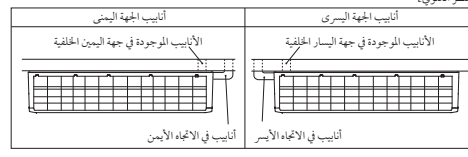
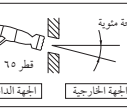
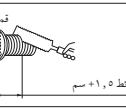
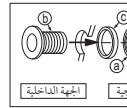
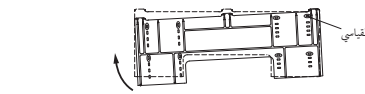
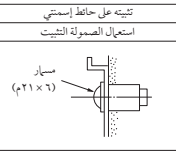
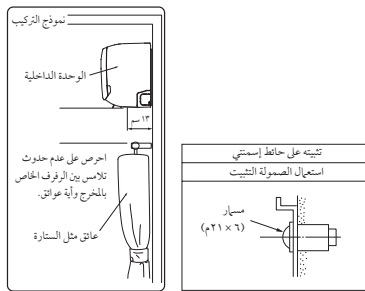
الصلة بين لوحة التركيب والوحدة الداخلية



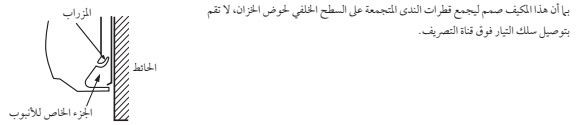
[إجراءات تغيير خرطوم التصريف]



- قم وبشكل آمن بإدخال غطاء التصريف الذي تمت إزالته في الخطوة ٣ باستخدام مفك سداسي إلخ.
- ملاحظة: توخ الحذر في حال عدم إدخاله بشكل آمن فإن ذلك قد يؤدي إلى تسرب الماء.



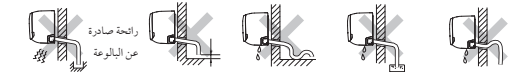
صيانة الوحدة الداخلية



بأن هذا المكيف صمم ليجمع فطرات الندى المتجمعة على السطح الخلفي لخووض الحرارة، لا تجمد بتوصيل سلك التيار فوق قناة التصريف.

التصريف

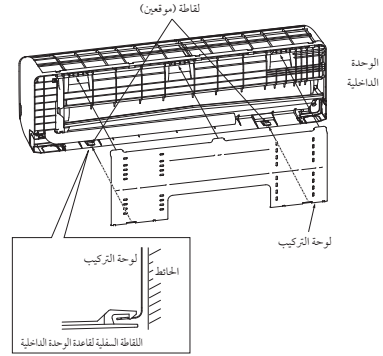
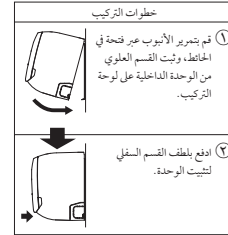
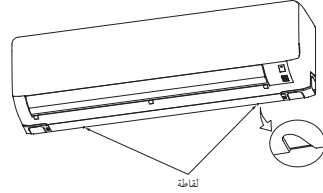
ضع خرطوم التصريف في زاوية متجهة إلى الأسفل. تجنب تمديد أنبوب التصريف بالأشكال التالية.



قم بصب الماء في قناة التصريف الموجودة تحت المبدل الحراري، وتأكد من أن يتم تصريف الماء في الخارج. عندما يكون خرطوم التصريف الممتد موجوداً داخل الغرفة، قم بعزله بشكل آمن باستخدام عزل حراري متوفر في الأسواق.

• كيفية نزع الوحدة الداخلية من لوح التركيب

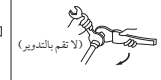
- 1 أرفع حتى تصل الجزء المحدد من المقاطعة السفلية لقاعدة الوحدة الداخلية، واسحبها بحرك بعض الشيء. (من الجهتين اليسرى واليسرى معاً) (يمكن نزع المقاطعة السفلية لقاعدة الوحدة الداخلية من لوحة التركيب)
- 2 ادفع الوحدة الداخلية باتجاه الأعلى بحيث يصبح بالإمكان نزعها من لوحة التركيب.



توصيل أنابيب جهاز التبريد

التحضير: قم بإيقاف فتحات الأنابيب مغطاة بأشرطة، الخ لمنع الغبار والرطوبة، الخ من الدخول إلى الأنابيب.

في الداخل



◦ قم بتوصيل صواميل التوسعة (من كلا جهتي السائل والغاز)

التوسيع: لا تضع زيت جهاز التبريد على الأسطح الموصلة.

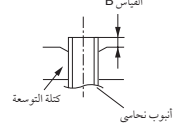
الإبعاد A
جهة السائل قطر 9,1 : 6,35 (مم)
جهة الغاز قطر 12,7 : 12,7 (مم)
قطر 19,7 : 19,7 (مم)

◦ قم بتركيب صواميل التوسعة المتزوجة على الأنابيب لتوصيلها، ثم قم بتوسيع الأنابيب.

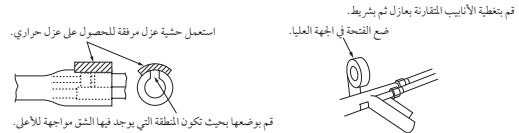
القياس B (مم)	أداة توسعة تقليدية لغاز (R22)	الطرز القاطب	أداة توسعة الطراز القاطب لغاز R410A	قطر الأنبوب النحامي
2,0-1,5	1,5-1,0	0,5-0,0	قطر 6,35	
2,5-2,0	1,5-1,0	0,5-0,0	قطر 12,7	
2,5-2,0	1,5-1,0	0,5-0,0	قطر 15,88	

قم باستخدام أداة توسعة مصممة لطرز R410A أو أداة توسعة تقليدية. يرجى الانتباه بأن القياس B (البارز من كتلة التوسعة) سيختلف اعتماداً على طراز أداة التوسعة المستخدمة. إذا تم استخدام أداة توسعة تقليدية، يرجى استخدام مقياس الأنابيب النحامي أو أداة مشابهة للتحقق من التواء لتتمكن من إبقاء القياس B عند القيمة الصحيحة.

في الخارج

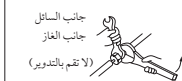


عزل أجزاء التوصيل



• قم بتغطية وصلات التوصيل الموسعة الخاصة بالوحدة الداخلية، بعد أن يتم فحصها بحثاً عن تسرب في الغاز بإداة عازلة للحرارة ومن ثم قم بتغطيتها بشريط لاصق مع حشية العزل المرطقة والموجودة فوق منطقة الشق الخاصة بإداة عزل الحرارة.

في الداخل

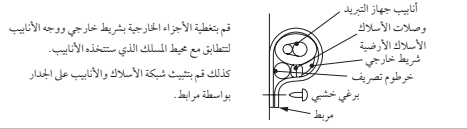


◦ قم بتوصيل الأنابيب من جهتي السائل والغاز. قم بتد الصواميل على عزم دوران التالي. جهة السائل (قطر 3,25) : 18,0-14,0 م (18,0-14,0 كجم/كجم) جهة الغاز (قطر 12,7) : 21,0-19,0 م (21,0-19,0 كجم/كجم) جهة الغاز (قطر 19,7) : 28,0-26,0 م (28,0-26,0 كجم/كجم)

التوسيع

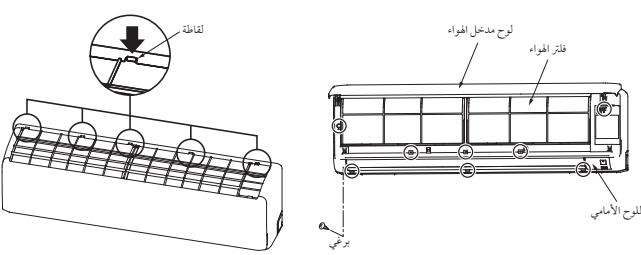
لا تعتمد على تطبيق عزم زائد على صواميل التوسعة، وإلا فقد تتشقق صواميل التوسعة.

أنهاء العمل والتثبيت



قم بتغطية الأجزاء الخارجية بشرائط خارجي ووجه الأنابيب لتتطابق مع محيط المسلك الذي ستستخدمه الأنابيب. كذلك قم بتثبيت شبكة الأسلاك والأنابيب على الجدار بواسطة مرابط.

كيفية نزع وتركيب اللوح الأمامي



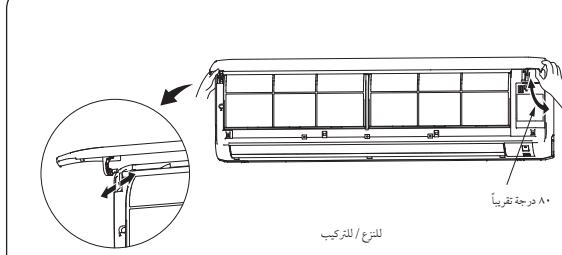
◦ النزع

- 1 نزع لوحة مدخل الهواء.
- 2 نزع البراغي عدد 8 المثبتة باللوحة الأمامي.
- 3 نزع الأقفال الثلاثة في الجزء العلوي من اللوح الأمامي.

◦ التركيب

- 1 نزع مرشح الهواء (الفلتر).
- 2 قم بتغطية الوحدة باللوحة الأمامي.
- 3 قم بتركيب البراغي عدد 8 لتثبيت اللوح الأمامي.
- 4 قم بتركيب مرشح الهواء (الفلتر).
- 5 قم بتركيب لوح مدخل الهواء.

فتح/إغلاق فوك/ تركيب لوحة مدخل الهواء



◦ للفتح، اسحب الجزء السفلي للوحة مدخل الهواء من طرفه وجرد الاقفال، ومن ثم اسحب لوحة مدخل الهواء إلى أن تشعر بمقاومة (تقف لوحة مدخل الهواء عند زاوية ٦٠ درجة تقريباً في وضعية الفتح). ◦ للإغلاق، أمسك الجزء السفلي للوح مدخل الهواء من طرفه بحققه للأسفل وقم بدفعه قليلاً حتى يعلق القفل، ومن ثم قم بدفع الجزء الوسطي قليلاً. ◦ للفتح، اسحب اللوحة للأعلى إلى الوضع الظاهر في الشكل التوضيحي الموجود على اليسار واسحبها باتجاهك. ◦ للتركيب، أدخل ذراع اللوحة داخل الفتحة الموجودة على اللوحة الأمامية من الوضع الظاهر في الشكل التوضيحي الموجود على اليسار، أمسك اللوحة على كلا طرفي الجزء السفلي، قم بخفضها للأسفل ببطء، من ثم ادفعها قليلاً إلى أن يتم تركيب السقاطة.

تركيب فلتر تنقية الهواء



- افتح لوحة مدخل الهواء وانزع فلتر الهواء من اللوح الأمامي.
- قم بتركيب مرشح تنظيف الهواء في حاملات المرشحات، وتمم بتركيب حاملات المرشحات في مكيف الهواء.
- يمكن تركيب كل مرشح تنظيف هواء على حامل المرشح الموجود على الجهة اليمنى أو على الجهة اليسرى.
- قم بتركيب مرشحات الهواء وأغلق لوحة المدخل.

أعمال الأسلاك الكهربائية

الإعداد للوحدة الداخلية

تهيئة وحدة التحكم عن بعد

- افتح لوحة خرج الهواء.
- أزل الغطاء.
- أزل مشبك التوصيل.
- قم بوصول سلك التوصيل بشكل ثابت بكتلة أطراف التوصيل.
- قم بوصول سلك التوصيل بشكل ثابت بكتلة أطراف التوصيل. إذا لم يكن السلك مثبت كليا، سيكون الاتصال فضفاضا، وسيشكل خطرا، فقد تزداد حرارة الكثرة وقد تشتعل.
- انتبه بآلات تخطط أرقام أطراف التوصيل الداخلية والخارجية.
- قم بتثبيت سلك التوصيل باستخدام مشبك التوصيل.
- قم بغض الغطاء.
- قم بإغلاق لوحة خرج الهواء.

تنبيه

في حالة توصيل الأسلاك بشكل خاطئ، تتوقف الوحدة الداخلية عن العمل. ثم يبدأ مصباح التشغيل بالعمل ويومض مصباح الوقت.

- استخدم الكيبلات لربط الأسلاك لتجنب حل الأسلاك.
- بعد رمز CENELEC خاص بالكيبلات التي تتطلب كيبلات لتطابق معين.
- 245IEC57 (مثال) أو H05RN4G1.5
- كيبلات طراز متوافق
- H 05 / 3000 فولت
- R عزل مفاطلي طبيعي أو مصنع
- N عزل موصلات مفاطلي من طراز بولي كلوروبرين
- R فجوة قياسية
- 4 أو 5 عدد الموصلات
- G أحد موصلات الكيل هو الموصل الأرضي (أصفر / أخضر)
- 1.5 الجزء المتعلق بالسلك النهائي (م²)

تركيب مكيفي هواء في نفس الغرفة

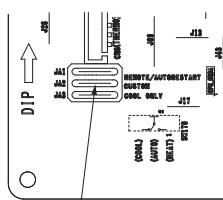
عند تركيب مكيفي هواء لا يتم تشغيلها بوحدة واحدة للتحكم عن بعد في الغرفة نفسها، استعمال هذه التهيئة: اضبط وحدة التحكم عن بعد والوحدة الداخلية.

تهيئة الوحدة الداخلية

- قم بترتيب لوحة مدخل الهواء والغطاء واللوحة الأمامية.
- قم بترتيب غطاء التحكم. (قم بترتيب الرغبي).
- أقطع سلك وصلة التخطي ذات النوع JA2 (ذات العلامة COSTUM الموجودة على لوحة الدارة المطبوعة) والموجودة على لوح التحكم الداخلي. لا تسمح بتعددت تلامس بين الأسلاك المقطوعة وأية أسلاك أخرى.
- قم بتركيب صندوق التحكم والغطاء واللوحة الأمامية.

تهيئة وحدة التحكم عن بعد

- قم بسحب الغطاء للخارج
- واخرج البطاريات.
- باستخدام قطعة الأسلاك قم بفصل خط التحويل الموجود بجانب البطارية.
- ادخل البطاريات. أغلق الغطاء.



سلك وصلة التخطي (JA2) المخصص

تركيب جهاز التحكم عن بعد اللاسلكي

طريقة تركيب البطارية

- أخرج جهاز التحكم عن بعد اللاسلكي، وركب البطاريات (R03 (Micro AAA))
- عدد 2 الموجودة في الجهاز بنظام.
- (تأكد من مطابقة القطب مع مؤشرات الاتجاه (+) (-))

تنبيه

لا تستخدم بطاريات جديدة وبطاريات مستعملة معاً.



التثبيت على دعامة أو جدار

- يشكل تقليدي، قم بتشغيل جهاز التحكم عن بعد اللاسلكي بإمسكه في يدك.
- تجنب التركيب على حائط مصنوع من الصلصال الخ.

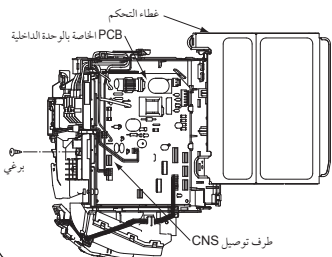


حول وصلة أطراف التوصيل الخاصة بالواجهة

- قم بترتيب لوحة مدخل الهواء والغطاء واللوحة الأمامية.
- قم بترتيب غطاء التحكم. (قم بترتيب الرغبي).
- يوجد للوح التحكم الداخلي طرف توصيل خاص به (محدد بالعلامة CNS بشكل خاص).

عند توصيل الواجهة، قم بتوصيل طرف التوصيل المخصص بشكل آمن مع مجموعة الوصلة المرفقة مع "مقدم وصلة الواجهة SC-BIKN-E" الاختياري. وقم بتثبيت مجموعة الوصلة في صندوق التحكم الداخلي بواسطة المشبك المرفق مع المقدم.

للمزيد من التفاصيل، يرجى الاطلاع على دليل المستخدم "مقدم وصلة الواجهة SC-BIKN-E" الخاص بك.



طرف توصيل CNS

كيفية تغيير مكان الوحدة أو إتلافها

- حرصا على البيئة، تأكد من الفصح (إصلاح المراد).
- بعد الفصح بطريقة لإعادة البرد للعمل من الوحدة الداخلية للوحدة الخارجية عند إزالة الأنابيب من الوحدة.

كيفية الفصح للأسفل

- قم بتوصيل خرطوم الشحن للتحقق من وصلة الوحدة الخارجية.
- جهة اللسان: أغلق صمام اللسان بفتح مفتاح ربط سداسي.
- جهة الغاز: افتح صمام الغاز بالكامل.
- أبدأ بعملية التبريد. (إذا كانت درجة الحرارة الداخلية متدنية، قم بتشغيل عملية التبريد القصيرة).
- بعد أن يصبح مقياس الضغط المنخفض 1.0 م، بإسكال، أوقف عملية التبريد وأغلق صمام الغاز.



زر تشغيل/ إيقاف الوحدة ON/OFF

لاحظ أن هذه الوحدة مصممة للنوع R410A

- لا تستعمل أي مادة تبريد أخرى غير النوع R410A. سيزيد النوع R410A الضغط إلى حوالي ١,٦ مرة أعلى من مادة التبريد التقليدية.
- تحظى الاسطوانات التي تحتوي على النوع R410A بعلامة مؤشر زهرية اللون على الجزء العلوي.
- الحدوث المصممة للنوع R410A فقطاً عنقاً لمفقد شحن صمام التشغيل الخاص بالوحدة الداخلية وكذلك مقاس لوصلة التحقق المرونة في الوحدة وذلك لتفادي تعبة مادة تبريد خاملة بشكل غير مقصود.
- كما تم تعديل البعد المجهز بجزء التوسعة الخاص بأبوب مادة التبريد ويقاس الجانب الموازي لصامولة التوسعة وذلك بهدف زيادة القوة مقابل الضغط.
- وبالتالي، يطلب منك تجهيز أدوات مخصصة للنوع R410A المدرجة في الجدول الموجود في الصفحة رقم ١ قبل تركيب أو صيانة هذه الوحدة.

النقل والتركيب (توخى الحذر الشديد عند حمل أو نقل الوحدة، وقم دائماً بتنفيذ عملية كهذه بمساعدة شخصين أو أكثر.)

تنبيه

تنبه عندما يتم رفع الوحدة باستعمال حبال رفع خاصة بالنقل، حذ بعين الاعتبار الإزاحة للوضع الوسطي للمجانبة الخاصة بها. إذا لم تتم موازنتها بشكل صحيح، يمكن أن يخلل توازن الوحدة ويتسبب في سقوطها.

١) التسليم

- قم بتوصيل الوحدة أقرب ما يكون إلى موقع التركيب قبل نزعها من التغليف.
- عندما يتوجب عليك فك تغليف الوحدة لسبب اضطراري قبل أن تقوم بنقلها إلى موقع التركيب، ارفع الوحدة بحبال رفع مصنوعة من النايلون أو حبال عادية وحشيات حماية بحيث تتفادى تعريض الوحدة للضرر.

٢) الحمل

- يكون الجانب الأيمن من الوحدة كما يظهر من الأمام (جانب الناشر) أثقل. يجب على الشخص الذي يسحمل من الجانب الأيمن أن يتنبه لهذه الحقيقة. يجب على الشخص الذي يسحمل من الجانب الأيسر أن يسلك القبطس الموجود على اللوحة الأمامية للوحدة بيده اليمنى ويسمك بيده اليسرى قسم العمود الموجود على الزاوية.

٣) اختيار مكان التركيب

كن حذراً من الحالات التالية وقم باختيار مكان التركيب حيث لا يكون الهواء مجوساً.

- حيث يتم تركيب مثبتات التركيب بشكل محكم.
- حيث لا تعيق الرياح أنابيب السحب والمخرج.
- بعيداً عن نطاق الحرارة الخاص بمصادر الحرارة الأخرى.
- في مكان ما حيث لا يكون هناك أنظمة صارمة معمول بها بخصوص الضوضاء الكهربائية.
- حيث يكون تفرغ مياه التصريف أمراً آتياً.
- حيث لا تزعج الضوضاء والهواء الحار السكان المجاورين.
- حيث لن يتراكم الثلج.
- حيث لن تعصف الرياح القوية بأنابيب المخرج.

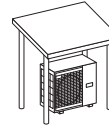
في مكان ما حيث لم يتم وضع جهاز التبريد أو جهاز استقبال الراديو ضمن نطاق ١ متر. (إذا تسبب ذلك بحدوث تداخل كهربائي، ابحث عن مكان تقل فيه احتمالية التثبيت في المشكلة).

- إذا تم تنفيذ عملية ما بينها تكون درجة الحرارة الخارجية أقل من -5°C ، ينبغي تركيب الوحدة الخارجية في مكان لا تتأثر فيه بالرياح الطبيعية.
- قم بتوفير وقيات ضد الرياح وفقاً للتوجيهات الإرشادية التالية حيث يكون من المحتمل أن تتعرض الوحدة للرياح القوية. يمكن أن تسبب الرياح القوية في انخفاض الأداء وتوقف مفاجئ جراء ارتفاع الضغط العالمي وتعرض المروحة للكسر.
- لا يتم تركيب الوحدة في أماكن معرضة لتسليم البحر (على سبيل المثال المناطق الساحلية) أو كلوريد الكالسيوم (على سبيل المثال عامل المساعدة على ذوبان الثلج)، وفي الأماكن المعرضة لمادة الأمونيا (على سبيل المثال السباد عضوي).

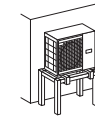
٤) تنبيه حول اختيار موقع التركيب

- (١) يتطلب منك اتباع التناوير التالية إذا تم تخزين الوحدة في منطقة يتراكم فيها الثلج.
- قد يقوم الثلج المتراكم بسد اللوحة السفلية للوحدة وكذلك المدخل والمخرج.

- ١ قم بتركيب الوحدة على قاعدة بحيث يكون الجزء السفلي أعلى من سطح تراكم الثلج.



٢ قم بتركيب الوحدة تحت إريز أو توفير سقف في الموقع.

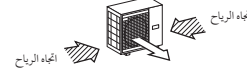


يتطلب منك اتباع التناوير التالية وذلك نظرًا لأن مياه التصريف الناتجة عن التحكم بذيوان الصغيع قد تتعرض للتجمد.

- لا تقم بتنفيذ أعمال أنابيب التصريف باستعمال كوع التصريف ومثبتات التصريف (كالبات) [راجع أعمال أنابيب التصريف]

- (٢) يتطلب منك اتباع التناوير التالية إذا تعرضت الوحدة إلى الرياح القوية.
- قم بتثبيت الرياح القوية في تلف المروحة (موتور المروحة)، أو قد تؤدي إلى انخفاض الأداء، أو قد تؤدي إلى توقف غير مألوف للوحدة بسبب الزيادة في ارتفاع الضغط.

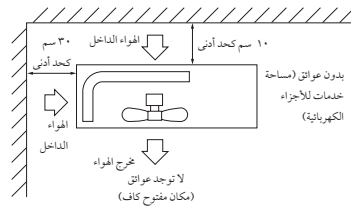
قم بتركيب بحيث يكون اتجاه الهواء القادم من مخرج النسخ عمودياً على اتجاه الرياح.



٥) حيز التركيب

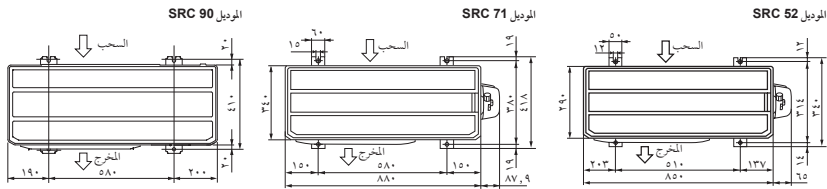
- مكان فيه حركة هواء جيدة بحيث لا يمكن أن يصاب المطر أو الثلج أو أشعة الشمس الوحدة مباشرة.
- مكان لا يشكل فيه الهواء الساخن الخارج أو صوت تشغيل الوحدة مصدر إزعاج للحي.
- مكان يمكن أن تؤمن به مساحة خدمات.
- مكان لا يمكن للإهزازات أن تنتشر فيه.
- * تجنب تركيب الوحدة في الأماكن التالية.
- مكان قريب من غرفة النوم وما شابه ذلك، حتى لا يسبب صوت التشغيل أي إزعاج.
- مكان من الممكن أن تتسرب منه غازات قابلة للإشتعال.
- مكان معرض لرياح قوية.
- جو مشبع بالملح أو مكان يتوقع فيه تولد ضباب زغي أو بخار أو دخان.

- يمكن تركيب فتحة خروج هواء وفتحة سحب الهواء الموجودة على الجهة الخلفية من الوحدة على بعد ١٠ سم من الجدران.
- (في حال كان ارتفاع الحاجز ٢,١ م أو أكثر، أو كان علوي، يجب تأمين مساحه كافية بين الوحدة والجدار.)
- عند تركيب الوحدة، يجب تأمين المساحات التالية بالأبعاد المذكورة اعلاه وفيها يلي.

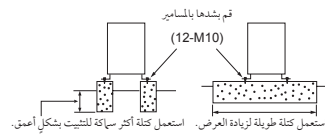


٦) التركيب

١ موقع تثبيت مسبار التثبيت



٢ ملاحظات بخصوص التركيب



- عند تركيب الوحدة، قم بتثبيت أرجل الوحدة باستعمال المسامير المحددة أعلاه.
- يجب أن يتم إبقاء التواء الحواس بمسبار التثبيت الموجود على الجانب الأمامي ضمن مسافة ١٥ سم.
- قم بتركيب الوحدة بإحكام بحيث لا تتعرض للسقوط أثناء الهزات الأرضية أو الرياح القوية، إلخ.
- راجع الأشكال التوضيحية الظاهرة أعلاه للحصول على معلومات فيما يتعلق بالأساسات الاستمئية.
- قم بتركيب الوحدة في منطقة مستوية. (مع ميل مقداره ٥ سم أو أقل). يمكن أن ينتج عن التركيب غير الصحيح إختراق في عمل الكمبيوتر وتعرض الأنابيب الداخلية للوحدة للكسر وتوليد ضوضاء غير اعتيادية.

أعمال أنابيب مادة التبريد

١) قيود على تركيب الوحدة والاستعمال

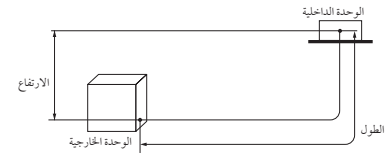
تحقق من النقاط التالية في مواصفات الوحدة وموقع التركيب.

١. تم مراعاة القيود التالية عند تركيب الوحدة والاستعمال. يمكن أن يتسبب عن التركيب غير الصحيح إختراق في عمل الكمبريسور وانخفاض الأداء.

القيود		قيود الأبعاد	العلامات الظاهرة في الرسم الموجود على اليمين
طول الأنبوب الرئيسي		٢٥ متر أو أقل	الطول
يختلف الارتفاع بين الوحدات الداخلية والخارجية	عندما يتم وضع الوحدة الخارجية على مسافة أقل،	١٥ متر أو أقل	الارتفاع
	عندما يتم وضع الوحدة الخارجية على مسافة أقل،	١٥ متر أو أقل	الارتفاع

٢) تنبيه

تطبق قيود الاستعمال الظاهرة في الجدول أعلاه على مجموعات مقاس الأنابيب القياسية المبينة في الجدول أدناه.



٢) تحديد مقاس الأنابيب

قم بتحديد مقاس أنبوب مادة التبريد وفقاً للتوجيهات الإرشادية التالية وبيناً على مواصفات الوحدة الداخلية.

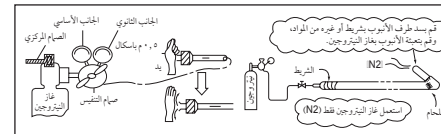
توصيل الوحدة الخارجية	الموديل SRC 52		الموديل SRC 71, 90	
	أنبوب الغاز	أنبوب السائل	أنبوب الغاز	أنبوب السائل
توصيل الوحدة الخارجية	قطر التوسعة ١٢,٧	قطر التوسعة ٦,٣٥	قطر التوسعة ١٥,٨٨	قطر التوسعة ٦,٣٥
أنابيب مادة التبريد (طول الأنبوب الفرعي)	قطر ١٢,٧	قطر ٦,٣٥	قطر ١٥,٨٨	قطر ٦,٣٥
توصيل الوحدة الداخلية	قطر ١٢,٧	قطر ٦,٣٥	قطر ١٥,٨٨	قطر ٦,٣٥

عندما يكون الأنبوب ملحوظاً.

حول اللصام

يجب أن يتم إجراء اللصام تحت تدفق غاز النيتروجين.

بدون وجود غاز النيتروجين، فإنه يتم تكوين كمية كبيرة من المواد الغريبة (غلاف مؤكسد)، مسبباً باختراق خطير في الأنابيب الشعري أو انسداد هائل في الصمام.



٣) سماكة حائط أنبوب مادة التبريد والمادة

١. من الجدول المبين على اليسار، قم باختيار سماكة حائط أنابيب مادة التبريد والمادة كما هو محدد لكل مقاس أنبوب.

٢. ملاحظة: قم باختيار الأنابيب التي يكون سماكة الحائط الخاص بها أكبر من الحد الأدنى لسماكة الأنابيب المحددة.

قطر الأنبوب [مم]	قطر ٦,٣٥	قطر ١٢,٧	قطر ١٥,٨٨
الحد الأدنى لسماكة حائط الأنابيب [مم]	٠,٨	٠,٨	١,٠
قطر الأنابيب [مم]	أنبوب من النوع الدائري	أنبوب من النوع الدائري	أنبوب من النوع الدائري

١. أنابيب نحاسي مختزل غير ملحوم من السفنور 77.150.30.ICCS 23.040.15

٤) أعمال الأنابيب في الموقع

هام

توخى الحذر بحيث لا يحدث تلاصق بين الأنابيب التي تم تركيبها والمكونات الداخلية للوحدة. إذا حدث تلاصق بينها وبين المكونات الداخلية، فإن ذلك سيؤدي إلى إصدار أصوات و/أو اهتزازات.

١. تم إجراء أعمال الأنابيب في الموقع بينما يكون صمام التشغيل مغلق بالكامل.

٢. تم بحماية طرف الأنبوب بشكل كافٍ (وذلك بالضغط واللحام، أو باستعمال شريط لاصق) بحيث لا يدخل ماء أو مواد غريبة إلى الأنبوب.

٣. قم بضمي الأنبوب إلى نصف قطر كبير قدر المستطاع (R150-R100). لا تعتمد إلى شيء الأنبوب بشكل متكرر لتصحيح شكله.

٤. يتم استعمال التوصيلات الموصلة بين الوحدة وأنبوب مادة التبريد. قم بتوسيع الأنبوب بعد تثبيت صامولة التوسعة بداخله. تختلف أبعاد التوسعة للنوع R410A عن تلك المستعملة في النوع التقليدي R22. على الرغم من أننا نوصي باستعمال أدوات توسعة مصممة خصيصاً للنوع R410A، إلا أنه يمكن أيضاً استعمال أدوات التوسعة التقليدية وذلك بتعديل قياس التوسعة B باستعمال مقياس التحكم بالنتوء.

٥. ينبغي تثبيت الأنبوب كل ١,٥ متر أو أقل وذلك لعزل الاهتزازات.

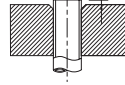
٦. قم بشد وصلة التوسعة بإحكام.

قطر الأنبوب التوسعة: A (مم)	القطر الخارجي للأنبوب النحاسي	قطر ٦,٣٥	قطر ١٢,٧	قطر ١٥,٨٨
٠,٤ - A	٩,١	١٢,٧	١٥,٨٨	
	١٦,٠٦			
	١٩,٠٧			



نوعه الأنبوب النحاسي للتوسعة: B (مم)

القطر الخارجي للأنبوب النحاسي	استعمال أداة خاصة بالنوع R410A	في حالة طراز (كولتر) الصلب
قطر ٦,٣٥	٠,٤٠	١,٠٠
قطر ١٢,٧		
قطر ١٥,٨٨		

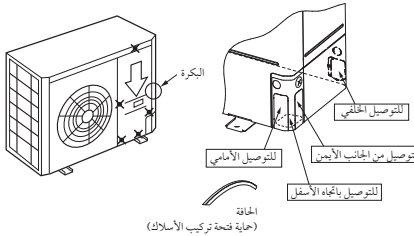


الموديلات SRC 90

كيفية نزع لوحة الخدمة

أولاً قم بنزع البرغي الحامسة (ذات العلامة X) من لوحة الخدمة ثم اضغطها للأسفل إلى اتجاه علامة السهم ثم قم بنزعها عن طريق سحبها باتجاهها.

- يمكن وضع الأنبوب في أي من الجهات التالية: الجهة اليمنى، الأمامية، الخلفية، وباتجاه الأسفل.
- قم بنزع اللوحة التي يتم تركيب الأسلاك الموجودة على أنبوب التبريد وذلك لفتح أحد محكم وضروي للمنطقة وتثبيت مادة حاشية يتم تزويدها على أنها كإتالية عن طريق قصها إلى طول مناسب قبل مدة الأنبوب.



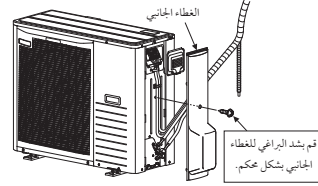
لا تحسك منطقة فضاء الصمام باستعمال مفتاح الربط.

قم باستعمال مفتاح العزم. إذا لم يتوفر لديك مفتاح عزم، قم بشد صامولة التوسعة بشكل يدوي أولاً وتم قم بشدها بشكل أكبر، مستعيناً بالجدول الموجود على الجهة اليمنى كموجه.

الموديلات SRC 52, 71

كيفية نزع الغطاء الجانبي

النزع البرغي الخاص بالغطاء الجانبي، واتزعه إلى الأمام.



لا تحسك منطقة فضاء الصمام باستعمال مفتاح الربط.

قم باستعمال مفتاح العزم. إذا لم يتوفر لديك مفتاح عزم، قم بشد صامولة التوسعة بشكل يدوي أولاً وتم قم بشدها بشكل أكبر، مستعيناً بالجدول الموجود على الجهة اليمنى كموجه.

تنبيه

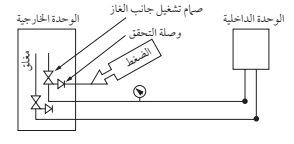
لا تعتمد إلى شد صامولة التوسعة بقوة بشكل يتجاوز عزم الشد الصحيح.

قم بتثبيت كل من صمامات تشغيل السائل والغاز على الأجسام الرئيسية للصمام كما هو موضح بالشكل الموجود على الجهة اليسرى، ومن ثم قم بشدها، وذلك بتطبيق عزم التناسب.

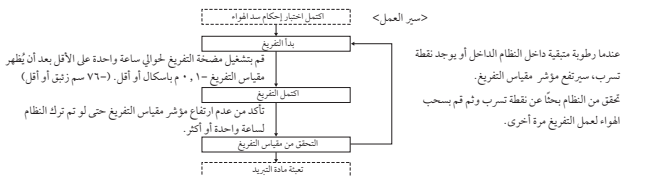
مقاس صمام التشغيل (مم)	عزم الشد (ن.م)	زاوية الشد (°)	الطول اللومبي به لقياس الأداة (مم)
قطر ٦,٣٥	١,٨١٤	٦٠±٤٥	١٥٠
قطر ١٢,٧	٦,١٤٩	٤٥±٣٠	٢٥٠
قطر ١٥,٨٨	٨,٦٣٨	٢٠±١٥	٣٠٠

٥ اختيار إحماء سد الهواء

- ١) على الرغم من أنه قد تم اختيار إحماء سد الهواء للوحدات الداخلية والخارجية ذاتها لدى الصنع، تحقق من أنابيب التوصيل بعد القيام بأعمال التركيب بحثاً عن أسداده الهواء من وصلة التفتيش من صمام التشغيل المجهزة على جانب الوحدة الخارجية. أثناء إجراء الاختبار، قد يبقا صمام التشغيل مغلق في كافة الأوقات.
- أ) ارفع الضغط إلى ٠,٥ م باسكال، ومن ثم توقف. اتركه لمدة خمس دقائق لئلا ترى إذا ما انخفض الضغط.
- ب) ثم قم بزيادة الضغط إلى ١,٥ م باسكال، وتوقف. اتركه لمدة خمس دقائق أخرى لئلا ترى إذا انخفض الضغط.
- ج) ثم قم بزيادة الضغط إلى المستوى المحدد (٤,١٥ م باسكال)، وقم بتسجيل درجة الحرارة والضغط المحيطين.
- د) إذا لم يتم ملاحظة أي انخفاض في الضغط يتناهي يكون ضغط التركيب في المستوى المحدد وقد تم تركه لحوالي يوم واحد على هذا الحال، فإن ذلك يكون مقبولاً. عندما تنخفض درجة الحرارة المحيطة إلى ١ م، سينخفض الضغط أيضًا بمقدار ٠,٠١ م باسكال تقريباً. ينبغي تعويض الضغط إذا تغير.
- هـ) إذا لاحظت وجود انخفاض بالضغط عند التفتيش من «هـ» و «د»، فإن ذلك يعني وجود تسرب في الضغط في مكان ما. قم بإعداد التسرب وذلك بتطبيق سائل اختبار الفقاعات على الأجزاء الملحومة ووصلات التوسعة وقم بإصلاحها، بعد الإصلاح، قم بإجراء اختبار إحماء سد الهواء مرة أخرى.
- ٢) عند إجراء اختبار إحماء سد الهواء، اسعمل غاز النيتروجين وقم بضغط النظام باستعمال غاز النيتروجين من جانب الغاز. لا تستعمل أي مادة غير غاز النيتروجين تحت أي ظرف من الظروف.



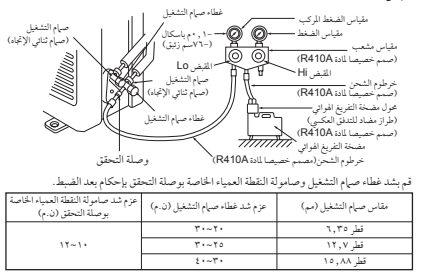
٦ التصريف



التبني إلى النقاط التالية بالإضافة إلى ما ورد ذكره أعلاه فيما يخص النوع R410A والالات التوافقية.

- لتفادي دخول زيت من نوع آخر، قم باستعمال الأدوات المخصصة، الخ لكل نوع من مادة التبريد. يجب عدم مشاركة المقياس المشعوب وخرطوم التفتحة على وجه الخصوص مع أنواع مواد التبريد الأخرى (R407C, R22 الخ) تحت أي ظرف من الظروف.
- استعمال محول مضاد للتدفق العكسي وذلك لمنع زيت مضخة التفريغ من الدخول إلى نظام التبريد.

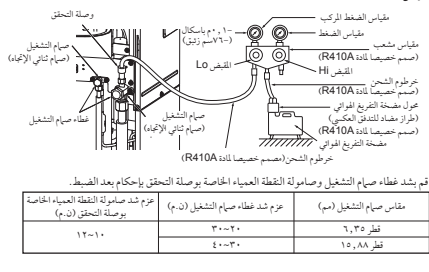
الموديل SRC 5271



قم بشد غطاء صمام التشغيل وصامولة النقطه المعيماء الخاصة بوسلة التفتيش بإحكام بعد الضغط.

مقاس صمام التشغيل (مم)	عزم شد غطاء صمام التشغيل (د.م)	عزم شد صامولة النقطه المعيماء الخاصة بوسلة التفتيش (د.م)
قطر ٦,٣٥	٣-٢٠	١٢-١٠
قطر ١٢,٧	٣-٢٥	
قطر ١٥,٨٨	٤-٣٠	

الموديل SRC 90



قم بشد غطاء صمام التشغيل وصامولة النقطه المعيماء الخاصة بوسلة التفتيش بإحكام بعد الضغط.

مقاس صمام التشغيل (مم)	عزم شد غطاء صمام التشغيل (د.م)	عزم شد صامولة النقطه المعيماء الخاصة بوسلة التفتيش (د.م)
قطر ٦,٣٥	٣-٢٠	١٢-١٠
قطر ١٤,٨٨	٤-٣٠	

٧ تعبئة مادة تبريد إضافية

(١) تحتوي كل وحدة على 'مادة التبريد المعبأة في الصنع' وفقاً لل'الرجع الخاص بطول أنبوب التركيب'. تتم الإشارة إلى وزن 'مادة التبريد المعبأة في الصنع' على ملصق اسم الموديل الموجود على الوحدة الخارجية.

الموديل	الرجع الخاص بطول أنبوب التركيب (متر)	التعبئة الإضافية لكل متر من أنابيب مادة التبريد (كجم/متر)
SRC 52	١,٥	٠,٢٠
SRC 71	١,٥	٠,٢٥
	الوحدات CRBN-S (قطب)*	
SRC 90	١,٠	٠,٢٥

* تحتوي جميع موديلات SRC 71 (بما سته SRC71CRBN-S) على 'الرجع الخاص بطول أنبوب التركيب' يساوي ١,٥ متر.

- لا تضبط تعبئة مادة تبريد إضافية في موقع التركيب عندما يكون 'طول الأنبوب الرئيسي' المراد تركيبه أقل من أو يساوي 'الرجع الخاص بطول أنبوب التركيب'.
- عندما يتجاوز 'طول الأنبوب الرئيسي' 'الرجع الخاص بطول أنبوب التركيب'، فذلك بحاجة لتعبئة المزيد من مادة التبريد الإضافية. سيتم حساب كمية التعبئة الإضافية باستخدام الصيغة الواردة أدناه:

$$\text{التعبئة الإضافية (كجم)} = \left[\text{طول الأنبوب الرئيسي (متر)} - \text{الرجع الخاص بطول أنبوب التركيب (متر)} \right] \times \text{التعبئة الإضافية لكل متر من أنابيب مادة التبريد (كجم/متر)}$$

على سبيل المثال، إذا كان 'طول الأنبوب الرئيسي' الخاص بالموديل SRC71CRBN-S ٢٠ متر، سيتم حساب تعبئة مادة التبريد الإضافية كالتالي:

التعبئة الإضافية (كجم) = (٢٠ - ١,٥) متر × ٠,٢٥ كجم/متر = ٣,٢٥ كجم

فيما يتعلق ب'طول الأنبوب الرئيسي' الذي يقل عن 'الرجع الخاص بطول أنبوب التركيب'، قم دائماً بإبقاء كمية مادة التبريد متساوية مع 'مادة التبريد المعبأة في الصنع'.

٢) تعبئة مادة التبريد

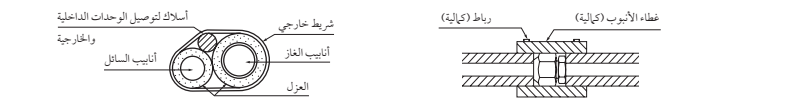
- بما أنه يجب تعبئة مادة التبريد R410A وهي في الحالة السائلة، يجب عليك تعبئتها مع إبقاء أسطوانة الغاز مقلوبة رأساً على عقب أو استعمال أسطوانة مادة تبريد مجهزة بأنبوب ماص.
- قم دائماً بتعبئة مادة التبريد من منفذ خدمة الجانب السائل بينما يكون صمام التشغيل مغلقاً. عندما يصعب عليك تعبئة الكمية المطلوبة، افتح صمامات الوحدة الخارجية بالكامل على كلا الجانبين السائل والغاز وقم بتعبئة مادة التبريد من منفذ خدمة الجانب الغاز (الشفط)، أثناء تشغيل الوحدة في الوضع البارد. وأثناء عمل ذلك، يجب توخي الحذر بحيث لا يتم تفريغ مادة التبريد من الأسطوانة عندما تكون في الحالة السائلة في كافة الأوقات. عندما يتم خنق صمام الأسطوانة للأسفل أو عند استعمال أداة تحويل مخصصة لتغيير الحالة السائلة لمادة التبريد إلى الحالة الغازية وذلك لحماية الكمبروسور، مع ذلك، قم بضغط أطراف التعبئة بحيث تتحول مادة التبريد إلى غاز عند دخولها إلى الوحدة.
- عند تعبئة مادة التبريد، قم دائماً بتعبئة كمية محسوبة وذلك باستعمال مقياس كمية التعبئة.
- عند تعبئة مادة التبريد بينما تكون الوحدة في حالة التشغيل، قم بإكمال عملية التعبئة في غضون ٣٠ دقيقة.
- تشغيل الوحدة مع عدم وجود كمية كافية من سائل التبريد لفترة زمنية طويلة يمكن أن يتسبب في إخفاق الكمبروسور.

ملاحظة

ضع كمية مادة التبريد التي تم حسابها من طول الأنبوب على بطاقة التبيئة الملصقة على لوحة الخدمة.

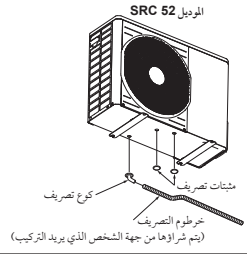
٨ الوقاية من التسخين والتكثف

- (١) قم بتلييس أنابيب مادة التبريد (ككل من أنابيب الغاز والسائل) وذلك لعزل الحرارة ومع تشكل قطرات الندى التكثف.
- يمكن أن يؤدي العزل الحراري/التلييس المضاد لتشكل قطرات الندى غير المناسبين إلى تسرب الماء أو التقيط الأمر الذي يتسبب في تلف التجهيزات المنزلية، الخ.
- (٢) استعمال مادة عزل حراري تتحمل درجات حرارة مقدارها ١٢٠ م أو أعلى. يمكن أن تتسبب سعة العزل الحراري الرطبة في مشاكل في العزل أو تلف الكبل.
- يجب أن يتم عزل كافة أنابيب الغاز حرارياً بإحكام وذلك لتفادي حدوث ضرر عند تقيط الماء الناتج عن تشكل التكثف عليها خلال عملية التبريد أو لتفادي الإصابة بجروح شخصية ناتجة عن الحروق وذلك نظراً لأن الأسطح الخاصة بها يمكن أن تصل إلى درجة حرارة عالية جداً جراء تفريغ الغاز للتدفق بالأدخال أثناء عملية التسخين.
 - قم بلف وصلات التوسعة الخاصة بالوحدات الداخلية بعزل حراري (غطاء الأنبوب) وذلك لعزل حراري (ككل من أنابيب الغاز والسائل).
 - قم بتطبيق العزل الحراري على كلا جانبي أنابيب الغاز والسائل. قم بربط مادة العزل الحراري والأنبوب سوياً بإحكام بحيث لا تترك فجوات بينها وقم بلفها سوياً مع كبل التوصيل باستعمال شريط تلييس.
 - تحتاج كبل من أنابيب السائل والغاز إلى أن يتم تلييسها بمواد عزل حراري سمكها ٢٠ م أو أكثر سماكة فوق المسقف حيث تتجاوز الرطوبة النسبية ٧٠٪.



أعمال أنابيب التصريف (مضخة الحرارة فقط)

- قم بتثبيت أعمال أنابيب التصريف باستعمال كوع التصريف ومثبتات التصريف المتوفرة بشكل متصل على أنها كاريئات، عندما يسبب الماء الذي تم تصريفه من الوحدة الخارجية مشكلة.
- قد يحدث تقيط ليل، عندما يكون هناك كمية كبيرة من ماء التصريف، قم بسد الأماكن حول كوع التصريف ومثبتات التصريف باستعمال مجعونة أو مادة تغليف كافية.
- قد يتدفق الماء المتكثف للخارج من المنطقة المحيطة بصمام التشغيل أو أنابيب التوصيل.
- حيث يكون من المحتمل أن تواجه عدة أيام على التوالي تكون فيها درجة الحرارة ما دون الصفر، لا تستعمل كوع التصريف ومثبتات التصريف. (هناك احتمالية تجمد مياه التصريف في الداخل مما يؤدي إلى سد التصريف.)
- في المناطق التي تنخفض فيها درجة الحرارة إلى ما دون الصفر عدة أيام على التوالي، لا تقم بتركيب كوع التصريف. (قد يتفقد تصريف المياه بسبب التجمد.) (طراز مضخة الحرارة فقط)

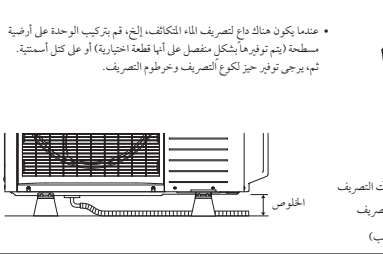
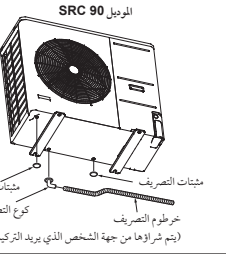
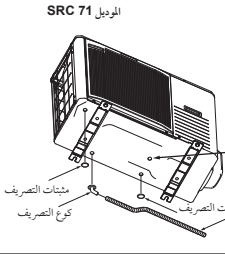


تنبيه

لا تعتمد على وضع حلقة تثبيت ما على هذه الفتحة.

هذه فتحة تصريف إضافية لتفريغ ماء التصريف، عندما يتجمع كمية كبيرة منه.

خرطوم التصريف (يتم شراؤها من جهة الشخص الذي يبرد التركيب)



- عندما يكون هناك ناءك لتصريف الماء المتكثف، الخ، قم بتركيب الوحدة على أرضية مسطحة (يتم توفيرها بشكل متصل على أنها قطعة اختيارية) أو على كتل أسمنتية.
- تم يرحب توفير حيز لكوع التصريف وخرطوم التصريف.

أعمال الأسلاك الكهربائية

للحصول على تفاصيل حول الكبلات الكهربائية، راجع صفحة رقم ٢.

يجب أن يتم إجراء أعمال التركيب الكهربائية بواسطة مزود خدمة تركيب كهربائي مؤهل من قبل مزود التيار الخاص بالدولة.

يجب أن يتم تنفيذ أعمال التركيب الكهربائية وفقاً للمعايير الفنية وغيرها من الأنظمة المعمول بها فيما يخص أعمال التركيب الكهربائية في الدولة.

لا تستعمل أي سلك إمداد يكون أنحف من السلك المحدد بين القوسين لكل نوع أمثاه.

• سلك معدن (النسبة IEC 51 60245)

• سلك مغلف بالباط صلب عادي (النسبة IEC 53 60245)

• سلك ثنائي الأشرطة مسطح (النسبة IEC 41 60227)

• استعمال سلك من مغلف بالبولي كلوروبرين (النسبة IEC 57 60245) لتزويد الأجزاء الخاصة بالأجهزة بأسلاك وذلك للاستعمال الخارجي.

• قم بتأريض الوحدة. لا تعتمد على توصيل أسلاك التأريض بالأيوب الغاز أو الأيون الماء أو عمود الإضاءة أو أسلاك تأريض الحائط.

• إذا تم التأريض بشكل غير صحيح، فقد يؤدي ذلك إلى التعرض لصدمة كهربائية أو حدوث عطل.

• يجب توصيل أسلاك التأريض قبل توصيل كبل التيار. قم بتوفير سلك تأريض أطول من كبل التيار.

• من الضروري تركيب قاطع مانع التسرب الأرضي من الطراز القادم للدفع. الإخفاق في تركيب قاطع مانع التسرب الأرضي يمكن أن يؤدي إلى وقوع حادث كما هو الحال في التعرض لصدمة كهربائية أو نشوب حريق.

تنبيه

في حالة توصيل الأسلاك بشكل خاطئ، تتوقف الوحدة الداخلية عن العمل. ثم، يبدأ مصباح التشغيل بالعمل ويومض مصباح الوقت.

استخدم الكبلات لربط الأسلاك لتجنب حل الأسلاك.

بعد رزم CENELEC خاص بالكبلات التي تتطلب كبلات لتطابق معين.

245IEC57 أو H05RNR4G1.5 (دال)

كبلات طراز متوافق

H ٥٠٠ / ٣٠٠ فولت

05 عزل مغناطيسي طبيعي أو مصنع

R عزل موصلات مغناطيسي من طراز بولي كلوروبرين

N عزو قياسية

5 أو 4 عدد الموصلات

G أحد موصلات الكبل هو الموصل الأرضي (أصفر / أخضر)

1.5 الجزء المتعلق بالسلك النحاسي (م ٢)

كبل التيار، أسلاك التوصيل الداخلية-الخارجية

• قم دائماً بإجراء أعمال تركيب نظام التأريض عندما يكون سلك التيار متروكاً من القابس.

• قم بتوصيل حمل مزود ذي رقم طرف توصيل شائع مع سلك التوصيل الداخلي-الخارجي.

• عند تركيب الكبلات، قم بشد الكبلات بإحكام بمشابك الكبل بحيث لا تضغط أي قوة خارجية على أطراف

التوصيل.

• يتم تزويد أطراف توصيل التأريض في كتلة طرف التوصيل.

• استعمال سلك من مغلف بالبولي كلوروبرين (النسبة IEC 57 60245، IEC 60335-2-40)

• على أن تكون مساحة المقطع العرضي لسلك إمداد التيار الخاص بالوحدة الخارجية مقدارها ٢,٥ مم².

(رؤى إمداد التيار)

بعد رزم CENELEC خاص بالكبلات التي تتطلب كبلات لتطابق معين.

H05RNR3G2.5

نقاط فحص اختبار التركيب

تأكد من النقاط التالية مرة أخرى بعد إنهاء التركيب، وقبل تشغيل التيار. قم بإجراء اختبار تشغيل مرة أخرى وتأكد من أن الوحدة تعمل بشكل صحيح.

في الوقت ذاته، اشرح للزبون كيفية استخدام الوحدة وكيفية العناية بها تبعاً دليل التعليمات.

بعد التركيب

كبلات الطاقة وأسلاك التوصيل مثبتة بإحكام على كتلة طرف التوصيل (كل من الداخلية والخارجية)

فولتية إمداد الطاقة صحيحة حسب التغيير.

تم تثبيت خرطوم التصريف بإحكام.

صمام التشغيل مفتوحاً بالكامل.

لا يوجد هناك تسرب في الغاز في الوصلات الموجودة في صمام التشغيل.

تم عزل وصلات الألياف الخاصة بالألياف الداخلية والخارجية.

تم تثبيت غطاء المتحقق من التدفق العكسي.

يتم توجيه الغطاء الخاص بغطاء الأيونوب (A) للأسفل لتفادي دخول الطر.

تم شد الفجوات المرتدة بين أغطية الألياف (B) (A) ومسطح الحائط / الألياف بشكل صحيح.

تم شد برغي الغطاء الجانبي بإحكام.

اختبار التشغيل

عملية تكييف الهواء طبيعية.

لا توجد هناك أصوات غير طبيعية.

يتم تصريف المياه بسلاسة.

الوظائف الوقائية لا تعمل.

جهاز التحكم مع بعد يعمل بصورة طبيعية.

تم شرح كيفية استعمال الوحدة للزبون. (مؤقت مع إعادة التشغيل لمدة ٣ دقائق)

عندما تمت إعادة تشغيل مكيف الهواء أو عند تغيير الهواء، لن تبدأ الوحدة بالعمل لمدة ٣ دقائق تقريباً. وذلك لحماية الوحدة ولا بعد ذلك عملاً في الجهاز.

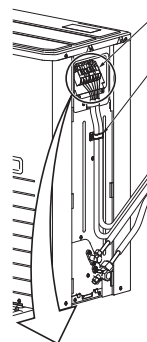
تم شرح كيفية استعمال الوحدة للزبون. (مؤقت مع إعادة التشغيل لمدة ٣ دقائق)

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الموديل SRC 52.71



كتلة طرف توصيل الإمداد بالتيار

شبكة الكبل

• يعمل على تثبيت الكبلات في مكانها ويحمي أطراف التوصيل من القوة الخارجية.

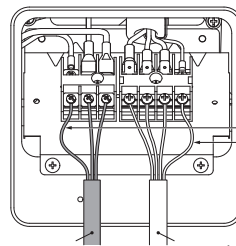
• هذا المشبك هو للكبل الذي نصف قطره الخارجي هو ٩-١٥ مم. يرجى ضبطه في حال

عدم ملائمته.

• يقوم هذا المشبك بتثبيت كبل التيار وأسلاك التوصيل الداخلية-الخارجية.

مخطط الأسلاك

• تم إنصافها على الجانب الخلفي للوحدة العلوية.



• ينبغي أن يكون لون سلك التأريض

أصفر/ أخضر (Y/G) وأن يكون

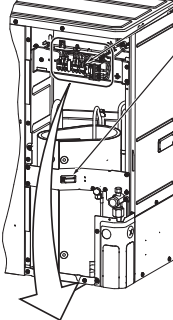
أطول من أسلاك التيار المتردد

الأخرى وذلك لعناية السلامة.

كبل التيار

أسلاك التوصيل
الداخلية - الخارجية

الموديل SRC 90



كتلة طرف توصيل الإمداد بالتيار

شبكة الكبل

• يعمل على تثبيت الكبلات في مكانها ويحمي أطراف التوصيل من

القوة الخارجية.

• هذا المشبك هو للكبل الذي نصف قطره الخارجي هو ٩-١٥ مم. يرجى

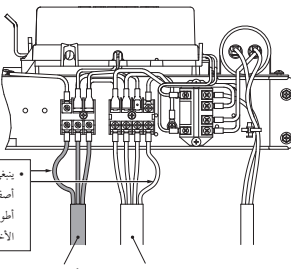
ضبطه في حال عدم ملائمته.

• يقوم هذا المشبك بتثبيت كبل التيار وأسلاك التوصيل

الداخلية-الخارجية.

مخطط الأسلاك

• تم إنصافها على الجانب الخلفي للوحدة.



• ينبغي أن يكون لون سلك التأريض

أصفر/ أخضر (Y/G) وأن يكون

أطول من أسلاك التيار المتردد

الأخرى وذلك لعناية السلامة.

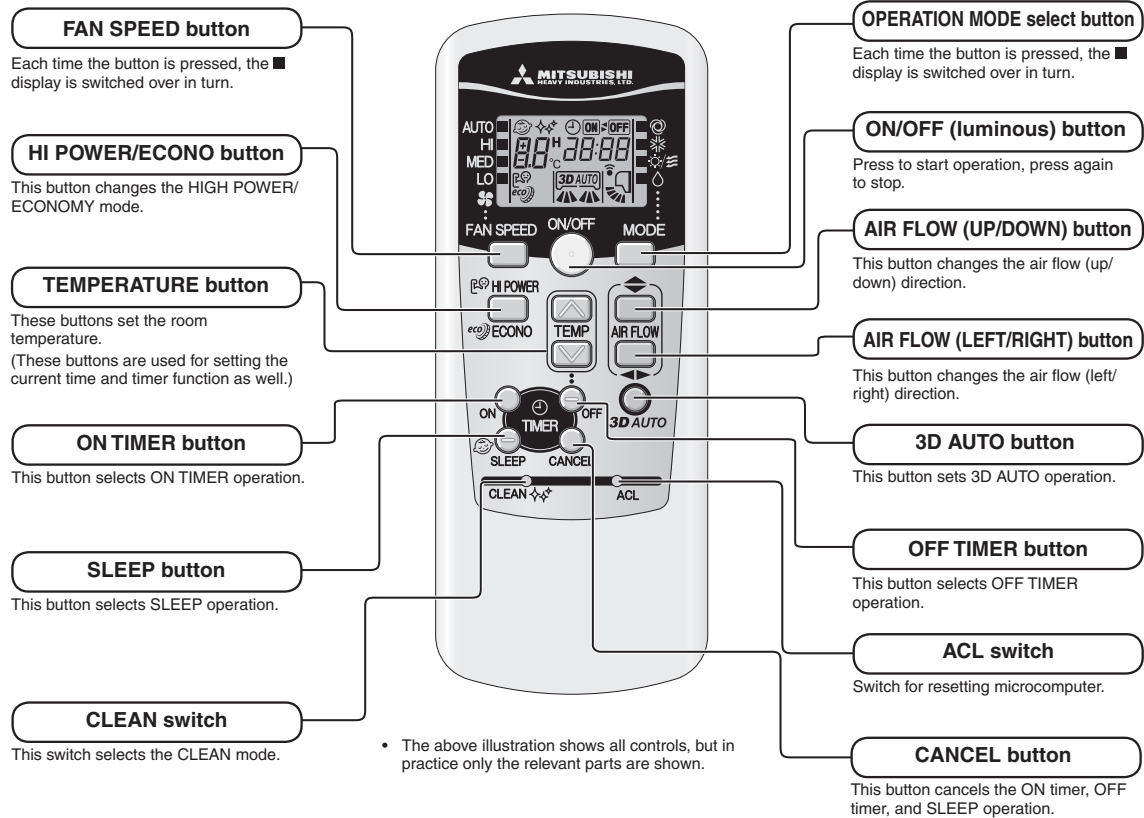
كبل التيار

أسلاك التوصيل
الداخلية - الخارجية

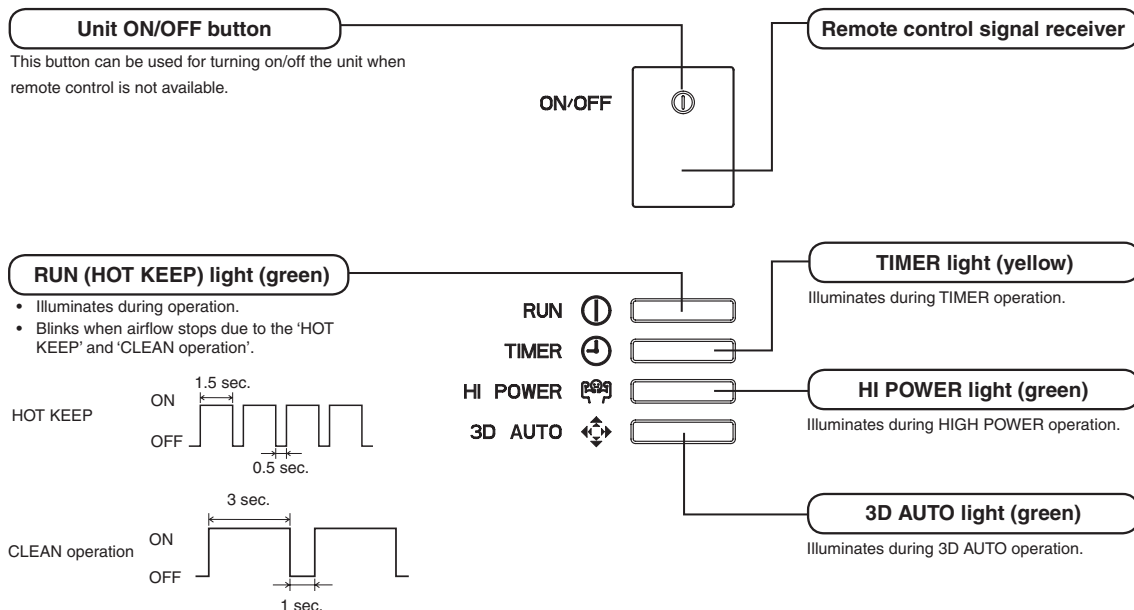
9. OUTLINE OF OPERATION CONTROL BY MICROCOMPUTER

(1) Operation control function by wireless remote control

Operation section



Unit display section



(2) Unit ON/OFF button

When the wireless remote control batteries become weak, or if the wireless remote control is lost or malfunctioning, this button may be used to turn the unit on and off.

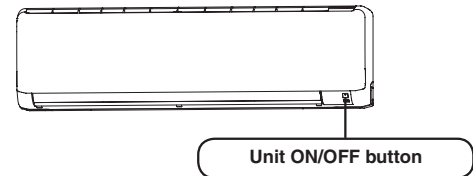
(a) Operation

Push the button once to place the unit in the cooling mode. Push it once more to turn the unit off.

(b) Details of operation

The unit will go into the automatic mode in which it automatically determines, from indoor temperature (as detected by sensor), whether to go into COOL, DRY or HEAT modes.

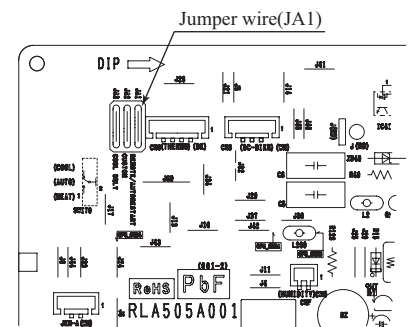
Function	Indoor temperature setting	Fan speed	Flap/Louver	Timer switch
Operation mode				
COOL	About 24°C	Auto	Auto	Continuous
DRY				
HEAT				



(3) Auto restart function

- (a) Auto restart function records the operational status of the air-conditioner immediately prior to be switched off by a power cut, and then automatically resumes operations after the power has been restored.
- (b) The following settings will be cancelled:
 - 1) Timer settings
 - 2) HIGH POWER operations

Notes (1) Auto restart function is set at on when the air-conditioner is shipped from the factory. Consult with your dealer if this function needs to be switched off.
 (2) When power failure occurs, the timer setting is cancelled. Once power is resumed, reset the timer.
 (3) If the jumper wire (JA1) "AUTO RESTART" is cut, auto restart is disabled. (See the diagram at right.)



(4) Custom cord switching procedure

If two wireless remote control are installed in one room, in order to prevent wrong operation due to mixed signals, modify the printed circuit board in the indoor unit's control box and the wireless remote control using the following procedure. Be sure to modify both boards. If only one board is modified, receiving (and operation) cannot be done.

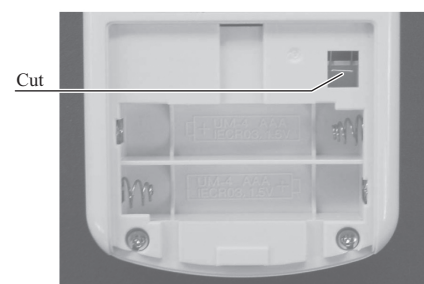
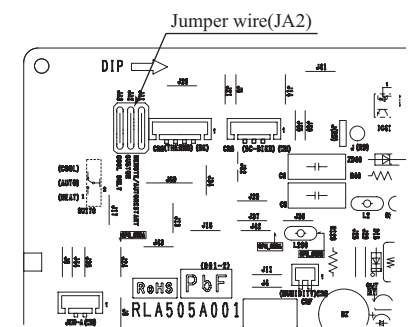
(a) Modifying the indoor printed circuit board

Take out the printed circuit board from the control box and cut off jumper wire (JA2) using wire cutters.

After cutting of the jumper wire, take measures to prevent contact with the other the lead wires, etc.

(b) Modifying the wireless remote control

- 1) Remove the battery.
- 2) Cut the jumper wire shown in the figure at right.



(5) Flap and louver control

Control the flap and louver by AIR FLOW \blacklozenge (UP/DOWN) and $\blacktriangleleft\blacktriangleright$ (LEFT/RIGHT) button on the wireless remote control.

(a) Flap

Each time when you press the AIR FLOW \blacklozenge (UP/DOWN) button the mode changes as follows.

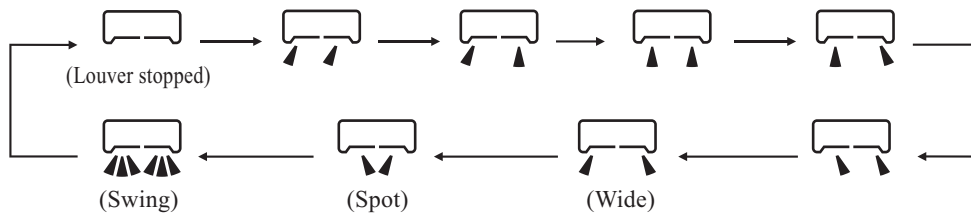


• Angle of flap from horizontal

Wireless remote control display					
COOL , DRY, FAN	Approx. 5°	Approx. 20°	Approx. 35°	Approx. 50°	Approx. 70°
HEAT	Approx. 20°	Approx. 35°	Approx. 45°	Approx. 60°	Approx. 70°

(b) Louver

Each time when you press the AIR FLOW $\blacktriangleleft\blacktriangleright$ (LEFT/RIGHT) button the mode changes as follows.



• Angle of louver

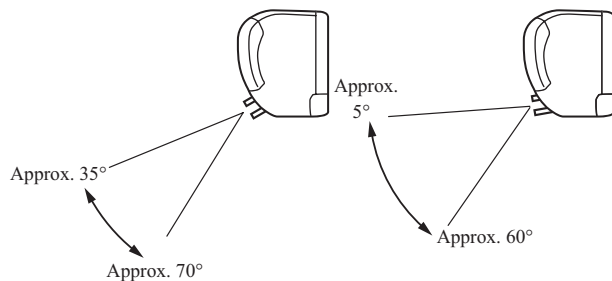
Wireless remote control display					
Center installation	Left approx. 45°	Left approx. 20°	Center	Right approx. 20°	Right approx. 45°
Right end installation	Left approx. 45°	Left approx. 30°	Left approx. 20°	Center	Right approx. 20°
Left end installation	Left approx. 20°	Center	Right approx. 20°	Right approx. 30°	Right approx. 45°

(c) Swing

1) Swing flap

Flap moves in upward and downward directions continuously.

- \blacklozenge In HEAT operation
- \blacklozenge In COOL, DRY, FAN operation



2) Swing louver

Louver moves in left and right directions continuously.



(d) Memory flap (Flap or louver stopped)

When you press the AIR FLOW (UP/DOWN or LEFT/RIGHT) button once while the flap or louver is operating, it stops swinging at the position. Since this angle is memorized in the microcomputer, the flap or louver will automatically be set at this angle when the next operation is started.

(e) When not operating

The flap returns to the position of air flow directly below, when operation has stopped.

(6) 3D auto operation

Control the flap and louver by 3D AUTO button on the wireless remote control.

Air flow selection and air flow direction are automatically controlled, allowing the entire indoor to efficiently conditioned.

(a) During cooling and heating (Including auto cooling)

- 1) Air flow selection is determined according to indoor temperature and setting temperature.

Operation mode	Air flow selection				
	AUTO		HI	MED	LO
Cooling	Indoor temp. – Setting temp. >5°C	Indoor temp. – Setting temp. ≤ 5°C	HI	MED	LO
	HIGH POWER	AUTO			
Heating	Indoor temp. – Setting temp. >5°C	Indoor temp. – Setting temp. ≤ 5°C			
	HIGH POWER	AUTO			

- 2) Air flow direction is controlled according to the indoor temperature and setting temperature.

- a) When 3D auto operation starts

	Cooling	Heating
Flap	Up/down swing	
Louver	Wide (Fixed)	Center (Fixed)

- b) When Indoor temp. – Setting temp. is ≤ 5°C during cooling and when Setting temp.-Indoor temp. is ≤ 5°C during heating, the system switches to the following air flow direction control. After the louver swings left and right symmetrically for 3 cycles, control is switched to the control in c).

	Cooling	Heating
Flap	Horizontal blowing (Fixed)	Slant forwardl blowing (Fixed)
Louver	Left/right swing	

- c) After the flap swings for 5 cycles, control is switched to the control in d).

	Cooling	Heating
Flap	Up/down swing	
Louver	Center (Fixed)	

- d) For 5 minutes, the following air flow direction control is carried out.

	Cooling	Heating
Flap	Horizontal blowing (Fixed)	Slant forwardl blowing (Fixed)
Louver	Wide (Fixed)	

- e) After 5 minutes have passed, the air flow direction is determined according to the indoor temperature and setting temperature.

Operation mode	Air flow direction control		
Cooling	Indoor temp. – Setting temp. ≤ 2°C	2°C < Indoor temp. – Setting temp. ≤ 5°C	Indoor temp. – Setting temp. > 5°C
	The control in d) continues.	Control returns to the control in b).	Control returns to the control in a).
Heating	Indoor temp. – Setting temp. ≤ 2°C	2°C < Indoor temp. – Setting temp. ≤ 5°C	Indoor temp. – Setting temp. > 5°C
	The control in d) continues.	Control returns to the control in b).	Control returns to the control in a).

(b) During DRY operation (including auto DRY operation)

Air flow selection	According to DRY operation.
Flap	Horizontal blowing (Fixed)
Louver	Wide (Fixed)

(7) Timer operation

(a) Comfortable timer setting (ON timer)

If the timer is set at ON when the operation select switch is set at the cooling or heating, or the cooling or heating in auto mode operation is selected, the comfortable timer starts and determines the starting time of next operation based on the initial value of 15 minutes and the relationship between the indoor temperature at the setting time (temperature of room temperature sensor) and the setting temperature.

(b) Sleep timer operation

Pressing the SLEEP button causes the temperature to be controlled with respect to the set temperature.

(c) OFF timer operation

The Off timer can be set at a specific time (in 10 minute units) within a 24 hour period.

(8) Installation location setting

When the indoor unit is installed at the end of a room, control the air flow direction so that it is not toward the side walls. If you set the wireless remote control installation position, keep it so that the air flow is within the range shown in the following figure.

(a) Setting

1) If the air-conditioning unit is running, press the ON/OFF button to stop.

The installation location setting cannot be made while the unit is running.

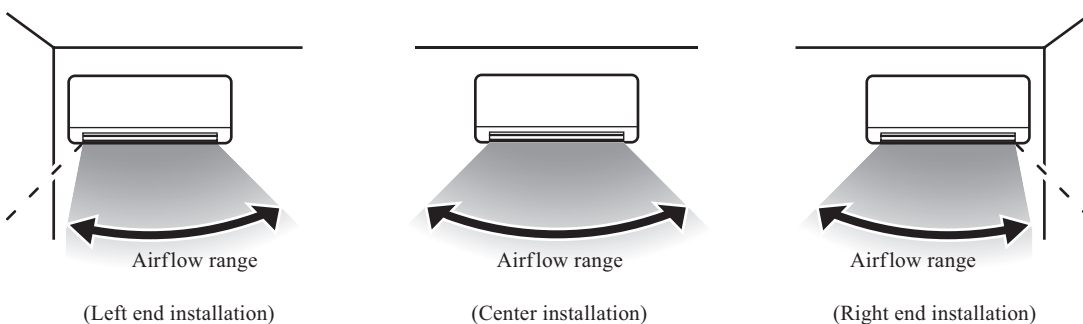
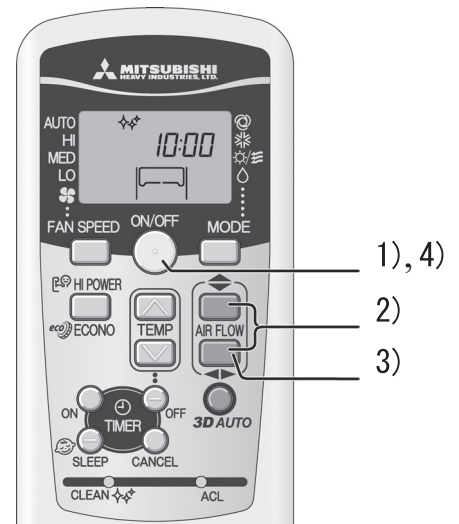
2) Press the AIR FLOW \updownarrow (UP/DOWN) button and the AIR FLOW $\leftarrow\rightarrow$ (LEFT/RIGHT) button together for 5 seconds or more.

The installation location display illuminates.

3) Setting the air-conditioning installation location.

Press the AIR FLOW $\leftarrow\rightarrow$ (LEFT/RIGHT) button and adjust to the desired location.

Each time the AIR FLOW $\leftarrow\rightarrow$ (LEFT/RIGHT) button is pressed, the display is switched in the order of.



4) Press the ON/OFF button.

The air-conditioner's installation location is set.

Press within 60 seconds of setting the installation location (while the installation location setting display illuminates).

(9) Outline of heating operation

(a) Operation of major functional components in heating mode

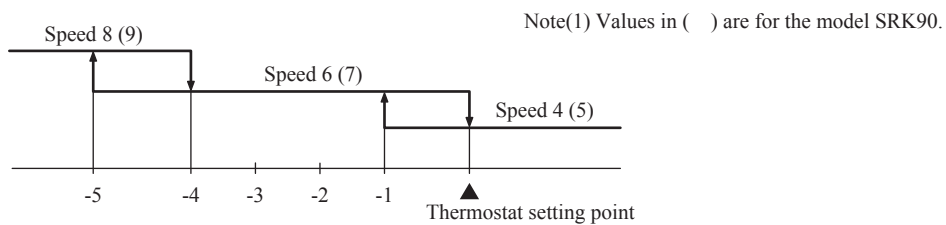
	Cooling		
	Thermostat ON	Thermostat OFF	Failure
Compressor	ON	OFF	OFF
Indoor fan motor	ON	ON (Hot keep)	ON
Outdoor fan motor	ON	OFF (Few minutes ON)	OFF (Few minutes ON)
4 way valve	ON	OFF (3 minutes ON)	OFF (3 minutes ON)

(b) Fan speed switching

Model	SRK52HSBP-S	SRK71HSBP-S	SRK90HSBP-S
Fan speed			
Auto	Auto fan control		
HI	Speed 8	Speed 8	Speed 9
MED	Speed 6	Speed 6	Speed 7
LO	Speed 4	Speed 4	Speed 5

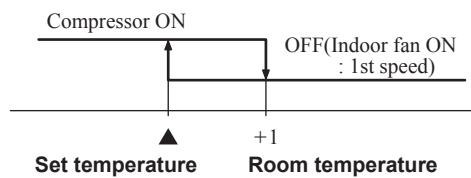
(i) Auto fan control

The indoor fan is automatically controlled in accordance with the difference between the room temperature (Th1) and the thermostat setting as shown below.



(c) Thermostat operation

The compressor and indoor fan are turned on and off as shown below according to the temperature setting.



(d) HIGH POWER operation

The following operation is performed for 15 minutes without relation to the set temperature or fan speed setting.

Indoor fan motor	Speed 10 fixed
Outdoor fan motor	ON
Compressor	ON

Notes (1) Room temperature is not adjusted during the HIGH POWER operation.
(2) Protective functions will actuate with priority even during the HIGH POWER operation.

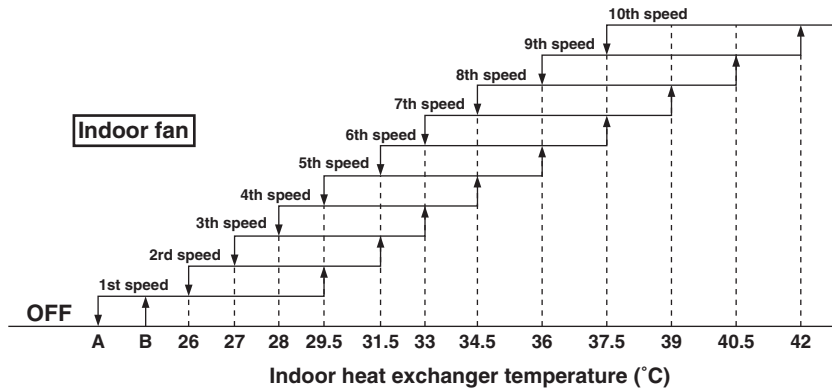
(e) ECONOMY operation

The set temperature changes as shown at right, and the indoor fan speed is set on speed 5.

Running time	Set temperature compensation
Running start - 1 hour	Set temperature -1.0
1-2 hours	Set temperature -2.0
2 hours -	Set temperature -2.5

(f) Hot keep operation

If the hot keep operation is selected during the heating operation, the indoor blower is controlled based on the temperature of the indoor unit heat exchanger (detected with Th2, indoor unit heat exchanger sensor) to prevent blowing of cool wind.



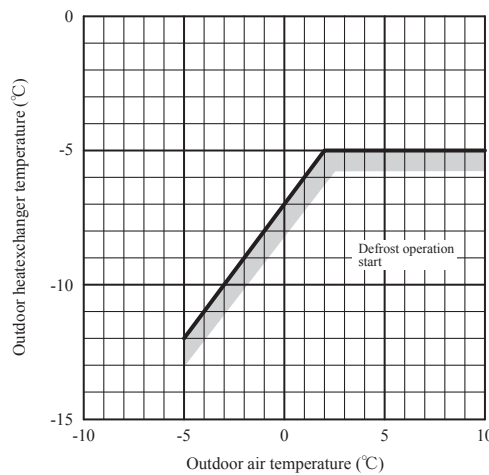
•Values of A, B

	A	B
At 0 rps command	22	25
Other than 0 rps command	16	18

(g) Defrost operation

(i) Starting conditions (Defrost operation can be started only when all of the following conditions are satisfied.)

- 1) After start of heating operation.
When it elapsed 45 minutes. (Accumulated operation time)
- 2) After end of defrost operation.
When it elapsed 45 minutes. (Accumulated compressor operation time)
- 3) Outdoor unit heat exchanger sensor (TH4) temperature
When the temperature has been below -5°C for 3 minutes continuously.
- 4) The difference between the outdoor air sensor temperature and the outdoor unit heat exchanger sensor temperature.
 - a) The outdoor air sensor temperature $\geq -7^{\circ}\text{C} : 7^{\circ}\text{C}$ or higher



5) During continuous compressor operation

In addition, when the speed command from the indoor control of the indoor unit during heating operation has counted 0 rps 10 times or more and all conditions of 1), 2), 3) and 5) above and the outdoor air temperature is 3°C or less are satisfied (note that when the temperature for outdoor heat exchanger sensor (TH4) is -1°C or compressor ON), defrost operation is started.

(ii) Ending conditions (Operation returns to the heating cycle when either one of the following is satisfied.)

- 1) Outdoor heat exchanger sensor (TH4) temperature : 15°C or higher.
- 2) Continued operation time of defrost operation \rightarrow For more than 10 minutes.

(10) Outline of cooling operation

(a) Operation of major functional components in cooling mode

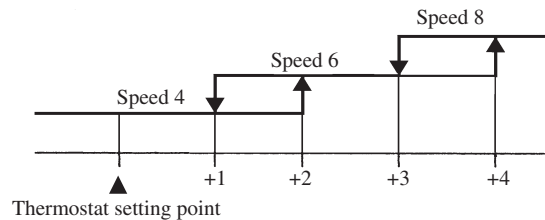
	Cooling		
	Thermostat ON	Thermostat OFF	Failure
Compressor	ON	OFF	OFF
Indoor fan motor	ON	ON	ON
Outdoor fan motor	ON	OFF (few minutes ON)	OFF (few minutes ON)
4 way valve	OFF	OFF	OFF

(b) Fan speed switching

Fan speed	Model	All models
Auto		Auto fan control
HI		Speed 8
MED		Speed 6
LO		Speed 4

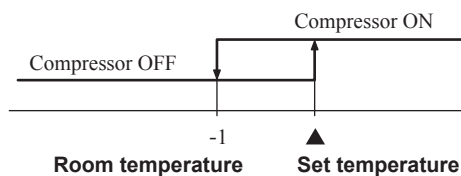
(i) Auto fan control

The indoor fan is automatically controlled in accordance with the difference between the room temperature (Th1) and the thermostat setting as shown below.



(c) Thermostat operation

The compressor is turned on and off as shown below according to the temperature setting.



(d) HIGH POWER operation

The following operation is performed for 15 minutes without relation to the set temperature or fan speed setting.

Indoor fan motor	Speed 10 fixed
Outdoor fan motor	ON
Compressor	ON

- Notes (1) Room temperature is not adjusted during the HIGH POWER operation.
 (2) Protective functions will actuate with priority even during the HIGH POWER operation.

(e) ECONOMY operation

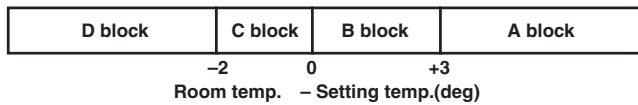
The set temperature changes as shown at right, and the indoor fan speed is set on speed 4.

Running time	Set temperature compensation
Running start - 1 hour	Set temperature +0.5
1-2 hours	Set temperature +1.0
2 hours -	Set temperature +1.5

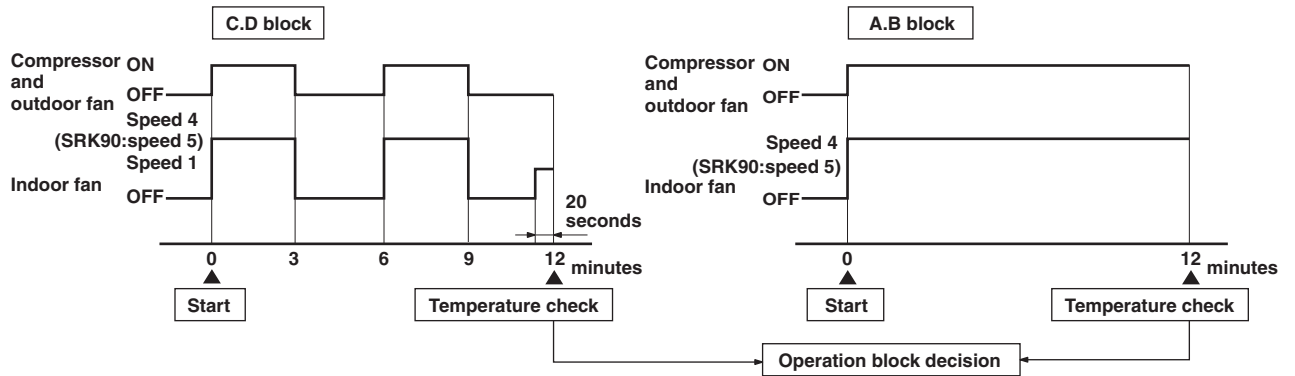
(11) Outline of dehumidifying (DRY) operation

- (a) Choose the appropriate operation block area by the difference between room temperature and thermostat setting temperature as shown below.

• **Operation block area**



(b) Start up operation

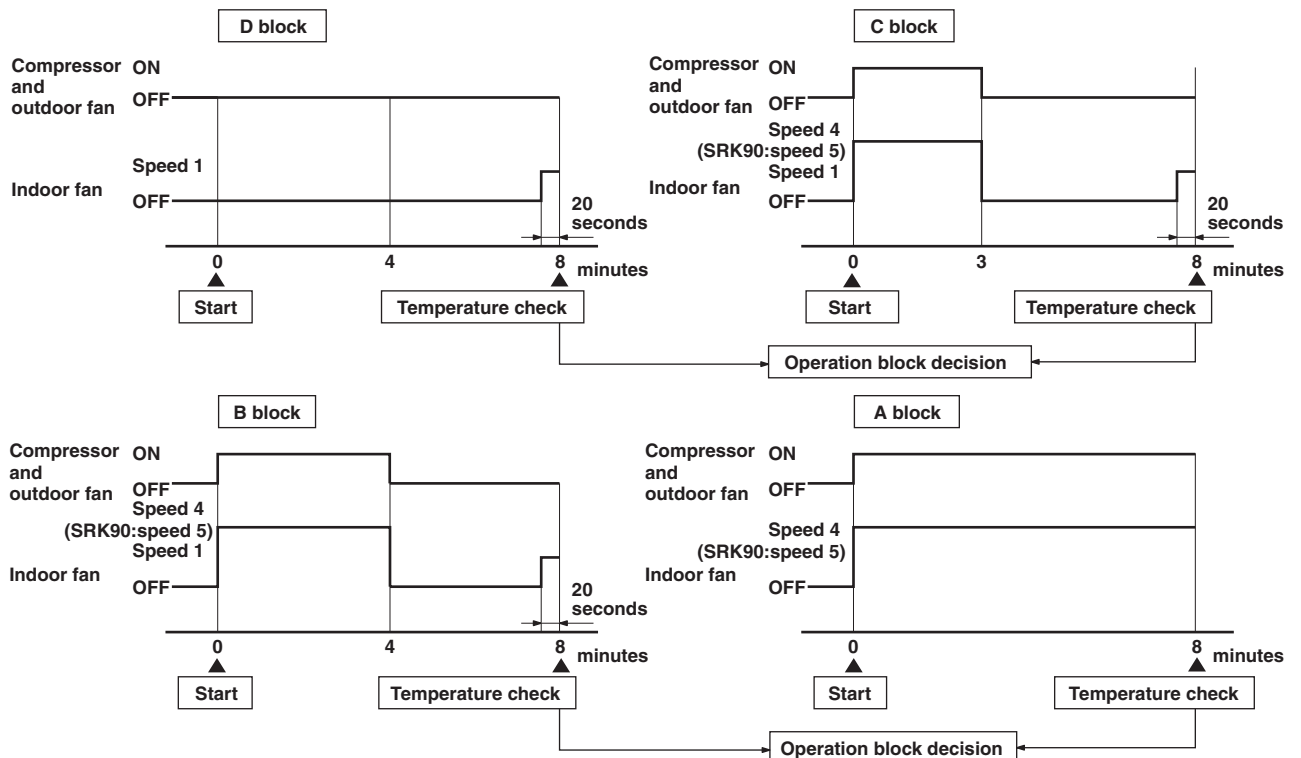


Note (1) Thermostat operation is performed in A, B block. When compressor and indoor fan stop by thermostat operation within 12 minutes from start, temperature check is performed by operating indoor fan at speed 1 for 20 seconds before finishing 12 minutes and allowing decision of next operation block.

(c) Dehumidifying operation

After finishing start up operation described in (b) above, dehumidifying operation is performed at 8 minutes intervals, according to the difference between room temperature and thermostat setting temperature as shown below.

Beside, 1 cycle of this operating time consists of 8 minutes, 7 cycle operation is performed then.



(d) ECONOMY operation

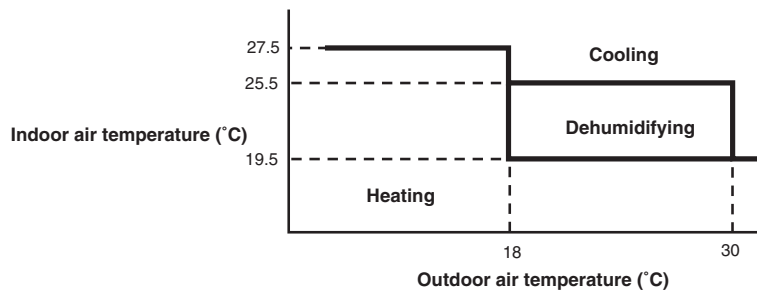
The set temperature changes as shown at right, and the indoor fan speed is set on speed 4 (SRK90:5).

Running time	Set temperature compensation
Running start - 1 hour	Set temperature +0.5
1-2 hours	Set temperature +1.0
2 hours -	Set temperature +1.5

(12) Outline of automatic operation

(a) Determination of operation mode

The unit checks the indoor air temperature and the outdoor air temperature, determines the operation mode, and then begins in the automatic operation.



- (b) The unit checks the temperature every 30 minutes after the start of operation and, if the result of check is not same as the previous operation mode, changes the operation mode.
- (c) When the unit is started again within 30 minutes after the stop of automatic operation or when the automatic operation is selected during heating, cooling or dehumidifying operation, the unit is operated in the previous operation mode.
- (d) Setting temperature can be adjusted within the following range. There is the relationship as shown below between the signals of the wireless remote control and the setting temperature.

		Signals of wireless remote control (Display)												
		-6	-5	-4	-3	-2	-1	±0	+1	+2	+3	+4	+5	+6
Setting temperature	Cooling	18	19	20	21	22	23	24	25	26	27	28	29	30
	Dehumidifying	18	19	20	21	22	23	24	25	26	27	28	29	30
	Heating	18	19	20	21	22	23	24	25	26	27	28	29	30

(13) Set temperature selection

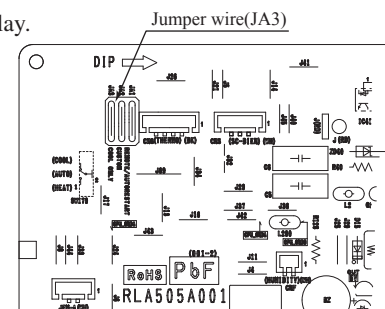
If jumper wire JA3 (COOL ONLY) on the indoor unit's printed circuit board is modified, the unit can lower the set temperature 2°C lower than the set temperature in the wireless remote control's display.

(a) Modifying the indoor unit's printed circuit board

Take out printed circuit board from the control box and cut jumper wire (JA3) using wire cutters.

After cutting of the jumper wire, take measures to prevent contact with the other the lead wires, etc.

- (b) Setting temperature can be adjusted within the following range. There is the relationship as shown below between the signals of the wireless remote control and the setting temperature.



Signals of wireless remote control (Display)	AUTO	-6	-5	-4	-3	-2	-1	+0	+1	+2	+3	+4	+5	+6
	COOL, DRY, HEAT	18	19	20	21	22	23	24	25	26	27	28	29	30
Setting temperature (JA3 shortcircuit)		18	19	20	21	22	23	24	25	26	27	28	29	30
Setting temperature (JA3 release)		16	17	18	19	20	21	22	23	24	25	26	27	28

(14) Outline of fan operation

(a) Operation of major functional components

Fan speed switching	HIGH POWER	AUTO	HIGH	MED	LOW	ECONO
Functional components						
52C	OFF					
Indoor fan motor	Speed 9	Speed 8	Speed 8	Speed 6	Speed 4	Speed 2
Outdoor fan motor	OFF					
Flap and louver	Depend on the flap and louver control					

(b) HIGH POWER operation

The following operation is performed for 15 minutes without relation to the set temperature or fan speed setting.

Indoor fan motor	Speed 9 fixed
Outdoor fan motor	OFF
Compressor	OFF

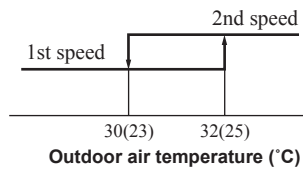
Note (1) Protective functions will actuate with priority even during the HIGH POWER operation.

(15) Regulation of outdoor air flow

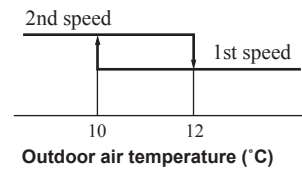
The fan operates as follows according to the outdoor air temperature.

◆ **SRK52, 71HSBP-S**

Cooling, Dehumidifying



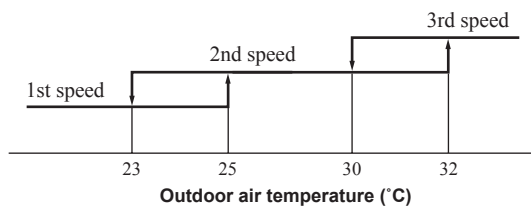
Heating



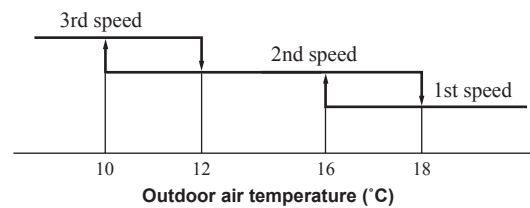
Note(1) Values in () are for the model SRK71.

◆ **SRK90HSBP-S**

Cooling, Dehumidifying



Heating



(16) Protective control function

(a) Frost prevention for indoor heat exchanger (During cooling or dehumidifying)

(i) Operating conditions

- 1) Indoor heat exchanger temperature (Th2) is lower than 2.5°C.
- 2) 3 minutes elapsed after the start of operation.

(ii) Detail of frost prevention operation

Compressor	OFF
Indoor fan motor	Protects the fan tap just before frost prevention control.
Outdoor fan motor	OFF

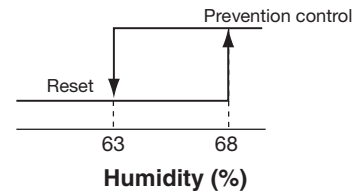
- (iii) Reset condition:** Indoor heat exchanger temperature (Th2) is higher than 15°C.

(b) Dew condensation prevention control [Cooling (including auto), cooling oriented dehumidifying operation]

(i) Operating condition

When the following conditions are satisfied after 5 minutes or more of continuous operation after operation starts.

- 1) The humidity sensor (Th3) value is 68% or higher
- 2) The compressor command speed is other than 0rps.



(ii) Operation contents

- 1) Command of the electronic expansion valve.
- 2) When such a command is continued for 30 minutes or more, air direction controls will be as listed below:

UP/ DOWN air flow	Flap swing	Executes the command to the left.
	Situations besides the ones described above	Controls the level of the UP/DOWN flap.
LEFT/ RIGHT air flow	Louver swing	Executes the command to the left.
	Situations besides the ones described above	Controls the front of the LEFT/RIGHT louver .

(iii) Reset condition: When the following condition is satisfied.

- 1) The humidity sensor (Th3) value is less than 63%.
- 2) The compressor command speed is 0rps.

(c) High-pressure control

(i) Cooling

The outdoor heat exchanger temperature sensor detection temperature controls the compressor.



Outdoor heat exchanger temperature (°C)

	A	B
Outdoor air temperature < 45°C	59 (57)	62 (60)
Outdoor air temperature ≥ 45°C	62	65

Note (1) Values in () are for the models SRK71, 90.

(ii) Heating

1) Indoor unit

The compressor stops if the heat exchanger sensor temperature (Th2) rises to 55°C or higher. It turns ON if the temperature (Th2) drops lower than 45°C.

2) Outdoor unit

If the heat exchanger sensor temperature (Th2) becomes lower than 50°C while the compressor is running, the outdoor fan speed drops by one step.

(d) Indoor fan motor protection

When the air-conditioner is operating and the indoor fan motor is turned ON, if the indoor fan motor has operated at 300 min⁻¹ or under for more than 30 seconds, the unit enters first in the stop mode and then stops the entire system.

(RUN light : 6-time flash, TIME light : ON)

(e) 3 minutes forced operation

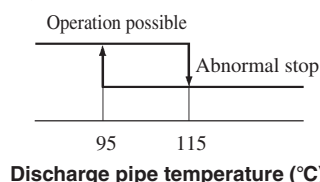
When the compressor begins operating the thermal operation is not effective for 3 minutes, so operation continues as is in the operation mode. (After 3 minutes has passed the thermal operation is effective.)

However, stopping the compressor via a stop signal or protection control has priority.

(f) Compressor overheat protection

If the discharge pipe temperature (TH3) exceeds the set temperature value, the compressor stops. If the temperature is 95°C or lower after a 3 minute delay , it starts again, but if this function is reactivated again within 60 minutes, it results in an abnormal stop.

(RUN light : ON, TIMER light : 5-time flash)



(g) Serial signal transmission error protection

(i) **Purpose:** Prevents malfunction resulting from error on the indoor ↔ outdoor signals.

(ii) Detail of operation

- 1) If the compressor is operating and a serial signal cannot be received from the indoor control with outdoor control having serial signals continuously for 7 minute and 35 seconds, the compressor is stopped.
- 2) After the compressor has been stopped, it will be restarted after the compressor start delay if a serial signal can be received again from the indoor control. (RUN light: ON, TIMER light: 6-time flash)

(h) Sensor disconnection (room temperature, indoor heat exchanger, outdoor heat exchanger, outdoor temperature, discharge pipe)**(i) Room temperature sensor**

If the temperature detected by the room temperature sensor is -45°C or lower continuously for 15 seconds or longer while operation is stopped, an error indication is displayed. (RUN light: 2-time flash, TIMER light: ON)

(ii) Indoor heat exchanger temperature sensor

If the temperature detected by the indoor heat exchanger temperature sensor is -28°C or lower continuously for 15 seconds or longer while operation is stopped, an error indication is displayed.

(RUN light : 1-time flash, TIMER light : ON)

(iii) Outdoor heat exchanger temperature sensor

-25°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. (RUN light : keeps flashing, TIMER light : 2-time flash)

(iv) Outdoor air temperature sensor

-55°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. Or -55°C or higher is detected for within 20 seconds after power ON.

(RUN light : keeps flashing, TIMER light : 1-time flash)

(v) Discharge pipe temperature sensor

-25°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. (RUN light : keeps flashing, TIMER light : 4-time flash)

(i) Refrigeration cycle system protection

If the following conditions are met while the compressor is turned ON, the compressor stops abnormally.

(RUN light: 7-time flash, TIMER light: ON)

(i) Cooling

When the indoor heat exchanger sensor temperature (Th_2) continues to be 25°C or higher for 40 minutes

(ii) Heating

When the indoor heat exchanger sensor temperature (Th_2) continues to be lower than 5°C for 10 minutes or it stays continuously in the range from 5°C to 30°C for 40 minutes

10. MAINTENANCE DATA

(1) Cautions

- (a) If you are disassembling and checking an air-conditioner, be sure to turn off the power before beginning. When working on indoor units, let the unit sit for about 1 minute after turning off the power before you begin work. When working on an outdoor unit, there may be an electrical charge applied to the main circuit (electrolytic condenser), so begin work only after discharging this electrical charge (to DC 10V or lower).
- (b) When taking out printed circuit boards, be sure to do so without exerting force on the circuit boards or package components.
- (c) When disconnecting and connecting connectors, take hold of the connector housing and do not pull on the lead wires.

(2) Items to check before troubleshooting

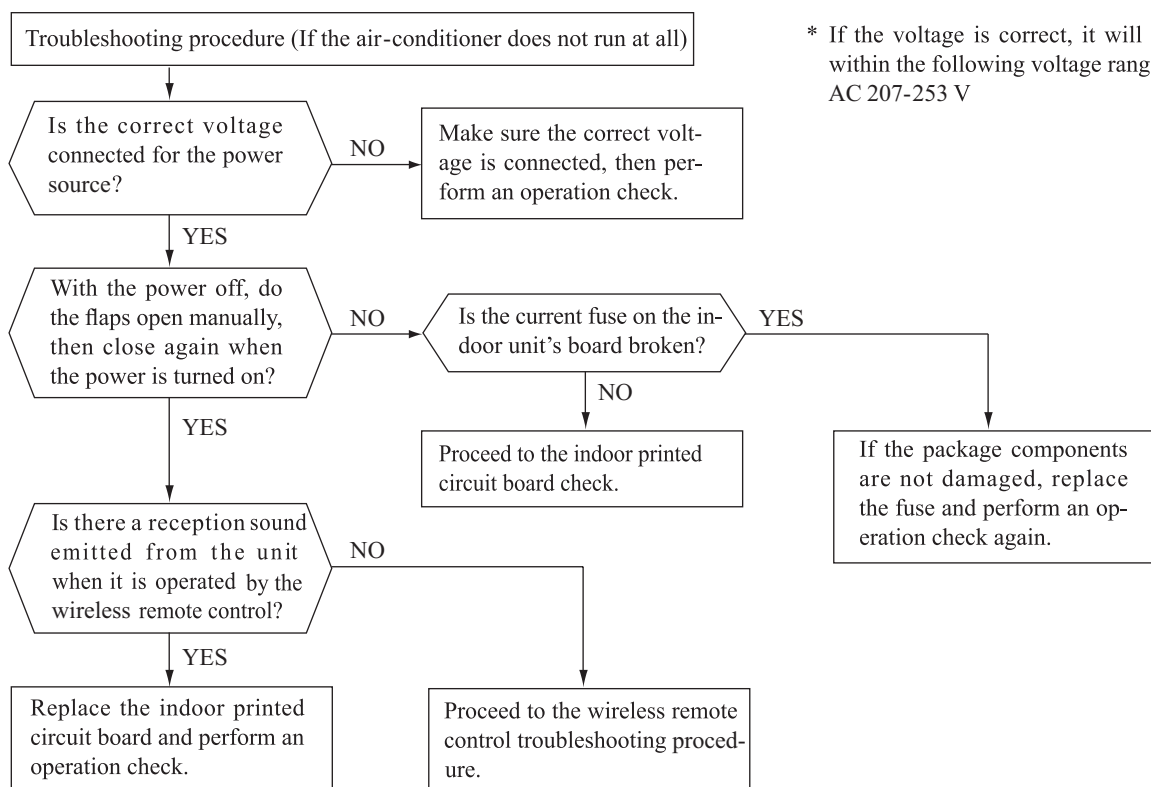
- (a) Have you thoroughly investigated the details of the trouble which the customer is complaining about?
- (b) Is the air-conditioner running? Is it displaying any self-diagnosis information?
- (c) Is a power source with the correct voltage connected?
- (d) Are the control lines connecting the indoor and outdoor units wired correctly and connected securely?
- (e) Is the outdoor unit's service valve open?

(3) Troubleshooting procedure (If the air-conditioner does not run at all)

If the air-conditioner does not run at all, diagnose the trouble using the following troubleshooting procedure. If the air-conditioner is running but breaks down, proceed to troubleshooting step (4).

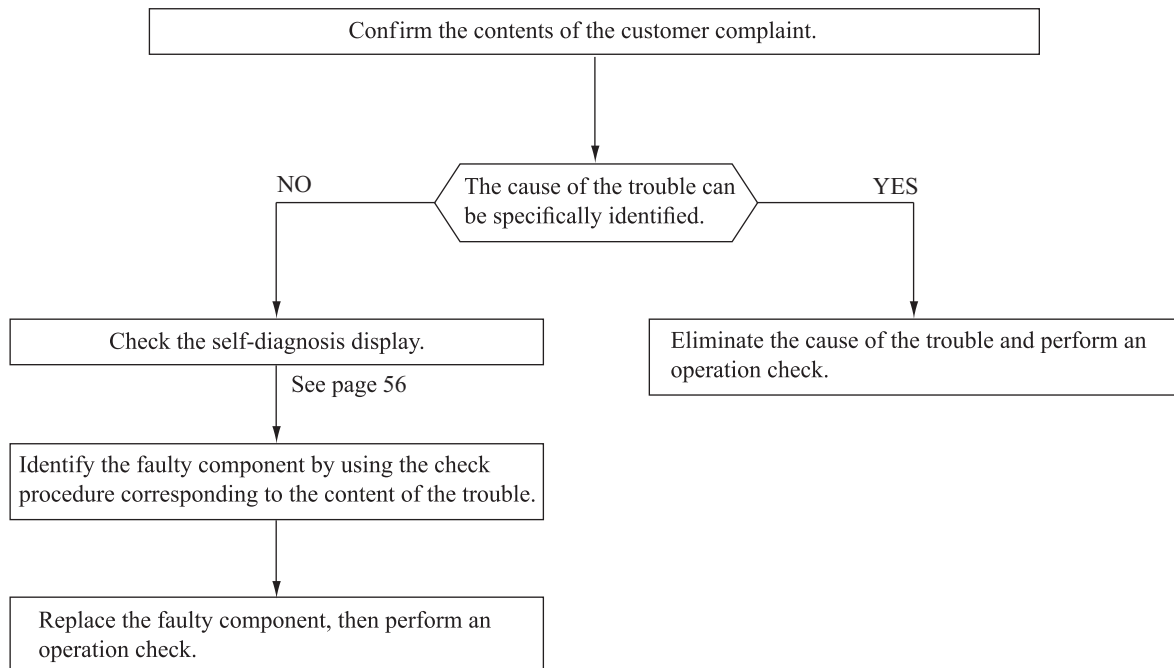
Important When all the following conditions are satisfied, we say that the air-conditioner will not run at all.

- (a) The RUN light does not light up.
- (b) The flaps do not open.
- (c) The indoor unit fan motors do not run.
- (d) The self-diagnosis display does not function.



* If the voltage is correct, it will be within the following voltage range. AC 207-253 V

(4) Troubleshooting procedure (If the air-conditioner runs)



Note (1) Even in cases where only intermittent stop data are generated, the air-conditioning system is normal. However, if the same protective operation recurs repeatedly (3 or more times), it will lead to customer complaints. Judge the conditions in comparison with the contents of the complaints.

(5) Self-diagnosis table

When this air-conditioner performs an emergency stop, the reason why the emergency stop occurred is displayed by the flashing of display lights. If the air-conditioner is operated using the remote control 3 minutes or more after the emergency stop, the trouble display stops and the air-conditioner resumes operation. ⁽¹⁾

Indoor unit display panel		Wired remote control display ⁽²⁾	Description of trouble	Cause	Display (flashing) condition
RUN light	TIMER light	control display			
1-time flash	ON	—	Heat exchanger sensor 1 error	<ul style="list-style-type: none"> • Broken heat exchanger sensor 1 wire, poor connector connection • Indoor PCB is faulty 	When a heat exchanger sensor 1 wire disconnection is detected while operation is stopped. (If a temperature of -28°C or lower is detected for 15 seconds, it is judged that the wire is disconnected.) (Not displayed during operation.)
2-time flash	ON	—	Room temperature sensor error	<ul style="list-style-type: none"> • Broken room temperature sensor wire, poor connector connection • Indoor PCB is faulty 	When a room temperature sensor wire disconnection is detected while operation is stopped. (If a temperature of -45°C or lower is detected for 15 seconds, it is judged that the wire is disconnected.) (Not displayed during operation.)
6-time flash	ON	E 16	Indoor fan motor error	<ul style="list-style-type: none"> • Defective fan motor, poor connector connection 	When conditions for turning the indoor unit's fan motor on exist during air-conditioner operation, an indoor unit fan motor speed of 300 min ⁻¹ or lower is measured for 30 seconds or longer. (The air-conditioner stops.)
7-time flash	ON	E 57	Refrigeration cycle system protection	<ul style="list-style-type: none"> • Service valve is closed • Refrigerant is insufficient • Broke heat exchanger sensor wire, poor connector connection 	When refrigerant cycle system protection control operates.
Keeps flashing	1-time flash	E 38	Outdoor air temperature sensor error	<ul style="list-style-type: none"> • Broken outdoor air temp. sensor wire, poor connector connection • Outdoor PCB is faulty 	-25°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. Or -25°C or lower is detected for within 20 seconds after power ON. (The compressor is stopped.)
Keeps flashing	2-time flash	E 37	Outdoor heat exchanger sensor error	<ul style="list-style-type: none"> • Broken heat exchanger sensor wire, poor connector connection • Outdoor PCB is faulty 	-55°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. Or -55°C or lower is detected for within 20 seconds after power ON. (The compressor is stopped.)
Keeps flashing	4-time flash	E 39	Discharge pipe sensor error	<ul style="list-style-type: none"> • Broken discharge pipe sensor wire, poor connector connection • Outdoor PCB is faulty 	-25°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. (The compressor is stopped.)
ON	2-time flash	E 59	Trouble of outdoor unit	<ul style="list-style-type: none"> • Broken compressor wire • Compressor blockage 	When there is an emergency stop caused by trouble in the outdoor unit. (The air-conditioner stops.)
ON	5-time flash	E 36	Over heat of compressor	<ul style="list-style-type: none"> • Gas shortage, defective discharge pipe sensor, service valve is closed 	When the value of the discharge pipe sensor exceeds the set value. (The air-conditioner stops.)
ON	6-time flash	E 5	Error of signal transmission	<ul style="list-style-type: none"> • Defective power source, Broken signal wire, defective indoor/outdoor PCB 	When there is no signal between the indoor PCB and outdoor PCB for 10 seconds or longer (when the power is turned on), or when there is no signal for 7 minute 35 seconds or longer (during operation) (the compressor is stopped).
—	—	E 1	Error of wired remote control wiring	<ul style="list-style-type: none"> • Broken wired remote control wire, defective indoor PCB 	The wired remote control wire Y is open. The wired remote control wires X and Y are reversely connected. Noise is penetrating the wired remote control lines. The wired remote control or indoor PCB is faulty. (The communications circuit is faulty.)

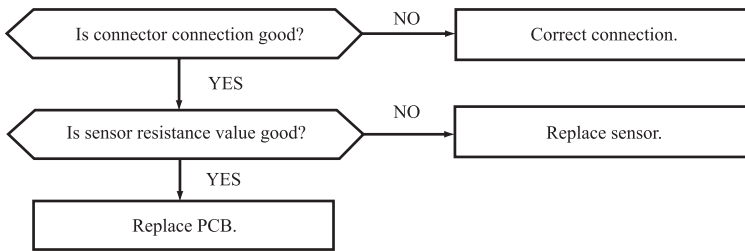
Notes (1)The air-conditioner cannot be restarted using the remote control for 3 minutes after operation stops.

(2)The wired remote control is option parts.

(6) Inspection procedures corresponding to detail of trouble

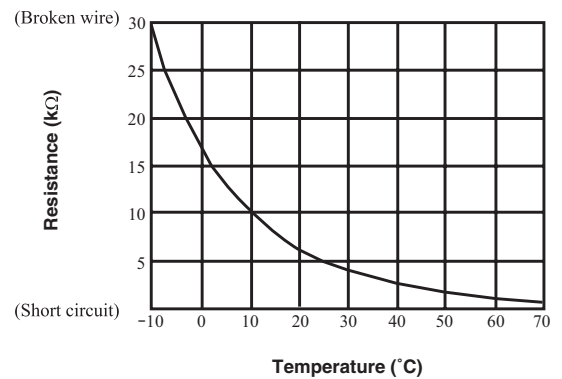
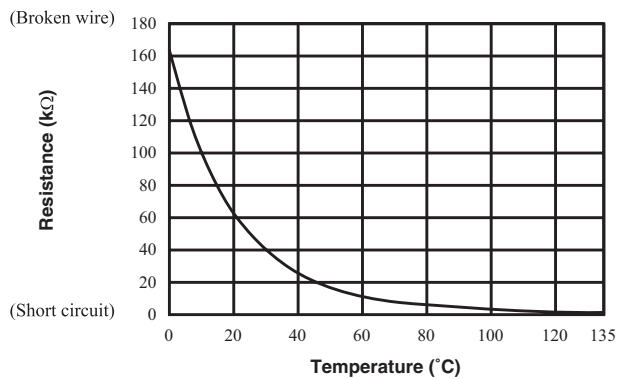
Sensor error

[Broken sensor wire, connector poor connection]



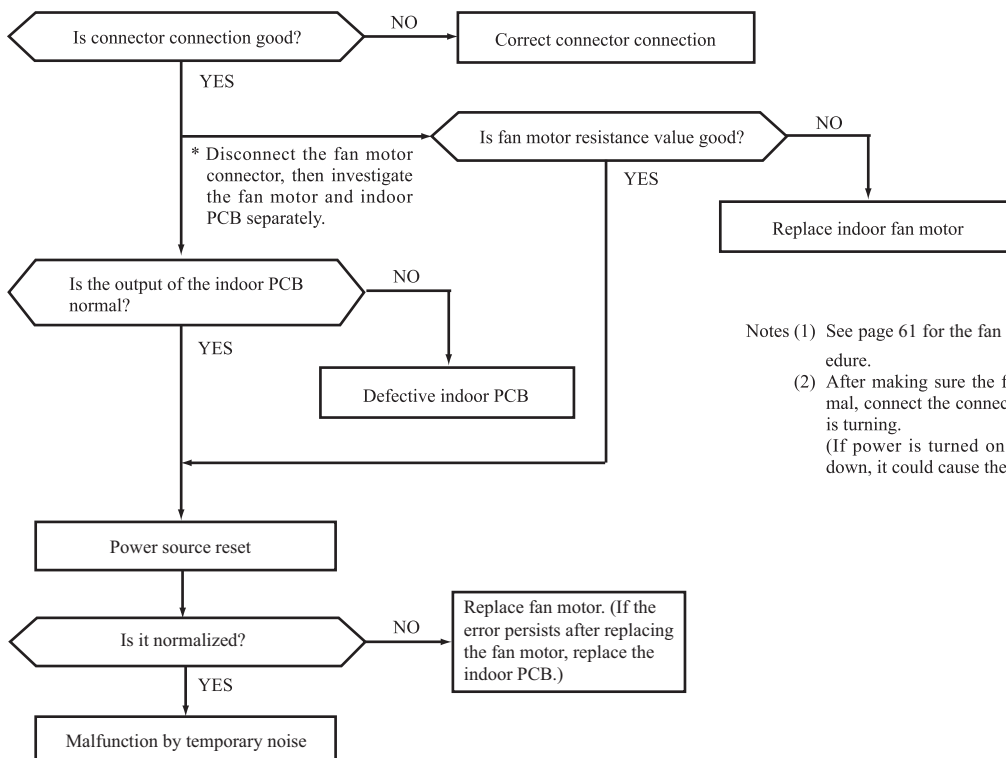
◆ Discharge pipe sensor temperature characteristics, outdoor heat exchanger temp.

◆ Sensor temperature characteristics (Room temp., indoor heat exchanger temp., outdoor air temp.)



Indoor fan motor error

[Defective fan motor, connector poor connection, defective indoor PCB]



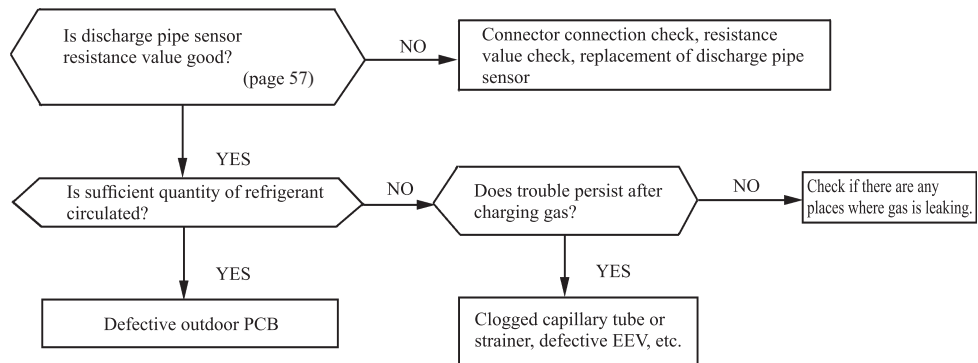
Notes (1) See page 61 for the fan motor and indoor PCB check procedure.

(2) After making sure the fan motor and indoor PCB are normal, connect the connectors and confirm that the fan motor is turning.

(If power is turned on while one or the other is broken down, it could cause the other to break down also.)

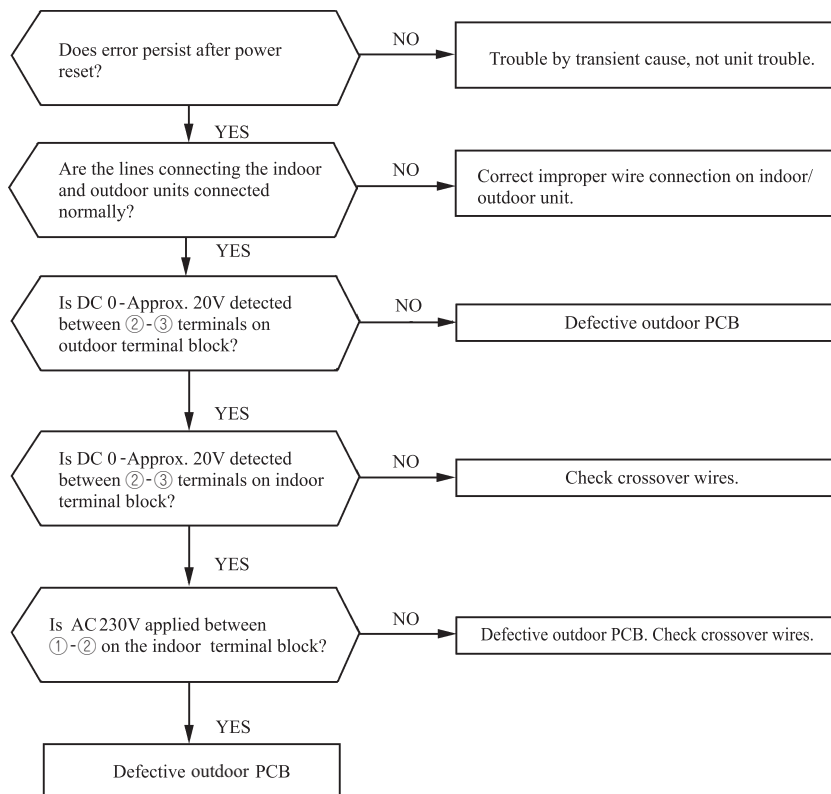
Over heat of compressor

[Gas shortage, defective discharge pipe sensor]



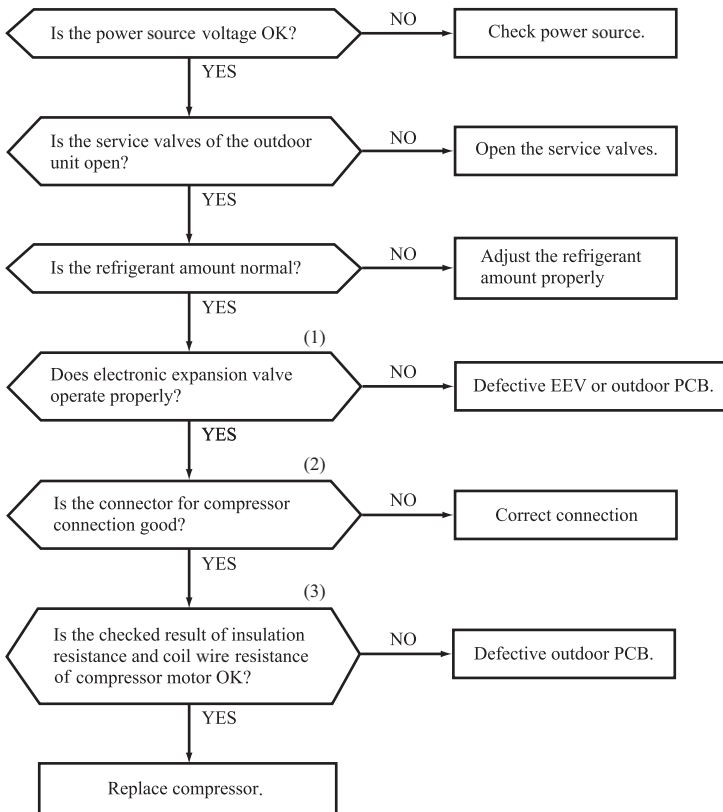
Error of signal transmission

[Wiring error including power cable, defective indoor/ outdoor PCB]



Trouble of outdoor unit

[Insufficient refrigerant amount, Faulty power transistor, Broken compressor wire]
 [Service valve close, Defective EEV, Defective outdoor PCB]



Proper power source voltages are as follows.
 (At the power source outlet)
 AC 230V : AC 207-253V

◆ Judgment of refrigerant quantity
 (1) Phenomenon of insufficient refrigerant
 (a) Loss of capacity

Note (1) For inspection of electronic expansion valve, see page 66.

(7) Phenomenon observed after shortcircuit, wire breakage on sensor

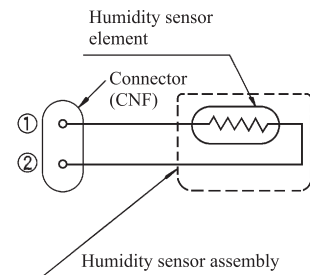
(a) Indoor unit

Sensor	Operation mode	Phenomenon	
		Shortcircuit	Disconnected wire
Room temperature sensor	Cooling	Release of continuous compressor operation command.	Continuous compressor operation command is not released.
	Heating	Continuous compressor operation command is not released.	Release of continuous compressor operation command.
Heat exchanger sensor	Cooling	System can be operated normally. But after 40 minutes compressor stop by refrigerant cycle system protection	Continuous compressor operation command is not released. (Anti-frosting)
	Heating	High pressure control mode (Compressor stop command)	Hot keep (Indoor fan control)
Humidity sensor	Cooling	Refer to the table below.	Refer to the table below.
	Heating	Normal system operation is possible.	

■ Humidity sensor operation

Failure mode	Control input circuit reading	Air-conditioning system operation
Disconnected wire	① Disconnected wire	Humidity reading is 0%
	② Disconnected wire	
	①② Disconnected wire	
Short Circuit	① and ② are short circuited	Humidity reading is 100%

Remark: Do not perform a continuity check of the humidity sensor with a tester. If DC current is applied, it could damage the sensor.

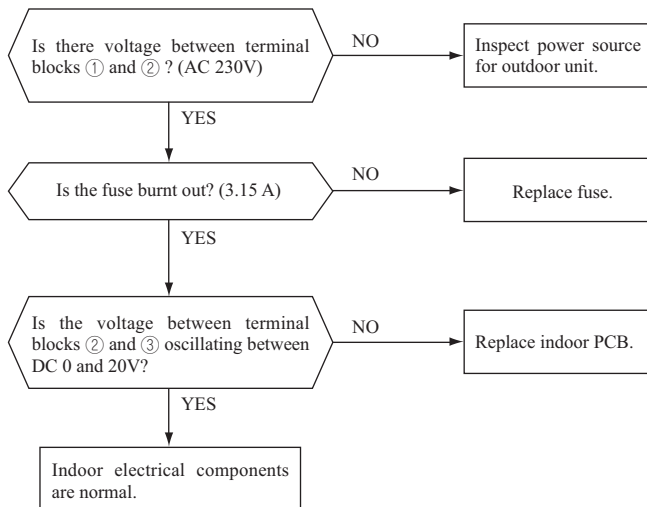


(b) Outdoor unit

Sensor	Operation mode	Phenomenon	
		Shortcircuit	Disconnected wire
Heat exchanger sensor	Cooling	Compressor stop by high pressure control.	Compressor stop.
	Heating	Defrost operation is not performed.	Defrost operation is performed for 10 minutes at approx.45 minutes.
Outdoor air temperature sensor	Cooling	System can be operated normally.	Compressor stop.
	Heating	Defrost operation is not operated.	Defrost operation is performed for 10 minutes at approx.45 minutes.
Discharge pipe sensor	All modes	Compressor stops by compressor overheat protection.	Compressor stop.

(8) Checking the indoor electrical equipment

(a) Indoor PCB check procedure



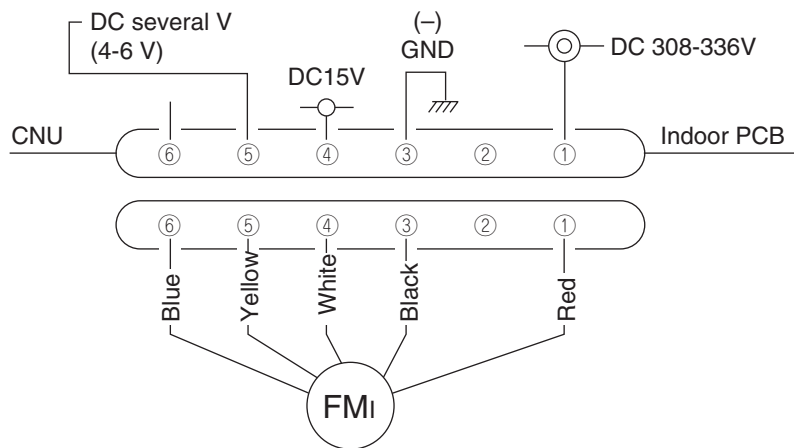
(b) Indoor unit fan motor check procedure

This is a diagnostic procedure for determining if the indoor unit’s fan motor or the indoor PCB is broken down.

1) Indoor PCB output check

- a) Turn off the power.
- b) Remove the front panel, then disconnect the fan motor lead wire connector.
- c) Turn on the power. If the unit operates when the ON/OFF button is pressed, if trouble is detected after the voltages in the following figure are output for approximately 30 seconds, it means that the indoor PCB is normal and the fan motor is broken down.

If the voltages in the following figure are not output at connector pins No. ①, ④ and ⑤, the indoor PCB has failed and the fan motor is normal.



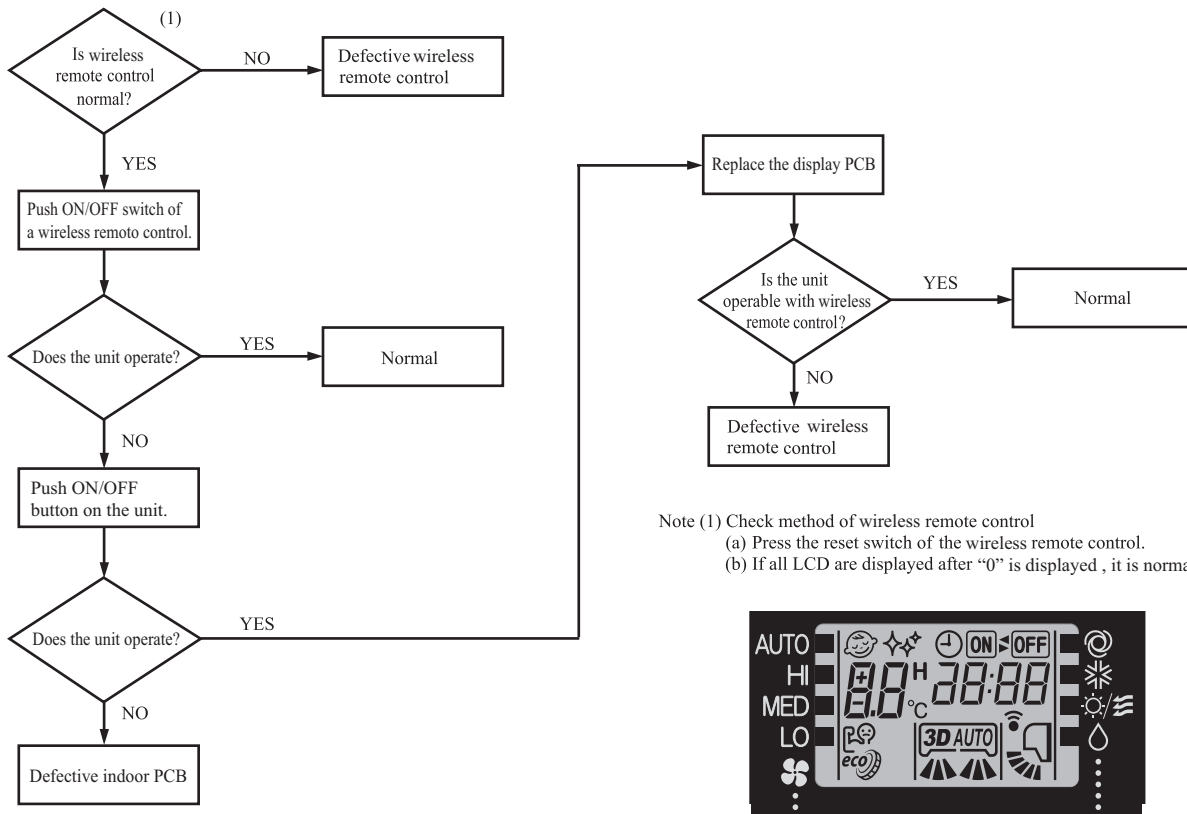
Measuring point	Resistance when normal
① - ③	DC 308-336V
④ - ③	DC 15V
⑤ - ③	DC several V (4-6V)

2) Fan motor resistance check

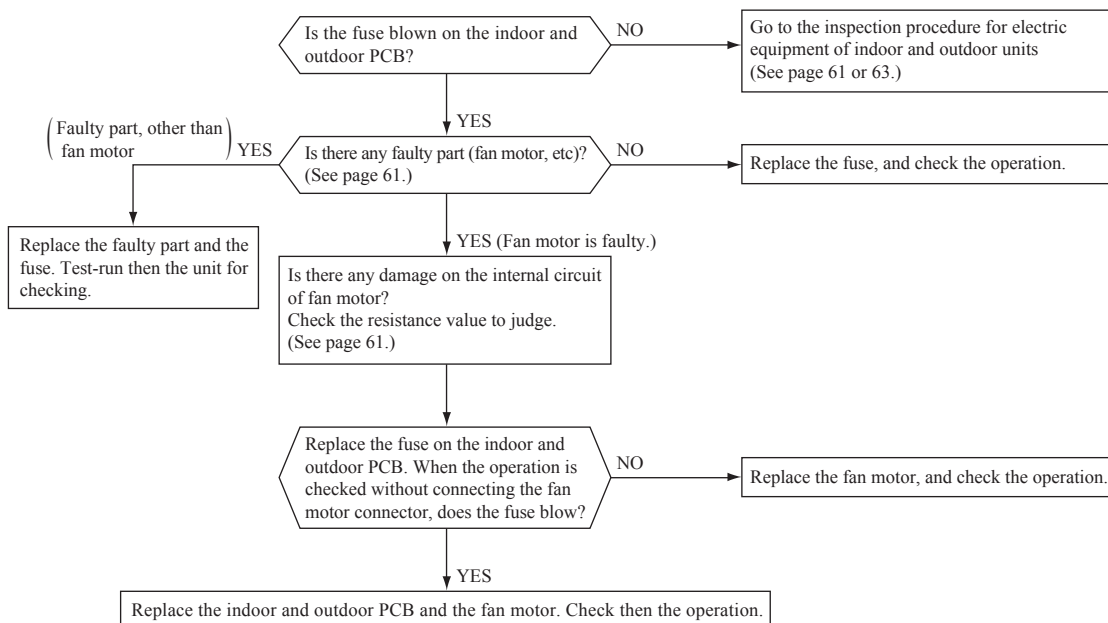
Measuring point	Resistance when normal
① - ③ (Red - Black)	20 MΩ or higher
④ - ③ (White - Black)	20 kΩ or higher

- Notes (1) Remove the fan motor and measure it without power connected to it.
 (2) If the measured value is below the value when the motor is normal, it means that the fan motor is faulty.

(9) How to make sure of wireless remote control



(10) Inspection procedure for blown fuse on the indoor and outdoor PCB



◆ Check point of outdoor unit

⚠ CAUTION- HIGH VOLTAGE

High voltage is produced in the control box. Don't touch electrical parts in the control box for 5 minutes after the unit is stopped.

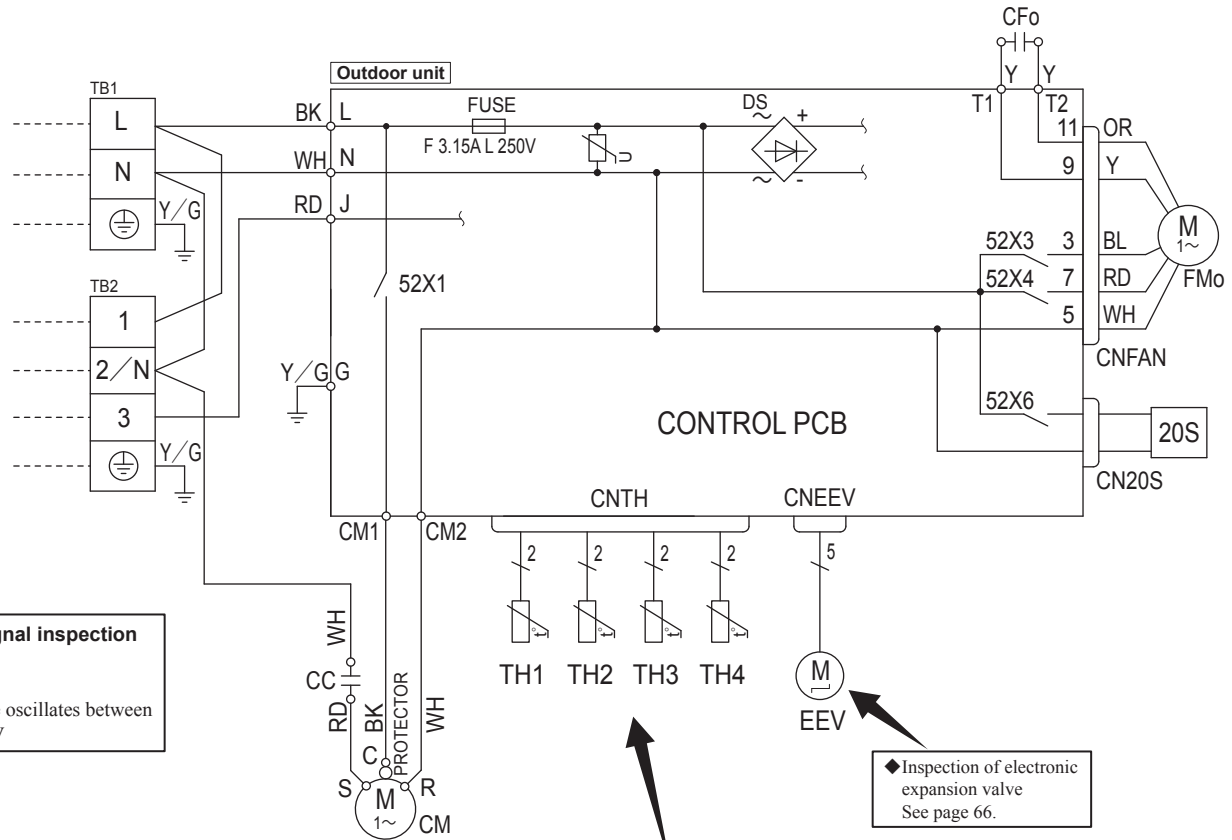
Color Marks

Mark	Color
BK	Black
BL	Blue
RD	Red
WH	White
OR	Orange
Y	Yellow
Y/G	Yellow/Green

Power source
1 Phase
230V 60Hz

◆ Power source and serial signal inspection

- ① to ② : AC 230V
- ① to ②N : AC 230V
- ②N to ③ : Normal if the voltage oscillates between DC 0 and approx. 20V



◆ Inspection of resistance value of sensor
Remove the connector and check the resistance value.
See the section of sensor characteristics on page 57.

◆ Inspection of electronic expansion valve
See page 66.

◆ Check point of outdoor unit

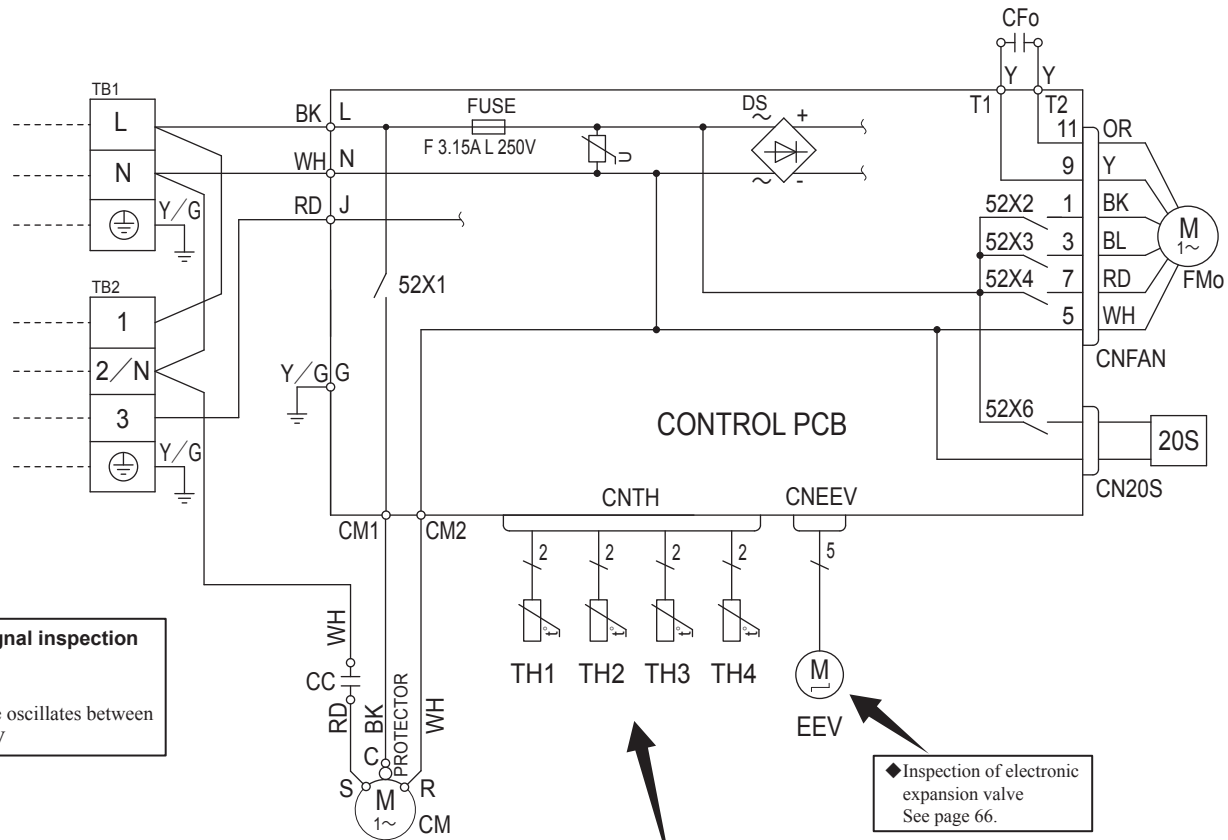
⚠ CAUTION- HIGH VOLTAGE
 High voltage is produced in the control box. Don't touch electrical parts in the control box for 5 minutes after the unit is stopped.

Color Marks

Mark	Color
BK	Black
BL	Blue
RD	Red
WH	White
OR	Orange
Y	Yellow
Y/G	Yellow/Green

Power source
 1 Phase
 230V 60Hz

◆ Power source and serial signal inspection
 ① to ② : AC 230V
 ① to ②(N) : AC 230V
 ②(N) to ③ : Normal if the voltage oscillates between DC 0 and approx. 20V



◆ Inspection of resistance value of sensor
 Remove the connector and check the resistance value.
 See the section of sensor characteristics on page 57.

◆ Inspection of electronic expansion valve
 See page 66.

◆ Check point of outdoor unit

⚠ CAUTION- HIGH VOLTAGE

High voltage is produced in the control box. Don't touch electrical parts in the control box for 5 minutes after the unit is stopped.

Color Marks

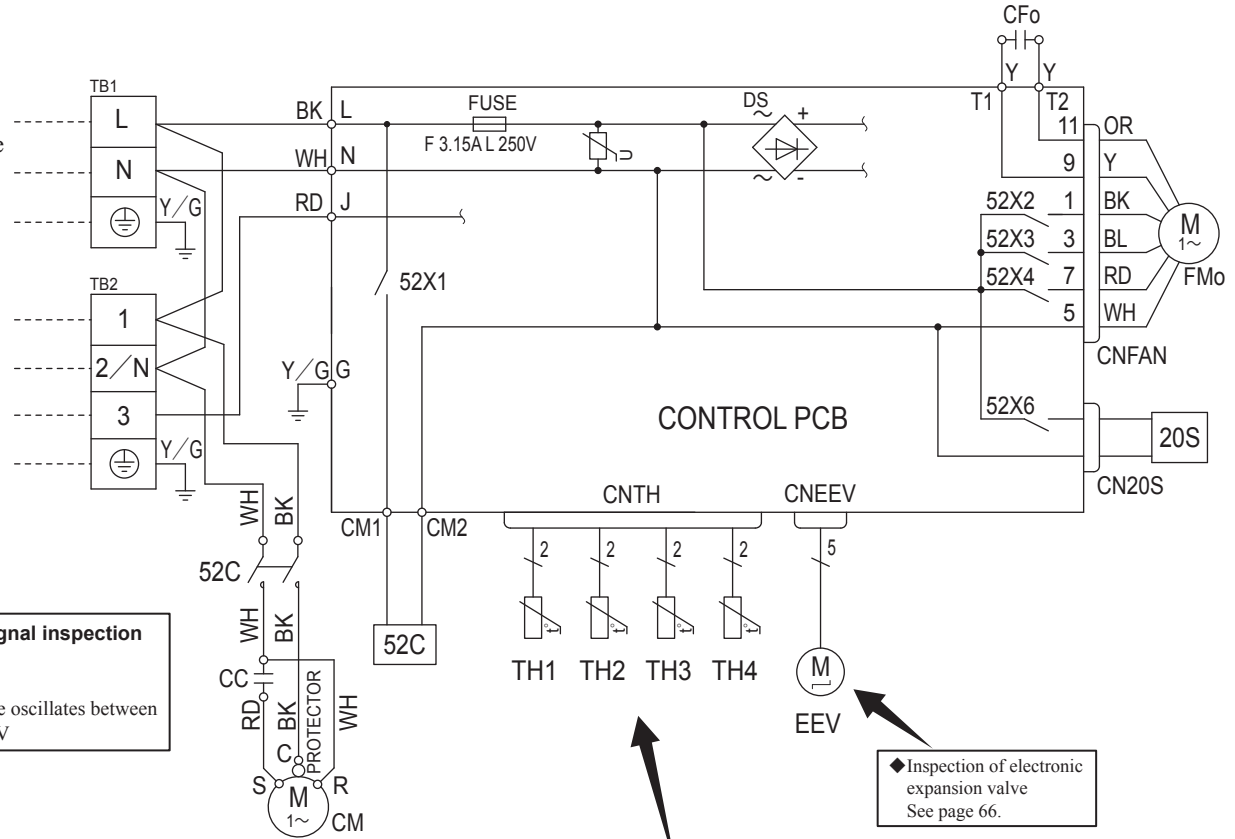
Mark	Color
BK	Black
BL	Blue
RD	Red
WH	White
OR	Orange
Y	Yellow
Y/G	Yellow/Green

Power source
1 Phase
230V 60Hz

Indoor
unit

◆ Power source and serial signal inspection

- ① to ② : AC 230V
- ① to ②N : AC 230V
- ②N to ③ : Normal if the voltage oscillates between DC 0 and approx. 20V



◆ Inspection of electronic expansion valve
See page 66.

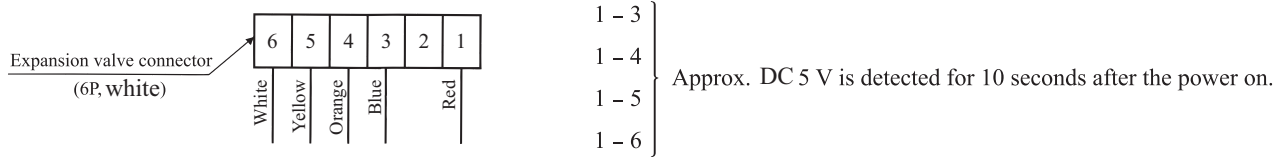
◆ Inspection of resistance value of sensor
Remove the connector and check the resistance value.
See the section of sensor characteristics on page 57.

Model SRC90HSBP-S

(a) Inspection of electronic expansion valve

Electronic expansion valve operates for approx. 10 seconds after the power on, in order to determine its aperture. Check the operating sound and voltage during the period of time. (Voltage cannot be checked during operation in which only the aperture change occurs.)

- (i) If it is heard the sound of operating electronic expansion valve, it is almost normal.
- (ii) If the operating sound is not heard, check the output voltage.



- (iii) If voltage is detected, the outdoor PCB is normal.
- (iv) If the expansion valve does not operate (no operating sound) while voltage is detected, the expansion valve is defective.

• Inspection of electronic expansion valve as a separate unit

Measure the resistance between terminals with an analog tester.

Measuring point	Resistance when normal
1-6	46 ± 4Ω (at 20°C)
1-5	
1-4	
1-3	



11. OPTION PARTS

PJA012D730



(1) Wired remote control (RC-E5)

Read together with indoor unit's installation manual.

⚠ WARNING

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.
Loose connection or hold will cause abnormal heat generation or fire. 
- Make sure the power source is turned off when electric wiring work.
Otherwise, electric shock, malfunction and improper running may occur. 

⚠ CAUTION

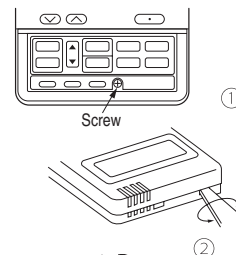
- DO NOT install the remote control at the following places in order to avoid malfunction. 
 - (1) Places exposed to direct sunlight
 - (2) Places near heat devices
 - (3) High humidity places
 - (4) Hot surface or cold surface enough to generate condensation
 - (5) Places exposed to oil mist or steam directly
 - (6) Uneven surface
- DO NOT leave the remote control without the upper case. 

In case the upper case needs to be detached, protect the remote control with a packaging box or bag in order to keep it away from water and dust.

Accessories	Remote control, wood screw (ø3.5×16) 2 pieces
Prepare on site	Remote control cord (2 cores) the insulation thickness in 1mm or more. [In case of embedding cord] Electrical box, M4 screw (2 pieces) [In case of exposing cord] Cord clamp (if needed)

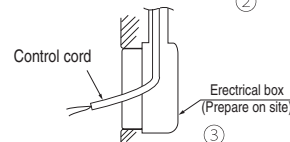
Installation procedure

- ① Open the cover of remote control, and remove the screw under the buttons without fail.
- ② Remove the upper case of remote control.
Insert a flat-blade screwdriver into the dented part of the upper part of the remote control, and wrench slightly.

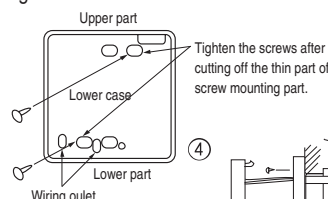
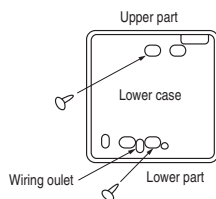


[In case of embedding cord]

- ③ Embed the electrical box and remote control cord beforehand.

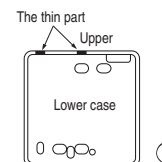
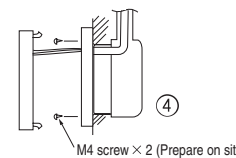


- ④ Prepare two M4 screws (recommended length is 12-16mm) on site, and install the lower case to electrical box. Choose either of the following two positions in fixing it with screws.



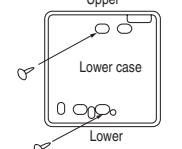
- ⑤ Connect the remote control cord to the terminal block.
Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)

- ⑥ Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.

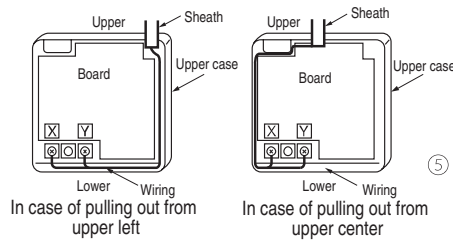


[In case of exposing cord]

- ③ You can pull out the remote control cord from left upper part or center upper part.
Cut off the upper thin part of remote control lower case with a nipper or knife, and grind burrs with a file etc.
- ④ Install the lower case to the flat wall with attached two wooden screws.

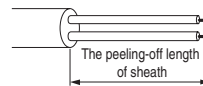


- ⑤ Connect the remote control cord to the terminal block.
Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y).
(X and Y are no polarity)
Wiring route is as shown in the right diagram depending on the pulling out direction.



The wiring inside the remote control case should be within 0.3mm² (recommended) to 0.5mm².
The sheath should be peeled off inside the remote control case.
The peeling-off length of each wire is as below.

Pulling out from upper left	Pulling out from upper center
X wiring : 215mm	X wiring : 170mm
Y wiring : 195mm	Y wiring : 190mm



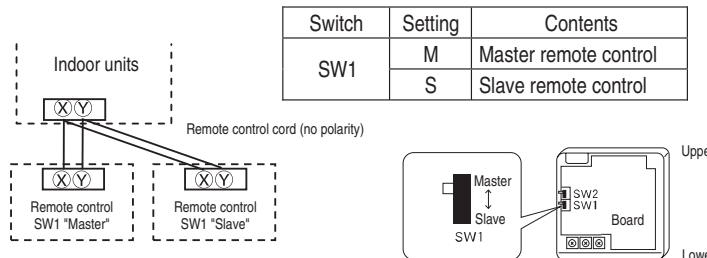
- ⑥ Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.
- ⑦ In case of exposing cord, fix the cord on the wall with cord clamp so as not to slack.

Installation and wiring of remote control

- ① Wiring of remote control should use 0.3mm² × 2 core wires or cables. (on-site configuration)
- ② Maximum prolongation of remote control wiring is 600 m.
If the prolongation is over 100m, change to the size below.
But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.
100 - 200m.....0.5mm² × 2 cores
Under 300m.....0.75mm² × 2 cores
Under 400m.....1.25mm² × 2 cores
Under 600m.....2.0mm² × 2 cores

Master/ slave setting when more than one remote controls are used

A maximum of two remote controls can be connected to one indoor unit (or one group of indoor units.)



Set SW1 to "Slave" for the slave remote control. It was factory set to "Master" for shipment.
Note: The setting "Remote control thermistor enabled" is only selectable with the master remote control in the position where you want to check room temperature.
The air-conditioner operation follows the last operation of the remote control regardless of the master/ slave setting of it.

The indication when power source is supplied

When power source is turned on, the following is displayed on the remote control until the communication between the remote control and indoor unit settled.

Master remote control : " WAIT " M
Slave remote control : " WAIT " S

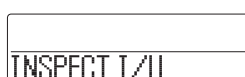
At the same time, a mark or a number will be displayed for two seconds first.
This is the software's administration number of the remote control, not an error cord.



※ The left mark is only an example. Other marks may appear.

When remote control cannot communicate with the indoor unit for half an hour, the below indication will appear.

Check wiring of the indoor unit and the outdoor unit etc.



The range of temperature setting

When shipped, the range of set temperature differs depending on the operation mode as below.

Heating : 16-30°C (55-86°F)

Except heating (cooling, fan, dry, automatic) : 18-30°C (62-86°F)

●Upper limit and lower limit of set temperature can be changed with remote control.

Upper limit setting: valid during heating operation. Possible to set in the range of 20 to 30°C (68 to 86°F).

Lower limit setting: valid except heating (automatic, cooling, fan, dry) Possible to set in the range of 18 to 26°C (62 to 79°F).

When you set upper and lower limit by this function, control as below.

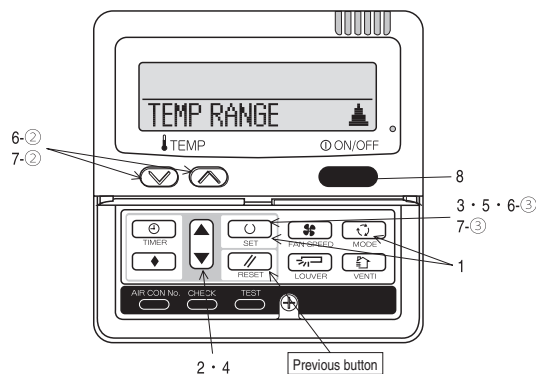
1. When ② TEMP RANGE SET, remote control function of function setting mode is "INDN CHANGE" (factory setting),
 【 If upper limit value is set 】
 During heating, you cannot set the value exceeding the upper limit.
 【 If lower limit value is set 】
 During operation mode except heating, you cannot set the value below the lower limit.
2. When ② TEMP RANGE SET, remote control function of function setting mode is "NO INDN CHANGE"
 【 If upper limit value is set 】
 During heating, even if the value exceeding the upper limit is set, upper limit value will be sent to the indoor unit.
 But, the indication is the same as the temperature set.
 【 If lower limit value is set 】
 During except heating, even if the value lower than the lower limit is set, lower limit value will be sent to the indoor unit.
 But, the indication is the same as the temperature set.

●How to set upper and lower limit value

1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for over three seconds .
 The indication changes to "FUNCTION SET ▼".
2. Press button once, and change to the "TEMP RANGE ▲" indication.
3. Press (SET) button, and enter the temperature range setting mode.
4. Select "UPPER LIMIT ▼" or "LOWER LIMIT ▲" by using button.
5. Press (SET) button to fix.
6. When "UPPER LIMIT ▼" is selected (valid during heating)
 - ① Indication: " √ ^ SET UP" → "UPPER 30°C √ ^"
 - ② Select the upper limit value with temperature setting button . Indication example: "UPPER 26°C √ ^" (blinking)
 - ③ Press (SET) button to fix. Indication example: "UPPER 26°C" (Displayed for two seconds)
 After the fixed upper limit value displayed for two seconds, the indication will return to "UPPER LIMIT ▼".
7. When "LOWER LIMIT ▲" is selected (valid during cooling, dry, fan, automatic)
 - ① Indication: " √ ^ SET UP" → "LOWER 18°C ^"
 - ② Select the lower limit value with temperature setting button . Indication example: "LOWER 24°C √ ^" (blinking)
 - ③ Press (SET) button to fix. Indication for example: "LOWER 24°C" (Displayed for two seconds)
 After the fixed lower limit value displayed for two seconds, the indication will return to "LOWER LIMIT ▼".
8. Press button to finish.

• It is possible to finish by pressing button on the way, but unfinished change of setting is unavailable.

• During setting, if you press (RESET) button, you return to the previous screen.



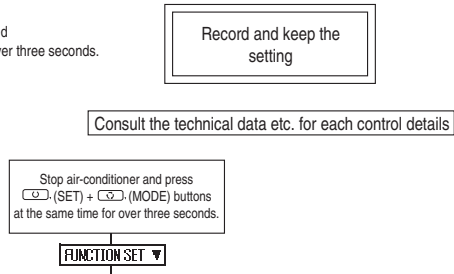
The functional setting

- The initial function setting for typical using is performed automatically by the indoor unit connected, when remote control and indoor unit are connected.
- As long as they are used in a typical manner, there will be no need to change the initial settings.
- If you would like to change the initial setting marked "○", set your desired setting as for the selected item.
- The procedure of functional setting is shown as the following diagram.

[Flow of function setting]

- Start : Stop air-conditioner and press "○" (SET) and "◀▶" (MODE) buttons at the same time for over three seconds.
- Finalize : Press "○" (SET) button.
- Reset : Press "↺" (RESET) button.
- Select : Press "▲▼" button.
- End : Press [ON/OFF] button.

It is possible to finish above setting on the way, and unfinished change of setting is unavailable.
 * ○ : Initial settings
 * ※ : Automatic criterion



Function	setting	
01 ESP SET	VALID ESP	○ Validate setting of ESP: External Static Pressure
	INVALID ESP	○ Invalidate setting of ESP
02 AUTO RUN SET	AUTO RUN ON	※ Automatic operation is impossible
	AUTO RUN OFF	※
03 TEMP SW	VALID	○ Temperature setting button is not working
	INVALID	○
04 MODE SW	VALID	○ Mode button is not working
	INVALID	○
05 ON/OFF SW	VALID	○ On/Off button is not working
	INVALID	○
06 FAN SPEED SW	VALID	※ Fan speed button is not working
	INVALID	※
07 LOUVER SW	VALID	※ Louver button is not working
	INVALID	※
08 TIMER SW	VALID	○ Timer button is not working
	INVALID	○
09 SENSOR SET	SENSOR OFF	○ Remote thermistor is not working.
	SENSOR ON	○ Remote thermistor is working.
	SENSOR +3.0℃	○ Remote thermistor is working, and to be set for producing +3.0℃ increase in temperature.
	SENSOR +2.0℃	○ Remote thermistor is working, and to be set for producing +2.0℃ increase in temperature.
	SENSOR +1.0℃	○ Remote thermistor is working, and to be set for producing +1.0℃ increase in temperature.
	SENSOR -1.0℃	○ Remote thermistor is working, and to be set for producing -1.0℃ increase in temperature.
	SENSOR -2.0℃	○ Remote thermistor is working, and to be set for producing -2.0℃ increase in temperature.
	SENSOR -3.0℃	○ Remote thermistor is working, and to be set for producing -3.0℃ increase in temperature.
10 AUTO RESTART	INVALID	○
	VALID	○
* 11 VENT LINK SET	NO VENT	○ In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), the operation of ventilation device is linked with the operation of indoor unit.
	VENT LINK	○ In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), you can operate/stop the ventilation device independently by [VENT] button.
	NO VENT LINK	○
12 TEMP RANGE SET	INDON CHANGE	○ If you change the range of set temperature, the indication of set temperature will vary following the control.
	NO INDON CHANGE	○ If you change the range of set temperature, the indication of set temperature will not vary following the control, and keep the set temperature.
13 FAN POSITION	HI-MID-LO	※ Airflow of fan becomes of [HI-MID-LO] or the four speed of [HI-MID-LO].
	HI-LO	※ Airflow of fan becomes of [HI-LO].
	HI-MID	※ Airflow of fan becomes of [HI-MID].
	FAN SPEED	※ Airflow of fan is fixed at one speed.
14 POSITION	POSITION STOP	○ If you change the remote control function "14 POSITION" you must change the indoor function "04 POSITION" accordingly.
	FREE STOP	○ You can select the louver stop position in the four. The louver can stop at any position.
15 MODEL TYPE	HEAT PUMP	※
	COOLING ONLY	※
16 EXTERNAL CONTROL SET	INDIVIDUAL	○ If you input signal into CNT of the indoor printed circuit board from external, the indoor unit will be operated independently according to the input from external.
	FOR ALL UNITS	○ If you input into CNT of the indoor printed circuit board from external, all units which connect to the same remote control are operated according to the input from external.
17 ROOM TEMP INDICATION SET	INDICATION OFF	○ In normal working indication, indoor unit temperature is indicated instead of airflow.
	INDICATION ON	○ (Only the master remote control can be indicated.)
18 INDICATION	INDICATION ON	○ Heating preparation indication should not be indicated.
	INDICATION OFF	○
19 °C/°F SET	°C	○ Temperature indication is by degree C
	°F	○ Temperature indication is by degree F

Note (1)*The mark cannot use SRK series.

[ON/OFF] button (finished)

To next page

Note 1: The initial setting marked * ※ " is decided by connected indoor and outdoor unit, and is automatically defined as following table.

Function No.	Item	Default	Model
Remote control function02	AUTO RUN SET	AUTO RUN ON	"Auto-RUN" mode selectable indoor unit.
		AUTO RUN OFF	Indoor unit without "Auto-RUN" mode
Remote control function06	FAN SPEED SW	VALID	Indoor unit with two or three step of air flow setting
		INVALID	Indoor unit with only one of air flow setting
Remote control function07	LOUVER SW	VALID	Indoor unit with automatically swing louver
		INVALID	Indoor unit without automatically swing louver
Remote control function13	I/U FAN	HI-MED-LO	Indoor unit with three step of air flow setting
		HI-LO	Indoor unit with two step of air flow setting
		HI-MED	
		1 FAN SPEED	Indoor unit with only one of air flow setting
Remote control function15	MODEL TYPE	HEAT PUMP	Heat pump unit
		COOLING ONLY	Exclusive cooling unit

Note 3: As for plural indoor unit, set indoor functions to each master and slave indoor unit.
But only master indoor unit is received the setting change of indoor unit function "05 EXTERNAL INPUT" and "06 PERMISSION / PROHIBITION".

From previous page

(Indoor unit function) I/U FUNCTION ▲ Indoor unit No. are indicated only when plural indoor units are connected.

To set other indoor unit, press [AIRCON NO.] button, which allows you to go back to the indoor unit selection screen (for example: I/U 000 ▲).

Function	Function	setting	
*02	FAN SPEED SET	STANDARD HIGH SPEED 1 HIGH SPEED 2	※ ※
*03	FILTER SIGN SET	INDICATION OFF TYPE 1 TYPE 2 TYPE 3 TYPE 4	<input type="radio"/>
04	POSITION	4 POSITION STOP FREE STOP	<input type="radio"/>
05	EXTERNAL INPUT	LEVEL INPUT PULSE INPUT	<input type="radio"/>
06	PERMISSION/PROHIBITION	INVALID VALID	<input type="radio"/>
*07	EMERGENCY STOP	INVALID VALID	<input type="radio"/>
*08	※ SP OFFSET	OFFSET +3.0℃ OFFSET +2.0℃ OFFSET +1.0℃ NO OFFSET	<input type="radio"/>
*09	RETURN AIR TEMP	OFFSET +2.0℃ OFFSET +1.5℃ OFFSET +1.0℃ NO OFFSET OFFSET -1.0℃ OFFSET -1.5℃ OFFSET -2.0℃	<input type="radio"/>
*10	※ FAN CONTROL	LOW FAN SPEED SET FAN SPEED INTERMITTENCE FAN OFF	<input type="radio"/>
*11	FROST PREVENTION TEMP	TEMP HIGH TEMP LOW	<input type="radio"/>
*12	FROST PREVENTION CONTROL	FAN CONTROL ON FAN CONTROL OFF	<input type="radio"/>
*13	DRAIN PUMP LINK	※○ ※○AND※ ※○AND※AND※ ※○AND※	<input type="radio"/>
*14	※ FAN REMAINING	NO REMAINING 0.5 HOUR 1 HOUR 6 HOUR	<input type="radio"/>
*15	※ FAN REMAINING	NO REMAINING 0.5 HOUR 2 HOUR 6 HOUR	<input type="radio"/>
*16	※ FAN INTERMITTENCE	NO REMAINING 2min OFF 5min ON 5min OFF 5min ON	<input type="radio"/>
*17	PRESSURE CONTROL	STANDARD TYPE1	※ ※

Fan tap		Indoor unit air flow setting			
FAN SPEED SET	STANDARD	UH - Hi - Me - Lo	Hi - Me - Lo	Hi - Lo	Hi - Me
HIGH SPEED1, 2	UH - UH - Hi - Me	UH - Hi - Me	UH - Me	UH - Hi	

Initial function setting of some indoor unit is "HIGH SPEED".
4 speed is not able to be set with wireless remote control.

The filter sign is indicated after running for 180 hours.
The filter sign is indicated after running for 600 hours.
The filter sign is indicated after running for 1000 hours.
The filter sign is indicated after running for 1000 hours, then the indoor unit will be stopped by compulsion after 24 hours.

If you change the indoor function "04 POSITION", you must change the remote control function "14 POSITION" accordingly.
You can select the louver stop position in the four.
The louver can stop at any position.

Permission/prohibition control of operation will be valid.

With the VRF series, it is used to stop all indoor units connected with the same outdoor unit immediately. When stop signal is inputted from remote on-off terminal "CNT-6", all indoor units are stopped immediately.

To be reset for producing +3.0℃ increase in temperature during heating.
To be reset for producing +2.0℃ increase in temperature during heating.
To be reset for producing +1.0℃ increase in temperature during heating.

To be reset producing +2.0℃ increase in return air temperature of indoor unit.
To be reset producing +1.5℃ increase in return air temperature of indoor unit.
To be reset producing +1.0℃ increase in return air temperature of indoor unit.

To be reset producing -1.0℃ increase in return air temperature of indoor unit.
To be reset producing -1.5℃ increase in return air temperature of indoor unit.
To be reset producing -2.0℃ increase in return air temperature of indoor unit.

When heating thermostat is OFF, fan speed is low speed.
When heating thermostat is OFF, fan speed is set speed.
When heating thermostat is OFF, fan speed is operated intermittently.
When heating thermostat is OFF, the fan is stopped.
When the remote thermostat is working, "FAN OFF" is set automatically.
Do not set "FAN OFF" when the indoor unit's thermostat is working.

Change of indoor heat exchanger temperature to start frost prevention control.

Working only with the Single split series.
To control frost prevention, the indoor fan tap is raised.

Drain pump is run during cooling and dry.
Drain pump is run during cooling, dry and heating.
Drain pump is run during cooling, dry, heating and fan.
Drain pump is run during cooling, dry and fan.

After cooling is stopped, the fan does not perform extra operation.
After cooling is stopped, the fan perform extra operation for half an hour.
After cooling is stopped, the fan perform extra operation for an hour.
After cooling is stopped, the fan perform extra operation for six hours.

After heating is stopped or heating thermostat is OFF, the fan does not perform extra operation.
After heating is stopped or heating thermostat is OFF, the fan perform extra operation for half an hour.
After heating is stopped or heating thermostat is OFF, the fan perform extra operation for two hours.
After heating is stopped or heating thermostat is OFF, the fan perform extra operation for six hours.

During heating is stopped or heating thermostat is OFF, the fan perform intermittent operation for five minutes with low fan speed after twenty minutes' OFF.
During heating is stopped or heating thermostat is OFF, the fan perform intermittent operation for five minutes with low fan speed after five minutes' OFF.

Connected "OA Processing" type indoor unit, and is automatically defined.

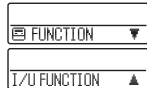
From previous page

How to set function

1. Stop air-conditioner and press **(SET)** **(MODE)** buttons at the same time for over three seconds, and the "FUNCTION SET ▼" will be displayed.



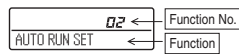
2. Press **(SET)** button.
3. Make sure which do you want to set, "FUNCTION ▼" (remote control function) or "I/U FUNCTION ▲" (indoor unit function).
4. Press **▲** or **▼** button.
Select "FUNCTION ▼" (remote control function) or "I/U FUNCTION ▲" (indoor unit function).



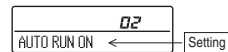
5. Press **(SET)** button.

6. 【On the occasion of remote control function selection】

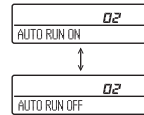
- ① "DATA LOADING" (Indication with blinking)
↓
Display is changed to "01 ESP SET".
- ② Press **▲** or **▼** button.
"No. and function" are indicated by turns on the remote control function table, then you can select from them.
(For example)



- ③ Press **(SET)** button.
The current setting of selected function is indicated.
(for example) "AUTO RUN ON" ← If "02 AUTO RUN SET" is selected



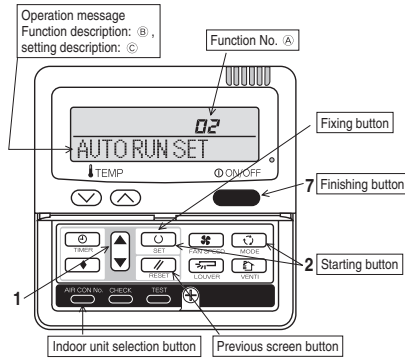
- ④ Press **▲** or **▼** button.
Select the setting.



- ⑤ Press **(SET)** button.
"SET COMPLETE" will be indicated, and the setting will be completed.
Then after "No. and function" indication returns, set as the same procedure if you want to set continuously, and if to finish, go to 7.



7. Press **ON/OFF** button.
Setting is finished.

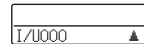


【On the occasion of indoor unit function selection】

- ① "DATA LOADING" (Blinking for 2 to 23 seconds to read the data)
↓
Indication is changed to "02 FAN SPEED SET".
Go to ②.

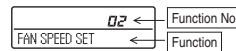
【Note】

- (1) If plural indoor units are connected to a remote control, the indication is "I/U 000" (blinking) ← The lowest number of the indoor unit connected is indicated.

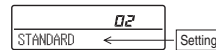


- (2) Press **▲** or **▼** button.
Select the number of the indoor unit you are to set
If you select "ALL UNIT ▼", you can set the same setting with all unites.
- (3) Press **(SET)** button.

- ② Press **▲** or **▼** button.
"No. and function" are indicated by turns on the indoor unit function table, then you can select from them.
(For example)



- ③ Press **(SET)** button.
The current setting of selected function is indicated.
(For example) "STANDARD" ← If "02 FAN SPEED SET" is selected.



- ④ Press **▲** or **▼** button.
Select the setting.

- ⑤ Press **(SET)** button.
"SET COMPLETE" will be indicated, and the setting will be completed.
Then after "No. and function" indication returns, set as the same procedure if you want to set continuously, and if to finish, go to 7.



※ When plural indoor units are connected to a remote control, press the **AIRCON No.** button, which allows you to go back to the indoor unit selection screen. (example "I/U 000 ▲")

- It is possible to finish by pressing **ON/OFF** button on the way, but unfinished change of setting is unavailable.
- During setting, if you press **(RESET)** button, you return to the previous screen.
- Setting is memorized in the control and it is saved independently of power failure.

【How to check the current setting】

When you select from "No. and function" and press set button by the previous operation, the "Setting" displayed first is the current setting.
(But, if you select "ALL UNIT ▼", the setting of the lowest number indoor unit is displayed.)

(2) Interface kit (SC-BIKN-E)

RKZ012A088B

Accessories included in package

Be sure to check all the accessories included in package.

No.	Part name	Quantity
①	Indoor unit's connection cable (cable length: 1.8m)	1
②	Wood screws (for mounting the interface: φ4x 25)	2
③	Tapping screws (for the cable clamp and the interface mounting bracket)	3
④	Interface mounting bracket	1
⑤	Cable clamp (for the indoor unit's connection cable)	1
⑥*	CNT terminal connection cable (total cable length: 0.5m)	1

* SC-BIKN-EA only

Safety precautions

Before use, please read these Safety Precautions thoroughly before installation.

- All the cautionary items mentioned below are important safety related items to be taken into consideration, so be sure to observe them at all times.

Warning Incorrect installation could lead to serious consequences such as death, major injury or environmental destruction.

- Symbols used in these precautions

! Always go along these instruction.

- After completed installation, carry out trial operation to confirm no anomaly, and ask the user to keep this installation manual in a good place for future reference.

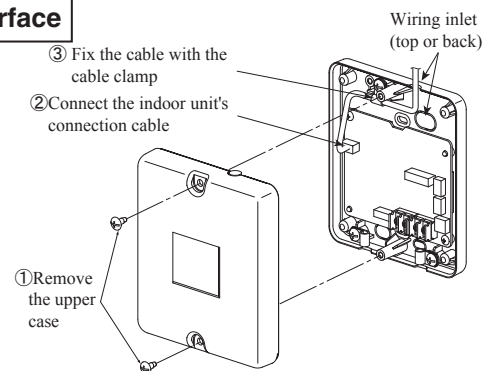
WARNING



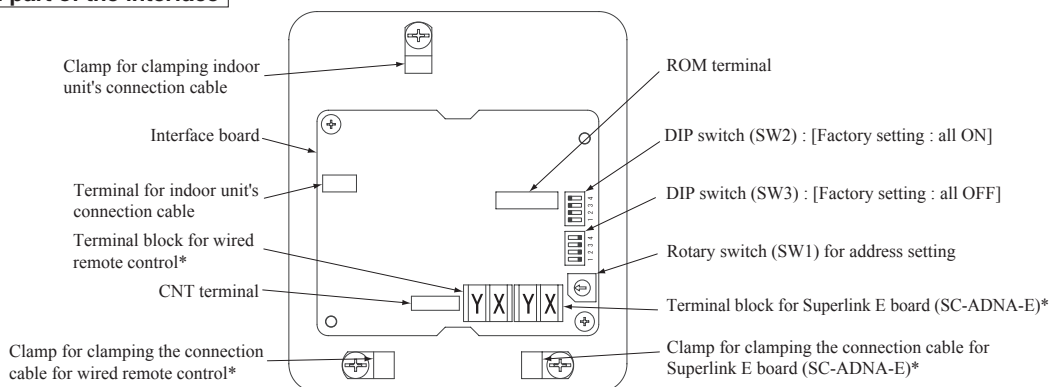
- **Installation must be carried out by a qualified installer.**
If you install it by yourself, it may cause an electric shock, fire and personal injury, as a result of a system malfunction.
- **Install it in full accordance with the instruction manual.**
Incorrect installation may cause an electric shock, fire and personal injury.
- **Electrical work must be carried out by a qualified electrician in accordance with the technical standard for electrical equipment, the indoor wiring standard and this instruction manual.**
Incorrect installation may cause an electric shock, fire and personal injury.
- **Use the specific cables for wiring. And connect all the cables to terminals or connectors securely and clamp them with cable clamps in order for external forces not to be transmitted to the terminals directly.**
Incomplete connection may cause malfunction, and lead to heat generation and fire.
- **Use the original accessories and specified components for installation.**
If the parts other than those prescribed by us are used, it may cause an electric shock, fire and personal injury.

Connecting the indoor unit's connection cable to the interface

- ① Remove the upper case of the interface.
 - Remove 2 screws from the interface casing before removal of upper casing.
- ② Connect the indoor unit's connection cable to the interface.
 - Connect the connector of the indoor unit connection cable to the connector on the interface's circuit board.
- ③ Fix the indoor unit's connection cable with the cable clamp.
 - Cable can be brought in from the top or from the back.
 - Cut out the punch-outs for the connection cables running into the casing with cutter.
- ④ Connect the indoor unit's connection cable to the indoor control PCB.
 - Connect the indoor unit's connection cable to the indoor control PCB securely.
 - Clamp the connection cable to the indoor control box securely with the cable clamp provided as an accessory.
 - Regarding the cable connection to the indoor unit, refer to the instruction manual for indoor unit.



Name of each part of the interface



*Either the connection cables of Superlink E board (SC-ADNA-E) or of wired remote control is connectable.

Switch	Setting	Function	Switch	Setting	Function
SW2-1	ON**	CNT level input	SW2-3	ON**	External input (CNT input)
	OFF	CNT Pulse input		OFF	Operation permission/prohibition (CNT input)
SW2-2	ON**	Wired remote control : Enable	SW2-4	ON**	Annual cooling : Enable***
	OFF	Wired remote control : Disable		OFF	Annual cooling : Disable***

** Factory setting

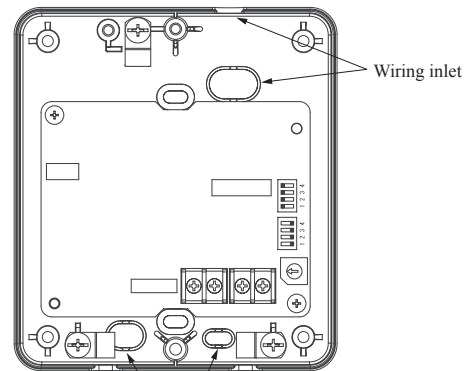
*** Indoor fan control at low outdoor air temperature in cooling

Installation of the interface

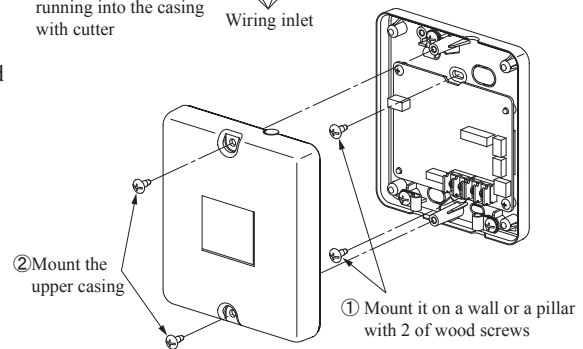
- Install the interface within the range of the connection cable length from the indoor unit. (approximately 1.8m)
- Be sure not to extend the connection cable on site. If the connection cable is extended, malfunction may occur.
- Fix the interface on the wall, pillar or the like.
- DO NOT install the interface and wired remote control at the following places.
 - Places exposed to direct sunlight
 - Places near heating devices
 - High humidity places
 - Surfaces where are enough hot or cold to generate condensation
 - Places exposed to oil mist or steam directly
 - Uneven surface

Mounting the interface directly on a wall

- ① Mount the lower casing of the interface on a flat surface with wood screws provided as standard accessory.
- ② Mount the upper casing.

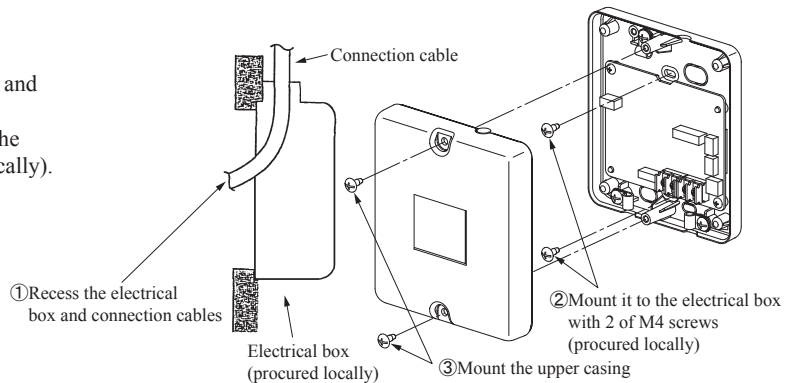


Cut out the punch-outs for the connection cables running into the casing with cutter



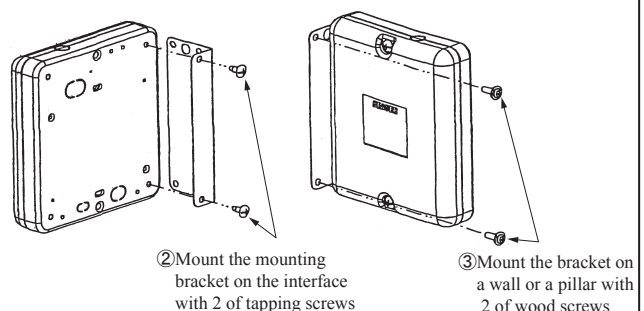
Recessing the interface in the wall

- ① Recess the electrical box (procured locally) and connection cables in the wall.
- ② Mount the lower casing of the interface to the electrical box with M4 screws (procured locally).
- ③ Mount the upper casing.



Mounting the interface with the mounting bracket

- ① Mount the mounting bracket to the interface with tapping screws provided as standard accessory.
- ② Mount the mounting bracket on wall or the like with wood screws provided as standard accessory.
- ③ Mount the mounting bracket to a wall surface, etc. using the wood screws provided.



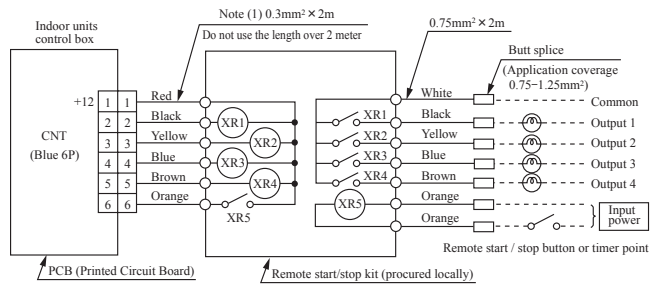
Installation check items

- Are the connection cables connected securely to the terminal blocks and connectors?
- Are the thickness and length of the connection cables conformed with the standard?

Functions of CNT connector

It is available to operate the air-conditioning unit and to monitor the operation status with the external control unit (remote display) by sending the input/output signal through CNT connector on the indoor control PCB.

- ① Connect a external remote control unit (procured locally) to CNT terminal.
- ② In case of the pulse input, switch OFF the DIP switch SW2-1 on the interface PCB.
- ③ When setting operation permission/prohibition mode, switch OFF the DIP switch SW2-3 on the interface PCB.



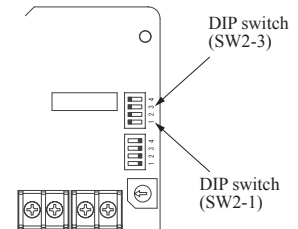
- XR1-4 are for the DC 12V relay
- XR5 is a DC 12/24V or AC 220-240V relay
- CNT connector (local) maker, model

Input/Output	Function	Output signal		Content
		Relay	ON/OFF	
Output 1	Operation output	XR ₁	ON	During air-conditioner operation
Output 2	Heating output	XR ₂	ON	During heating operation
Output 3	Compressor operation output	XR ₃	ON	During compressor running
Output 4	Malfunction output	XR ₄	ON	During anomalous stop

Connector	Molex	5264-06
Terminals	Molex	5263T

Input/Output	Function	SW2-1		SW2-3		Air-conditioner	Operation by remote control		
		Setting	Setting	Input signal	Content				
Input	External control input	ON*	Level input	ON*	Level	OFF→ON ON→OFF	External input	ON OFF	Allowed
				OFF	Level	OFF→ON ON→OFF	Operation permission Operation prohibition	OFF OFF	
		OFF	Pulse input	ON*	Pulse	OFF→ON	External input	OFF→ON	Allowed
				OFF	Level	OFF→ON ON→OFF	Operation permission Operation prohibition	ON OFF	Not allowed

* Factory setting



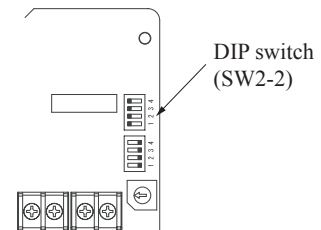
Connection of Superlink E board

Regarding the connection of Superlink E board, refer to the instruction manual of Superlink E board.

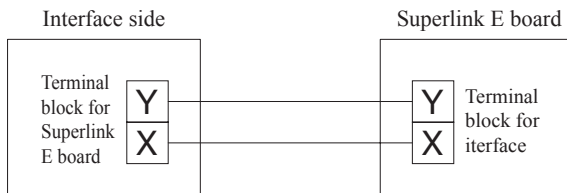
For electrical work, power source for all of units in the Superlink system must be turned OFF.

- ① Switch ON the DIP switch SW2-2 (Factory setting: ON) on the interface PCB.

Caution: Wireless remote control attached to the indoor unit can be used in parallel, after connecting the wired remote control. However, some of functions other than the basic functions such as RUN/STOP, Temperature Setting, etc. may not work properly and may have a mismatch between the display and the actual behavior.



- ② Wiring connection between the interface and the Superlink E board.



No.	Names of recommended signal wires
1	Shielded wire
2	Vinyl cabtyre round cord
3	Vinyl cabtyre round cable
4	Vinyl insulated wire vinyl sheathed cable for control

Within 200 m 0.5 mm² × 2 cores
 Within 300 m 0.75 mm² × 2 cores
 Within 400 m 1.25 mm² × 2 cores
 Within 600 m 2.0 mm² × 2 cores

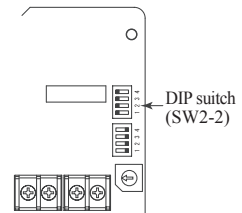
- ③ Clamp the connection cables with cable clamps.

Connection of wired remote control

Regarding the connection of wired remote control, refer to the instruction manual of wired remote control.

- ① Switch ON the DIP switch SW2-2 (Factory setting : ON) on the interface PCB.

Caution: Wireless remote control attached to the indoor unit can be used in parallel, after connecting the wired remote control. However, some of functions other than the basic functions such as RUN/STOP, Temperature Setting, etc. may not work properly and may have a mismatch between the display and the actual behavior.



- ② Wiring connection between the interface and the wired remote control.

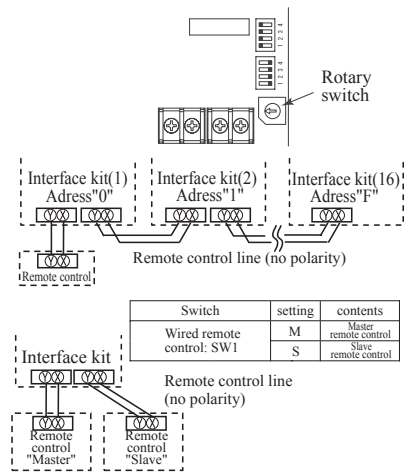
Installation and wiring of wired remote control

- Install the wired remote control with reference to the attached instruction manual of wired remote control.
 - 0.3mm² × 2-core cable should be used for the wiring of wired remote control.
 - Maximum length of wiring is 600m.
If the length of wiring exceeds 100m, change the size of cable as mentioned below.
100m-200m: 0.5mm² × 2-core, 300m or less: 0.75mm² × 2-core, 400m or less: 1.25mm² × 2-core, 600m or less: 2.0mm² × 2-core
However, cable size connecting to the terminal of wired remote control should not exceed 0.5mm². Accordingly if the size of connection cable exceeds 0.5mm², be sure to downsize it to 0.5mm² at the nearest section of the wired remote control and waterproof treatment should be done at the connecting section in order to avoid contact failure.
 - Don't use the multi-core cable to avoid malfunction.
 - Keep the wiring of wired remote control away from grounding (Don't touch it to any metal frame of building, etc.).
 - Connect the connection cables to the terminal blocks of the wired remote control and the interface securely (no polarity).
- ③ Clamp the connection cables with cable clamps.

Control of multiple units by a single wired remote control

Multiple units (up to 16) can be controlled by a single wired remote control. In this case, all units connected with a single wired remote control will operate under the same mode and same setting temperature.

- ① Connect all the interface with 2-core cables of wired remote control line.
- ② Set the address of indoor unit for remote control communication from "0" to "F" with the rotary switch SW1 on the interface PCB.
- ③ After turning the power ON, the address of indoor unit can be displayed by pressing [AIR CON No.] button on the wired remote control.
Make sure all indoor units connected are displayed in order by pressing or button.



Master/Slave setting wired when 2 of wired remote control are used

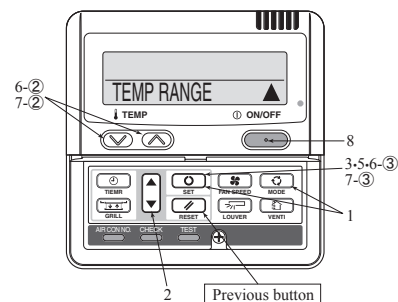
Maximum two wired remote control can be connected to one indoor unit (or one group of indoor units)

- ① Set the DIP switch SW1 on the wired remote control to "Slave" for the slave remote control. (Factory setting : Master)
○ Caution : Remote control sensor is invalid.

- When using the wireless remote control in parallel with the wired remote control; Since temperature setting range of wired remote control is different from that of wireless remote control, please adjust the setting range of wired remote control to be the same setting range of wireless remote control by following procedure. (The set temperature may not be displayed correctly on the wireless remote control, unless change of temperature setting range is done.) Changing procedure of temperature setting range is as follows.

How to set upper and lower limit of temperature sting range

1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for 3 seconds or more.
The indication changes to "FUNCTION SET ▼"
2. Press button once, and change to the "TEMP RANGE ▲" indication.
3. Press (SET) button, and enter the temperature range setting mode.
4. Confirm that the "Upper limit ▼" is shown on the display.
5. Press (SET) button to fix.
6. ① Indication: "∅ ∇ ∆ SET UP" → "UPPER 28°C ∇ ∆"
② Select the upper limit value 30°C with temperature setting button . "UPPER 30°C ∇" (blinking)
③ Press (SET) button to fix. "UPPER 30°C" (Displayed for two seconds)
After the fixed upper limit value displayed for two seconds, the indication will return to "UPPER LIMIT ▼".
7. Press button once, "LOWER LIMIT ▲" is selected, press (SET) button to fix.
① Indication: "∅ ∇ ∆ SET UP" → "LOWER 20°C ∇ ∆"
② Select the lower limit value 18°C with temperature setting button . "LOWER 18°C ∆" (blinking)
③ Press (SET) button to fix. "LOWER 18°C" (Displayed for two seconds)
After the fixed lower limit value displayed for two seconds, the indication will return to "LOWER LIMIT ▼"
8. Press (ON/OFF) button to finish.
Temperature setting range



- It is possible to quit in the middle by pressing button, but the change of setting is incomplete.
- During setting, if pressing (RESET) button, it returns to the previous screen.

Mode	Temperature setting range
Cooling, Heating, Dry, Auto	18-30°C

(3) Superlink E board (SC-ADNA-E)

PJZ012D029F

- Read and understand the instructions completely before starting installation.
- Refer to the instructions for both indoor and outdoor units.

Safety precautions

- Carefully read "Safety precautions" first. Follow the instructions for installation.
- Precautions are grouped into "Warning⚠" and "Caution⚠". The "Warning⚠" group includes items that may lead to serious injury or death if not observed. The items included in the "Caution⚠" group also may lead to serious results under certain conditions. Both groups are crucial for safety installation. Read and understand them carefully.
- After installation, conduct the test operation of the device to check for any abnormalities. Describe how to operate the device to the customer following the installation instruction manual. Instruct the customer to keep this installation instruction for future reference.

⚠WARNING

- This device should be installed by the dealer where you purchase the device or a licensed professional shop. If the device is incorrectly installed by the customer, it may result in electric shock or fire.
- Install the device carefully following the installation instruction. If the device is incorrectly installed, it may result in electric shock or fire.
- Use the accessory parts and specified parts for installation. If any parts that do not match the specifications are used, it may result in electric shock or fire.
- A person with the electrical service certification should conduct the service based on the "Technical standards for electrical facilities", "Electrical Wiring Code", and the installation instruction. If the work is done incorrectly, it may result in electric shock or fire.
- Wiring should be securely connected using the specified types of wire. No external force on the wire should be applied to any terminals. If a secure connection is not achieved, it may result in electric shock or fire.

⚠CAUTION

- Provide ground connection.
The ground line should never be connected to the gas supply piping, the water supply piping, the lightning conductor rod, nor the telephone ground. If the grounding is improper, it may result in electric shock.
- Do not install the device in the following locations.
 1. Where there is mist/spray of oil or steam such as kitchens.
 2. Where there is corrosive gases such as sulfurous acid gas.
 3. Where there is a device generating electromagnetic waves.
These may interfere with the control system resulting in the device becoming uncontrollable.
 4. Where flammable volatile materials such as paint thinner and gasoline may exist or where they are handled. This may cause a fire.

1 Application

Indoor-to-outdoor three core communication specification type 3 (since October 2007)

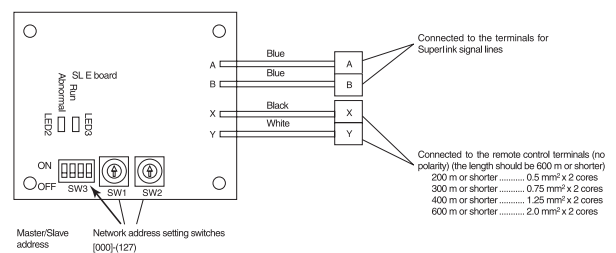
2 Accessories

SL E board 	Metal box 	Metal cover 	Screw for ground M4x8L 2 pieces
Pan head screws φ4x8L 2 pieces 	Locking supports To secure the print board and the metal box Made of nylon 4 pieces 	Binding band 	Grommet

5 Connection Outline

Note for setting the address

- Set the address between 00 and 47 for the previous Superlink connection and between 000 and 127 for the new Superlink connection. (*1)
- Do not set the address overlapping with those of the other devices in the network. (The default is 000)



(*1) Whether the actual link is either the new Superlink or the previous Superlink depends on the models of the connected outdoor and indoor units. Consult the agent or the dealer.

3 Function

Allowing the center control SL1N-E, SL2N-E, and SL4-AE/BE to control and monitor the commercial air-conditioning unit.

4 Control switching

Settings can be changed by the switch SW3 on the SL E board as in the following.

Switch	Symbol	Switch	Remarks
SW3	1	ON	Master
		OFF (default)	Slave
	2	ON	Fixed previous protocol
		OFF (default)	Automatic adjustment of Superlink protocol
	3	ON	Indicates the forced operation stop when abnormality has occurred.
		OFF (default)	Indicates the status of running/stop as it is, when abnormality has occurred.
	4	ON	The hundredth address activated "1"
		OFF (default)	The hundredth address activated "0"

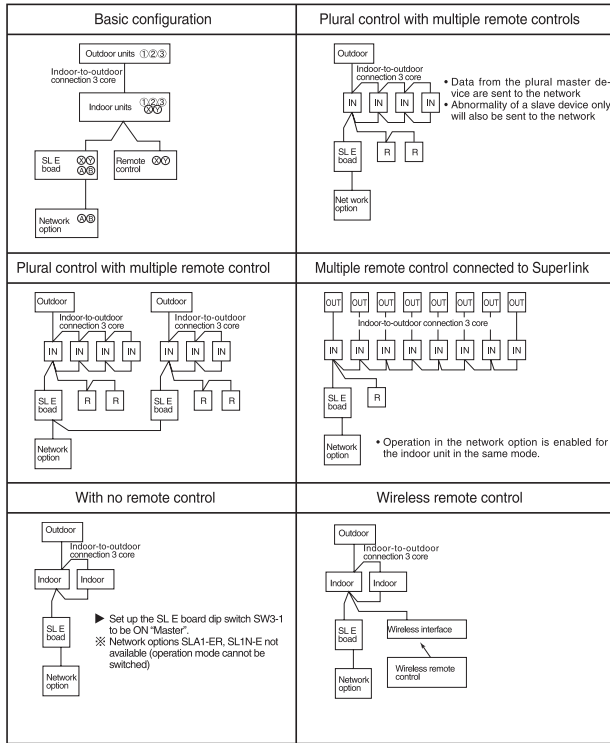
Signal line specification

Communication method	Previous Superlink	New Superlink
Line type	MVVS	MVVS
Line diameter	0.75 - 1.25mm ²	0.75/1.25mm ²
Signal line (total length)	up to 1000m	up to 1500/1000m (*2)
Signal line (maximum length)	up to 1000m	up to 1000m

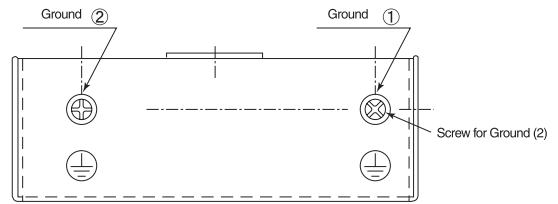
(*2) Up to 1500 m for 0.75 mm², and up to 1000 m for 1.25 mm². Do not use 2.0 mm². It may cause an error.

(*3) Connect grounding on both ends of the shielding wire. For the grounding method, refer to the section "6 Installation".

- (1) Set the Superlink network address with SW1 (tens place), SW2 (ones place), and SW3 (hundreds place).
- (2) Set the SL E board SW3-1 to be ON (Master) when using this without any remote control (no wired remote control nor wireless remote control).
- (3) Set up the plural master/slave device using the dip switches on the indoor unit board.
- (4) Set up the remote control master/slave device using the slide switch on the remote control board.
- (5) Set up "0" to "F" using the address rotary switch on the indoor unit board when controlling the indoor unit with the multiple remote control.

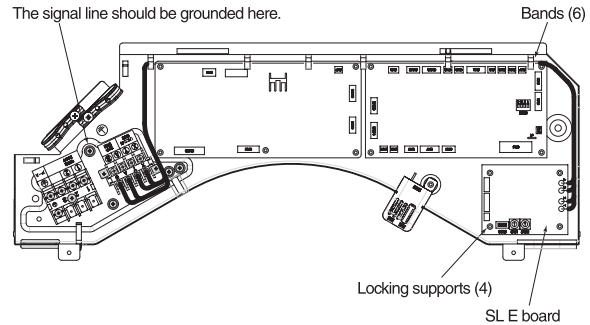


Connect grounding. Connect grounding for the power line to Ground ①, and grounding for the signal line to Ground ② or to the Ground on the indoor unit control box.



2. When connecting to the indoor unit control box (ceiling-concealed type and FDT type only):

- (1) Mount the SL E board in the control box using the locking supports.
- (2) Remove 6 bands from the box and put the wiring through the bands to be secured.



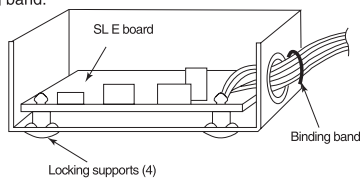
Electrical shock hazard! Make sure to turn the power off for servicing. Be cautious so that no abnormal force should be applied to the wiring. Do not let the SL E board hung by the wiring. Do not damage the board with a screw driver. The board is sensitive to static electricity. Release the static electricity of your body before servicing. (you can do this by touching the control board which is grounded).

Location of installation

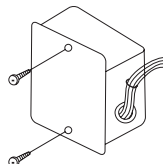
Install the device at the location where there are no electromagnetic waves nor where there is water and dust. The specified temperature range of the device is 0 to 40°C. Install the device at the location where the ambient temperature stays within the range. If it exceeds the specification, make sure to provide solution such as installing a cooling fan. When used outside of the range, it may cause abnormal operation.

6 Installation

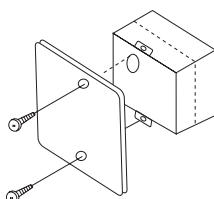
1. When using the metal box (mounted on the indoor unit / mounted on the back of the remote control):
 - (1) Mount the SL E board in the metal box using the locking supports.
 - (2) Wiring should go through the provided grommet since then through the wiring to the hole on the Metal box. Secure the grommet after inserting the grommet into the Metal box as shown in below figure, then tie the wiring at the outlet of the unit using a binding band.



▲ When installed outside the indoor unit, put the metal cover on.



▲ When installed on the back of the remote control, mount it directly on the remote control bottom case.



7 Indicator display

Check the LED 3 (green) and LED 2 (red) on the SL E board for flashing.

SL E board LEDs		Inspection mode	Display on the integrated network control device
Red	Green		
Off	Flashing	Normal communication	
Off	Off	<ul style="list-style-type: none"> • Disconnection in the remote control communication line (X or Y) • Short-circuit in the remote control communication line (between X and Y) • Faulty indoor unit remote control power • Faulty remote control communication circuit • Faulty CPU on SL E board 	No corresponding unit number
One flash	Flashing	<ul style="list-style-type: none"> • Disconnection in the Superlink signal line (A or B) • Short-circuit in the Superlink signal line (between A and B) • Faulty Superlink signal circuit 	
Two flashes	Flashing	<ul style="list-style-type: none"> • Faulty address setting for the SL E board (Set up the address for previous SL E board : more than 48 new SL E board : more than 128) 	
Three flashes	Flashing	<ul style="list-style-type: none"> • SL E board parent not set up when used without a remote control • Faulty remote control communication circuit 	E1
Four flashes	Flashing	<ul style="list-style-type: none"> • Address overlapping for the SL E board and the Superlink network connected indoor unit 	E2
Off	Flashing	<ul style="list-style-type: none"> • Number of connected devices exceeds the specification for the multiple indoor unit control 	E10

PJZ012D029C

PARTS LIST

INDOOR UNIT

SRK52HSBP-S

SRK71HSBP-S

SRK90HSBP-S

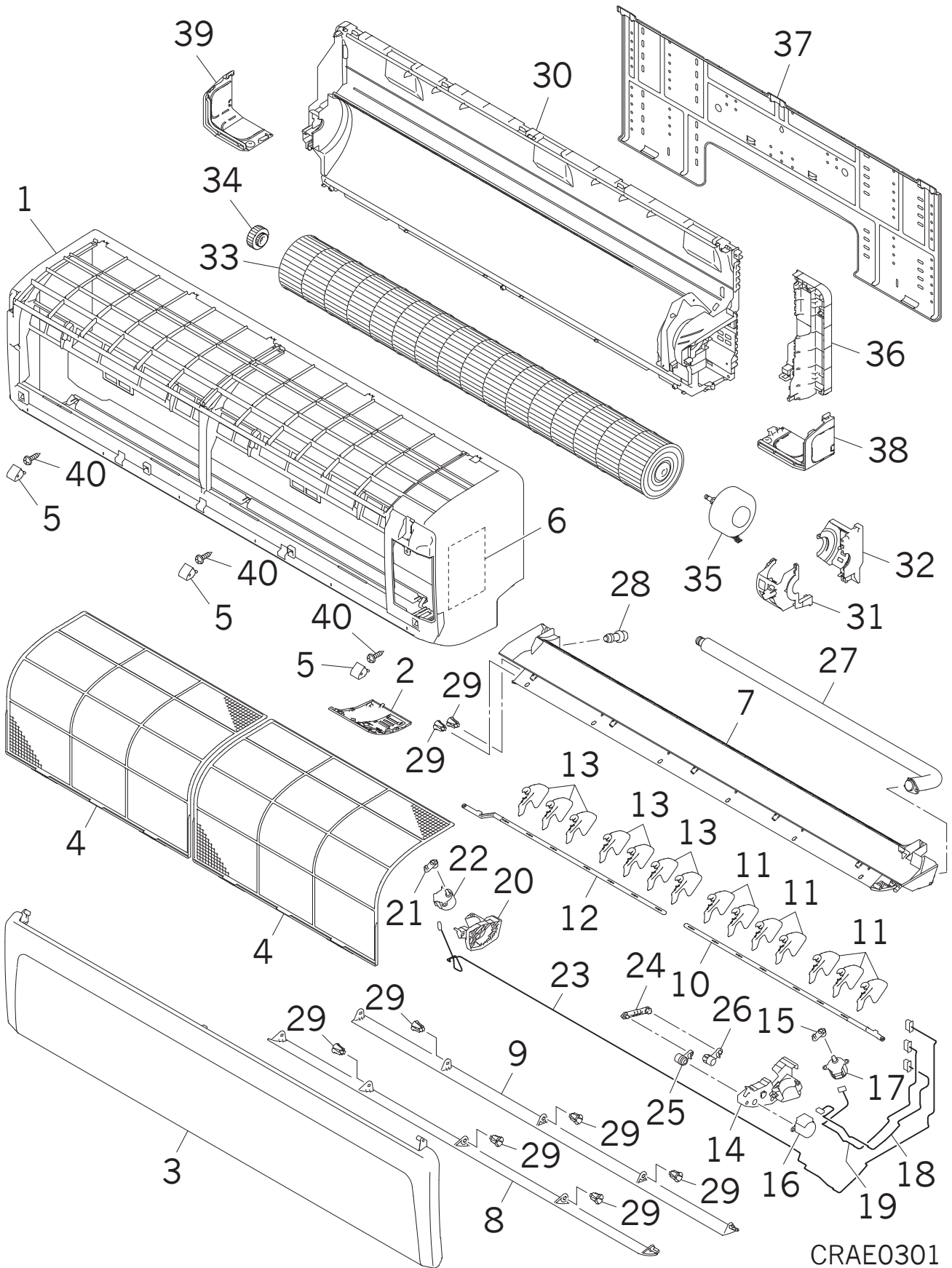
OUTDOOR UNIT

SRC52HSBP-S

SRC71HSBP-S

SRC90HSBP-S

PANEL & FAN ASSY



CRAE0301

SRK52HSBP-S

CRAE0301

END ITEM NO. : RWA002F077K

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~6	RLD102A001C	PANEL ASSY,FRONT	1			1	1	1	2	
1	RLD122A001A	PANEL,FRONT	1			1	1	1	2	
2	RLD133A001	PLATE ASSY,ORNAMENT	1			1	1	1	2	
3	RLD435A003A	PANEL ASSY,AIR IN	1			1	1	2	3	
4	RLD437A001	FILTER,AIR	2			2	2	4	8	W507.5×H401.5(t2)
5	RLD129A007	CAP	3			1	1	1	2	
6	RLD011G001C	LABEL,WIRING	1							
7~29	RLD435A001B	GRILLE ASSY,AIR OUT	1			1	1	2	3	
7	RLD435A002C	GRILLE,AIR OUTLET	1			1	1	2	3	
8	RLD436A005A	FLAP(U)	1			1	1	2	2	
9	RLD436A006B	FLAP(L)	1			1	1	2	2	
10・11	RLD436A003	LOUVER ASSY(R)	1			1	1	2	2	
10	RLD129A010	PLATE,CONNECTING(R)	1			1	1	1	2	
11	RLD436A007	LOUVER	7			1	1	2	2	
12・13	RLD436A004	LOUVER ASSY(L)	1			1	1	2	2	
12	RLD129A011	PLATE,CONNECTING(L)	1			1	1	1	2	
13	RLD436A007	LOUVER	7			1	1	2	2	
14~19	RLD129A012A	BRACKET ASSY(R)	1			1	1	1	2	
14	RLD129A014A	BRACKET,MOTOR(R)	1			1	1	1	2	
15	RLB144A005	CRANK(C)	1			1	1	1	2	
16	SSA512T049	MOTOR,STEPPING	1			1	1	1	2	FOR FLAP
17	SSA512T096	MOTOR,STEPPING	1			1	1	1	2	FOR LOUVER(RIGHT)
18	RSA504A031	HARNESS ASSY	1			1	1	1	2	FOR FLAP MOTOR
19	RSA504A031A	HARNESS ASSY	1			1	1	1	2	FOR LOUVER MOTOR(RIGHT)
20~23	RLD129A013	BRACKET ASSY(L)	1			1	1	1	2	
20	RLD129A015	BRACKET,MOTOR(L)	1			1	1	1	2	
21	RLB144A005	CRANK(C)	1			1	1	1	2	
22	SSA512T096	MOTOR,STEPPING	1			1	1	1	2	FOR LOUVER(LEFT)
23	RSA504A031C	HARNESS ASSY	1			1	1	1	2	FOR LOUVER MOTOR(LEFT)
24~26	RLD144A001A	LINK ASSY	1			1	1	1	2	
24	RLD144A002	LINK	1			1	1	1	2	
25	RLD144A003	CRANK(U)	1			1	1	1	2	
26	RLD144A004A	CRANK(L)	1			1	1	1	2	
27	SSA423A102A	HOSE,DRAIN	1							
28	SSA326A047	PLUG	1							
29	RLD129A021	SHAFT	8							
30	RLD111A001	BASE ASSY	1			1	1	1	2	
31	RLD129A001	CASE,MOTOR(U)	1			1	1	1	2	
32	RLD129A018	CASE ASSY(L)	1			1	1	1	2	
33	SSA431G052	IMPELLER	1			1	1	2	4	
34	SSA923C069	BEARING,PLANE	1			1	1	1	2	
35	SSA512T099A	MOTOR,DC	1			1	1	1	2	FOR IMPELLER
36	RLD116A001A	BRACKET,CONTROL	1			1	1	1	2	
37	RLD032A001	PLATE,INSTALLATION	1			1	1	1	2	
38	RLD132A001A	LID(R)	1			1	1	2	4	

SRK52HSBP-S

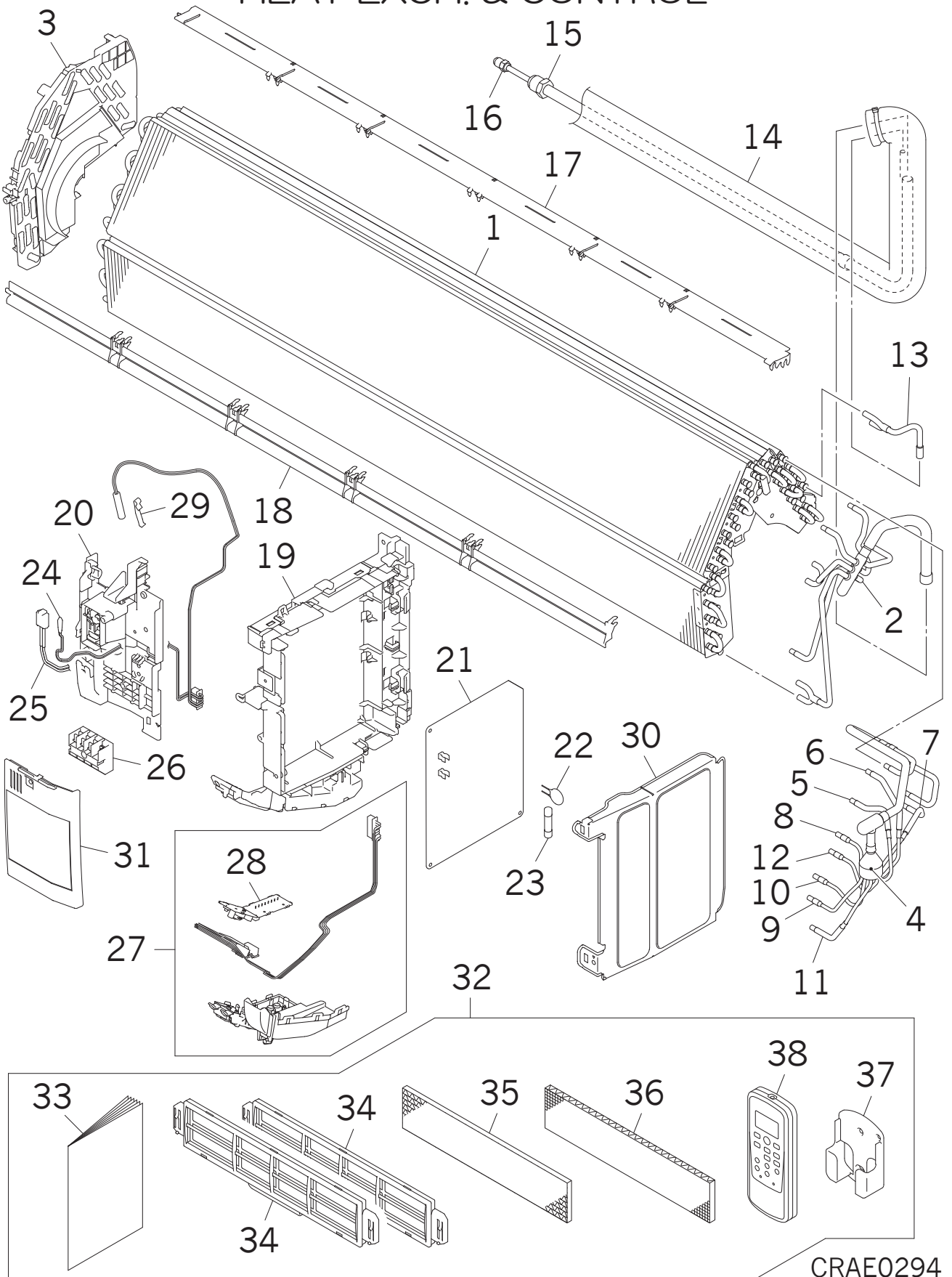
CRAE0301

END ITEM NO. : RWA002F077K

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
39	RLD132A002A	LID(L)	1			1	1	2	4	
40	SSA913A007	SCREW,TAP	3							4x12

MEMO

HEAT EXCH. & CONTROL



CRAE0294

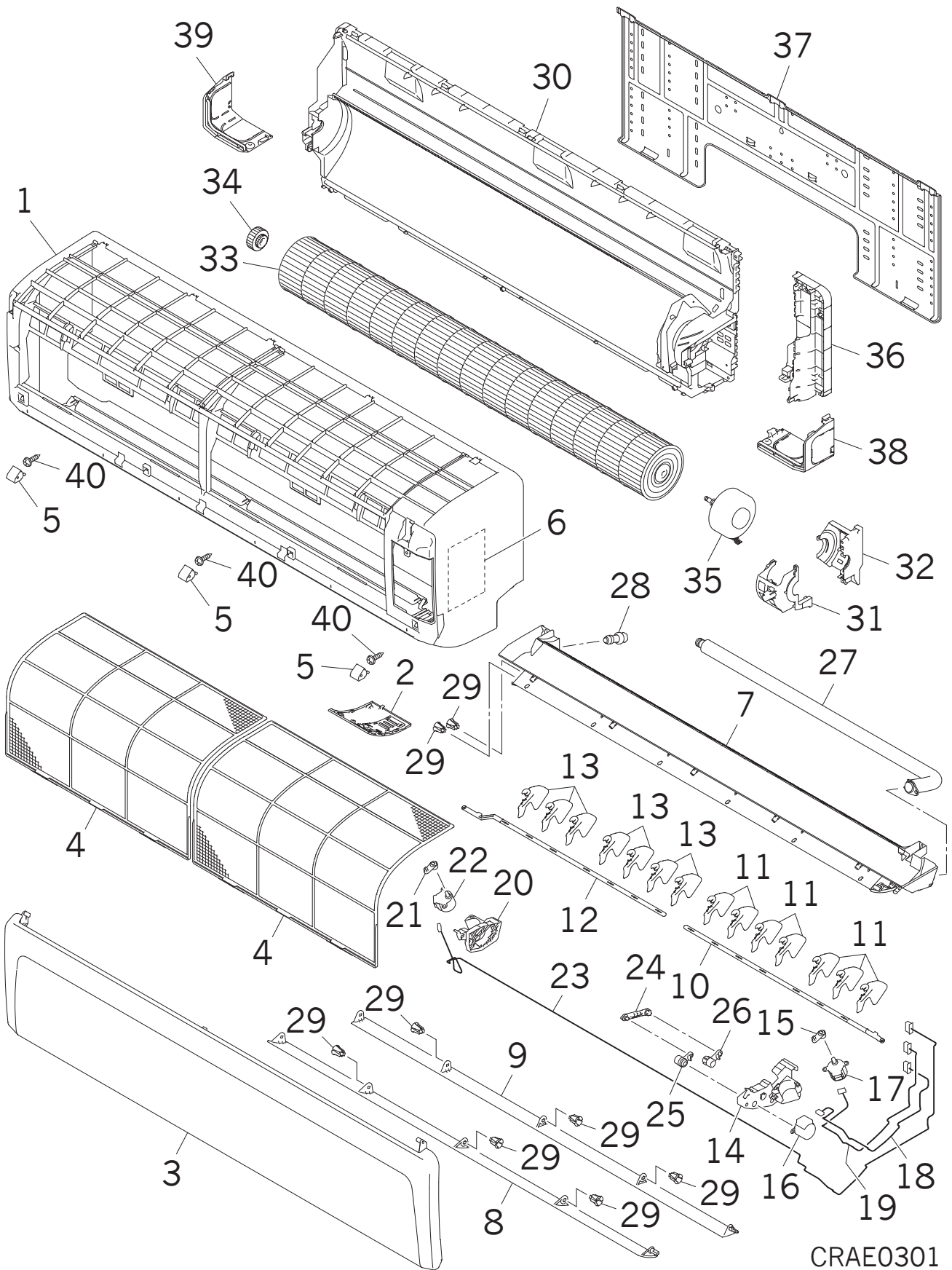
SRK52HSBP-S

CRAE0294

END ITEM NO. : RWA002F077K

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~13	RLD301A002C	HEAT EXCH ASSY(AIR)	1			1	1	1	2	
2	RLD315D001A	HEADER ASSY	1							
3	RLD129A003	BRACKET(L)	1			1	1	1	2	
4~12	RLD315A003	DISTRIBUTOR ASSY	1							
4	RSA315A006	DISTRIBUTOR	1							
5	RLD321A023	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
6	RLD321A024	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
7	RLD321A025	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
8	RLD315B001	CAPILLARY	1							φ 2.8 × φ 4.0 L100
9	RLD315B002	CAPILLARY	1							φ 2.8 × φ 4.0 L100
10	RLD315B003	CAPILLARY	1							φ 2.8 × φ 4.0 L100
11	RLD321A026	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
12	RLD315B004	CAPILLARY	1							φ 2.8 × φ 4.0 L100
13	RLD321A042	PIPE ASSY	1							
14~16	RLD321A001	PIPE ASSY	1							
15	SSA323F012B	UNION,SOLDER	1							FOR GAS
16	SSA323F088A	UNION(SLD)	1							FOR LIQ.
17	RLD129A004	PLATE,BAFFLE	1							
18	RLD129A005	SEAL(B)	1							
19	RLD142A002	BOX ASSY,CONTROL	1							
20	RLD129A016	COVER,BEND	1							
21~23	RLA505A001NH	PWB ASSY	1			2	2	4	8	
22	SSA555B058AD	VARISTOR	1			1	1	1	2	Z
23	SSA564A132	FUSE(CURRENT)	1			1	1	1	2	F 3.15A
24	SSA551A223M	SENSOR ASSY	1			1	1	2	4	INCL.SENSOR(ROOM TEMP.& HEAT EXCH.)
25	SSA551B017C	SENSOR(HUMIDITY)	1			1	1	2	4	
26	SSA561B702B	BLOCK,TERMINAL	1							T1
27	RLD503A001	DISPLAY ASSY	1			1	1	2	4	
28	RLD505A001	PWB ASSY(DISPLAY)	1			2	2	4	8	
29	RKJ941F001A	SPRING,LEAF	1							
30	RLD142A001	LID,CONTROL	1							
31	RLD132A003C	LID ASSY(TERMINAL)	1							
32	RLD008A002C	PARTS,STANDARD	1							
33	RLD012A005B	MANUAL,INSTRUCTION	1							
34	RKX129A014	HOLDER,FILTER	2							
35	RKT437A005	FILTER,LIGHT CLEAN	1							
36	RKT437A011	FILTER,CLEAN	1							
37	RKN032A002C	HOLDER(REMO-CON)	1			1	1	1	2	
38	RKX502A001	CONTROL ASSY,REMOTE	1			2	3	5	10	
(39)	RLD011F002K	LABEL,MODEL NAME	1							

PANEL & FAN ASSY



CRAE0301

SRK71HSBP-S

CRAE0301

END ITEM NO. : RWA002F077L

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~6	RLD102A001C	PANEL ASSY,FRONT	1			1	1	1	2	
1	RLD122A001A	PANEL,FRONT	1			1	1	1	2	
2	RLD133A001	PLATE ASSY,ORNAMENT	1			1	1	1	2	
3	RLD435A003A	PANEL ASSY,AIR IN	1			1	1	2	3	
4	RLD437A001	FILTER,AIR	2			2	2	4	8	W507.5×H401.5(t2)
5	RLD129A007	CAP	3			1	1	1	2	
6	RLD011G001C	LABEL,WIRING	1							
7~29	RLD435A001B	GRILLE ASSY,AIR OUT	1			1	1	2	3	
7	RLD435A002C	GRILLE,AIR OUTLET	1			1	1	2	3	
8	RLD436A005A	FLAP(U)	1			1	1	2	2	
9	RLD436A006B	FLAP(L)	1			1	1	2	2	
10・11	RLD436A003	LOUVER ASSY(R)	1			1	1	2	2	
10	RLD129A010	PLATE,CONNECTING(R)	1			1	1	1	2	
11	RLD436A007	LOUVER	7			1	1	2	2	
12・13	RLD436A004	LOUVER ASSY(L)	1			1	1	2	2	
12	RLD129A011	PLATE,CONNECTING(L)	1			1	1	1	2	
13	RLD436A007	LOUVER	7			1	1	2	2	
14~19	RLD129A012A	BRACKET ASSY(R)	1			1	1	1	2	
14	RLD129A014A	BRACKET,MOTOR(R)	1			1	1	1	2	
15	RLB144A005	CRANK(C)	1			1	1	1	2	
16	SSA512T049	MOTOR,STEPPING	1			1	1	1	2	FOR FLAP
17	SSA512T096	MOTOR,STEPPING	1			1	1	1	2	FOR LOUVER(RIGHT)
18	RSA504A031	HARNESS ASSY	1			1	1	1	2	FOR FLAP MOTOR
19	RSA504A031A	HARNESS ASSY	1			1	1	1	2	FOR LOUVER MOTOR(RIGHT)
20~23	RLD129A013	BRACKET ASSY(L)	1			1	1	1	2	
20	RLD129A015	BRACKET,MOTOR(L)	1			1	1	1	2	
21	RLB144A005	CRANK(C)	1			1	1	1	2	
22	SSA512T096	MOTOR,STEPPING	1			1	1	1	2	FOR LOUVER(LEFT)
23	RSA504A031C	HARNESS ASSY	1			1	1	1	2	FOR LOUVER MOTOR(LEFT)
24~26	RLD144A001A	LINK ASSY	1			1	1	1	2	
24	RLD144A002	LINK	1			1	1	1	2	
25	RLD144A003	CRANK(U)	1			1	1	1	2	
26	RLD144A004A	CRANK(L)	1			1	1	1	2	
27	SSA423A102A	HOSE,DRAIN	1							
28	SSA326A047	PLUG	1							
29	RLD129A021	SHAFT	8							
30	RLD111A001	BASE ASSY	1			1	1	1	2	
31	RLD129A001	CASE,MOTOR(U)	1			1	1	1	2	
32	RLD129A018	CASE ASSY(L)	1			1	1	1	2	
33	SSA431G052	IMPELLER	1			1	1	2	4	
34	SSA923C069	BEARING,PLANE	1			1	1	1	2	
35	SSA512T099A	MOTOR,DC	1			1	1	1	2	FOR IMPELLER
36	RLD116A001A	BRACKET,CONTROL	1			1	1	1	2	
37	RLD032A001	PLATE,INSTALLATION	1			1	1	1	2	
38	RLD132A001A	LID(R)	1			1	1	2	4	

SRK71HSBP-S

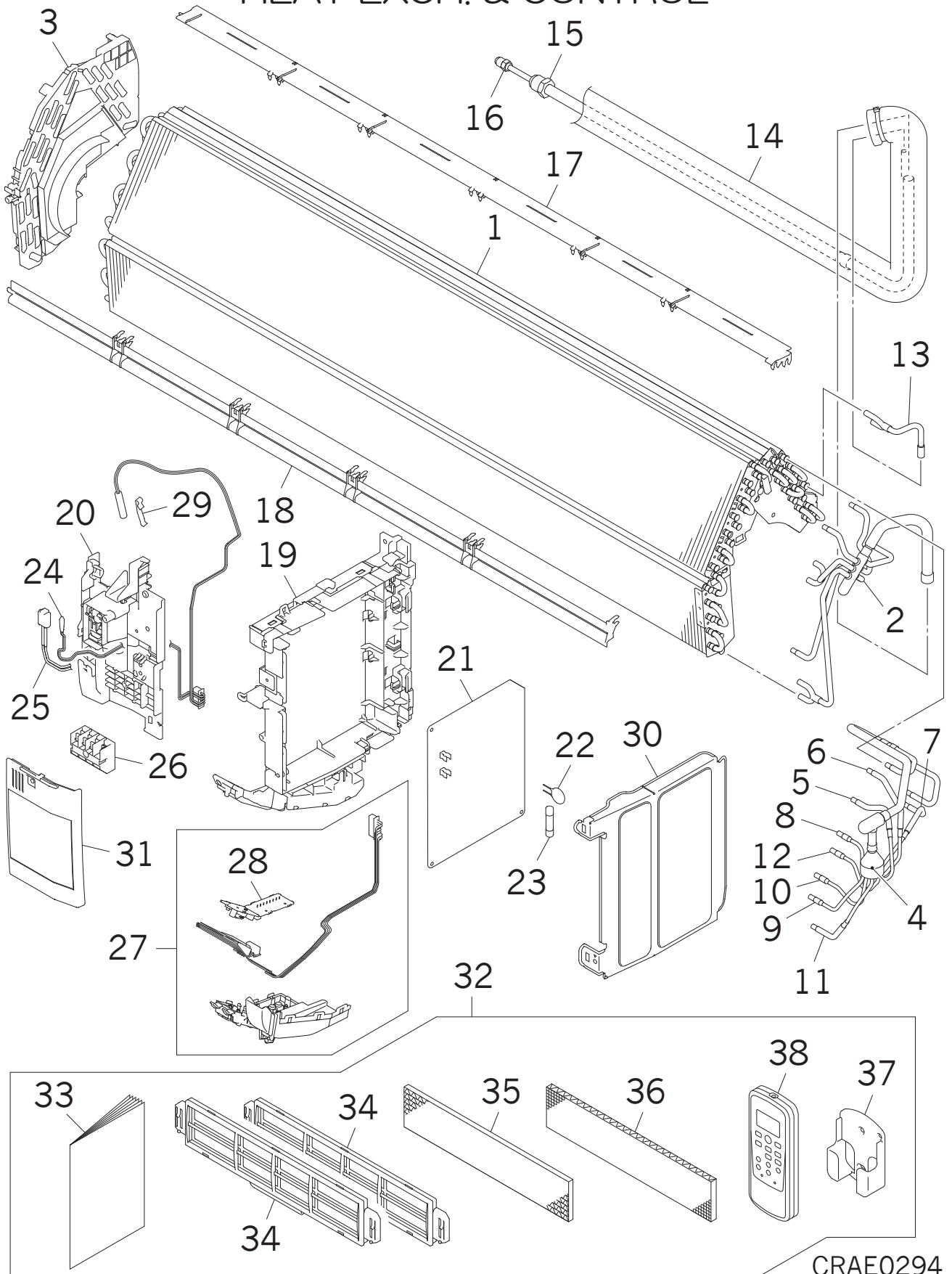
CRAE0301

END ITEM NO. : RWA002F077L

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
39	RLD132A002A	LID(L)	1			1	1	2	4	
40	SSA913A007	SCREW,TAP	3							4×12

MEMO

HEAT EXCH. & CONTROL



CRAE0294

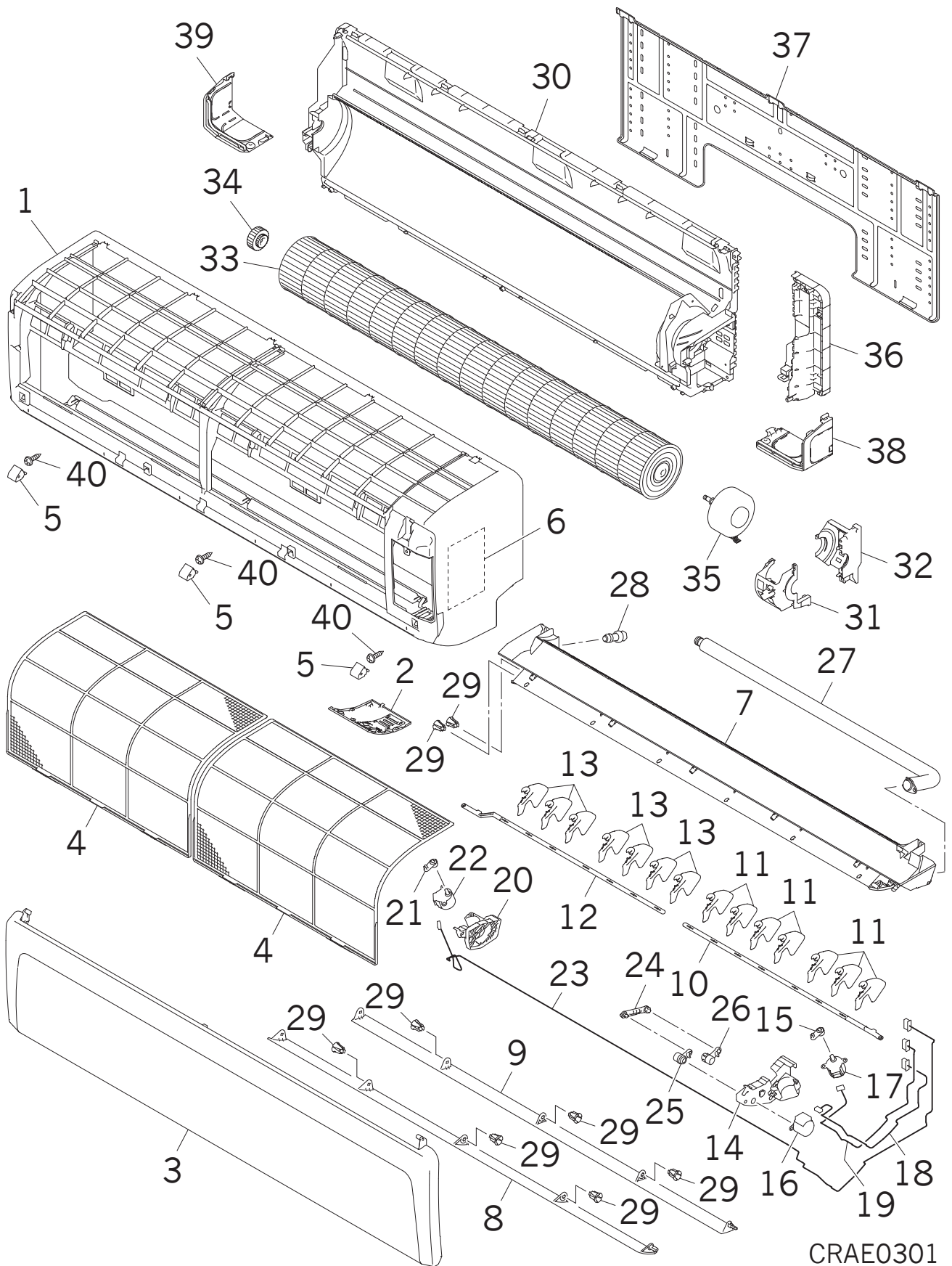
SRK71HSBP-S

CRAE0294

END ITEM NO. : RWA002F077L

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~13	RLD301A002C	HEAT EXCH ASSY(AIR)	1			1	1	1	2	
2	RLD315D001A	HEADER ASSY	1							
3	RLD129A003	BRACKET(L)	1			1	1	1	2	
4~12	RLD315A003	DISTRIBUTOR ASSY	1							
4	RSA315A006	DISTRIBUTOR	1							
5	RLD321A023	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
6	RLD321A024	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
7	RLD321A025	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
8	RLD315B001	CAPILLARY	1							φ 2.8 × φ 4.0 L100
9	RLD315B002	CAPILLARY	1							φ 2.8 × φ 4.0 L100
10	RLD315B003	CAPILLARY	1							φ 2.8 × φ 4.0 L100
11	RLD321A026	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
12	RLD315B004	CAPILLARY	1							φ 2.8 × φ 4.0 L100
13	RLD321A042	PIPE ASSY	1							
14~16	RLD321A001A	PIPE ASSY	1							
15	SSA323F092D	UNION,SOLDER	1							FOR GAS
16	SSA323F088A	UNION(SLD)	1							FOR LIQ.
17	RLD129A004	PLATE,BAFFLE	1							
18	RLD129A005	SEAL(B)	1							
19	RLD142A002	BOX ASSY,CONTROL	1							
20	RLD129A016	COVER,BEND	1							
21~23	RLA505A001NJ	PWB ASSY	1			2	2	4	8	
22	SSA555B058AD	VARISTOR	1			1	1	1	2	Z
23	SSA564A132	FUSE(CURRENT)	1			1	1	1	2	F 3.15A
24	SSA551A223M	SENSOR ASSY	1			1	1	2	4	INCL.SENSOR(ROOM TEMP.& HEAT EXCH.)
25	SSA551B017C	SENSOR(HUMIDITY)	1			1	1	2	4	
26	SSA561B702B	BLOCK,TERMINAL	1							T1
27	RLD503A001	DISPLAY ASSY	1			1	1	2	4	
28	RLD505A001	PWB ASSY(DISPLAY)	1			2	2	4	8	
29	RKJ941F001A	SPRING,LEAF	1							
30	RLD142A001	LID,CONTROL	1							
31	RLD132A003C	LID ASSY(TERMINAL)	1							
32	RLD008A002C	PARTS,STANDARD	1							
33	RLD012A005B	MANUAL,INSTRUCTION	1							
34	RKX129A014	HOLDER,FILTER	2							
35	RKT437A005	FILTER,LIGHT CLEAN	1							
36	RKT437A011	FILTER,CLEAN	1							
37	RKN032A002C	HOLDER(REMO-CON)	1			1	1	1	2	
38	RKX502A001	CONTROL ASSY,REMOTE	1			2	3	5	10	
(39)	RLD011F002L	LABEL,MODEL NAME	1							

PANEL & FAN ASSY



CRAE0301

SRK90HSBP-S

CRAE0301

END ITEM NO. : RWA002F077M

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~6	RLD102A001C	PANEL ASSY,FRONT	1			1	1	1	2	
1	RLD122A001A	PANEL,FRONT	1			1	1	1	2	
2	RLD133A001	PLATE ASSY,ORNAMENT	1			1	1	1	2	
3	RLD435A003A	PANEL ASSY,AIR IN	1			1	1	2	3	
4	RLD437A001	FILTER,AIR	2			2	2	4	8	W507.5×H401.5(t2)
5	RLD129A007	CAP	3			1	1	1	2	
6	RLD011G001C	LABEL,WIRING	1							
7~29	RLD435A001B	GRILLE ASSY,AIR OUT	1			1	1	2	3	
7	RLD435A002C	GRILLE,AIR OUTLET	1			1	1	2	3	
8	RLD436A005A	FLAP(U)	1			1	1	2	2	
9	RLD436A006B	FLAP(L)	1			1	1	2	2	
10・11	RLD436A003	LOUVER ASSY(R)	1			1	1	2	2	
10	RLD129A010	PLATE,CONNECTING(R)	1			1	1	1	2	
11	RLD436A007	LOUVER	7			1	1	2	2	
12・13	RLD436A004	LOUVER ASSY(L)	1			1	1	2	2	
12	RLD129A011	PLATE,CONNECTING(L)	1			1	1	1	2	
13	RLD436A007	LOUVER	7			1	1	2	2	
14~19	RLD129A012A	BRACKET ASSY(R)	1			1	1	1	2	
14	RLD129A014A	BRACKET,MOTOR(R)	1			1	1	1	2	
15	RLB144A005	CRANK(C)	1			1	1	1	2	
16	SSA512T049	MOTOR,STEPPING	1			1	1	1	2	FOR FLAP
17	SSA512T096	MOTOR,STEPPING	1			1	1	1	2	FOR LOUVER(RIGHT)
18	RSA504A031	HARNESS ASSY	1			1	1	1	2	FOR FLAP MOTOR
19	RSA504A031A	HARNESS ASSY	1			1	1	1	2	FOR LOUVER MOTOR(RIGHT)
20~23	RLD129A013	BRACKET ASSY(L)	1			1	1	1	2	
20	RLD129A015	BRACKET,MOTOR(L)	1			1	1	1	2	
21	RLB144A005	CRANK(C)	1			1	1	1	2	
22	SSA512T096	MOTOR,STEPPING	1			1	1	1	2	FOR LOUVER(LEFT)
23	RSA504A031C	HARNESS ASSY	1			1	1	1	2	FOR LOUVER MOTOR(LEFT)
24~26	RLD144A001A	LINK ASSY	1			1	1	1	2	
24	RLD144A002	LINK	1			1	1	1	2	
25	RLD144A003	CRANK(U)	1			1	1	1	2	
26	RLD144A004A	CRANK(L)	1			1	1	1	2	
27	SSA423A102A	HOSE,DRAIN	1							
28	SSA326A047	PLUG	1							
29	RLD129A021	SHAFT	8							
30	RLD111A001	BASE ASSY	1			1	1	1	2	
31	RLD129A001	CASE,MOTOR(U)	1			1	1	1	2	
32	RLD129A018	CASE ASSY(L)	1			1	1	1	2	
33	SSA431G052	IMPELLER	1			1	1	2	4	
34	SSA923C069	BEARING,PLANE	1			1	1	1	2	
35	SSA512T099A	MOTOR,DC	1			1	1	1	2	FOR IMPELLER
36	RLD116A001A	BRACKET,CONTROL	1			1	1	1	2	
37	RLD032A001	PLATE,INSTALLATION	1			1	1	1	2	
38	RLD132A001A	LID(R)	1			1	1	2	4	

SRK90HSBP-S

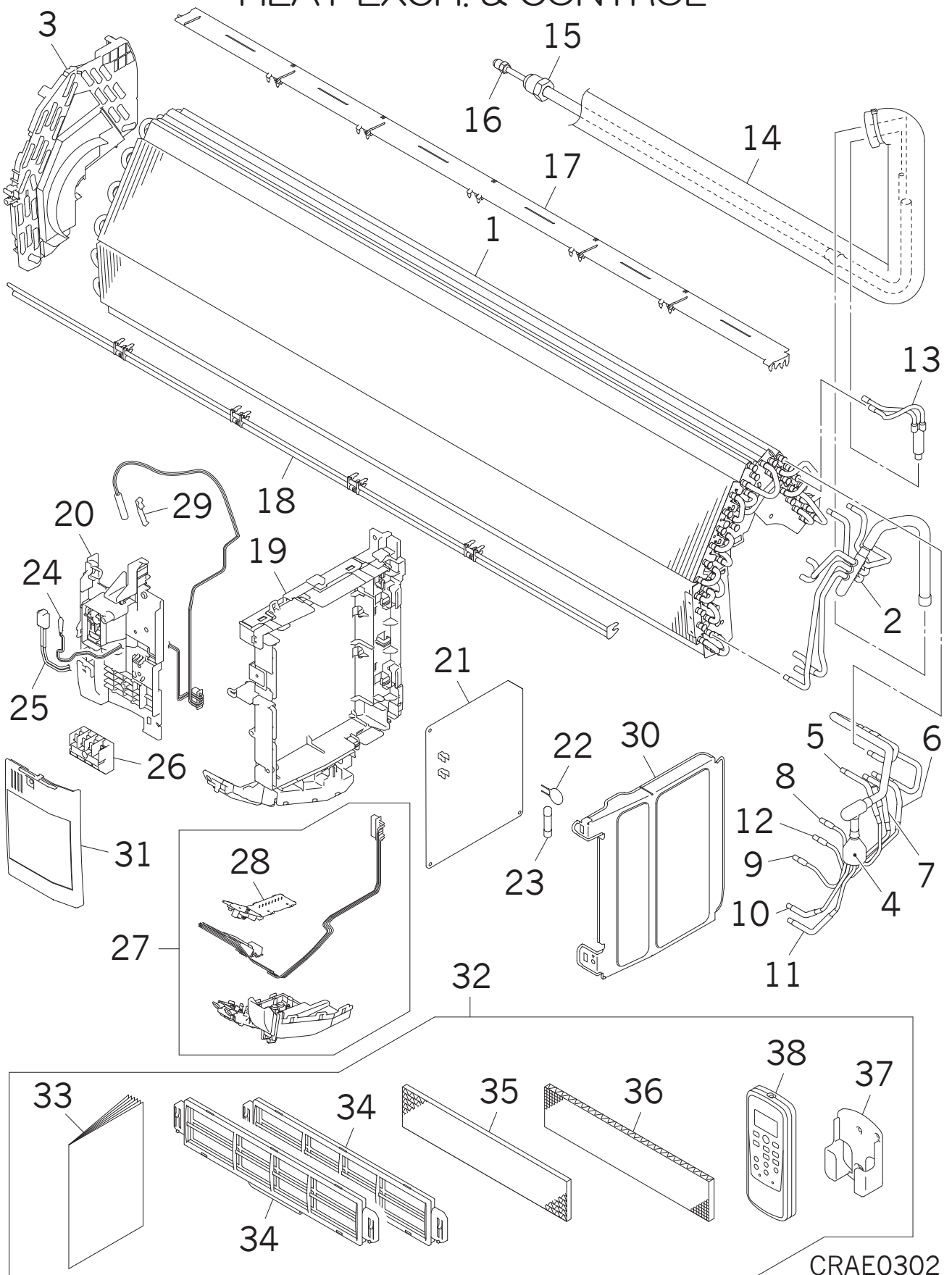
CRAE0301

END ITEM NO. : RWA002F077M

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
39	RLD132A002A	LID(L)	1			1	1	2	4	
40	SSA913A007	SCREW,TAP	3							4×12

MEMO

HEAT EXCH. & CONTROL



CRAE0302

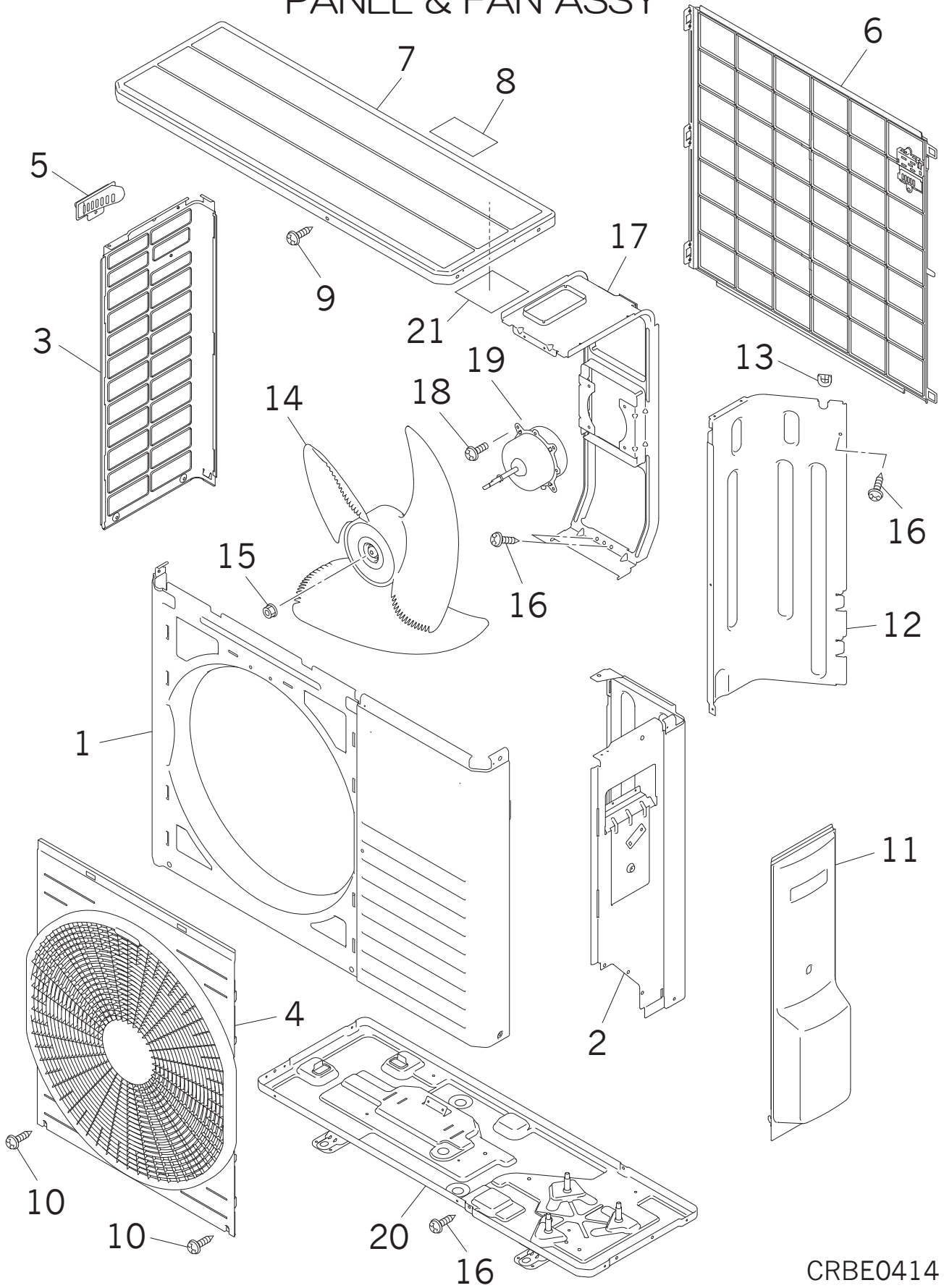
SRK90HSBP-S

CRAE0302

END ITEM NO. : RWA002F077M

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~13	RLD301A004F	HEAT EXCH ASSY(AIR)	1			1	1	1	2	
2	RLD315D002C	HEADER ASSY	1							
3	RLD129A003	BRACKET(L)	1			1	1	1	2	
4~12	RLD315A004	DISTRIBUTOR ASSY	1							
4	RSA315A006	DISTRIBUTOR	1							
5	RLD321A031	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
6	RLD321A032	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
7	RLD321A033	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
8	RLD315B001	CAPILLARY	1							φ 2.8 × φ 4.0 L100
9	RLD315B009	CAPILLARY	1							φ 2.8 × φ 4.0 L100
10	RLD321A034	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
11	RLD321A035	PIPE ASSY	1							φ 2.8 × φ 4.0 L100
12	RLD315B004	CAPILLARY	1							φ 2.8 × φ 4.0 L100
13	RLD321A051	PIPE ASSY	1							
14~16	RLD321A001C	PIPE ASSY	1							
15	SSA323F092D	UNION,SOLDER	1							FOR GAS
16	SSA323F088A	UNION(SLD)	1							FOR LIQ.
17	RLD129A004	PLATE,BAFFLE	1							
18	RLD129A006	SEAL(A)	1							
19	RLD142A002	BOX ASSY,CONTROL	1							
20	RLD129A016	COVER,BEND	1							
21~23	RLA505A001NK	PWB ASSY	1			2	2	4	8	
22	SSA555B058AD	VARISTOR	1			1	1	1	2	Z
23	SSA564A132	FUSE(CURRENT)	1			1	1	1	2	F 3.15A
24	SSA551A223M	SENSOR ASSY	1			1	1	2	4	INCL.SENSOR(ROOM TEMP.& HEAT EXCH.)
25	SSA551B017C	SENSOR(HUMIDITY)	1			1	1	2	4	
26	SSA561B702B	BLOCK,TERMINAL	1							T1
27	RLD503A001	DISPLAY ASSY	1			1	1	2	4	
28	RLD505A001	PWB ASSY(DISPLAY)	1			2	2	4	8	
29	RKJ941F001A	SPRING,LEAF	1							
30	RLD142A001	LID,CONTROL	1							
31	RLD132A003C	LID ASSY(TERMINAL)	1							
32	RLD008A002C	PARTS,STANDARD	1							
33	RLD012A005B	MANUAL,INSTRUCTION	1							
34	RKX129A014	HOLDER,FILTER	2							
35	RKT437A005	FILTER,LIGHT CLEAN	1							
36	RKT437A011	FILTER,CLEAN	1							
37	RKN032A002C	HOLDER(REMO-CON)	1			1	1	1	2	
38	RKX502A001	CONTROL ASSY,REMOTE	1			2	3	5	10	
(39)	RLD011F002M	LABEL,MODEL NAME	1							

PANEL & FAN ASSY



CRBE0414

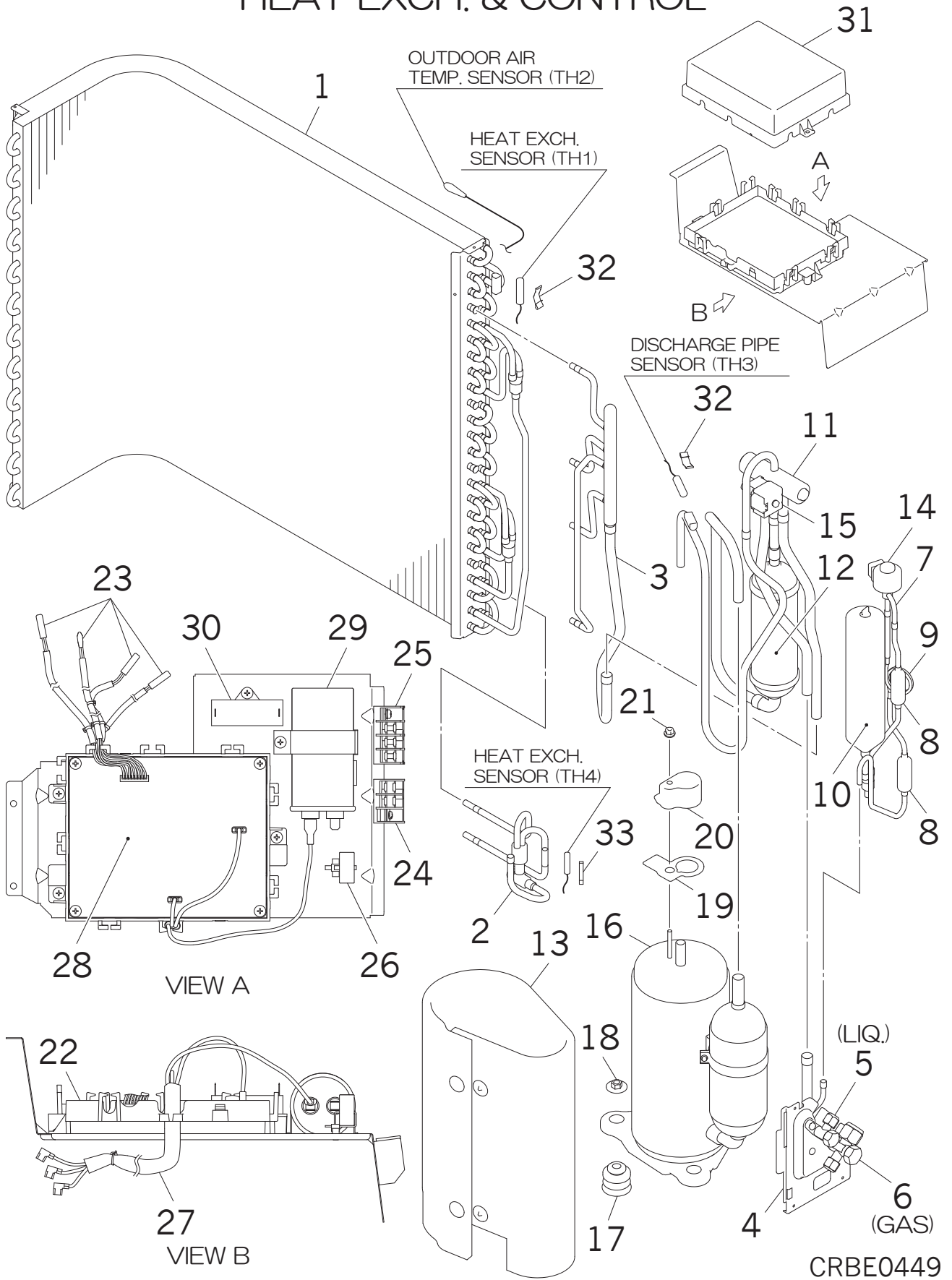
SRC52HSBP-S

CRBE0414

END ITEM NO. : RWC003F099C

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1	RWC122A004	PANEL ASSY,FRONT	1			1	1	1	2	
2	RWC123A005F	PANEL ASSY,SIDE(R)	1			1	1	1	2	
3	RWC123A008	PANEL,SIDE(L)	1			1	1	1	2	
4	RWC435A005	GRILLE ASSY,AIR OUT	1			1	1	2	3	
5	SSA944B036B	HANDLE	1							
6	RWC131A004A	GUARD,FIN	1							
7 · 8	RWC124A004D	PANEL ASSY,TOP	1			1	1	1	2	
8	RSA011H016H	LABEL,NOTICE	1							
9	SSA913A034F	SCREW,TAP	23							4×8
10	SSA913A034G	SCREW,TAP	2							4×12
11	RWC132A007	PANEL ASSY,SERVICE	1			1	1	1	2	
12	RWC141A002	PLATE,BAFFLE	1							
13	SSA947B019	GROMMET	1							
14	SSA431B233	PROPELLER	1			1	1	2	4	
15	SSA914B007AD	NUT,TH	1							
16	W011D04X008	TAP-SCREW,CRS-TRS 2	4							4×8
17	RWC116A041	BRACKET,MOTOR	1							
18	SSA913A034F	SCREW,TAP	4							4×8
19	SSA511T273	MOTOR,AC	1			1	1	1	2	
20	RWC111A005R	BASE ASSY	1			1	1	1	2	
21	RCR011G002CD	LABEL,WIRING	1							

HEAT EXCH. & CONTROL



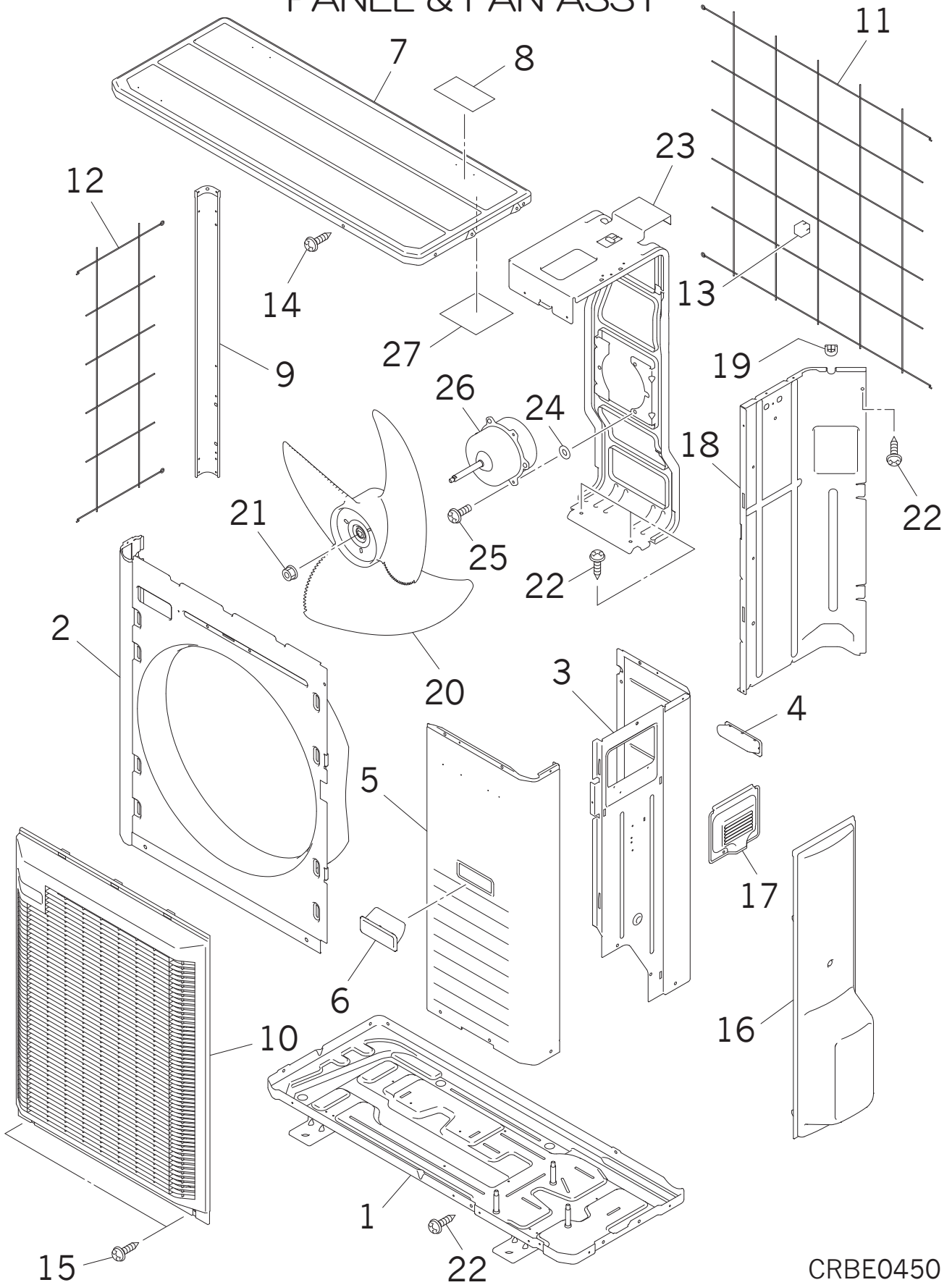
SRC52HSBP-S

CRBE0449

END ITEM NO. : RWC003F099C

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~3	RWC301A026B	HEAT EXCH ASSY(AIR)	1			1	1	1	2	
2	RWC315A001B	DISTRIBUTOR ASSY	1							
3	RWC315D009A	HEADER ASSY,GAS	1							
4	RCK116A002	BRACKET(VAIVE)	1							
5	RCP381A001A	VALVE,SERVICE(1/4")	1			1	1	1	2	LIQ.
6	RWC381A019	VALVE,SERVICE(1/2")	1			1	1	1	2	GAS
7~10	RWC304A141	PIPING ASSY(EXPAN)	1			1	1	1	2	
7	SSA387F052	VALVE,BODY(EXP)	1			1	1	1	2	EEV
8	SSA357A005A	STRAINER	2							
9	RCV315B202	CAPILLARY	1							φ 2.6×φ 3.6 L300
10	RWC352D001	RECEIVER ASSY	1							
11	SSA382C098	VALVE,S(4WAY)	1			1	1	1	2	20S
12	AHT351A001	ACCUMULATOR ASSY	1							
13	RCR154D209	INSULATION,COMP	1							
14	SSA382F210AY	COIL,SOLENOID	1			1	1	1	2	FOR EEV
15	RSA382F013BC	COIL ASSY,SOLENOID	1			1	1	1	2	FOR 20S
16	RSA201A039	COMPRESSOR ASSY	1			1	2	3	8	
17	RMC941C003	CUSHION,RUBBER	3							
18	SSA914C013	NUT,FLANGE	3							
19	RMC932C003	GASKET,COVER	1							
20	RMC947K003	COVER,TERMINAL	1			1	1	2	4	
21	SSA914C016	NUT,FLANGE	1							
22	RCP142A502	BOX,CONTROL	1							
23	SSA551A247B	SENSOR ASSY	1			1	1	2	4	TH1,2,3,4
24	SSA561B665	BLOCK,TERMINAL	1			1	1	2	2	TB1
25	SSA561B702B	BLOCK,TERMINAL	1			1	1	2	2	TB2
26	SSA554D183	KILLER,NOISE	1							
27	RWC504A085	HARNESS ASSY	1			1	1	2	2	FOR COMP.
28	RCR505A040P	PWB ASSY	1			2	2	4	8	
29	SSA552A178T	CAPACITOR,RUNNING	1							CC
30	SSA552A836B	CAPACITOR,RUNNING	1							CF
31	RCP132A500	COVER,CONTROL	1							
32	RCJ941F001	SPRING,LEAF	2							FOR TH1,3
33	RKF941F002	SPRING,LEAF	1							FOR TH4
(34)	RCR011F003AM	LABEL,MODEL NAME	1							

PANEL & FAN ASSY



CRBE0450

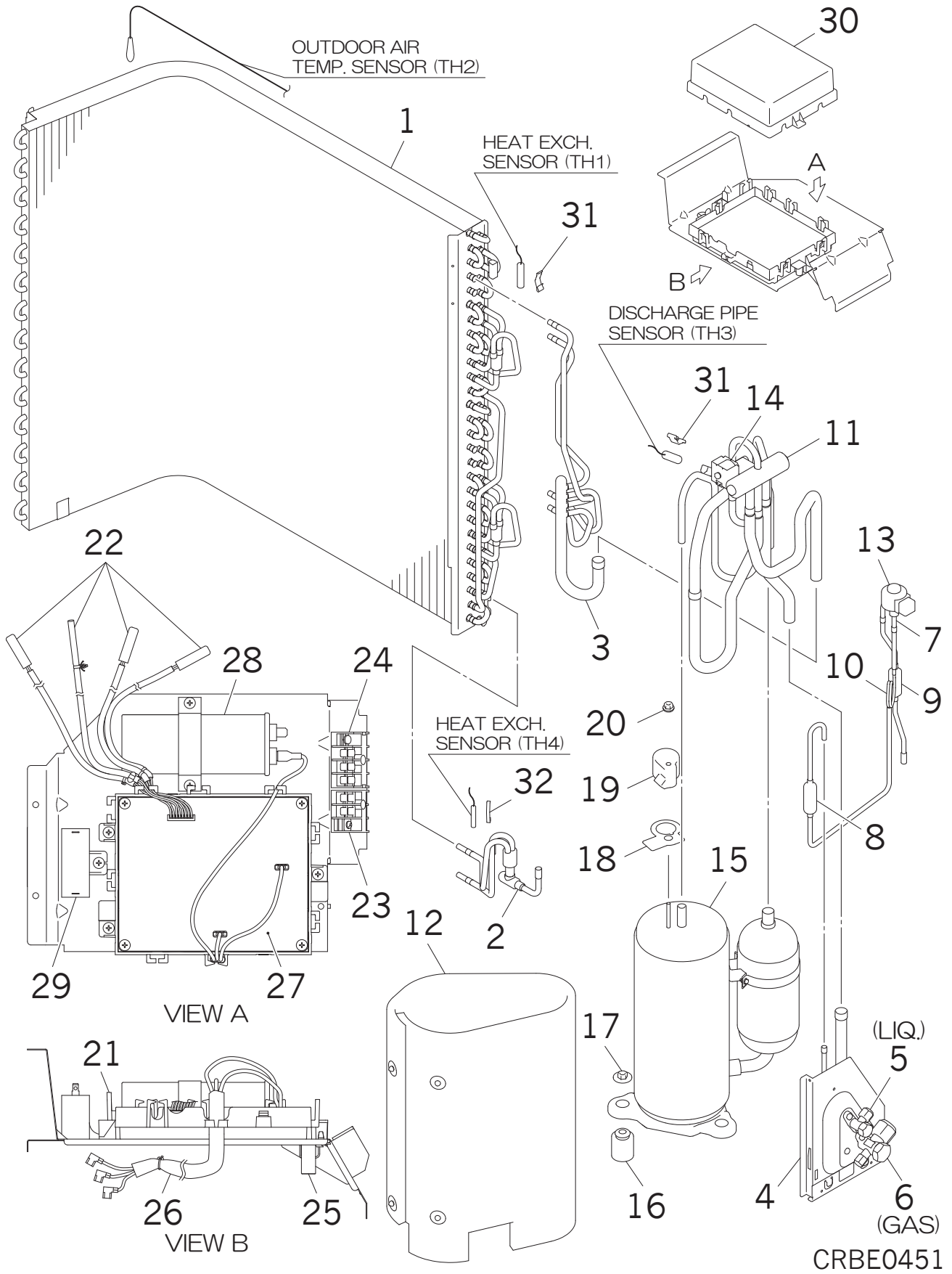
SRC71HSBP-S

CRBE0450

END ITEM NO. : RWC003F100C

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1	RCR111A001F	BASE ASSY	1			1	1	1	2	
2	RCR122A001F	PANEL ASSY,FRONT	1			1	1	1	2	
3 • 4	RCR125A002C	PANEL ASSY,REAR	1			1	1	1	2	
4	SSA944B031A	HANDLE	1							
5 • 6	RCR122A004A	PANEL ASSY,SERVICE	1			1	1	1	2	
6	SSA944B031A	HANDLE	1							
7 • 8	RCR124A002H	PANEL ASSY,TOP	1			1	1	1	2	
8	RSA011H016H	LABEL,NOTICE	1							
9	RCR115A002A	SUPPORT,CORNER	1							
10	RCR435A002	GRILLE,AIR OUTLET	1			1	1	2	3	
11	RCR131A001	GUARD,FIN(A)	1							
12	RCR131A002	GUARD,FIN(B)	1							
13	RCR941G001	CUSHION,RUBBER	1							
14	SSA913A034F	SCREW,TAP	29							4×8
15	SSA913A034G	SCREW,TAP	2							4×12
16	RCR132A004	COVER ASSY,SERVICE	1							
17	RCR132A002	COVER,TERMINAL	1							
18 • 19	RCR141A001A	PLATE,BAFFLE	1							
19	SSA947B019	GROMMET	1							
20	SSA431B256	FAN,PROPELLER	1			1	1	2	4	
21	SSA914B007AD	NUT,TH	1							
22	W011D04X008	TAP-SCREW,CRS-TRS 2	4							4×8
23	RCR116A220A	BRACKET ASSY,MOTOR	1							
24	SSA915B019A	WASHER	3							
25	SSA913A034G	SCREW,TAP	3							4×12
26	SSA511T275	MOTOR,AC	1			1	1	1	2	
27	RCR011G002CF	LABEL,WIRING	1							

HEAT EXCH. & CONTROL



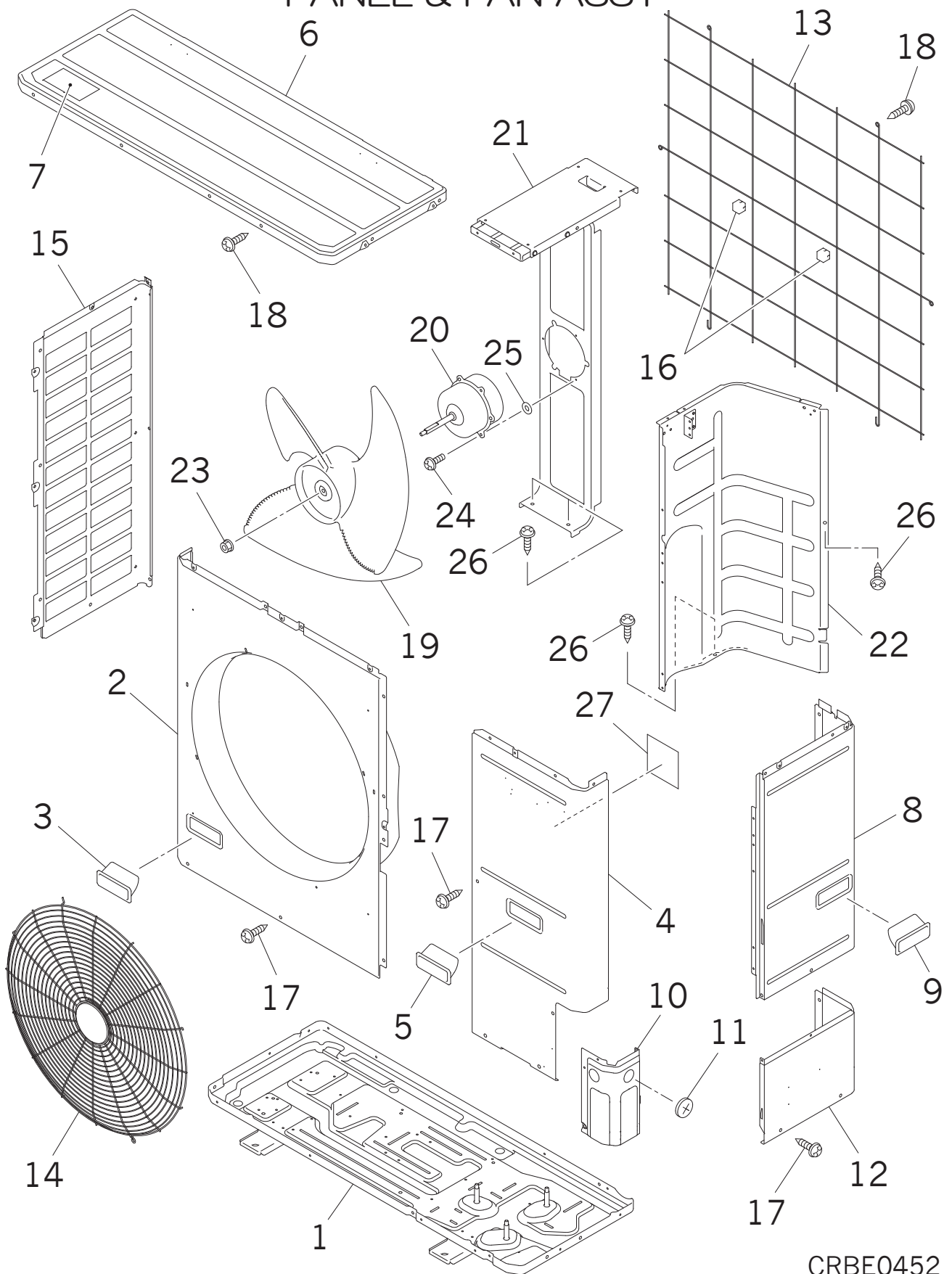
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CRBE0451

END ITEM NO. : RWC003F100C

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~3	RCR301A202C	HEAT EXCH ASSY(AIR)	1			1	1	1	2	
2	RCR315A200	DISTRIBUTOR ASSY	1							
3	RCR315D200	HEADER ASSY,GAS	1							
4	RCR116A003	BRACKET(VALVE)	1							
5	RCR381A003B	VALVE,SERVICE(1/4")	1			1	1	1	2	LIQ.
6	RCR381A004	VALVE,SERVICE(5/8")	1			1	1	1	2	GAS
7~10	RCR304A201	PIPING ASSY(EXPAN)	1			1	1	1	2	
7	SSA387F052	VALVE,BODY(EXP)	1			1	1	1	2	EEV
8	SSA357A005A	STRAINER	1							
9	RCN325A700	PIPE,SHELL	1							
10	RCV315B202A	CAPILLARY	1							φ 2.6×φ 3.6 L300
11	SSA382C098	VALVE,S(4WAY)	1							20S
12	RCR154D203	INSULATION,COMP	1							
13	SSA382F210AY	COIL,SOLENOID	1			1	1	1	2	FOR EEV
14	RSA382F013BC	COIL ASSY,SOLENOID	1			1	1	1	2	FOR 20S
15	RSA201A041	COMPRESSOR ASSY	1			1	2	3	8	
16	RMC941C002	CUSHION,RUBBER	3							
17	SSA914C013	NUT,FLANGE	3							
18	RMC932C003	GASKET,COVER	1							
19	RMC947K003	COVER,TERMINAL	1			1	1	2	4	
20	SSA914C016	NUT,FLANGE	1							
21	RCP142A502	BOX,CONTROL	1							
22	SSA551A247A	SENSOR ASSY	1			1	1	2	4	TH1,2,3,4
23	SSA561B665	BLOCK,TERMINAL	1			1	1	2	2	TB1
24	SSA561B702B	BLOCK,TERMINAL	1			1	1	2	2	TB2
25	SSA554D183	KILLER,NOISE	1							
26	RWC504A085A	HARNESS ASSY	1			1	1	2	2	FOR COMP.
27	RCR505A040R	PWB ASSY	1			2	2	4	8	
28	SSA552A178M	CAPACITOR,RUNNING	1							CC
29	SSA552A836C	CAPACITOR,RUNNING	1							CF
30	RCP132A500	COVER,CONTROL	1							
31	RCJ941F001	SPRING,LEAF	2							FOR TH1,3
32	RKF941F002	SPRING,LEAF	1							FOR TH4
(33)	RCR011F003AN	LABEL,MODEL NAME	1							

PANEL & FAN ASSY



CRBE0452

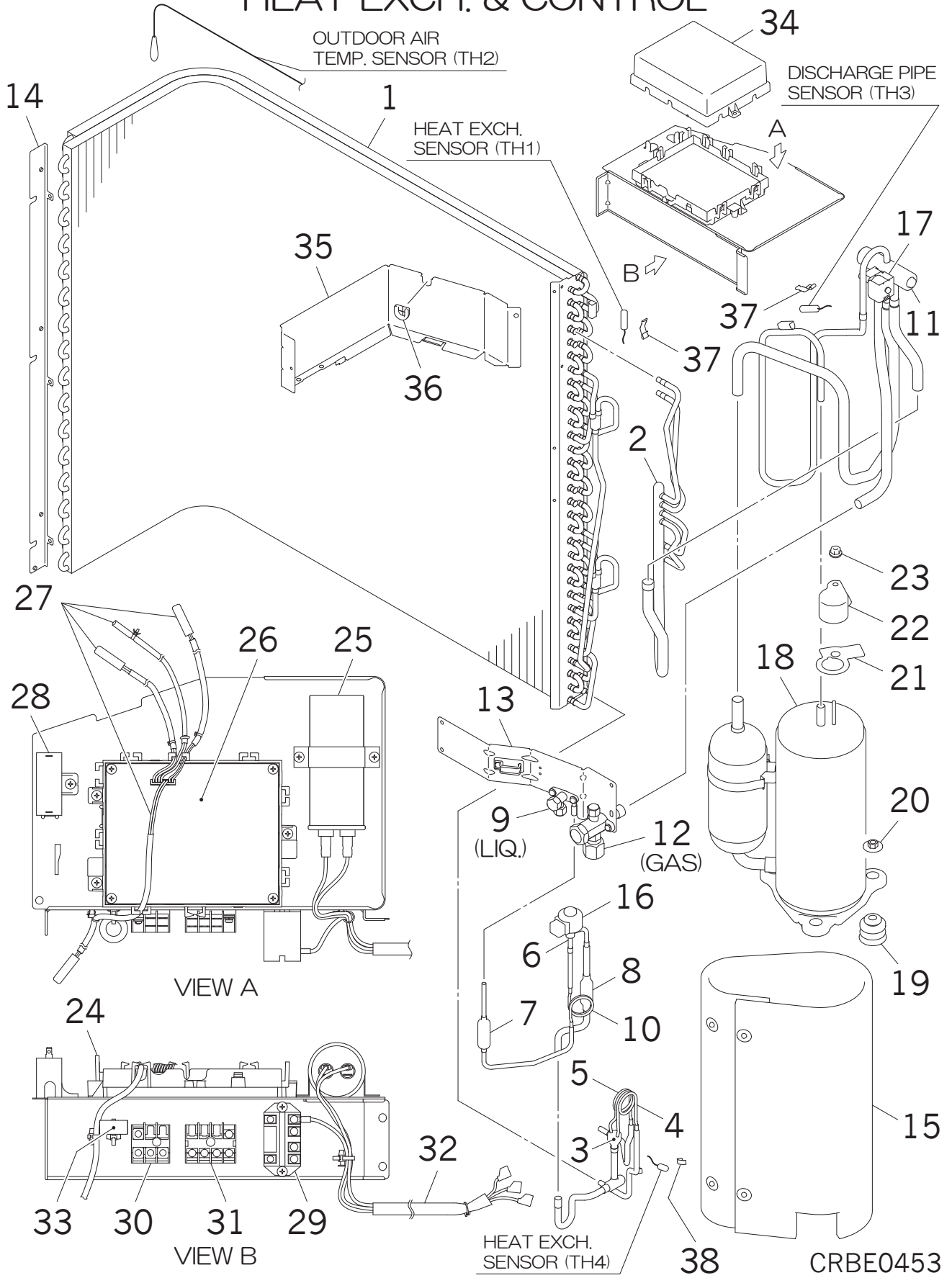
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CRBE0452

END ITEM NO. : RWC003F101C

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1	RCR111A101A	BASE ASSY	1			1	1	1	2	
2 · 3	PCA122A075G	PANEL ASSY,FRONT	1			1	1	1	2	
3	SSA944B031A	HANDLE	1							
4 · 5	RCR122A100	PANEL ASSY,SERVICE	1			1	1	1	2	
5	SSA944B031A	HANDLE	1							
6 · 7	RCR124A200	PANEL ASSY, TOP	1			1	1	1	2	
7	RSA011H016H	LABEL,NOTICE	1							
8 · 9	RCR125A100	PANEL ASSY,REAR	1			1	1	1	2	
9	SSA944B031A	HANDLE	1							
10 · 11	PCA142A065F	COVER,FRONT	1							
11	S751W25X	GROMMET	1							φ 30
12	PCA142A184B	COVER,SIDE	1							
13	PCA131A033	GUARD,FIN	1							
14	PCA131A038	GUARD,FAN	1			1	1	2	3	
15	PCA123A023	PANEL,SIDE(L)	1							
16	PCA941G004	CUSHION,RUBBER	2							
17	SSA913D020	SCREW,TAP & WASHER	32							M5×10
18	SSA913D020A	SCREW,TAP & WASHER	14							M5×14
19	SSA431B228	FAN,PROPELLER	1			1	1	2	4	
20	SSA511T277	MOTOR,AC	1			1	1	1	2	
21	RCR116A214	BASE,MOTOR	1							
22	RCR141A203	PLATE ASSY,BAFFLE	1							
23	SSA914B007AD	NUT,TH	1							
24	SSA913A034G	SCREW,TAP	3							4×12
25	SSA915B019A	WASHER	3							
26	SSA913D020	SCREW,TAP & WASHER	4							M5×10
27	RCR011G002CG	LABEL,WIRING	1							

HEAT EXCH. & CONTROL



SRC90HSBP-S

CRBE0453

END ITEM NO. : RWC003F101C

No.	Part No.	Part Name	RE.Q	Recommendable Purchased Q'ty						Note
				10	30	50	100	500	1000	
1~10	RCR301A204B	HEAT EXCH ASSY(AIR)	1			1	1	1	2	
2	RCR315D202	HEADER ASSY,GAS	1							
3~5	RCR315A201	DISTRIBUTOR ASSY	1							
3	RSA315A004B	DISTRIBUTOR	1							
4	RCR315B012	CAPILLARY	1							φ 2.6×φ 4.0 L300
5	RCR315B100	CAPILLARY	1							φ 2.6×φ 4.0 L300
6~10	RCR304A203	PIPING ASSY(EXPAN)	1			1	1	1	2	
6	SSA387F065	VALVE,BODY(EXP)	1			1	1	1	2	EEV
7	SSA357A005A	STRAINER	1							
8	SSA357A005B	STRAINER	1							
9	RCR381A100	VALVE,SERVICE(1/4")	1			1	1	1	2	LIQ.
10	RCV315B202A	CAPILLARY	1							φ 2.6×φ 3.6 L300
11	SSA382C098	VALVE,S(4WAY)	1			1	1	1	2	20S
12	PCA381A062C	VALVE,SERVICE(5/8")	1			1	1	1	2	GAS
13	RCR116A212	BRACKET ASSY(VALVE)	1							
14	PCA141A100	PLATE,BAFFLE(L)	1							
15	RCR154D206	INSULATION,COMP	1							
16	SSA382F210L	COIL,SOLENOID	1			1	1	1	2	FOR EEV
17	RSA382F013BF	COIL ASSY,SOLENOID	1			1	1	1	2	FOR 20S
18	RSA201A043	COMPRESSOR ASSY	1			1	2	3	8	
19	RMC941C003	CUSHION,RUBBER	3							
20	SSA914C013	NUT,FLANGE	3							
21	RMC932C003	GASKET,COVER	1							
22	RMC947K003	COVER,TERMINAL	1			1	1	2	4	
23	SSA914C016	NUT,FLANGE	1							
24	RCP142A502	BOX,CONTROL	1							
25	SSA552A178M	CAPACITOR,RUNNING	1							CC
26	RCR505A040S	PWB ASSY	1			2	2	4	8	
27	SSA551A247	SENSOR ASSY	1			1	1	2	4	TH1,2,3,4
28	SSA552A836C	CAPACITOR,RUNNING	1							CF
29	SSA521A715A	RELAY	1							52C
30	SSA561B665	BLOCK,TERMINAL	1			1	1	2	2	TB1
31	SSA561B702B	BLOCK,TERMINAL	1			1	1	2	2	TB2
32	RCR504A054B	HARNESS ASSY	1			1	1	2	2	FOR COMP.
33	SSA554D183	KILLER,NOISE	1							
34	RCP132A500	COVER,CONTROL	1							
35	RCR141A201	PLATE,BAFFLE(U)	1							
36	SSA947B019	GROMMET	1							
37	RCJ941F001	SPRING,LEAF	2							FOR TH1,3
38	RKF941F002	SPRING,LEAF	1							FOR TH4
(39)	RCR011F003AP	LABEL,MODEL NAME	1							

RESIDENTIAL AIR-CONDITIONING TECHNICAL MANUAL & PARTS LIST

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