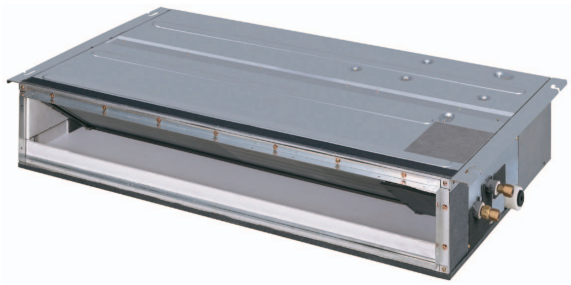
DAIKIN

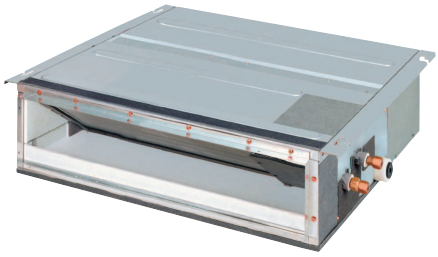
EDBE 07 - 670

Engineering Data
SPLIT

- Cooling Only / Heat Pump -

C-Series / E-Series





INVERTER

DAIKIN INDUSTRIES, LTD.

Split System Room Air Conditioners C-Series, E-Series

Cooling Only	**FDKS25EAVMB**	**RKS25E2V1B**
	FDKS35EAVMB	**RKS35E2V1B**
	FDKS25CAVMB	**RKS25E2V1B**
	FDKS35CAVMB	**RKS35E2V1B**
Heat Pump	**FDXS25EAVMB**	**RXS25E2V1B**
	FDXS35EAVMB	**RXS35E2V1B**
	FDXS25CAVMB	**RXS25E2V1B**
	FDXS35CAVMB	**RXS35E2V1B**

Cautions

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided and choose an outdoor unit with anti-corrosion treatment.

1. Power Supply

Indoor Unit		Outdoor Unit	Power Supply
Duct Connected Type	FDKS25EAVMB	RKS25E2V1B	1∅ 50Hz 230V
	FDKS35EAVMB	RKS35E2V1B	
	FDKS25CAVMB	RKS25E2V1B	
	FDKS35CAVMB	RKS35E2V1B	
	FDXS25EAVMB	RXS25E2V1B	
	FDXS35EAVMB	RXS35E2V1B	
	FDXS25CAVMB	RXS25E2V1B	
	FDXS35CAVMB	RXS35E2V1B	

Note: Power Supply Intake ; Outdoor Unit

2. Functions

Category	Functions	FDKS25EAVMB RKS25E2V1B	FDKS35EAVMB RKS35E2V1B	FDKS25CAVMB RKS25E2V1B	FDKS35CAVMB RKS35E2V1B	FDXS25EAVMB RXS25E2V1B	FDXS35EAVMB RXS35E2V1B	FDXS25CAVMB RXS25E2V1B	FDXS35CAVMB RXS35E2V1B
Basic Function	Inverter (with Inverter Power Control)	○	○	○	○	○	○	○	○
	Operation Limit for Cooling (°CDB)	-10 ~ 46	-10 ~ 46	-10 ~ 46	-10 ~ 46	-10 ~ 46	-10 ~ 46	-10 ~ 46	-10 ~ 46
	Operation Limit for Heating (°CWB)	—	—	—	—	-15 ~ 20	-15 ~ 20	-15 ~ 20	-15 ~ 20
	PAM Control	○	○	○	○	○	○	○	○
Compressor	Oval Scroll Compressor	—	—	—	—	—	—	—	—
	Swing Compressor	○	○	○	○	○	○	○	○
	Rotary Compressor	—	—	—	—	—	—	—	—
	Reluctance DC Motor	○	○	○	○	○	○	○	○
Comfortable Airflow	Power-Airflow Flap	—	—	—	—	—	—	—	—
	Power-Airflow Dual Flaps	—	—	—	—	—	—	—	—
	Power-Airflow Diffuser	—	—	—	—	—	—	—	—
	Wide-Angle Louvers	—	—	—	—	—	—	—	—
	Vertical Auto-Swing (Up & Down)	—	—	—	—	—	—	—	—
	Horizontal Auto-Swing (Right & Left)	—	—	—	—	—	—	—	—
	3-D Airflow	—	—	—	—	—	—	—	—
	Cooling Breeze Operation	—	—	—	—	—	—	—	—
	Comfort Airflow Mode	—	—	—	—	—	—	—	—
	3-Step Airflow (H/P Only)	—	—	—	—	—	—	—	—
Comfort Control	Auto Fan Speed	○	○	○	○	○	○	○	○
	Indoor Unit Quiet Operation	○	○	○	○	○	○	○	○
	Night Quiet Mode	—	—	—	—	—	—	—	—
	Outdoor Unit Quiet Operation	○	○	○	○	○	○	○	○
	Intelligent Eye	—	—	—	—	—	—	—	—
	Quick Warming Function	—	—	—	—	○	○	○	○
	Hot-Start Function	—	—	—	—	○	○	○	○
	Automatic Defrosting	—	—	—	—	○	○	○	○
Operation	Automatic Operation	—	—	—	—	○	○	○	○
	Humidifying Operation	—	—	—	—	—	—	—	—
	Re-heater Dehumidifying Operation	—	—	—	—	—	—	—	—
	Programme Dry Function	○	○	○	○	○	○	○	○
	Fan Only	○	○	○	○	○	○	○	○
Lifestyle Convenience	New Powerful Operation (Non-INV)	—	—	—	—	—	—	—	—
	Inverter Powerful Operation	○	○	○	○	○	○	○	○
	Priority-Room Setting	—	—	—	—	—	—	—	—
	Cooling/Heating Mode Lock	—	—	—	—	—	—	—	—
	Home Leave Operation	○	○	○	○	○	○	○	○
	ECONO Mode	—	—	—	—	—	—	—	—
	Indoor Unit On/Off Switch	○	○	○	○	○	○	○	○
	Signal Reception Indicator	○	○	○	○	○	○	○	○
	Temperature Display	—	—	—	—	—	—	—	—
	Multi-colored Indicator	—	—	—	—	—	—	—	—
	Temperature&Humidity Level Information Display	—	—	—	—	—	—	—	—

Category	Functions	FDKS25EAVMB RKS25E2V1B	FDKS35EAVMB RKS35E2V1B	FDKS25CAVMB RKS25E2V1B	FDKS35CAVMB RKS35E2V1B	FDXS25EAVMB RXS25E2V1B	FDXS35EAVMB RXS35E2V1B	FDXS25CAVMB RXS25E2V1B	FDXS35CAVMB RXS35E2V1B
Health & Clean	Air Purifying Filter	—	—	—	—	—	—	—	—
	Photocatalytic Deodorizing Filter	—	—	—	—	—	—	—	—
	Air Purifying Filter with Photocatalytic Deodorizing Function	—	—	—	—	—	—	—	—
	Titanium Apatite Photocatalytic Air-Purifying Filter	—	—	—	—	—	—	—	—
	Longlife Filter	—	—	—	—	—	—	—	—
	Mold Proof Air Filter	○	○	○	○	○	○	○	○
	Wipe-clean Flat Panel	—	—	—	—	—	—	—	—
	Washable Grille	—	—	—	—	—	—	—	—
	Flash Streamer Air Purifying Operation	—	—	—	—	—	—	—	—
	Fresh Air Supply Ventilation	—	—	—	—	—	—	—	—
	Mold Shock Operation	—	—	—	—	—	—	—	—
	Mold Proof Operation	—	—	—	—	—	—	—	—
	Mold Proof Stick	—	—	—	—	—	—	—	—
	Mold Proof Drain Pan	—	—	—	—	—	—	—	—
	Heating Dry Operation	—	—	—	—	—	—	—	—
	Antibacterial Fan	—	—	—	—	—	—	—	—
	Catechin fan	—	—	—	—	—	—	—	—
	Comfort Sleep Operation	—	—	—	—	—	—	—	—
	Good-Sleep Cooling Operation	—	—	—	—	—	—	—	—
Timer	Weekly Timer	—	—	—	—	—	—	—	—
	24-Hour On/ Off Timer	○	○	○	○	○	○	○	○
	Count Up-Down Timer	—	—	—	—	—	—	—	—
	Night Set Mode	○	○	○	○	○	○	○	○
Flexibility	Multi-Split/ Split Type Compatible Indoor Unit	○	○	○	○	○	○	○	○
	Flexible Voltage Correspondence	—	—	—	—	—	—	—	—
	Chargeless	10m	10m	10m	10m	10m	10m	10m	10m
	Either Side Drain (Right or Left)	—	—	—	—	—	—	—	—
	Power Selection	—	—	—	—	—	—	—	—
	Max. Interunit Piping Length	20m	20m	20m	20m	20m	20m	20m	20m
	Max. Installation Height Difference	15m	15m	15m	15m	15m	15m	15m	15m
Other Functions	Auto-Restart (after Power Failure)	○	○	○	○	○	○	○	○
	Self-Diagnosis (Digital, LED) Display	○	○	○	○	○	○	○	○
	Wiring-Error Check	—	—	—	—	—	—	—	—
	Anticorrosion Treatment of Outdoor Heat Exchanger	○	○	○	○	○	○	○	○
Remote Control	5-Rooms Centralized Controller	●	●	●	●	●	●	●	●
	Remote Control Adaptor (Normal Open-Pulse)	●	●	●	●	●	●	●	●
	Remote Control Adaptor (Normal Open Contact)	●	●	●	●	●	●	●	●
	DIII-NET Compatible (Adaptor)	●	●	●	●	●	●	●	●
Remote Controller	Wireless	○	○	○	○	○	○	○	○
	Wired	—	—	—	—	—	—	—	—

Note: ● : Optional Accessory
○ : Holding Functions
— : No Functions

3. Specifications

3.1 Cooling Only

Duct Connected Type

50Hz 230V

Model	Indoor Units			FDKS25EAVMB	FDKS35EAVMB
	Outdoor Units			RKS25E2V1B	RKS35E2V1B
Capacity Rated (Min.~Max.)			kW	2.4 (1.3~3.0)	3.4 (1.4~3.8)
			Btu/h	8,150 (4,400~10,200)	11,600 (4,800~13,000)
			kcal/h	2,060 (1,110~2,580)	2,920 (1,200~3,260)
Moisture Removal			L/h	1.2	1.9
Running Current (Rated)			A	4.0	5.0
Power Consumption Rated			W	690	1,090
Power Factor			%	75.4	95.0
COP Rated			W/W	3.48	3.12
Piping Connections	Liquid		mm	⌀6.4	⌀6.4
	Gas		mm	⌀9.5	⌀9.5
	Drain		mm	VP20(O.D.⌀26/I.D.⌀20)	VP20(O.D.⌀26/I.D.⌀20)
Heat Insulation				Both Liquid and Gas Pipes	Both Liquid and Gas Pipes
Max. Interunit Piping Length			m	20	20
Max. Interunit Height Difference			m	15	15
Chargeless			m	10	10
Amount of Additional Charge of Refrigerant			g/m	20	20
Indoor Unit				**FDKS25EAVMB**	**FDKS35EAVMB**
External Static Pressure			Pa	30	30
Air Flow Rate	m^3/min (cfm)		H	8.7 (307)	8.7 (307)
			M	8.0 (282)	8.0 (282)
			L	7.3 (258)	7.3 (258)
			SL	6.2 (219)	6.2 (219)
Fan	Type			Sirocco Fan	Sirocco Fan
	Motor Output		W	62	62
	Speed		Steps	5 Steps,silent,auto	5 Steps,silent,auto
Air Filter				Removable, Washable, Mildew Proof	Removable/washable/mildew Proof
Running Current (Rated)			A	0.48	0.48
Power Consumption (Rated)			W	71	71
Power Factor			%	64.3	64.3
Temperature Control				Microcomputer Control	Microcomputer Control
Dimensions (H×W×D)			mm	200×700×620	200×700×620
Packaged Dimensions (H×W×D)			mm	274×906×751	274×906×751
Weight			kg	21	21
Gross Weight			kg	29	29
Operation Sound	Sound Pressure	H/M/L/SL	dBA	35/33/31/29	35/33/31/29
	Sound Power	H	dBA	53	53
Outdoor Unit				**RKS25E2V1B**	**RKS35E2V1B**
Casing Color				Ivory White	Ivory White
Compressor	Type			Hermetically Sealed Swing Type	Hermetically Sealed Swing Type
	Model			1YC23NXD#C	1YC23NXD#C
	Motor Output		W	600	600
Refrigerant Oil	Type			FVC50K	FVC50K
	Charge		L	0.375	0.375
Refrigerant	Type			R410A	R410A
	Charge		kg	1.0	1.0
Air Flow Rate	m^3/min (cfm)		H	33.5 (1,183)	33.5 (1,183)
			L	23.4 (826)	23.4 (826)
Fan	Type			Propeller	Propeller
	Motor Output		W	23	23
Running Current (Rated)			A	3.50	4.51
Power Consumption (Rated)			W	619	1019
Power Factor			%	76.9	98.2
Starting Current			A	4.3	5.5
Dimensions (H×W×D)			mm	550×765×285	550×765×285
Packaged Dimensions (H×W×D)			mm	617×882×363	617×882×363
Weight			kg	32	32
Gross Weight			kg	38	38
Operation Sound	Sound Pressure	H/L	dBA	46/43	47/44
	Sound Power	H	dBA	61	62
Drawing No.				3D057661	3D057662

Note: 1. The data are based on the conditions shown in the table below.

Cooling	Piping Length
Indoor;27°CDB/19°CWB Outdoor;35°CDB/24°CWB	7.5m

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3414 cfm=m^3/min×35.3

50Hz 230V

Model	**Indoor Units**			**FDKS25CAVMB**	**FDKS35CAVMB**
	Outdoor Units			**RKS25E2V1B**	**RKS35E2V1B**
Capacity Rated (Min.~Max.)			kW	2.4 (1.3~3.0)	3.4 (1.4~3.8)
			Btu/h	8,150 (4,400~10,200)	11,600 (4,800~13,000)
			kcal/h	2,060 (1,110~2,580)	2,920 (1,200~3,260)
Moisture Removal			L/h	1.2	1.9
Running Current (Rated)			A	4.0	5.0
Power Consumption Rated			W	690	1,090
Power Factor			%	75.4	95.0
COP Rated			W/W	3.48	3.12
Piping Connections	Liquid		mm	⌀6.4	⌀6.4
	Gas		mm	⌀9.5	⌀9.5
	Drain		mm	VP20(O.D.⌀26/I.D.⌀20)	VP20(O.D.⌀26/I.D.⌀20)
Heat Insulation				Both Liquid and Gas Pipes	Both Liquid and Gas Pipes
Max. Interunit Piping Length			m	20	20
Max. Interunit Height Difference			m	15	15
Chargeless			m	10	10
Amount of Additional Charge of Refrigerant			g/m	20	20
Indoor Unit				**FDKS25CAVMB**	**FDKS35CAVMB**
External Static Pressure			Pa	40	40
Air Flow Rate	m^3/min (cfm)		H	9.5 (335)	10.0 (353)
			M	8.8 (311)	9.3 (328)
			L	8.0 (282)	8.5 (300)
			SL	6.7 (237)	7.0 (247)
Fan	Type			Sirocco Fan	Sirocco Fan
	Motor Output		W	62	62
	Speed		Steps	5 Steps,silent,auto	5 Steps,silent,auto
Air Filter				Removable, Washable, Mildew Proof	Removable, Washable, Mildew Proof
Running Current (Rated)			A	0.47	0.47
Power Consumption (Rated)			W	100	100
Power Factor			%	92.5	92.5
Temperature Control				Microcomputer Control	Microcomputer Control
Dimensions (H×W×D)			mm	200×900×620	200×900×620
Packaged Dimensions (H×W×D)			mm	266×1106×751	266×1106×751
Weight			kg	25	25
Gross Weight			kg	31	31
Operation Sound	Sound Pressure	H/M/L/SL	dBA	35/33/31/29	35/33/31/29
	Sound Power	H	dBA	53	53
Outdoor Unit				**RKS25E2V1B**	**RKS35E2V1B**
Casing Color				Ivory White	Ivory White
Compressor	Type			Hermetically Sealed Swing Type	Hermetically Sealed Swing Type
	Model			1YC23NXD#C	1YC23NXD#C
	Motor Output		W	600	600
Refrigerant Oil	Type			FVC50K	FVC50K
	Charge		L	0.375	0.375
Refrigerant	Type			R410A	R410A
	Charge		kg	1.0	1.0
Air Flow Rate	m^3/min (cfm)		H	33.5 (1,183)	33.5 (1,183)
			L	23.4 (826)	23.4 (826)
Fan	Type			Propeller	Propeller
	Motor Output		W	23	23
Running Current (Rated)			A	3.51	4.52
Power Consumption (Rated)			W	590	990
Power Factor			%	73.1	95.2
Starting Current			A	4.3	5.5
Dimensions (H×W×D)			mm	550×765×285	550×765×285
Packaged Dimensions (H×W×D)			mm	617×882×363	617×882×363
Weight			kg	32	32
Gross Weight			kg	38	38
Operation Sound	Sound Pressure	H/L	dBA	46/43	47/44
	Sound Power	H	dBA	61	62
Drawing No.				3D057663	3D057664

Note: 1. The data are based on the conditions shown in the table below.

Cooling	Piping Length
Indoor;27°CDB/19°CWB Outdoor;35°CDB/24°CWB	7.5m

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3414 cfm=m^3/min×35.3

3.2 Heat Pump

Duct Connected Type

50Hz 230V

Model	Indoor Units			FDXS25EAVMB		FDXS35EAVMB	
	Outdoor Units			RXS25E2V1B		RXS35E2V1B	
				Cooling	Heating	Cooling	Heating
Capacity Rated (Min.~Max.)			kW	2.4 (1.3~3.0)	3.2 (1.3~4.5)	3.4 (1.4~3.8)	4.0 (1.4~5.0)
			Btu/h	8,150 (4,400~10,200)	10,900 (4,400~15,350)	11,600 (4,800~13,000)	13,600 (4,800~17,100)
			kcal/h	2,060 (1,110~2,580)	2,750 (1,110~3,870)	2,920 (1,200~3,260)	3,440 (1,200~4,300)
Moisture Removal			L/h	1.2	—	1.9	—
Running Current (Rated)			A	4.0	4.3	5.0	5.5
Power Consumption Rated			W	690	910	1,090	1,180
Power Factor			%	75.4	93.1	95.0	93.3
COP Rated			W/W	3.48	3.52	3.12	3.39
Piping Connections	Liquid		mm	⌀6.4		⌀6.4	
	Gas		mm	⌀9.5		⌀9.5	
	Drain		mm	VP20(O.D.⌀26/I.D.⌀20)		VP20(O.D.⌀26/I.D.⌀20)	
Heat Insulation				Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Max. Interunit Piping Length			m	20		20	
Max. Interunit Height Difference			m	15		15	
Chargeless			m	10		10	
Amount of Additional Charge of Refrigerant			g/m	20		20	
Indoor Units				FDXS25EAVMB		FDXS35EAVMB	
External Static Pressure			Pa	30		30	
Air Flow Rate	m^3/min (cfm)		H	8.7 (307)	8.7 (307)	8.7 (307)	8.7 (307)
			M	8.0 (282)	8.0 (282)	8.0 (282)	8.0 (282)
			L	7.3 (258)	7.3 (258)	7.3 (258)	7.3 (258)
			SL	6.2 (219)	6.2 (219)	6.2 (219)	6.2 (219)
Fan	Type			Sirocco Fan		Sirocco Fan	
	Motor Output		W	62		62	
	Speed		Steps	5 Steps,silent,auto		5 Steps,silent,auto	
Air Filter				Removable, Washable, Mildew Proof		Removable/washable/mildew Proof	
Running Current (Rated)			A	0.48	0.48	0.48	0.48
Power Consumption (Rated)			W	71	71	71	71
Power Factor			%	64.3	64.3	64.3	64.3
Temperature Control				Microcomputer Control		Microcomputer Control	
Dimensions (H×W×D)			mm	200×700×620		200×700×620	
Packaged Dimensions (H×W×D)			mm	274×906×751		274×906×751	
Weight			kg	21		21	
Gross Weight			kg	29		29	
Operation Sound	Sound Pressure	H/M/L/SL	dBA	35/33/31/29	35/33/31/29	35/33/31/29	35/33/31/29
	Sound Power	H	dBA	53	53	53	53
Outdoor Units				RXS25E2V1B		RXS35E2V1B	
Casing Color				Ivory White		Ivory White	
Compressor	Type			Hermetically Sealed Swing Type		Hermetically Sealed Swing Type	
	Model			1YC23NXD#C		1YC23NXD#C	
	Motor Output		W	600		600	
Refrigerant Oil	Type			FVC50K		FVC50K	
	Charge		L	0.375		0.375	
Refrigerant	Type			R410A		R410A	
	Charge		kg	1.0		1.0	
Air Flow Rate	m^3/min (cfm)		H	33.5 (1,183)	30.2 (1,066)	33.5 (1,183)	30.2 (1,066)
			L	23.4 (826)	28.3 (999)	23.4 (826)	28.3 (999)
Fan	Type			Propeller		Propeller	
	Motor Output		W	23		23	
Running Current (Rated)			A	3.50	3.77	4.51	5.02
Power Consumption (Rated)			W	619	839	1019	1109
Power Factor			%	76.9	96.8	98.2	96.1
Starting Current			A	4.3		5.5	
Dimensions (H×W×D)			mm	550×765×285		550×765×285	
Packaged Dimensions (H×W×D)			mm	617×882×363		617×882×363	
Weight			kg	32		32	
Gross Weight			kg	38		38	
Operation Sound	Sound Pressure	H/L	dBA	46/43	47/44	47/44	48/45
	Sound Power	H	dBA	61	62	62	63
Drawing No.				3D057649		3D057652	

Note: 1. The data are based on the conditions shown in the table below.

Cooling	Heating	Piping Length
Indoor;27°CDB/19°CWB Outdoor;35°CDB/24°CWB	Indoor;20°CDB Outdoor;7°CDB/6°CWB	7.5m

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3414 cfm=m^3/min×35.3

50Hz 230V

Model	Indoor Units			FDXS25CAVMB		FDXS35CAVMB	
	Outdoor Units			RXS25E2V1B		RXS35E2V1B	
				Cooling	Heating	Cooling	Heating
Capacity Rated (Min.~Max.)			kW	2.4 (1.3~3.0)	3.2 (1.3~4.5)	3.4 (1.4~3.8)	4.0 (1.4~5.0)
			Btu/h	8,150 (4,400~10,200)	10,900 (4,400~15,350)	11,600 (4,800~13,000)	13,600 (4,800~17,100)
			kcal/h	2,060 (1,110~2,580)	2,750 (1,110~3,870)	2,920 (1,200~3,260)	3,440 (1,200~4,300)
Moisture Removal			L/h	1.2	—	1.9	—
Running Current (Rated)			A	4.0	4.3	5.0	5.5
Power Consumption Rated			W	690	910	1,090	1,180
Power Factor			%	75.4	93.1	95.0	93.3
COP Rated			W/W	3.48	3.52	3.12	3.39
Piping Connections	Liquid		mm	⌀6.4		⌀6.4	
	Gas		mm	⌀9.5		⌀9.5	
	Drain		mm	VP20(O.D.⌀26/I.D.⌀20)		VP20(O.D.⌀26/I.D.⌀20)	
Heat Insulation				Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Max. Interunit Piping Length			m	20		20	
Max. Interunit Height Difference			m	15		15	
Chargeless			m	10		10	
Amount of Additional Charge of Refrigerant			g/m	20		20	
Indoor Units				**FDXS25CAVMB**		**FDXS35CAVMB**	
External Static Pressure			Pa	40		40	
Air Flow Rate	m^3/min (cfm)		H	9.5 (335)	9.5 (335)	10.0 (353)	10.0 (353)
			M	8.8 (311)	8.8 (311)	9.3 (328)	9.3 (328)
			L	8.0 (282)	8.0 (282)	8.5 (300)	8.5 (300)
			SL	6.7 (237)	6.7 (237)	7.0 (247)	7.0 (247)
Fan	Type			Sirocco Fan		Sirocco Fan	
	Motor Output		W	62		62	
	Speed		Steps	5 Steps,silent,auto		5 Steps,silent,auto	
Air Filter				Removable, Washable, Mildew Proof		Removable, Washable, Mildew Proof	
Running Current (Rated)			A	0.47	0.47	0.47	0.47
Power Consumption (Rated)			W	100	100	100	100
Power Factor			%	92.5	92.5	92.5	92.5
Temperature Control				Microcomputer Control		Microcomputer Control	
Dimensions (H×W×D)			mm	200×900×620		200×900×620	
Packaged Dimensions (H×W×D)			mm	266×1106×751		266×1106×751	
Weight			kg	25		25	
Gross Weight			kg	31		31	
Operation Sound	Sound Pressure	H/M/L/SL	dBA	35/33/31/29	35/33/31/29	35/33/31/29	35/33/31/29
	Sound Power	H	dBA	53	53	53	53
Outdoor Units				**RXS25E2V1B**		**RXS35E2V1B**	
Casing Color				Ivory White		Ivory White	
Compressor	Type			Hermetically Sealed Swing Type		Hermetically Sealed Swing Type	
	Model			1YC23NXD#C		1YC23NXD#C	
	Motor Output		W	600		600	
Refrigerant Oil	Type			FVC50K		FVC50K	
	Charge		L	0.375		0.375	
Refrigerant	Type			R410A		R410A	
	Charge		kg	1.0		1.0	
Air Flow Rate	m^3/min (cfm)		H	33.5 (1,183)	30.2 (1,066)	33.5 (1,183)	30.2 (1,066)
			L	23.4 (826)	28.3 (999)	23.4 (826)	28.3 (999)
Fan	Type			Propeller		Propeller	
	Motor Output		W	23		23	
Running Current (Rated)			A	3.51	3.78	4.52	5.03
Power Consumption (Rated)			W	590	810	990	1080
Power Factor			%	73.1	93.2	95.2	93.4
Starting Current			A	4.3		5.5	
Dimensions (H×W×D)			mm	550×765×285		550×765×285	
Packaged Dimensions (H×W×D)			mm	617×882×363		617×882×363	
Weight			kg	32		32	
Gross Weight			kg	38		38	
Operation Sound	Sound Pressure	H/L	dBA	46/43	47/44	47/44	48/45
	Sound Power	H	dBA	61	62	62	63
Drawing No.				3D057653		3D057654	

Note: 1. The data are based on the conditions shown in the table below.

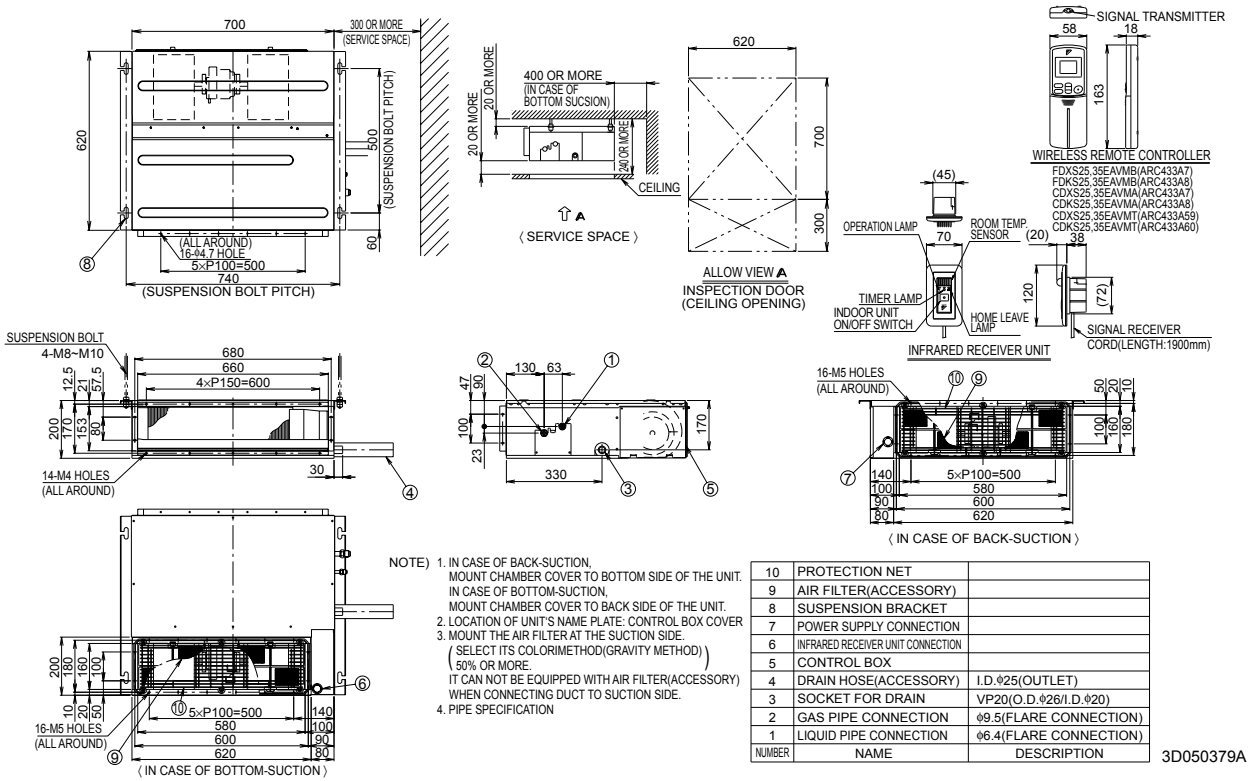
Cooling	Heating	Piping Length
Indoor;27°CDB/19°CWB Outdoor;35°CDB/24°CWB	Indoor;20°CDB Outdoor;7°CDB/6°CWB	7.5m

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3414 cfm=m^3/min×35.3

4. Dimensions

4.1 Indoor Units

FDKS25EAVMB, FDKS35EAVMB, FDXS25EAVMB, FDXS35EAVMB



NOTE) 1. IN CASE OF BACK-SUCTION,
MOUNT CHAMBER COVER TO BOTTOM SIDE OF THE UNIT.
IN CASE OF BOTTOM-SUCTION,
MOUNT CHAMBER COVER TO BACK SIDE OF THE UNIT.
2. LOCATION OF UNIT'S NAME PLATE: CONTROL BOX COVER
3. MOUNT THE AIR FILTER AT THE SUCTION SIDE.
(SELECT ITS COLORIMETHOD(GRAVITY METHOD))
50% OR MORE.
IT CAN NOT BE EQUIPPED WITH AIR FILTER(ACCESSORY)
WHEN CONNECTING DUCT TO SUCTION SIDE.
4. PIPE SPECIFICATION

NUMBER	NAME	DESCRIPTION
10	PROTECTION NET	
9	AIR FILTER(ACCESSORY)	
8	SUSPENSION BRACKET	
7	POWER SUPPLY CONNECTION	
6	INFRARED RECEIVER UNIT CONNECTION	
5	CONTROL BOX	
4	DRAIN HOSE(ACCESSORY)	I.D.φ25(OUTLET)
3	SOCKET FOR DRAIN	VP20(O.D.φ26/I.D.φ20)
2	GAS PIPE CONNECTION	φ9.5(FLARE CONNECTION)
1	LIQUID PIPE CONNECTION	φ6.4(FLARE CONNECTION)

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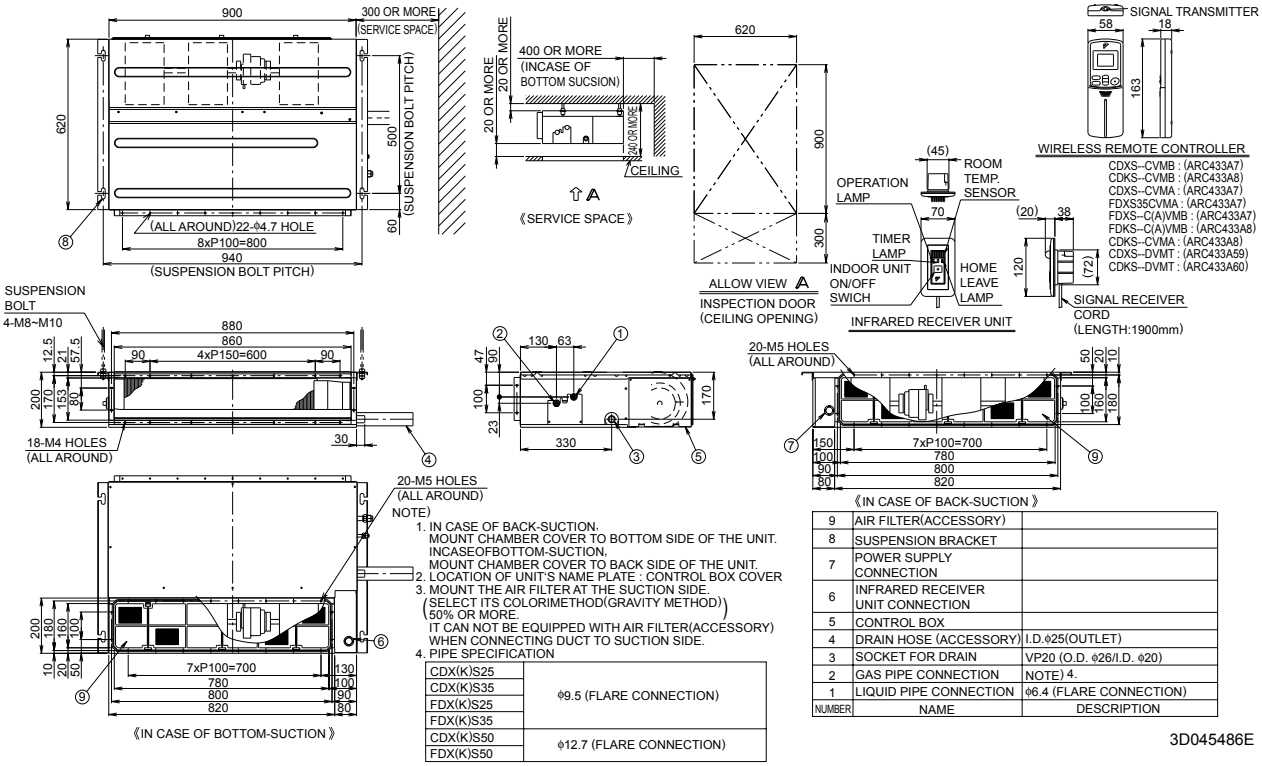
FDKS25CAVMB, FDKS35CAVMB, FDXS25CAVMB, FDXS35CAVMB



NOTE)
1. IN CASE OF BACK-SUCTION,
MOUNT CHAMBER COVER TO BOTTOM SIDE OF THE UNIT.
INCASEOFBOTTOM-SUCTION,
MOUNT CHAMBER COVER TO BACK SIDE OF THE UNIT.
2. LOCATION OF UNIT'S NAME PLATE : CONTROL BOX COVER
3. MOUNT THE AIR FILTER AT THE SUCTION SIDE.
(SELECT ITS COLORIMETHOD(GRAVITY METHOD))
50% OR MORE.
IT CAN NOT BE EQUIPPED WITH AIR FILTER(ACCESSORY)
WHEN CONNECTING DUCT TO SUCTION SIDE.
4. PIPE SPECIFICATION

CDX(K)S25	φ9.5 (FLARE CONNECTION)
CDX(K)S35	
FDX(K)S25	
FDX(K)S35	
CDX(K)S50	φ12.7 (FLARE CONNECTION)
FDX(K)S50	

NUMBER	NAME	DESCRIPTION
9	AIR FILTER(ACCESSORY)	
8	SUSPENSION BRACKET	
7	POWER SUPPLY CONNECTION	
6	INFRARED RECEIVER UNIT CONNECTION	
5	CONTROL BOX	
4	DRAIN HOSE (ACCESSORY)	I.D.φ25(OUTLET)
3	SOCKET FOR DRAIN	VP20 (O.D. φ26/I.D. φ20)
2	GAS PIPE CONNECTION	NOTE) 4.
1	LIQUID PIPE CONNECTION	φ6.4 (FLARE CONNECTION)

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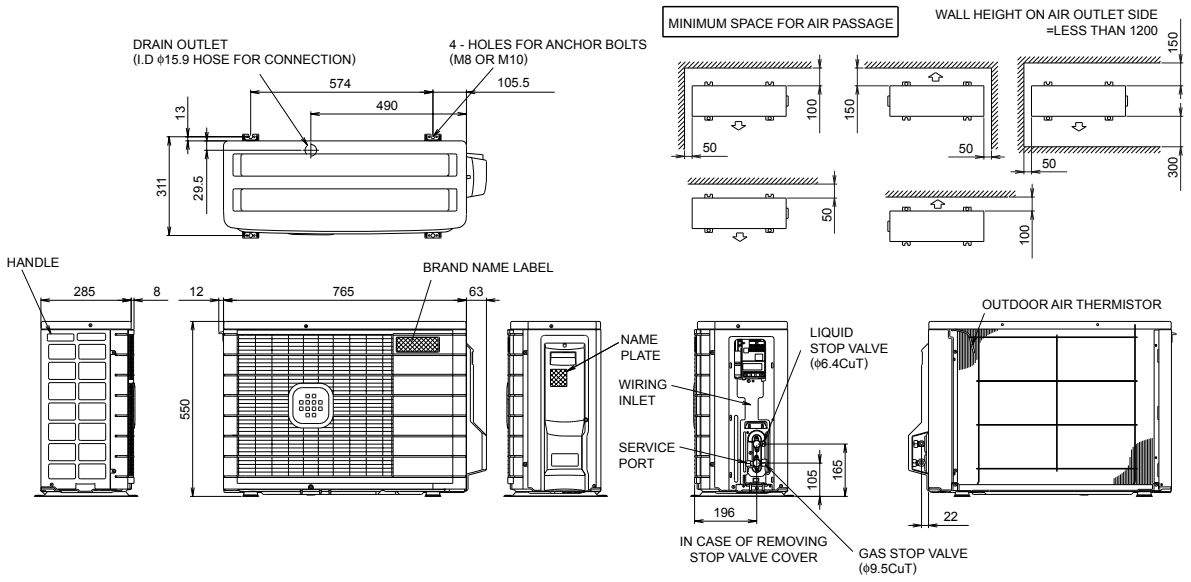
4.2 Outdoor Units

RKS25E2V1B, RKS35E2V1B, RXS25E2V1B, RXS35E2V1B



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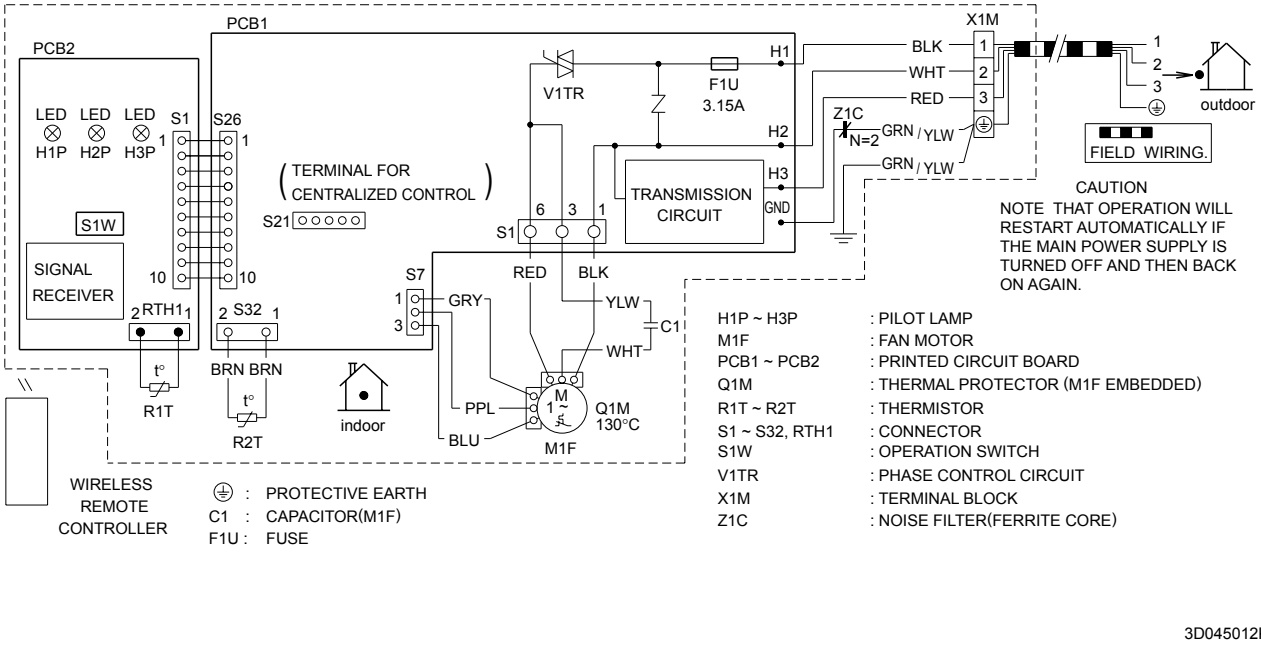
5. Wiring Diagrams

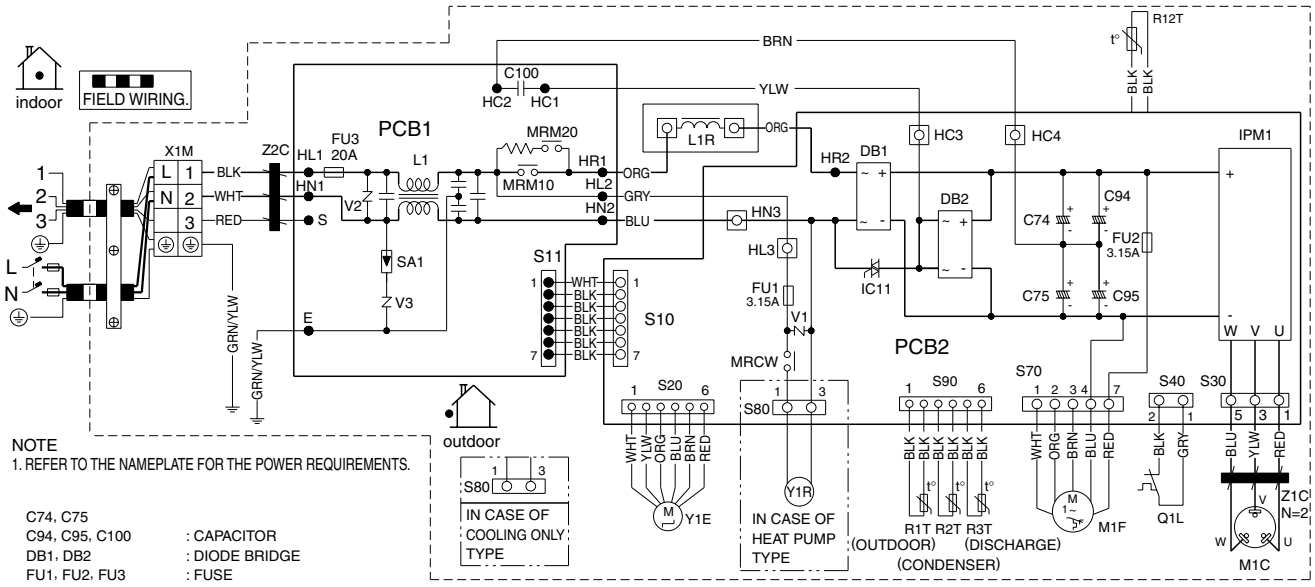
5.1 Indoor Units

FDKS25EAVMB, FDKS35EAVMB, FDKS25CAVMB, FDKS35CAVMB, FDXS25EAVMB, FDXS35EAVMB, FDXS25CAVMB, FDXS35CAVMB



5.2 Outdoor Units

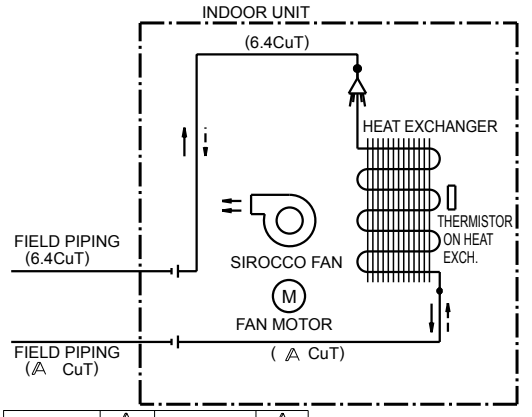
RKS25E2V1B, RKS35E2V1B, RXS25E2V1B, RXS35E2V1B



6. Piping Diagrams

6.1 Indoor Units

FDKS25EAVMB, FDKS35EAVMB, FDKS25CAVMB, FDKS35CAVMB, FDXS25EAVMB, FDXS35EAVMB, FDXS25CAVMB, FDXS35CAVMB



	Ⓐ
CDXS25CVMB CDKS25CVMB CDXS35CVMB CDKS35CVMB CDXS25CVMA CDXS35CVMA FDXS25CVMB FDXS35CVMB FDXS35CVMA FDXS25EAVMB FDXS35EAVMB FDKS25CVMB FDKS35CVMB FDKS25EAVMB FDKS35EAVMB CDKS25CVMA CDKS35CVMA CDXS25DVMT CDXS35DVMT CDKS25DVMT CDKS35DVMT FDXS25CAVMB FDXS35CAVMB FDKS25CAVMB FDKS35CAVMB CDXS25EAVMA CDXS35EAVMA CDKS25EAVMA CDKS35EAVMA CDXS25EAVMT CDXS35EAVMT CDKS25EAVMT CDKS35EAVMT CDXS25EV2C CDXS35EV2C FDXS25CVMA	9.5
CDXS50CVMB CDKS50CVMB CDXS60CVMB CDKS60CVMB CDXS50CVMA CDXS60CVMA CDKS50CVMA CDKS60CVMA CDXS50DVMT CDXS60DVMT CDKS50DVMT CDKS60DVMT FDXS50CVMB FDXS60CVMB FDKS50CVMB FDKS60CVMB CDXS50EV2C CDXS60EV2C FDXS50CVMA FDXS60CVMA	12.7

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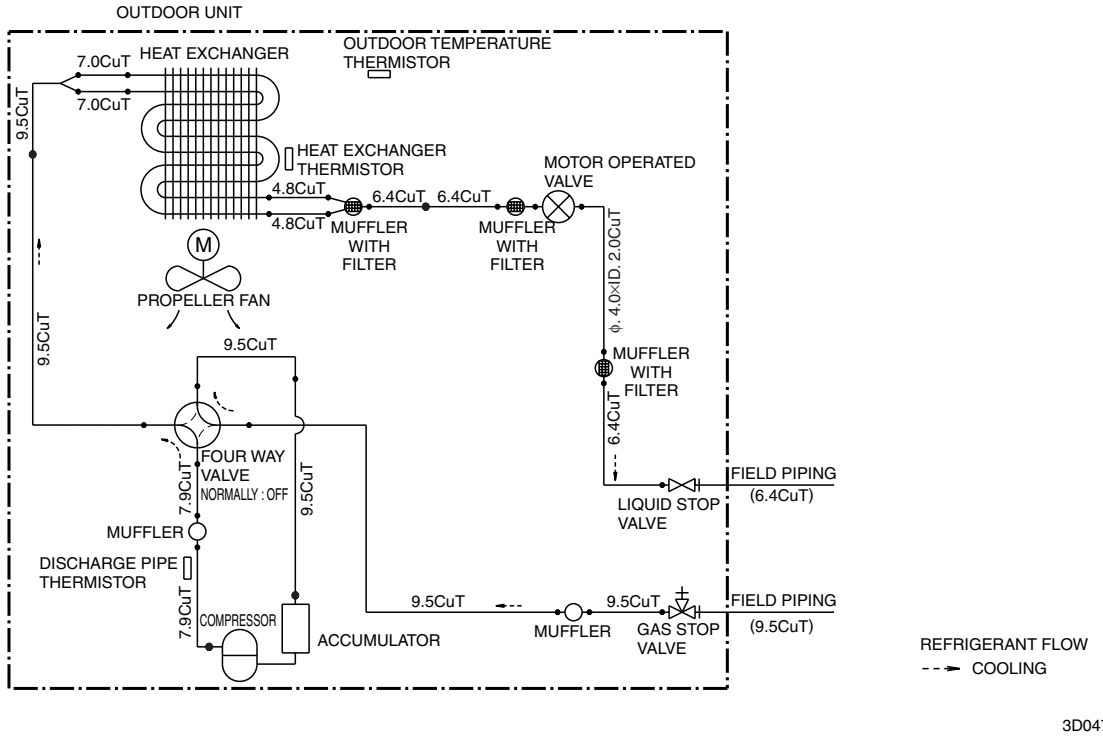
6.2 Outdoor Units

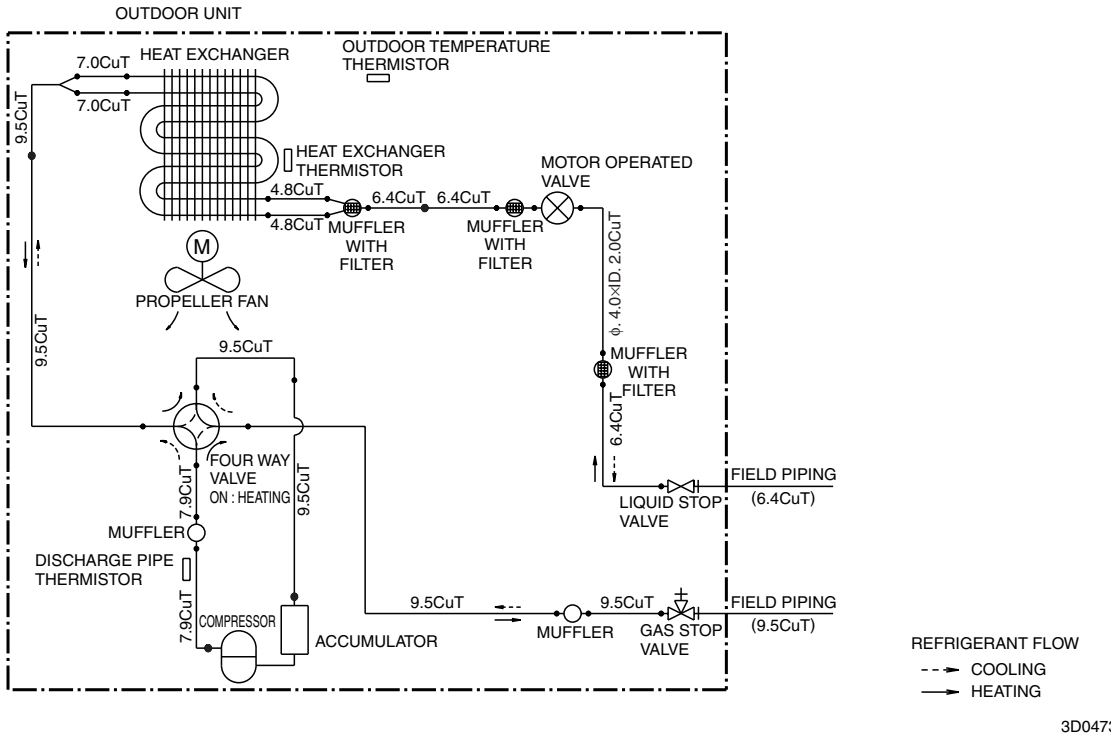
6.2.1 Cooling Only

RKS25E2V1B, RKS35E2V1B



6.2.2 Heat Pump

RXS25E2V1B, RXS35E2V1B



7. Capacity Tables

7.1 Cooling Only

FDKS25EAVMB + RKS25E2V1B (50Hz 230V)

AFR	8.7
BF	0.17

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	2.46	1.94	0.53	2.35	1.89	0.58	2.24	1.84	0.63	2.19	1.81	0.65	2.12	1.78	0.68	2.01	1.73	0.73
16.0	22	2.57	1.91	0.53	2.46	1.86	0.58	2.35	1.81	0.63	2.30	1.79	0.65	2.23	1.76	0.69	2.12	1.71	0.74
18.0	25	2.68	2.02	0.54	2.57	1.97	0.59	2.46	1.92	0.64	2.41	1.91	0.66	2.34	1.88	0.69	2.23	1.83	0.74
19.0	27	2.74	2.14	0.54	2.62	2.10	0.59	2.51	2.05	0.64	2.47	2.04	0.66	2.40	2.01	0.69	2.29	1.97	0.74
22.0	30	2.90	2.07	0.54	2.79	2.03	0.59	2.68	1.99	0.64	2.63	1.98	0.66	2.57	1.96	0.69	2.45	1.92	0.75
24.0	32	3.01	2.02	0.54	2.90	1.99	0.60	2.79	1.95	0.65	2.74	1.94	0.67	2.68	1.92	0.70	2.56	1.88	0.75

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

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FDKS35EAVMB + RKS35E2V1B (50Hz 230V)

AFR	8.7
BF	0.17

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	3.48	2.46	0.84	3.33	2.38	0.92	3.17	2.30	1.00	3.10	2.26	1.03	3.01	2.21	1.08	2.85	2.13	1.16
16.0	22	3.64	2.42	0.84	3.48	2.34	0.92	3.32	2.26	1.00	3.26	2.23	1.03	3.17	2.19	1.08	3.01	2.11	1.16
18.0	25	3.80	2.51	0.85	3.64	2.44	0.93	3.48	2.37	1.01	3.42	2.34	1.04	3.32	2.30	1.09	3.16	2.22	1.17
19.0	27	3.87	2.63	0.85	3.72	2.56	0.93	3.56	2.49	1.01	3.49	2.46	1.04	3.40	2.42	1.09	3.24	2.35	1.17
22.0	30	4.11	2.53	0.86	3.95	2.47	0.94	3.79	2.40	1.02	3.73	2.38	1.05	3.63	2.34	1.10	3.48	2.28	1.18
24.0	32	4.27	2.46	0.86	4.11	2.40	0.94	3.95	2.34	1.02	3.89	2.32	1.05	3.79	2.29	1.10	3.63	2.23	1.18

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

3D055194

FDKS25CAVMB + RKS25E2V1B (50Hz 230V)

AFR	8.4
BF	0.22

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	2.46	1.87	0.53	2.35	1.81	0.58	2.24	1.76	0.63	2.19	1.74	0.65	2.12	1.71	0.68	2.01	1.65	0.73
16.0	22	2.57	1.84	0.53	2.46	1.79	0.58	2.35	1.73	0.63	2.30	1.71	0.65	2.23	1.68	0.69	2.12	1.63	0.74
18.0	25	2.68	1.93	0.54	2.57	1.88	0.59	2.46	1.84	0.64	2.41	1.82	0.66	2.34	1.79	0.69	2.23	1.74	0.74
19.0	27	2.74	2.04	0.54	2.62	2.00	0.59	2.51	1.95	0.64	2.47	1.93	0.66	2.40	1.91	0.69	2.29	1.86	0.74
22.0	30	2.90	1.97	0.54	2.79	1.93	0.59	2.68	1.89	0.64	2.63	1.88	0.66	2.57	1.85	0.69	2.45	1.81	0.75
24.0	32	3.01	1.92	0.54	2.90	1.89	0.60	2.79	1.85	0.65	2.74	1.83	0.67	2.68	1.81	0.70	2.56	1.78	0.75

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

3D055195

FDKS35CAVMB + RKS35E2V1B (50Hz 230V)

AFR	8.9
BF	0.26

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	3.22	2.27	0.84	3.22	2.27	0.92	3.17	2.24	1.00	3.10	2.21	1.03	3.01	2.16	1.08	2.85	2.07	1.16
16.0	22	3.64	2.37	0.84	3.48	2.29	0.92	3.32	2.21	1.00	3.26	2.18	1.03	3.17	2.13	1.08	3.01	2.05	1.16
18.0	25	3.80	2.45	0.85	3.64	2.37	0.93	3.48	2.30	1.01	3.42	2.27	1.04	3.32	2.23	1.09	3.16	2.15	1.17
19.0	27	3.87	2.55	0.85	3.72	2.48	0.93	3.56	2.41	1.01	3.49	2.38	1.04	3.40	2.34	1.09	3.24	2.27	1.17
22.0	30	4.11	2.45	0.86	3.95	2.39	0.94	3.79	2.32	1.02	3.73	2.30	1.05	3.63	2.26	1.10	3.48	2.20	1.18
24.0	32	4.27	2.38	0.86	4.11	2.32	0.94	3.95	2.26	1.02	3.89	2.24	1.05	3.79	2.20	1.10	3.63	2.15	1.18

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

3D055196

7.2 Heat Pump

FDXS25EAVMB + RXS25E2V1B (50Hz 230V)

Cooling

AFR	8.7
BF	0.17

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	2.46	1.94	0.53	2.35	1.89	0.58	2.24	1.84	0.63	2.19	1.81	0.65	2.12	1.78	0.68	2.01	1.73	0.73
16.0	22	2.57	1.91	0.53	2.46	1.86	0.58	2.35	1.81	0.63	2.30	1.79	0.65	2.23	1.76	0.69	2.12	1.71	0.74
18.0	25	2.68	2.02	0.54	2.57	1.97	0.59	2.46	1.92	0.64	2.41	1.91	0.66	2.34	1.88	0.69	2.23	1.83	0.74
19.0	27	2.74	2.14	0.54	2.62	2.10	0.59	2.51	2.05	0.64	2.47	2.04	0.66	2.40	2.01	0.69	2.29	1.97	0.74
22.0	30	2.90	2.07	0.54	2.79	2.03	0.59	2.68	1.99	0.64	2.63	1.98	0.66	2.57	1.96	0.69	2.45	1.92	0.75
24.0	32	3.01	2.02	0.54	2.90	1.99	0.60	2.79	1.95	0.65	2.74	1.94	0.67	2.68	1.92	0.70	2.56	1.88	0.75

Heating

AFR	8.7
BF	—

INDOOR	OUTDOOR TEMPERATURE (°CDB)									
EDB	-10		-5		0		6		10	
°C	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0	2.15	0.77	2.52	0.81	2.88	0.84	3.31	0.89	3.60	0.92
20.0	2.04	0.79	2.41	0.83	2.77	0.87	3.20	0.91	3.49	0.94
22.0	2.00	0.80	2.36	0.84	2.72	0.87	3.16	0.92	3.44	0.95
24.0	1.96	0.81	2.32	0.84	2.68	0.88	3.11	0.93	3.40	0.96
25.0	1.93	0.81	2.29	0.85	2.66	0.89	3.09	0.93	3.38	0.96
27.0	1.89	0.82	2.25	0.86	2.61	0.89	3.05	0.94	3.33	0.97

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

3D055042

FDXS35EAVMB + RXS35E2V1B (50Hz 230V)

Cooling

AFR	8.7
BF	0.17

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	3.48	2.46	0.84	3.33	2.38	0.92	3.17	2.30	1.00	3.10	2.26	1.03	3.01	2.21	1.08	2.85	2.13	1.16
16.0	22	3.64	2.42	0.84	3.48	2.34	0.92	3.32	2.26	1.00	3.26	2.23	1.03	3.17	2.19	1.08	3.01	2.11	1.16
18.0	25	3.80	2.51	0.85	3.64	2.44	0.93	3.48	2.37	1.01	3.42	2.34	1.04	3.32	2.30	1.09	3.16	2.22	1.17
19.0	27	3.87	2.63	0.85	3.72	2.56	0.93	3.56	2.49	1.01	3.49	2.46	1.04	3.40	2.42	1.09	3.24	2.35	1.17
22.0	30	4.11	2.53	0.86	3.95	2.47	0.94	3.79	2.40	1.02	3.73	2.38	1.05	3.63	2.34	1.10	3.48	2.28	1.18
24.0	32	4.27	2.46	0.86	4.11	2.40	0.94	3.95	2.34	1.02	3.89	2.32	1.05	3.79	2.29	1.10	3.63	2.23	1.18

Heating

AFR	8.7
BF	—

INDOOR	OUTDOOR TEMPERATURE (°CDB)									
EDB	-10		-5		0		6		10	
°C	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0	2.69	1.00	3.14	1.05	3.60	1.10	4.14	1.15	4.50	1.19
20.0	2.55	1.02	3.01	1.07	3.46	1.12	4.00	1.18	4.36	1.22
22.0	2.50	1.04	2.95	1.08	3.40	1.13	3.94	1.19	4.31	1.23
24.0	2.44	1.05	2.90	1.09	3.35	1.14	3.89	1.20	4.25	1.24
25.0	2.42	1.05	2.87	1.10	3.32	1.15	3.86	1.21	4.22	1.25
27.0	2.36	1.06	2.81	1.11	3.26	1.16	3.81	1.22	4.17	1.26

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

3D055043

FDXS25CAVMB + RXS25E2V1B (50Hz 230V)

Cooling

AFR	8.4
BF	0.22

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	2.46	1.87	0.53	2.35	1.81	0.58	2.24	1.76	0.63	2.19	1.74	0.65	2.12	1.71	0.68	2.01	1.65	0.73
16.0	22	2.57	1.84	0.53	2.46	1.79	0.58	2.35	1.73	0.63	2.30	1.71	0.65	2.23	1.68	0.69	2.12	1.63	0.74
18.0	25	2.68	1.93	0.54	2.57	1.88	0.59	2.46	1.84	0.64	2.41	1.82	0.66	2.34	1.79	0.69	2.23	1.74	0.74
19.0	27	2.74	2.04	0.54	2.62	2.00	0.59	2.51	1.95	0.64	2.47	1.93	0.66	2.40	1.91	0.69	2.29	1.86	0.74
22.0	30	2.90	1.97	0.54	2.79	1.93	0.59	2.68	1.89	0.64	2.63	1.88	0.66	2.57	1.85	0.69	2.45	1.81	0.75
24.0	32	3.01	1.92	0.54	2.90	1.89	0.60	2.79	1.85	0.65	2.74	1.83	0.67	2.68	1.81	0.70	2.56	1.78	0.75

Heating

AFR	9.4
BF	—

INDOOR	OUTDOOR TEMPERATURE (°CDB)									
EDB	-10		-5		0		6		10	
°C	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0	2.15	0.77	2.52	0.81	2.88	0.84	3.31	0.89	3.60	0.92
20.0	2.04	0.79	2.41	0.83	2.77	0.87	3.20	0.91	3.49	0.94
22.0	2.00	0.80	2.36	0.84	2.72	0.87	3.16	0.92	3.44	0.95
24.0	1.96	0.81	2.32	0.84	2.68	0.88	3.11	0.93	3.40	0.96
25.0	1.93	0.81	2.29	0.85	2.66	0.89	3.09	0.93	3.38	0.96
27.0	1.89	0.82	2.25	0.86	2.61	0.89	3.05	0.94	3.33	0.97

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

3D055044

FDXS35CAVMB + RXS35E2V1B (50Hz 230V)

Cooling

AFR	8.9
BF	0.26

INDOOR		OUTDOOR TEMPERATURE (°CDB)																	
EWB	EDB	20			25			30			32			35			40		
°C	°C	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
14.0	20	3.22	2.27	0.84	3.22	2.27	0.92	3.17	2.24	1.00	3.10	2.21	1.03	3.01	2.16	1.08	2.85	2.07	1.16
16.0	22	3.64	2.37	0.84	3.48	2.29	0.92	3.32	2.21	1.00	3.26	2.18	1.03	3.17	2.13	1.08	3.01	2.05	1.16
18.0	25	3.80	2.45	0.85	3.64	2.37	0.93	3.48	2.30	1.01	3.42	2.27	1.04	3.32	2.23	1.09	3.16	2.15	1.17
19.0	27	3.87	2.55	0.85	3.72	2.48	0.93	3.56	2.41	1.01	3.49	2.38	1.04	3.40	2.34	1.09	3.24	2.27	1.17
22.0	30	4.11	2.45	0.86	3.95	2.39	0.94	3.79	2.32	1.02	3.73	2.30	1.05	3.63	2.26	1.10	3.48	2.20	1.18
24.0	32	4.27	2.38	0.86	4.11	2.32	0.94	3.95	2.26	1.02	3.89	2.24	1.05	3.79	2.20	1.10	3.63	2.15	1.18

Heating

AFR	10.6
BF	—

INDOOR	OUTDOOR TEMPERATURE (°CDB)									
EDB	-10		-5		0		6		10	
°C	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0	2.69	1.00	3.14	1.05	3.60	1.10	4.14	1.15	4.50	1.19
20.0	2.55	1.02	3.01	1.07	3.46	1.12	4.00	1.18	4.36	1.22
22.0	2.50	1.04	2.95	1.08	3.40	1.13	3.94	1.19	4.31	1.23
24.0	2.44	1.05	2.90	1.09	3.35	1.14	3.89	1.20	4.25	1.24
25.0	2.42	1.05	2.87	1.10	3.32	1.15	3.86	1.21	4.22	1.25
27.0	2.36	1.06	2.81	1.11	3.26	1.16	3.81	1.22	4.17	1.26

Symbols:

AFR (m^3/min.): Air flow rate
BF : Bypass factor
EWB (°C) : Entering wet bulb temp.
EDB (°C) : Entering dry bulb temp.
TC (kW) : Total capacity
SHC (kW) : Sensible heat capacity
PI (kW) : Power input

Note:

1. Capacities are based on the following conditions.
   (1)Corresponding refrigerant piping length : 7.5m
   (2)Level difference : 0m
2. shows nominal (rated) capacities and power input.

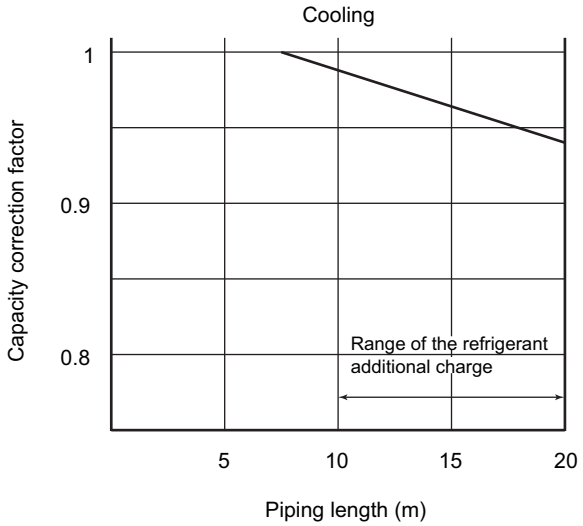
3D055045

7.3 Capacity Correction Factor by the Length of Refrigerant Piping (Reference)

The cooling and the heating capacity of the unit has to be corrected in accordance with the length of refrigerant piping. (The distance between the indoor unit and the outdoor unit)

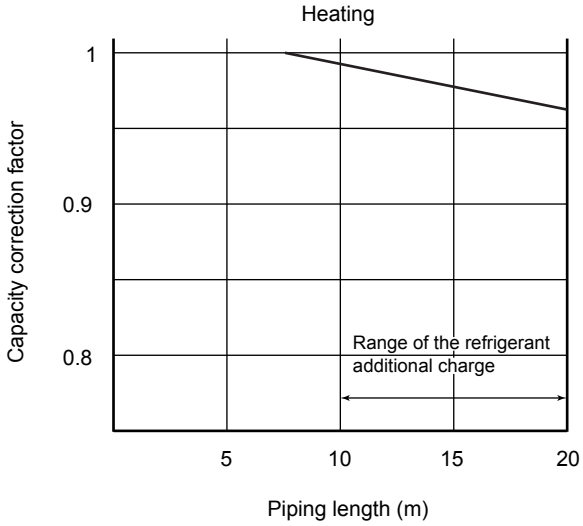
<— line: For the indoor unit with capacity of 2.5-3.5 kW.>

7.3.1 25/35 Class



(HGP0007)

7.3.2 25/35 Class



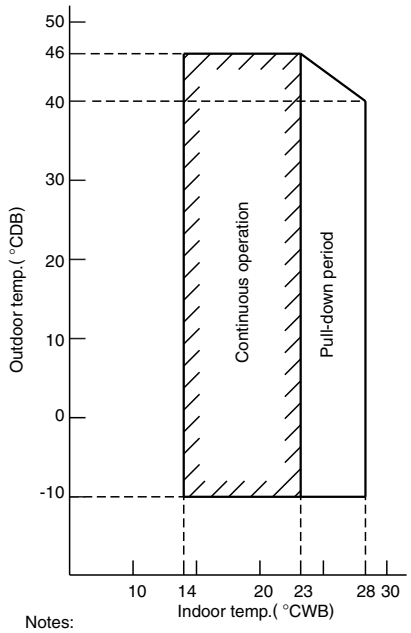
(HGP0008)

Note: The graphs show the factor when additional refrigerant of the proper quantity is charged.

8. Operation Limit

8.1 Cooling Only

RKS25E2V1B, RKS35E2V1B

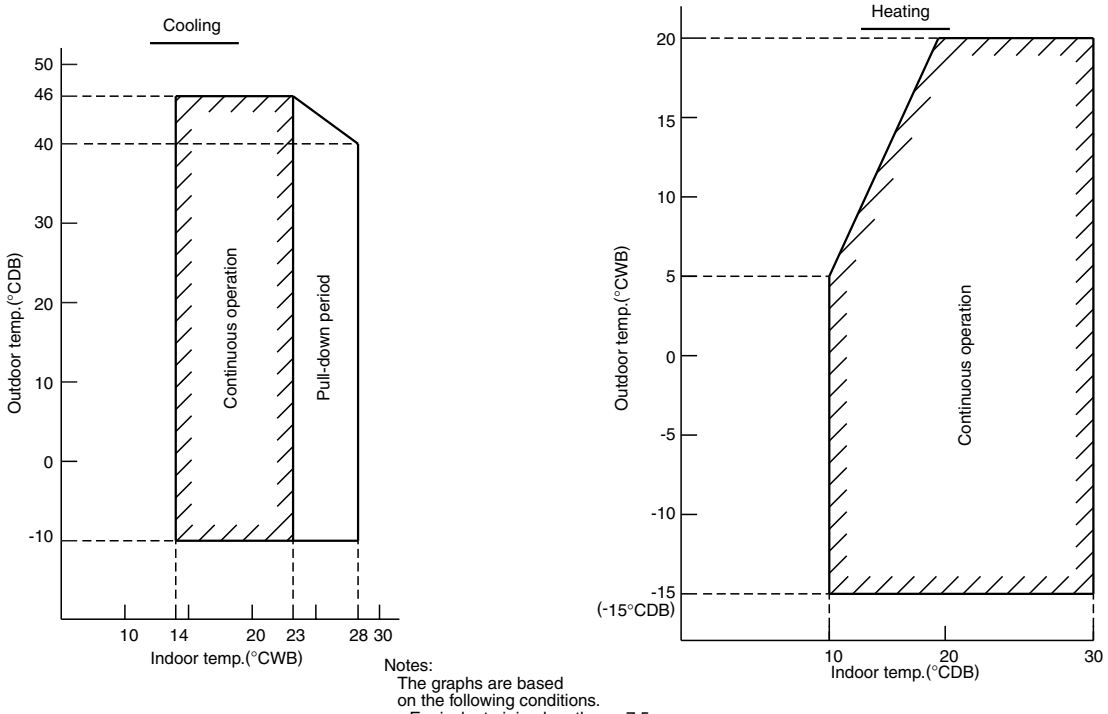


Notes:
The graph is based on the following conditions.
- Equivalent piping length 7.5m
- Level difference 0m
- Air flow rate High

4D029297T

8.2 Heat Pump

RXS25E2V1B, RXS35E2V1B



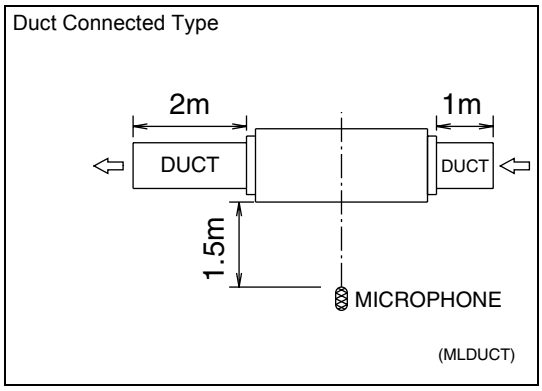
Notes:
The graphs are based on the following conditions.
- Equivalent piping length 7.5m
- Level difference 0m
- Air flow rate High

3D039536K

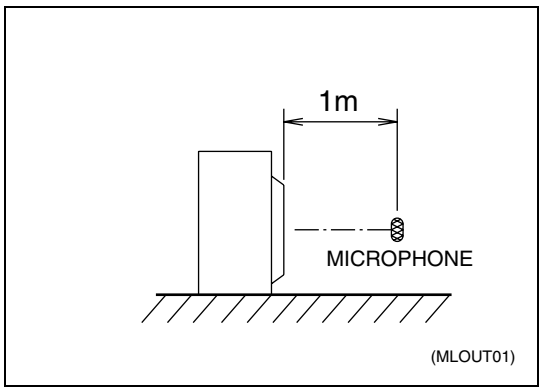
9. Sound Level

9.1 Measuring Location

9.1.1 Indoor Unit



9.1.2 Outdoor Unit



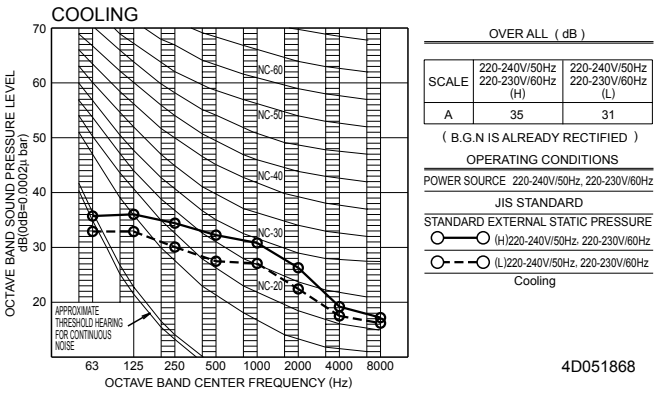
Note: 1. Operation sound is measured in an anechoic chamber.
2. The data are based on the conditions shown in the table below.

Cooling	Heating	Piping Length
Indoor ; 27°CDB/19°CWB Outdoor ; 35°CDB	Indoor ; 20°CDB Outdoor ; 7°CDB/6°CWB	5m

9.2 Octave Band Level

9.2.1 Indoor Units

FDKS25EAVMB, FDKS35EAVMB



OVER ALL (dB)

SCALE	220-240V/50Hz 220-230V/60Hz (H)	220-240V/50Hz 220-230V/60Hz (L)
A	35	31

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 220-240V/50Hz, 220-230V/60Hz

JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

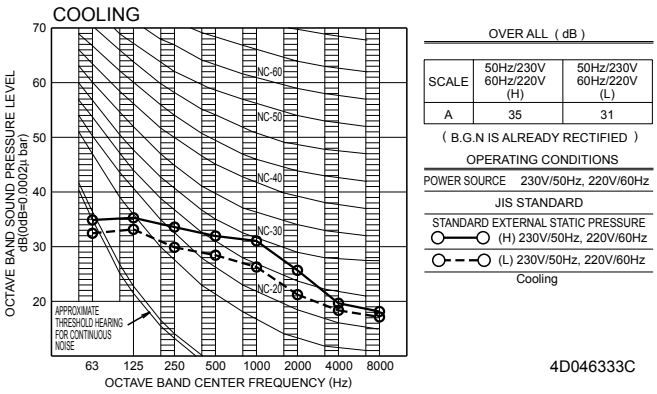
(H)220-240V/50Hz. 220-230V/60Hz

(L)220-240V/50Hz, 220-230V/60Hz

Cooling

4D051868

FDKS25CAVMB



OVER ALL (dB)

SCALE	50Hz/230V 60Hz/220V (H)	50Hz/230V 60Hz/220V (L)
A	35	31

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 230V/50Hz, 220V/60Hz

JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

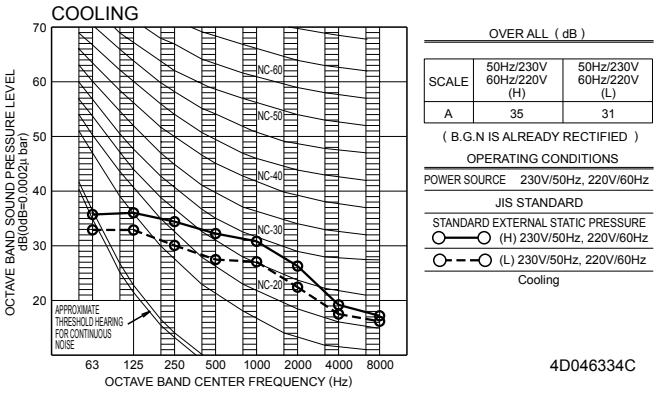
(H) 230V/50Hz, 220V/60Hz

(L) 230V/50Hz, 220V/60Hz

Cooling

4D046333C

FDKS35CAVMB



OVER ALL (dB)

SCALE	50Hz/230V 60Hz/220V (H)	50Hz/230V 60Hz/220V (L)
A	35	31

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 230V/50Hz, 220V/60Hz

JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

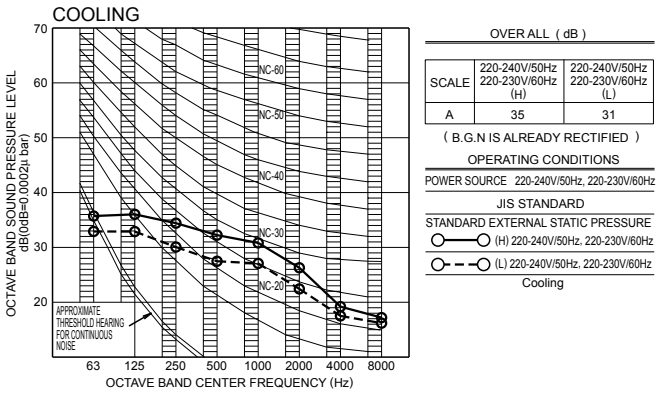
(H) 230V/50Hz, 220V/60Hz

(L) 230V/50Hz, 220V/60Hz

Cooling

4D046334C

FDXS25EAVMB, FDXS35EAVMB



OVER ALL (dB)

SCALE	220-240V/50Hz 220-230V/60Hz (H)	220-240V/50Hz 220-230V/60Hz (L)
A	35	31

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 220-240V/50Hz, 220-230V/60Hz

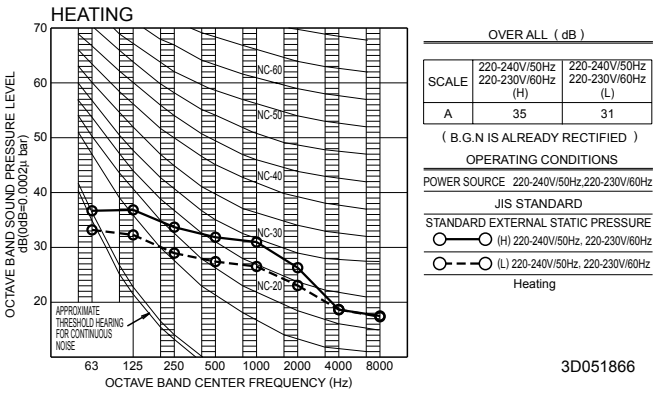
JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

(H) 220-240V/50Hz. 220-230V/60Hz

(L) 220-240V/50Hz. 220-230V/60Hz

Cooling



OVER ALL (dB)

SCALE	220-240V/50Hz 220-230V/60Hz (H)	220-240V/50Hz 220-230V/60Hz (L)
A	35	31

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 220-240V/50Hz,220-230V/60Hz

JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

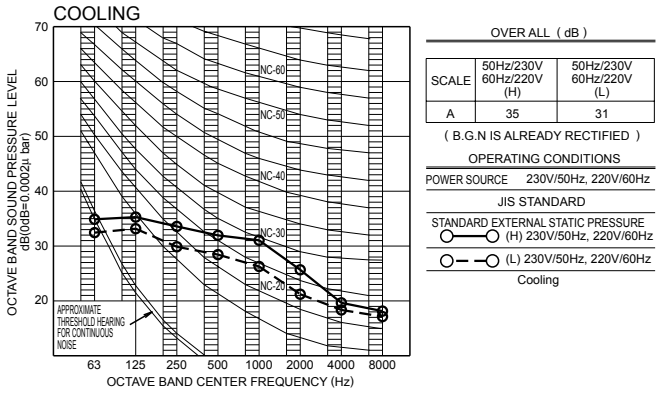
(H) 220-240V/50Hz. 220-230V/60Hz

(L) 220-240V/50Hz. 220-230V/60Hz

Heating

3D051866

FDXS25CAVMB



OVER ALL (dB)

SCALE	50Hz/230V 60Hz/220V (H)	50Hz/230V 60Hz/220V (L)
A	35	31

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 230V/50Hz, 220V/60Hz

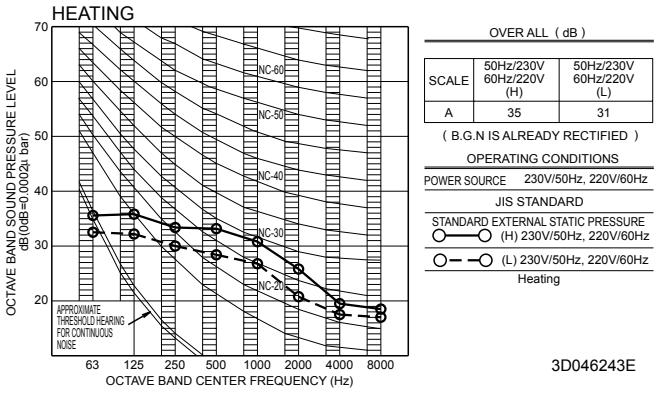
JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

(H) 230V/50Hz, 220V/60Hz

(L) 230V/50Hz, 220V/60Hz

Cooling



OVER ALL (dB)

SCALE	50Hz/230V 60Hz/220V (H)	50Hz/230V 60Hz/220V (L)
A	35	31

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 230V/50Hz, 220V/60Hz

JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

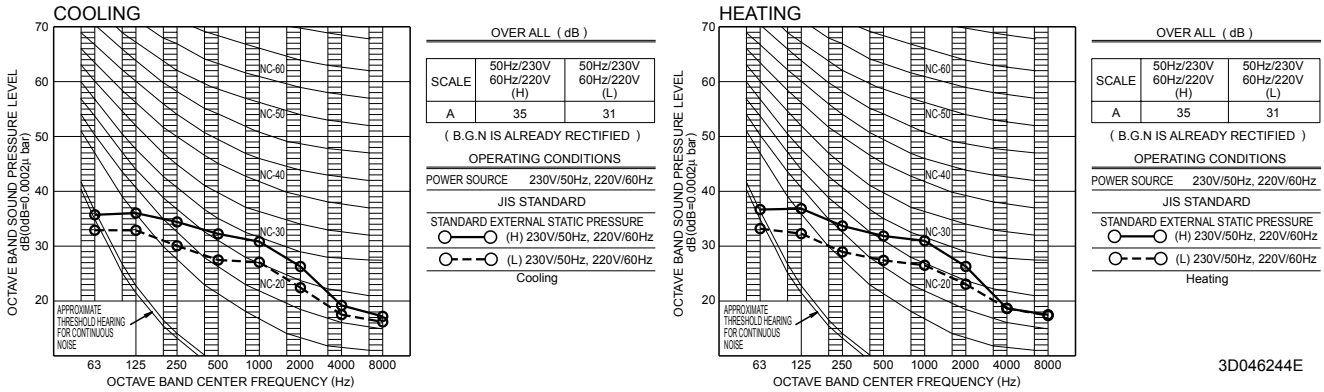
(H) 230V/50Hz, 220V/60Hz

(L) 230V/50Hz, 220V/60Hz

Heating

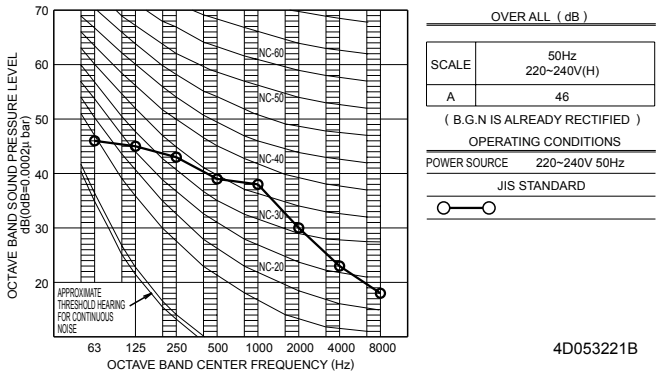
3D046243E

FDXS35CAVMB

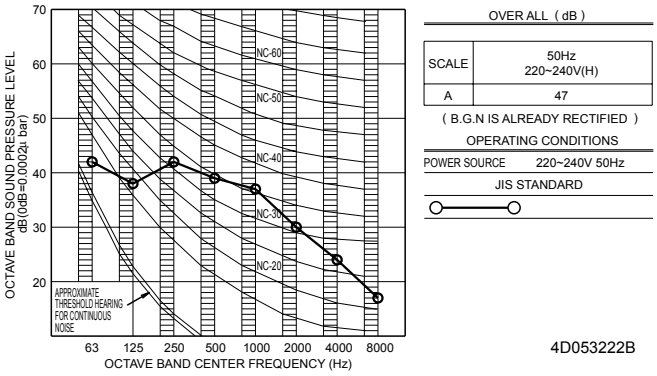


9.2.2 Outdoor Units

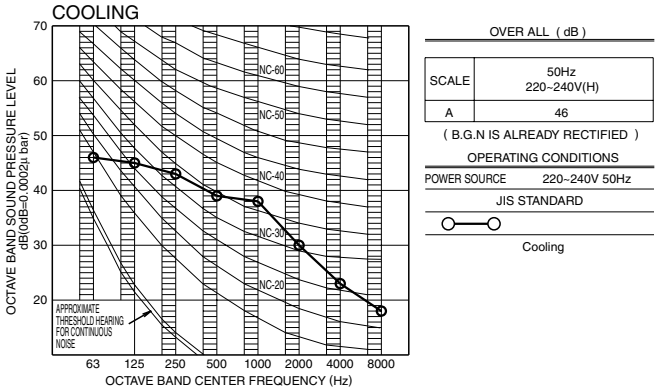
RKS25E2V1B



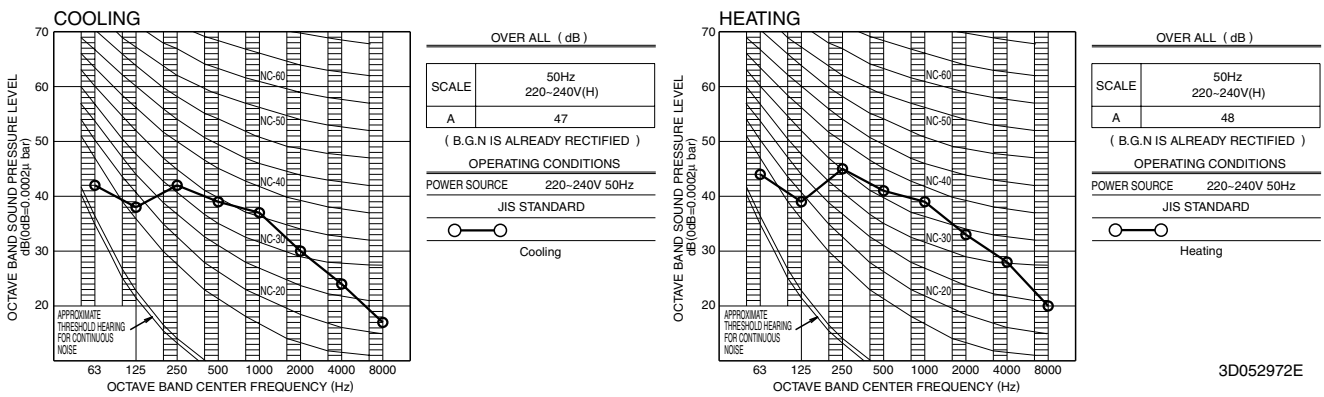
RKS35E2V1B



RXS25E2V1B



RXS35E2V1B



10. Electric Characteristics

Representative Unit Combination		Power Supply				COMP		OFM		IFM	
Indoor Unit	Outdoor Unit	Hz-Volts	Voltage Range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
FDKS25EAVMB	RKS25E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	54.5	3.5	23	0.16	62	0.5
		50 - 230					3.3				
		50 - 240					3.2				
FDKS35EAVMB	RKS35E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	78	4.7	23	0.22	62	0.5
		50 - 230					4.5				
		50 - 240					4.3				
FDKS25CAVMB	RKS25E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	54.5	3.5	23	0.16	62	0.6
		50 - 230					3.3				
		50 - 240					3.2				
FDKS35CAVMB	RKS35E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	78	4.6	23	0.22	62	0.6
		50 - 230					4.4				
		50 - 240					4.2				
FDXS25EAVMB	RXS25E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	54.5	3.5	23	0.16	62	0.5
		50 - 230					3.3				
		50 - 240					3.2				
FDXS35EAVMB	RXS35E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	78	4.7	23	0.22	62	0.5
		50 - 230					4.5				
		50 - 240					4.3				
FDXS25CAVMB	RXS25E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	54.5	3.5	23	0.16	62	0.6
		50 - 230					3.3				
		50 - 240					3.2				
FDXS35CAVMB	RXS35E2V1B	50 - 220	MAX. 50Hz 264V MIN. 50Hz 198V	9.75	10	78	4.6	23	0.22	62	0.6
		50 - 230					4.4				
		50 - 240					4.2				

Symbols:

MCA (A) : MIN. CIRCUIT AMPS
MFA (A) : MAX. FUSE AMPS
RLA (A) : RATED LOAD AMPS
OFM : OUTDOOR FAN MOTOR
IFM : INDOOR FAN MOTOR
FLA (A) : FULL LOAD AMPS
W (W) : FAN MOTOR RATED OUTPUT
RHz (Hz) : RATED OPERATING FREQUENCY

Note:

1. RLA is based on the following conditions.
   Indoor temp. 27°CDB/19°CWB
   Outdoor temp. 35°CDB.
2. Maximum allowable voltage variation between phases is 2%.
3. Select wire size based on the lager value of MCA.
4. Instead of fuse, use circuit breaker.
5. Be sure to install an earth leak detector. (One that can handle higher harmonics.)
   (This unit uses an inverter, which means that it must be used an earth leak detector capable handling high harmonics in order to prevent malfunctioning of the earth leak detector itself.)

3D055010B
3D055011B

11. Installation Manual

11.1 Indoor Units

11.1.1 Duct Connected Type FDK(X)S25/35EAVMB

SAFETY PRECAUTIONS

- Read these Safety Precautions carefully to ensure correct installation.
- This manual classifies the precautions into WARNING and CAUTION.
  Be sure to follow all the precautions below: they are all important for ensuring safety.

⚠ **WARNING.....Failure to follow any of WARNING is likely to result in such grave consequences as death or serious injury.**

⚠ **CAUTION.....Failure to follow any of CAUTION may in some cases result in grave consequences.**

- The following safety symbols are used throughout this manual:

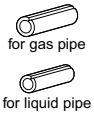
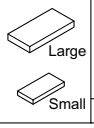
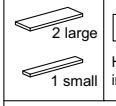
Be sure to observe this instruction.	Be sure to establish an earth connection.	Never attempt.

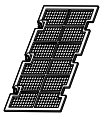
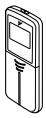
- After completing installation, test the unit to check for installation errors. Give the user adequate instructions concerning the use and cleaning of the unit according to the Operation Manual.

⚠ WARNING
• Installation should be left to the dealer or another professional. Improper installation may cause water leakage, electrical shock, or fire.
• Install the air conditioner according to the instructions given in this manual. Incomplete installation may cause water leakage, electrical shock, or fire.
• Be sure to use the supplied or specified installation parts. Use of other parts may cause the unit to come to lose, water leakage, electrical shock, or fire.
• Install the air conditioner on a solid base that can support the weight of the unit. An inadequate base or incomplete installation may cause injury in the event the unit falls off the base.
• Electrical work should be carried out in accordance with the installation manual and the national electrical wiring rules or code of practice. Insufficient capacity or incomplete electrical work may cause electrical shock or fire.
• Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.
• For wiring, use a cable length enough to cover the entire distance with no connection. Do not use an extension cord. Do not put other loads on the power supply, use a dedicated power circuit. (Failure to do so may cause abnormal heat, electric shock or fire.)
• Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the interconnecting wires so their terminals receive no external stresses. Incomplete connections or clamping may cause terminal overheating or fire.
• After connecting interconnecting and supply wiring be sure to shape the cables so that they do not put undue force on the electrical covers or panels. Install covers over the wires. Incomplete cover installation may cause terminal overheating, electrical shock, or fire.
• When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air. (Any presence of air or other foreign substance in the refrigerant circuit causes an abnormal pressure rise or rupture, resulting in injury.)
• If any refrigerant has leaked out during the installation work, ventilate the room. (The refrigerant produces a toxic gas if exposed to flames.)
• After all installation is complete, check to make sure that no refrigerant is leaking out. (The refrigerant produces a toxic gas if exposed to flames.)
• During pump-down, stop the compressor before removing the refrigerant piping. If the compressor is still running and the shut-off valve is open during pump-down, air will be sucked in when the refrigerant piping is removed, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.
• During installation, attach the refrigerant piping securely before running the compressor. If the compressor is not attached and the shut-off valve is open during pump-down, air will be sucked in when the compressor is run, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.
• When carrying out piping connection, take care not to let air substances other than the specified refrigerant go into refrigeration cycle. Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury.
• Be sure to establish an earth. Do not earth the unit to a utility pipe, arrester, or telephone earth. Incomplete earth may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.
• Be sure to install an earth leakage breaker. Failure to install an earth leakage breaker may result in electric shocks, or fire.

⚠ CAUTION
• Do not install the air conditioner in a place where there is danger of exposure to inflammable gas leakage. If the gas leaks and builds up around the unit, it may catch fire.
• Establish drain piping according to the instructions of this manual. Inadequate piping may cause flooding.
• Tighten the flare nut according to the specified method such as with a torque wrench. If the flare nut is tightened too hard, the flare nut may crack after a long time and cause refrigerant leakage.

ACCESSORIES

Clamp metal	Insulation for fitting	Sealing pad			Drain hose	Washer for hanging bracket	Sealing material	Clamp	Washer fixing plate	Screws for duct flanges
1 pc.	1 each	Large and small 1 each	3 pcs. (only for 50-60 type)	1 pc.	1 pc.	8 pcs.	2 pcs.	6 pcs.	1 set	1 set
	 for gas pipe for liquid pipe	 Large Small	 2 large 1 small	 Hanger (right) insulation					 4 pcs.	 24 pcs.
			Stored in outlet vent							

Air fillter	Wireless remote controller	Remote controller holder	AAA dry-cell batteries	Receiver kit			[Other]
1 pc.	1 pc.	1 pc.	1 set	1 pc.	1 pc.	2 pcs.	• Operation manual • Installation manual
			 2 pcs.	Mounting frame 	Decorative cover 	Screws M4 × 25 	

CHOOSING A SITE

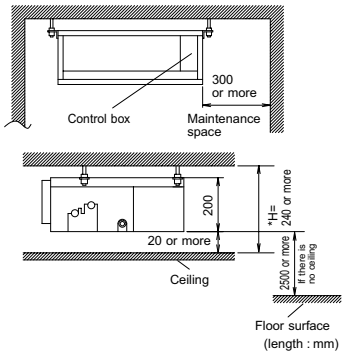
• Before choosing the installation site, obtain user approval.

Indoor unit

⚠ Caution

- When moving the unit during or after unpacking, make sure to lift it by holding its lifting lugs. Do not exert any pressure on other parts, especially the refrigerant piping, drain piping and flange parts.
  Wear protective gears (gloves and so on) when installing the unit.
- If you think the humidity inside the ceiling might exceed 30°C and RH80%, reinforce the insulation on the unit body.
  Use glass wool or polyethylene foam as insulation so that the thickness is more than 10mm and fits inside the ceiling opening.

- Optimum air distribution is ensured.
- The air passage is not blocked.
- Condensate can drain properly.
- The ceiling is strong enough to bear the weight of the indoor unit.
- A false ceiling does not seem to be at an incline.
- Sufficient clearance for maintenance and servicing is ensured.
- Piping between the indoor and outdoor units is within the allowable limits. (Refer to the installation manual for the outdoor unit.)
- The indoor unit, outdoor unit, power supply wiring and transmission wiring is at least 1 meter away from televisions and radios. This prevents image interference and noise in electrical appliances. (Noise may be generated depending on the conditions under which the electric wave is generated, even if a one-meter allowance is maintained.)



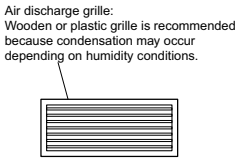
■ **Use suspension bolts to install the unit. Check whether or not the ceiling is strong enough to support the weight of the unit. If there is a risk that the ceiling is not strong enough, reinforce the ceiling before installing the unit.** (Installation pitch is marked on the carton box for installation. Refer to it to check for points requiring reinforcing.) Select the *H dimension such that a downward slope of at least 1/100 is ensured as indicated in **"DRAIN PIPING WORK"**.

- The installation pitch is listed on the packing material, and should be checked when deciding whether to reinforce the location or not.

CHOOSING A SITE

■ **Select the signal receiver mounting location according to the following conditions:**

- Install the signal receiver, which has a built-in temperature sensor, near the intake vent where there is convection of air and it can get an accurate reading of the room's temperature. If the intake vent is in another room or the unit cannot be installed near the intake vent for any other reason, install it 1.5m above the floor on a wall where there is convection.
- In order to get an accurate reading of the room's temperature, install the signal receiver in a location where it is not exposed directly to cold or hot air from the air discharge grille or to direct sunlight.
- Since the receiver has a built-in light receptor to receive signals from the wireless remote controller, do not mount it in a location where the signal may be blocked by a curtain, etc.



⚠ Caution

If the signal receiver is not installed in a location where there is convection of air, it may be unable to get an accurate reading of the room's temperature.

Wireless remote controller

- Turn on all the fluorescent lamps in the room, if any, and find the site where remote controller signals are properly received by the indoor unit (within 4 metres).

Outdoor unit

- For outdoor unit installation, see the installation manual supplied with the outdoor unit.

PREPARATIONS BEFORE INSTALLATION

■ **Relation of the unit to the suspension bolt positions.**

- Install the inspection opening on the control box side where maintenance and inspection of the control box are easy. Install the inspection opening also in the lower part of the unit.

■ **Make sure the range of the unit's external static pressure is not exceeded.**

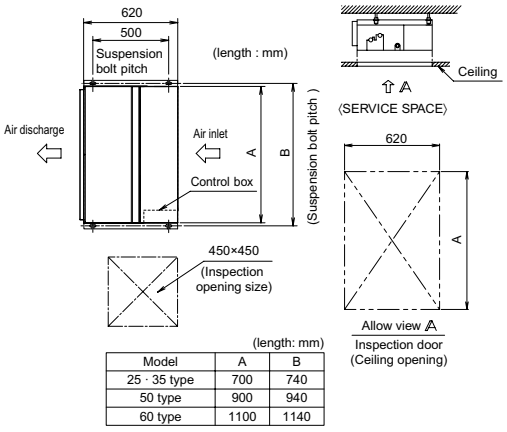
(See the technical documentation for the range of the external static pressure setting.)

■ **Open the installation hole. (Pre-set ceilings)**

- Once the installation hole is opened in the ceiling where the unit is to be installed, pass refrigerant piping, drain piping, transmission wiring, and remote controller wiring (unneeded if using a wireless remote controller) to the unit's piping and wiring holes.See **"REFRIGERANT PIPING WORK"**, **"DRAIN PIPING WORK"**, and **"WIRING"**.
- After opening the ceiling hole, make sure ceiling is level if needed. It might be necessary to reinforce the ceiling frame to prevent shaking.Consult an architect or carpenter for details.

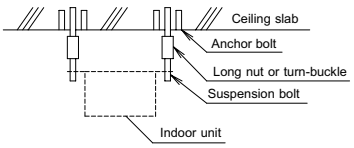
■ **Install the suspension bolts.**

(Use W3/8 to M10 suspension bolts.)
Use a hole-in-anchor, sunken insert, sunken anchor for existing ceilings, and a sunken insert, sunken anchor or other part to be procured in the field to reinforce the ceiling to bearing the weight of the unit. (Refer to Fig.)



(length: mm)

Model	A	B
25 · 35 type	700	740
50 type	900	940
60 type	1100	1140



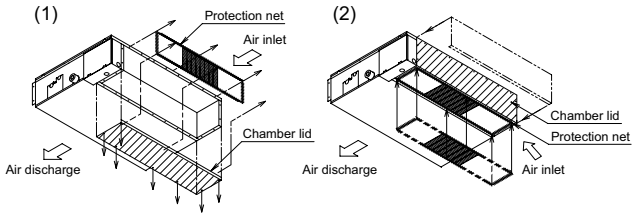
Note: All the above parts are field supplied.

■ **Mount chamber lid and air filter (accessory).**

For bottom intake, replace the chamber lid and the protection net (only for 25-35 type) in the procedure listed in Fig.

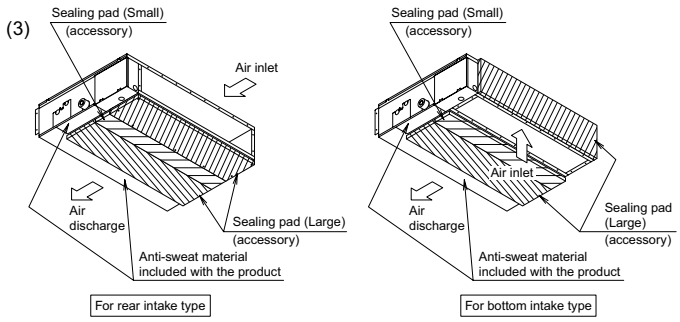
(1)Remove the protection net.
(only for 25-35 type, 6 locations)
Remove the chamber lid. (7 locations)

(2)Reattach the removed chamber lid in the orientation shown in Fig.(7 locations)
Reattach the removed protection net in the orientation shown in Fig. (only for 25-35 type, 6 locations)
Refer to Fig.for the direction of the protection net.

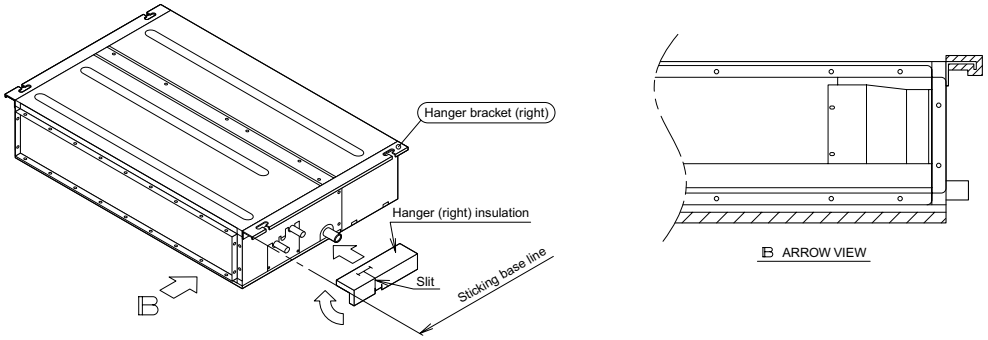


(3)Attach sealing pad as shown in the figure below. (Stored in outlet vent) (only for 50-60 type)
(In order to take in the air inside the ceiling, and when not taking in air from outdoor air, it is not necessary to stick.)

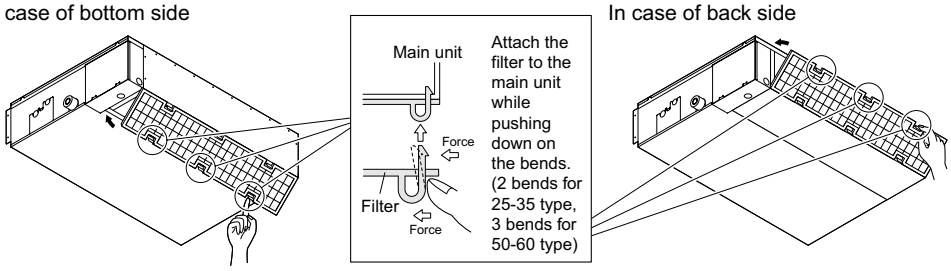
- Attach the sealing pad (accessory) to the plate metal sections which are not covered by anti-sweat material.
- Make sure there are no gaps between the different pieces of sealing pad.



(4)Attach the hanger (right) insulation to the right hanger. (Stored in outlet vent)
(See the below figure for the sticking base line.)



(5)Attach the air filter (accessory) in the manner shown in the diagram.

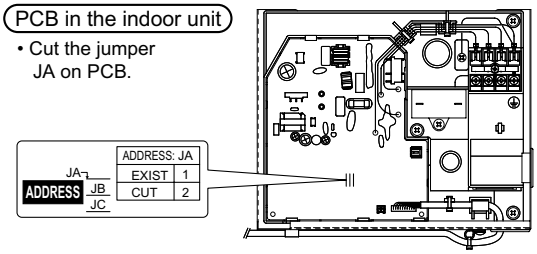


PREPARATIONS BEFORE INSTALLATION

■ **When two indoor units are installed in one room, one of the two wireless remote controllers can be easily set for another addresses.**

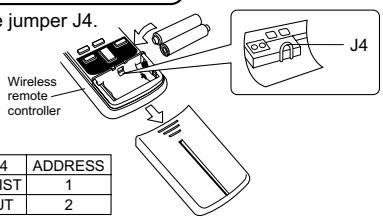
PCB in the indoor unit

• Cut the jumper JA on PCB.



Wireless remote controller

• Cut the jumper J4.



J4	ADDRESS
EXIST	1
CUT	2

INDOOR UNIT INSTALLATION

〈〈 **As for the parts to be used for installation work, be sure to use the provided accessories and specified parts designated by our company.** 〉〉

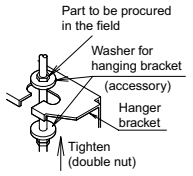
■ **Install the indoor unit temporarily.**

• Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer from the upper and lower sides of the hanger bracket. (Refer to Fig.)

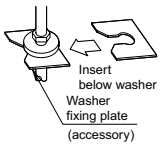
[PRECAUTION]

Since the unit uses a plastic drain pan, prevent welding spatter and other foreign substances from entering the outlet hole during installation.

[Securing the hanger bracket]

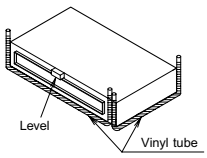


[How to secure washers]



■ **Adjust the height of the unit.**

■ **Check the unit is horizontally level.**



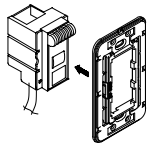
⚠ Caution

Make sure the unit is installed level using a level or a plastic tube filled with water.In using a plastic tube instead of a level ,adjust the top surface of the unit to the surface of the water at both ends of the plastic tube and adjust the unit horizontally.(One thing to watch out for in particular is if it is installed so that the slope is not in the direction of the drain piping,as this might cause leaking.)

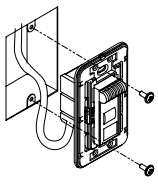
■ **Tighten the upper nut.**

■ **Mounting the receiver.**

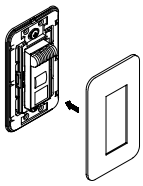
Mount the receiver as shown below.



① Press the receiver into the mounting frame.



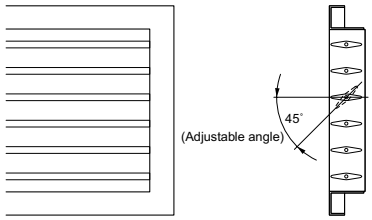
② Mount the completed assembly using two screws.



③ Press the decorative cover into the mounting frame.

Note) Mount the Remote controller cord far enough away from strong electrical wires (such as distribution wires for electrical lights, air conditioners, etc.) and from weak electrical wires (such as wires for telephones, intercoms, etc.).

For heat pump: If your feet feel cold when using the heating function, it is recommended that the air discharge grille shown at below be attached.



OUTDOOR UNIT INSTALLATION

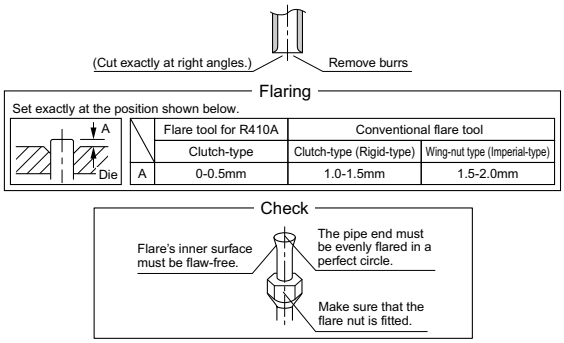
Install as described in the installation manual supplied with the outdoor unit.

REFRIGERANT PIPING WORK

See the installation manual supplied with the outdoor unit.

1. FLARING THE PIPE END

1) Cut the pipe end with a pipe cutter.
2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
3) Put the flare nut on the pipe.
4) Flare the pipe.
5) Check that the flaring is properly made.



	Flare tool for R410A	Conventional flare tool	
	Clutch-type	Clutch-type (Rigid-type)	Wing-nut type (Imperial-type)
A	0-0.5mm	1.0-1.5mm	1.5-2.0mm

⚠ Warning

Do not use mineral oil on flared part.
Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
Do never install a drier to this R410A unit in order to guarantee its lifetime.
The drying material may dissolve and damage the system.
Incomplete flaring may cause refrigerant gas leakage.

2. REFRIGERANT PIPING

1) To prevent gas leakage, apply refrigeration machine oil on both inner and outer surfaces of the flare. (Use refrigeration oil for R410A)

2) Align the centres of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.
   • Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and escaping gas.

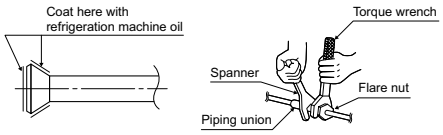
Flare nut tightening torque		
Gas side		Liquid side
3/8 inch	1/2 inch	1/4 inch
32.7-39.9N•m (333-407kgf•cm)	49.5-60.3N•m (505-615kgf•cm)	14.2-17.2N•m (144-175kgf•cm)

⚠ Caution

Overtightening may damage the flare and cause leaks.

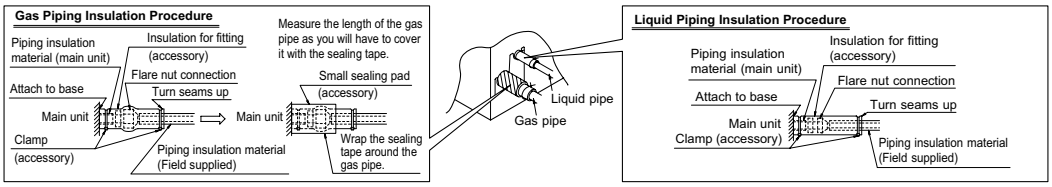
REFRIGERANT PIPING WORK

3) After the work is finished, make sure to check that there is no gas leak.



4) After checking for gas leaks, be sure to insulate the pipe connections.

- Insulate using the insulation for fitting included with the liquid and gas pipes. Besides, make sure the insulation for fitting on the liquid and gas piping has its seams facing up. (Tighten both edges with clamp.)
- For the gas piping, wrap the medium sealing pad over the insulation for fitting (flare nut part).

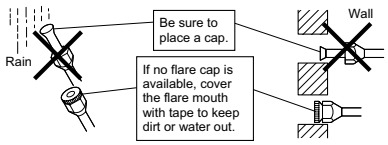


⚠ Caution

Be sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping may cause condensation or burns if touched.

Cautions on Pipe Handling

- Protect the open end of the pipe against dust and moisture. (Tighten both edges with clamp.)
- All pipe bends should be as gentle as possible. Use a pipe bender for bending. (Bending radius should be 30 to 40mm or larger.)



Selection of Copper and Heat Insulation materials

When using commercial copper pipes and fittings, observe the following:

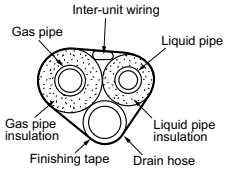
- Insulation material: Polyethylene foam
  Heat transfer rate: 0.041 to 0.052W/mK (0.035 to 0.045kcal/mh°C)
  Refrigerant gas pipe's surface temperature reaches 110°C max.
  Choose heat insulation materials that will withstand this temperature.
- Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side		Liquid side	Gas pipe thermal insulation		Liquid pipe thermal insulation
25/35 class	50/60 class		25/35 class	50/60 class	
O.D. 9.5mm	O.D. 12.7mm	O.D. 6.4mm	I.D. 12-15mm	I.D. 14-16mm	I.D. 8-10mm
Thickness 0.8mm			Thickness 10mm Min.		

Also, when subject to high humidity, heat insulation of the refrigerant piping (the unit piping and branch piping) must be further reinforced. Reinforce the insulation when installing the unit near bathrooms, kitchens, and other similar locations.
Refer to the following:

- 30°C, more than 75% RH: 20mm Min. in thickness

If the insulation is not sufficient, condensation may form on the surface of the insulation.



- Use separate thermal insulation pipes for gas and liquid refrigerant pipes.

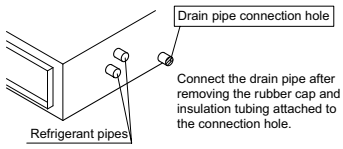
DRAIN PIPING WORK

⚠ Caution

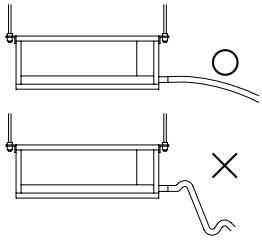
Make sure all water is out before making the duct connection.

■ **Install the drain piping.**

- Make sure the drain works properly.
- The diameter of the drain pipe should be greater than or equal to the diameter of the connecting pipe (vinyl tube; pipe size: 20mm; outer dimension: 26mm).



- Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air pockets from forming.

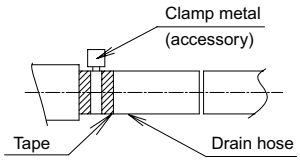


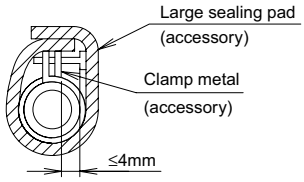
⚠ Caution

Water accumulating in the drain piping can cause the drain to clog.

- To keep the drain tube from sagging, space hanging wires every 1 to 1.5m.
- Use the drain hose and the metal clamp. Insert the drain hose fully into the drain socket and firmly tighten the metal clamp with the upper part of the tape on the hose end. Tighten the metal clamp until the screw head is less than 4mm from the hose.
- The two areas below should be insulated because condensation may form there causing water to leak.
  - Drain piping passing indoors
  - Drain sockets

  Referring the figure below, insulate the metal clamp and drain hose using the included large sealing pad.





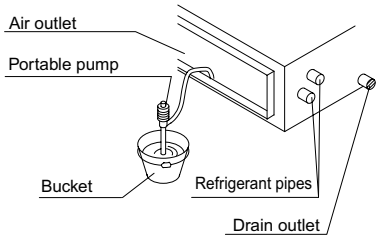
〈 PRECAUTIONS 〉

Drain piping connections

- Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.
- Do not twist or bend the drain hose, so that excessive force is not applied to it. (This type of treatment may cause leaking.)

■ **After piping work is finished, check drainage flows smoothly.**

- Gradually insert approximately 1L of water into the drain pan to check drainage in the manner described below.
  - Gradually pour approximately 1L of water from the outlet hole into the drain pan to check drainage.
  - Check the drainage.



INSTALLING THE DUCT

Connect the duct supplied in the field.

Air inlet side

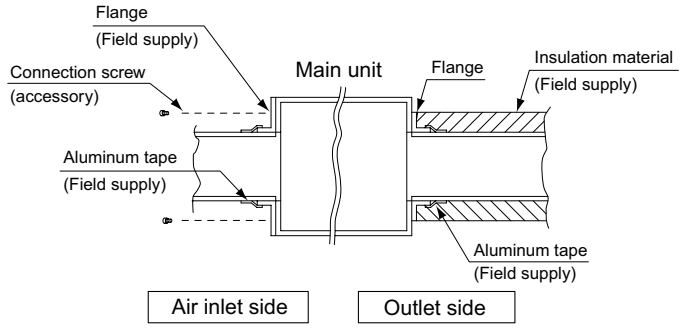
- Attach the duct and intake-side flange (field supply).
- Connect the flange to the main unit with accessory screws (in 16, 20 or 24 positions).
- Wrap the intake-side flange and duct connection area with aluminum tape or something similar to prevent air escaping.

⚠ Caution

When attaching a duct to the intake side, be sure also to attach an air filter inside the air passage on the intake side. (Use an air filter whose dust collecting efficiency is at least 50% in a gravimetric technique.)

Outlet side

- Connect the duct according to the inside of the outlet-side flange.
- Wrap the outlet-side flange and the duct connection area with aluminum tape or something similar to prevent air escaping.



⚠ Caution

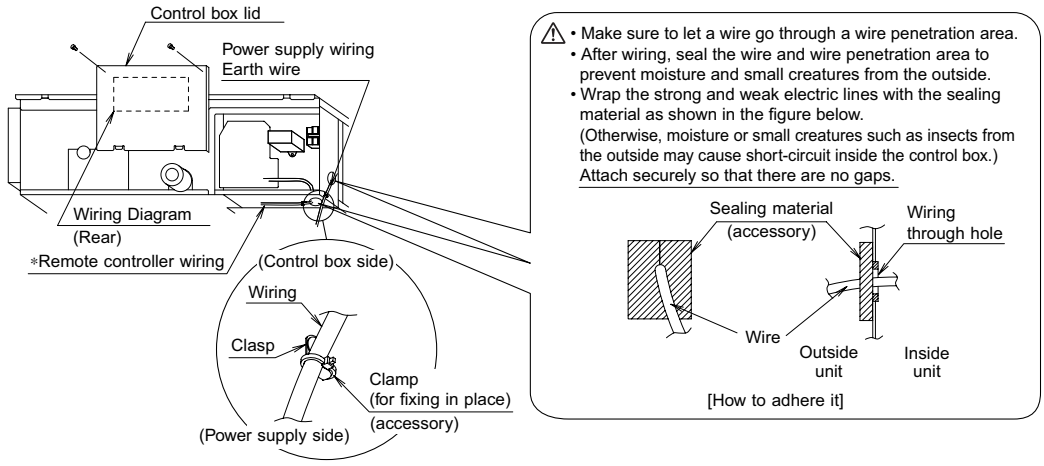
- Be sure to insulate the duct to prevent condensation from forming. (Material: glass wool or polyethylene foam, 25mm thick)
- Use electric insulation between the duct and the wall when using metal ducts to pass metal laths of the net or fence shape or metal plating into wooden buildings.

WIRING

See the installation manual supplied with the outdoor unit.

■ **HOW TO CONNECT WIRINGS.**

• Wire only after removing the control box lid as shown in the Fig.



⚠ Caution

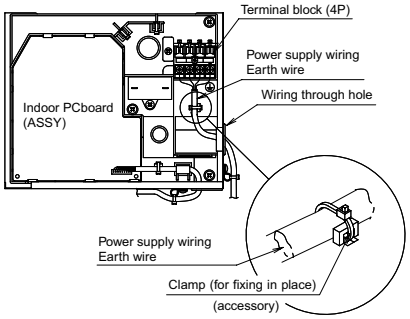
- When clamping the wiring, use the included clamping material as shown in the Fig. to prevent outside pressure being exerted on the wiring connections and clamp firmly.
- When doing the wiring, make sure the wiring is neat and does not cause the control box lid to stick up, then close the cover firmly. When attaching the control box lid, make sure you do not pinch any wires.
- Outside the machine, separate the weak wiring (remote controller wiring) and strong wiring (earth wire and power supply wiring) at least 50mm so that they do not pass through the same place together. Proximity may cause electrical interference, malfunctions, and breakage.

[PRECAUTION]

- See also the “Electrical Wiring Diagram Nameplate” when wiring the unit for electrical power.

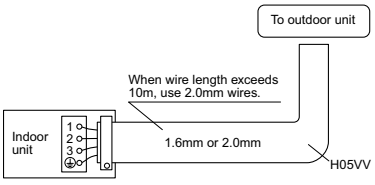
[Connecting electrical wiring]

- **Power supply wiring and Earth wire**
  Remove the control box lid.
  Next, pull the wires into the unit through the wiring through hole and connect to the power wiring terminal block (4P).
  Be sure to put the part of the sheathed vinyl into the control box.



⚠ Warning

Do not use tapped wires, stand wires, extensioncords, or starbust connections, as they may cause overheating, electrical shock, or fire.



TRIAL OPERATION AND TESTING

Trial operation and testing

(1) Measure the supply voltage and make sure that it falls in the specified range.
(2) Trial operation should be carried out in either cooling or heating mode.

Trial operation from remote controller
(1) Press ON/OFF button to turn on the system. (2) Simultaneously press center of TEMP button and MODE button. (3) Press MODE button twice. (" ｱﾅ " will appear on the display to indicate that Trial Operation mode is selected.) (4) Trial run mode terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press ON/OFF button.

■ For Heat pump.
In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.
- Trial operation may be disabled in either mode depending on the room temperature.
- After trial operation is complete, set the temperature to a normal level (26°C to 28°C in cooling mode, 20°C to 24°C in heating mode).
- For protection, the system disables restart operation for 3 minutes after it is turned off.

■ For Cooling only.
Select the lowest programmable temperature.
- Trial operation in cooling mode may be disabled depending on the room temperature. Use the remote control for trial operation as described below.
- After trial operation is complete, set the temperature to a normal level (26°C to 28°C).
- For protection, the unit disables restart operation for 3 minutes after it is turned off.

(3) Carry out the test operation in accordance with the Operation Manual to ensure that all functions and parts, are working properly.
* The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
* If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is turned on again.

Test items

Test items	Symptom (diagnostic display on RC)	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Draining line is properly installed.	Water leakage	
System is properly earthed.	Electrical leakage	
The specified wires are used for interconnecting wire connections.	Inoperative or burn damage	
Indoor or outdoor unit's air inlet or discharge has clear path of air. Shut-off valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote controller commands.	Inoperative	

11 ■English

3P132003-3N

11.1.2 Duct Connected Type FDK(X)S25/35CAVMB

Safety Precautions

- Read these Safety Precautions carefully to ensure correct installation.
- This manual classifies the precautions into WARNING and CAUTION.
  Be sure to follow all the precautions below: they are all important for ensuring safety.

⚠ **WARNING.....Failure to follow any of WARNING is likely to result in such grave consequences as death or serious injury.**

⚠ **CAUTION.....Failure to follow any of CAUTION may in some cases result in grave consequences.**

- The following safety symbols are used throughout this manual:

Be sure to observe this instruction.	Be sure to establish an earth connection.	Never attempt.

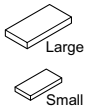
- After completing installation, test the unit to check for installation errors. Give the user adequate instructions concerning the use and cleaning of the unit according to the Operation Manual.

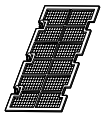
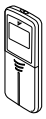
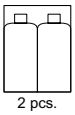
⚠ WARNING
• Installation should be left to the dealer or another professional. Improper installation may cause water leakage, electrical shock, or fire.
• Install the air conditioner according to the instructions given in this manual. Incomplete installation may cause water leakage, electrical shock, or fire.
• Be sure to use the supplied or specified installation parts. Use of other parts may cause the unit to come to lose, water leakage, electrical shock, or fire.
• Install the air conditioner on a solid base that can support the weight of the unit. An inadequate base or incomplete installation may cause injury in the event the unit falls off the base.
• Electrical work should be carried out in accordance with the installation manual and the national electrical wiring rules or code of practice. Insufficient capacity or incomplete electrical work may cause electrical shock or fire.
• Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.
• For wiring, use a cable length enough to cover the entire distance with no connection. Do not use an extension cord. Do not put other loads on the power supply, use a dedicated power circuit. (Failure to do so may cause abnormal heat, electric shock or fire.)
• Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the interconnecting wires so their terminals receive no external stresses. Incomplete connections or clamping may cause terminal overheating or fire.
• After connecting interconnecting and supply wiring be sure to shape the cables so that they do not put undue force on the electrical covers or panels. Install covers over the wires. Incomplete cover installation may cause terminal overheating, electrical shock, or fire.
• When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air. (Any presence of air or other foreign substance in the refrigerant circuit causes an abnormal pressure rise or rupture, resulting in injury.)
• If any refrigerant has leaked out during the installation work, ventilate the room. (The refrigerant produces a toxic gas if exposed to flames.)
• After all installation is complete, check to make sure that no refrigerant is leaking out. (The refrigerant produces a toxic gas if exposed to flames.)
• During pump-down, stop the compressor before removing the refrigerant piping. If the compressor is still running and the shut-off valve is open during pump-down, air will be sucked in when the refrigerant piping is removed, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.
• During installation, attach the refrigerant piping securely before running the compressor. If the compressor is not attached and the shut-off valve is open during pump-down, air will be sucked in when the compressor is run, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.
• When carrying out piping connection, take care not to let air substances other than the specified refrigerant go into refrigeration cycle. Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury.
• Be sure to establish an earth. Do not earth the unit to a utility pipe, arrester, or telephone earth. Incomplete earth may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.
• Be sure to install an earth leakage breaker. Failure to install an earth leakage breaker may result in electric shocks, or fire.

⚠ CAUTION
• Do not install the air conditioner in a place where there is danger of exposure to inflammable gas leakage. If the gas leaks and builds up around the unit, it may catch fire.
• Establish drain piping according to the instructions of this manual. Inadequate piping may cause flooding.
• Tighten the flare nut according to the specified method such as with a torque wrench. If the flare nut is tightened too hard, the flare nut may crack after a long time and cause refrigerant leakage.

1 ■English

ACCESSORIES

Clamp metal	Insulation for fitting	Sealing pad			Drain hose	Washer for hanging bracket	Sealing material	Clamp	Washer fixing plate	Screws for duct flanges
1 pc.	1 each	Large and small 1 each	3 pcs. (only for 50-60 type)	1 pc.	1 pc.	8 pcs.	2 pcs.	6 pcs.	1 set	1 set
	 for gas pipe for liquid pipe	 Large Small	 2 large 1 small	 Hanger (right) insulation					 4 pcs.	 24 pcs.
			Stored in outlet vent							

Air fillter	Wireless remote controller	Remote controller holder	AAA dry-cell batteries	Receiver kit			[Other]
1 pc.	1 pc.	1 pc.	1 set	1 pc.	1 pc.	2 pcs.	• Operation manual • Installation manual
			 2 pcs.	Mounting frame 	Decorative cover 	Screws M4 × 25 	

CHOOSING A SITE

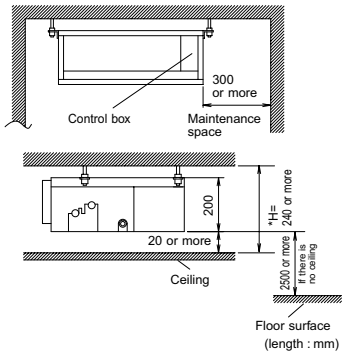
• Before choosing the installation site, obtain user approval.

Indoor unit

⚠ Caution

• When moving the unit during or after unpacking, make sure to lift it by holding its lifting lugs. Do not exert any pressure on other parts, especially the refrigerant piping, drain piping and flange parts.
Wear protective gears (gloves and so on) when installing the unit.
• If you think the humidity inside the ceiling might exceed 30°C and RH80%, reinforce the insulation on the unit body.
Use glass wool or polyethylene foam as insulation so that the thickness is more than 10mm and fits inside the ceiling opening.

- Optimum air distribution is ensured.
- The air passage is not blocked.
- Condensate can drain properly.
- The ceiling is strong enough to bear the weight of the indoor unit.
- A false ceiling does not seem to be at an incline.
- Sufficient clearance for maintenance and servicing is ensured.
- Piping between the indoor and outdoor units is within the allowable limits. (Refer to the installation manual for the outdoor unit.)
- The indoor unit, outdoor unit, power supply wiring and transmission wiring is at least 1 meter away from televisions and radios. This prevents image interference and noise in electrical appliances. (Noise may be generated depending on the conditions under which the electric wave is generated, even if a one-meter allowance is maintained.)

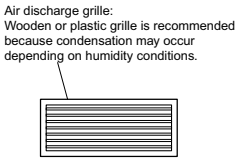


■ **Use suspension bolts to install the unit. Check whether or not the ceiling is strong enough to support the weight of the unit. If there is a risk that the ceiling is not strong enough, reinforce the ceiling before installing the unit.** (Installation pitch is marked on the carton box for installation. Refer to it to check for points requiring reinforcing.) Select the *H dimension such that a downward slope of at least 1/100 is ensured as indicated in **"DRAIN PIPING WORK"**.
  • The installation pitch is listed on the packing material, and should be checked when deciding whether to reinforce the location or not.

CHOOSING A SITE

■ **Select the signal receiver mounting location according to the following conditions:**

- Install the signal receiver, which has a built-in temperature sensor, near the intake vent where there is convection of air and it can get an accurate reading of the room's temperature. If the intake vent is in another room or the unit cannot be installed near the intake vent for any other reason, install it 1.5m above the floor on a wall where there is convection.
- In order to get an accurate reading of the room's temperature, install the signal receiver in a location where it is not exposed directly to cold or hot air from the air discharge grille or to direct sunlight.
- Since the receiver has a built-in light receptor to receive signals from the wireless remote controller, do not mount it in a location where the signal may be blocked by a curtain, etc.



⚠ Caution

If the signal receiver is not installed in a location where there is convection of air, it may be unable to get an accurate reading of the room's temperature.

Wireless remote controller

- Turn on all the fluorescent lamps in the room, if any, and find the site where remote controller signals are properly received by the indoor unit (within 4 metres).

Outdoor unit

- For outdoor unit installation, see the installation manual supplied with the outdoor unit.

PREPARATIONS BEFORE INSTALLATION

■ **Relation of the unit to the suspension bolt positions.**

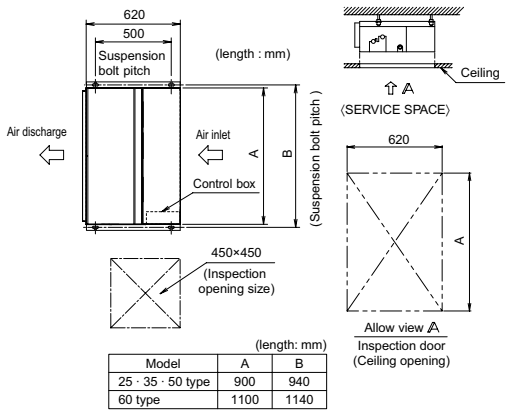
- Install the inspection opening on the control box side where maintenance and inspection of the control box are easy. Install the inspection opening also in the lower part of the unit.

■ **Make sure the range of the unit's external static pressure is not exceeded.**

(See the technical documentation for the range of the external static pressure setting.)

■ **Open the installation hole. (Pre-set ceilings)**

- Once the installation hole is opened in the ceiling where the unit is to be installed, pass refrigerant piping, drain piping, transmission wiring, and remote controller wiring (unneeded if using a wireless remote controller) to the unit's piping and wiring holes.See **"REFRIGERANT PIPING WORK"**, **"DRAIN PIPING WORK"**, and **"WIRING"**.
- After opening the ceiling hole, make sure ceiling is level if needed. It might be necessary to reinforce the ceiling frame to prevent shaking.Consult an architect or carpenter for details.

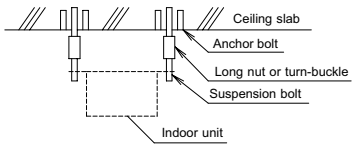


(length: mm)

Model	A	B
25 · 35 · 50 type	900	940
60 type	1100	1140

■ **Install the suspension bolts.**

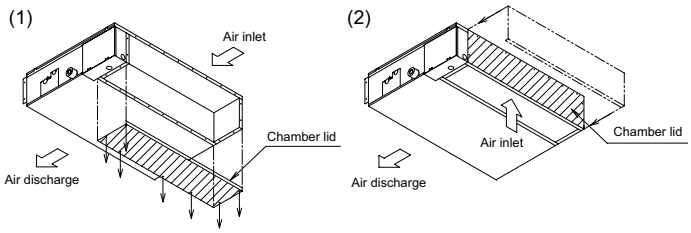
(Use W3/8 to M10 suspension bolts.)
Use a hole-in-anchor, sunken insert, sunken anchor for existing ceilings, and a sunken insert, sunken anchor or other part to be procured in the field to reinforce the ceiling to bearing the weight of the unit. (Refer to Fig.)



Note: All the above parts are field supplied.

■ **Mount chamber lid and air filter (accessory).**

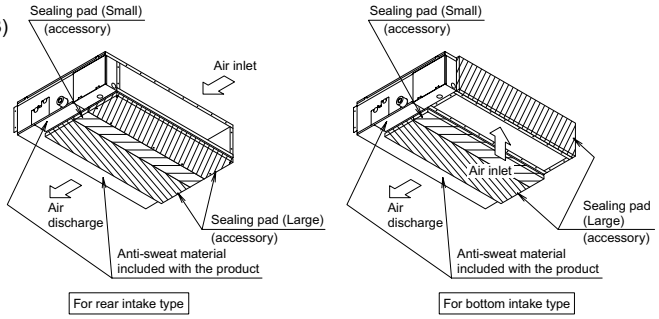
For bottom intake, replace the chamber lid in the procedure listed in Fig.
(1)Remove the chamber lid. (7 locations)
(2)Reattached the removed chamber lid in the orientation shown in Fig. (7 locations)



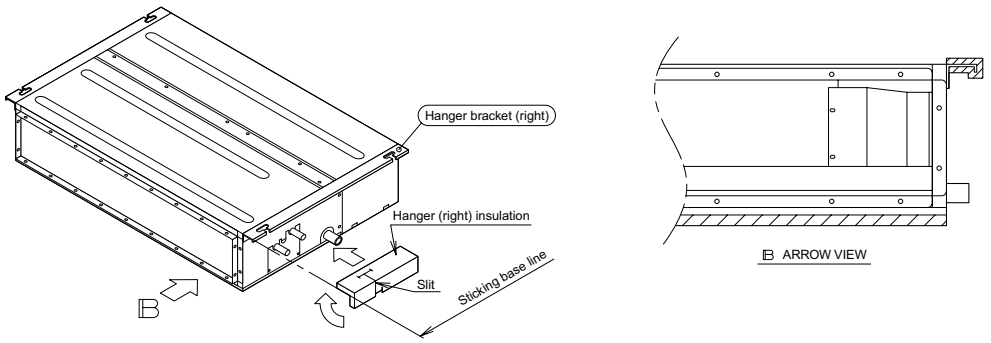
(3)Attach sealing pad as shown in the figure below. (Stored in outlet vent)
(In order to take in the air inside the ceiling, and when not taking in air from outdoor air, it is not necessary to stick.)

- Attach the sealing pad (accessory) to the plate metal sections which are not covered by anti-sweat material.
- Make sure there are no gaps between the different pieces of sealing pad.

(3)



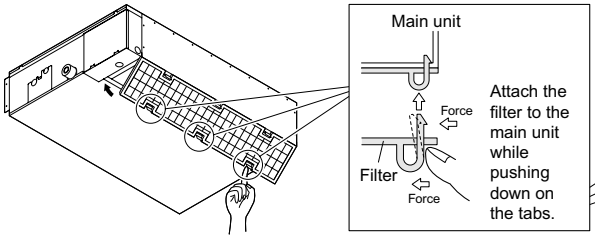
(4)Attach the hanger (right) insulation to the right hanger. (Stored in outlet vent)
(See the below figure for the sticking base line.)



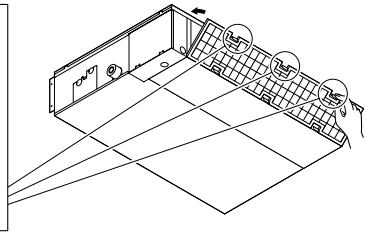
(5)Attach the air filter (accessory) in the manner shown in the diagram.

(5)

In case of bottom side



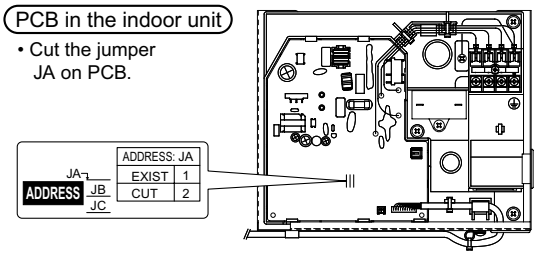
In case of back side



■ **When two indoor units are installed in one room, one of the two wireless remote controllers can be easily set for another addresses.**

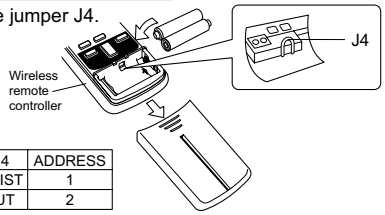
PCB in the indoor unit

• Cut the jumper JA on PCB.



Wireless remote controller

• Cut the jumper J4.



J4	ADDRESS
EXIST	1
CUT	2

INDOOR UNIT INSTALLATION

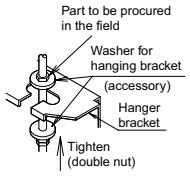
〈〈 As for the parts to be used for installation work, be sure to use the provided accessories and specified parts designated by our company. 〉〉

■ **Install the indoor unit temporarily.**

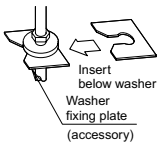
- Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer from the upper and lower sides of the hanger bracket. (Refer to Fig.)

[PRECAUTION]
Since the unit uses a plastic drain pan, prevent welding spatter and other foreign substances from entering the outlet hole during installation.

[Securing the hanger bracket]

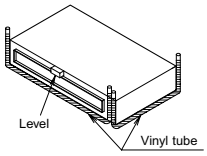


[How to secure washers]



■ **Adjust the height of the unit.**

■ **Check the unit is horizontally level.**

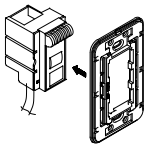


⚠ Caution

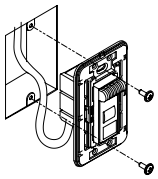
Make sure the unit is installed level using a level or a plastic tube filled with water. In using a plastic tube instead of a level, adjust the top surface of the unit to the surface of the water at both ends of the plastic tube and adjust the unit horizontally. (One thing to watch out for in particular is if it is installed so that the slope is not in the direction of the drain piping, as this might cause leaking.)

■ **Tighten the upper nut.**

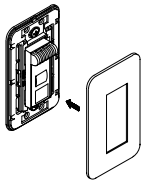
■ **Mounting the receiver.**
Mount the receiver as shown below.



① Press the receiver into the mounting frame.



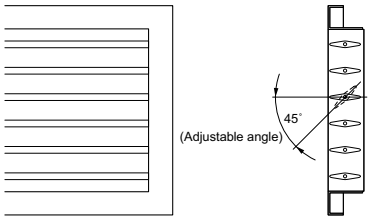
② Mount the completed assembly using two screws.



③ Press the decorative cover into the mounting frame.

Note) Mount the Remote controller cord far enough away from strong electrical wires (such as distribution wires for electrical lights, air conditioners, etc.) and from weak electrical wires (such as wires for telephones, intercoms, etc.).

For heat pump: If your feet feel cold when using the heating function, it is recommended that the air discharge grille shown at below be attached.



OUTDOOR UNIT INSTALLATION

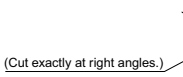
Install as described in the installation manual supplied with the outdoor unit.

REFRIGERANT PIPING WORK

See the installation manual supplied with the outdoor unit.

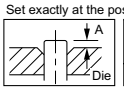
1. FLARING THE PIPE END

1) Cut the pipe end with a pipe cutter.
2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
3) Put the flare nut on the pipe.
4) Flare the pipe.
5) Check that the flaring is properly made.



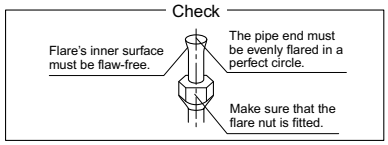
Flaring

Set exactly at the position shown below.



	Flare tool for R410A	Conventional flare tool	
	Clutch-type	Clutch-type (Rigid-type)	Wing-nut type (Imperial-type)
A	0 ~ 0.5 mm	1.0 ~ 1.5 mm	1.5 ~ 2.0 mm

Check



⚠ Warning

Do not use mineral oil on flared part.
Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
Do never install a drier to this R410A unit in order to guarantee its lifetime.
The drying material may dissolve and damage the system.
Incomplete flaring may cause refrigerant gas leakage.

2. REFRIGERANT PIPING

1) To prevent gas leakage, apply refrigeration machine oil on both inner and outer surfaces of the flare. (Use refrigeration oil for R410A)

2) Align the centres of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.
   • Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and escaping gas.

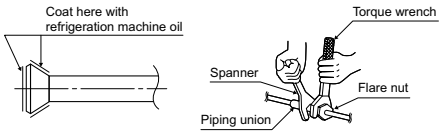
Flare nut tightening torque		
Gas side		Liquid side
3/8 inch	1/2 inch	1/4 inch
32.7~39.9N•m (333~407kgf•cm)	49.5~60.3N•m (505~615kgf•cm)	14.2~17.2N•m (144~175kgf•cm)

⚠ Caution

Overtightening may damage the flare and cause leaks.

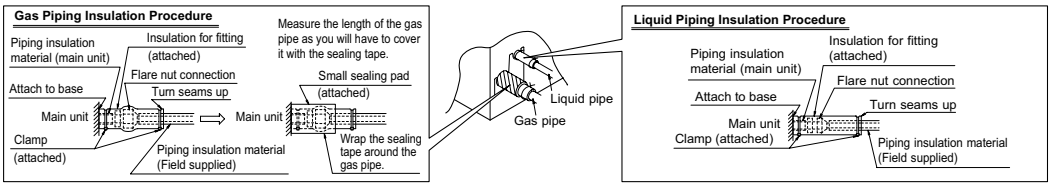
REFRIGERANT PIPING WORK

3) After the work is finished, make sure to check that there is no gas leak.



4) After checking for gas leaks, be sure to insulate the pipe connections.

- Insulate using the insulation for fitting included with the liquid and gas pipes. Besides, make sure the insulation for fitting on the liquid and gas piping has its seams facing up.
  (Tighten both edges with clamp.)
- For the gas piping, wrap the medium sealing pad over the insulation for fitting (flare nut part).

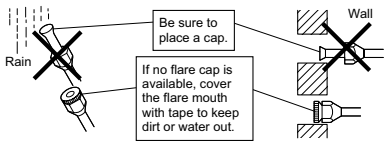


⚠ Caution

Be sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping may cause condensation or burns if touched.

Cautions on Pipe Handling

- Protect the open end of the pipe against dust and moisture.
  (Tighten both edges with clamp.)
- All pipe bends should be as gentle as possible. Use a pipe bender for bending.
  (Bending radius should be 30 to 40 mm or larger.)



Selection of Copper and Heat Insulation materials

When using commercial copper pipes and fittings, observe the following:

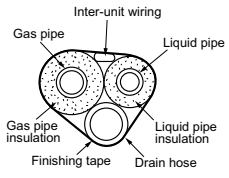
- Insulation material: Polyethylene foam
  Heat transfer rate: 0.041 to 0.052W/mK (0.035 to 0.045 kcal/mh°C)
  Refrigerant gas pipe's surface temperature reaches 110°C max.
  Choose heat insulation materials that will withstand this temperature.
- Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side		Liquid side	Gas pipe thermal insulation		Liquid pipe thermal insulation
25/35 class	50/60 class		25/35 class	50/60 class	
O.D. 9.5mm	O.D. 12.7mm	O.D. 6.4mm	I.D. 12-15mm	I.D. 14-16mm	I.D. 8-10mm
Thickness 0.8mm			Thickness 10mm Min.		

Also, when subject to high humidity, heat insulation of the refrigerant piping (the unit piping and branch piping) must be further reinforced. Reinforce the insulation when installing the unit near bathrooms, kitchens, and other similar locations.
Refer to the following:

- 30°C, more than 75% RH: 20 mm Min. in thickness

If the insulation is not sufficient, condensation may form on the surface of the insulation.



- Use separate thermal insulation pipes for gas and liquid refrigerant pipes.

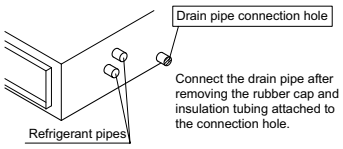
DRAIN PIPING WORK

⚠ Caution

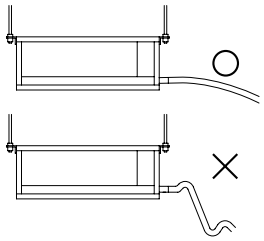
Make sure all water is out before making the duct connection.

■ Install the drain piping.

- Make sure the drain works properly.
- The diameter of the drain pipe should be greater than or equal to the diameter of the connecting pipe (vinyl tube; pipe size: 20 mm; outer dimension: 26 mm).



- Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air pockets from forming.

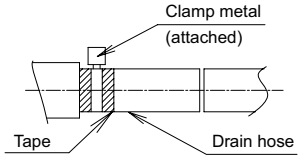


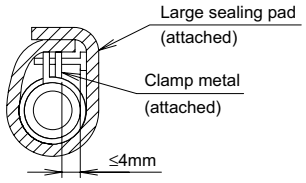
⚠ Caution

Water accumulating in the drain piping can cause the drain to clog.

- To keep the drain tube from sagging, space hanging wires every 1 to 1.5 m.
- Use the drain hose and the metal clamp. Insert the drain hose fully into the drain socket and firmly tighten the metal clamp with the upper part of the tape on the hose end. Tighten the metal clamp until the screw head is less than 4 mm from the hose.
- The two areas below should be insulated because condensation may form there causing water to leak.
  - Drain piping passing indoors
  - Drain sockets

  Referring the figure below, insulate the metal clamp and drain hose using the included large sealing pad.





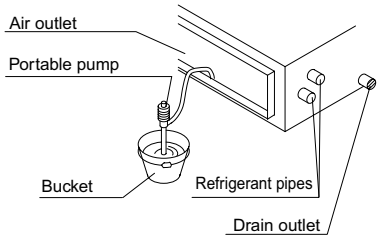
〈 PRECAUTIONS 〉

Drain piping connections

- Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.
- Do not twist or bend the drain hose, so that excessive force is not applied to it. (This type of treatment may cause leaking.)

■ After piping work is finished, check drainage flows smoothly.

- Gradually insert approximately 1,000 cc of water into the drain pan to check drainage in the manner described below.
  - Gradually pour approximately 1,000 cc of water from the outlet hole into the drain pan to check drainage.
  - Check the drainage.



INSTALLING THE DUCT

Connect the duct supplied in the field.

Air inlet side

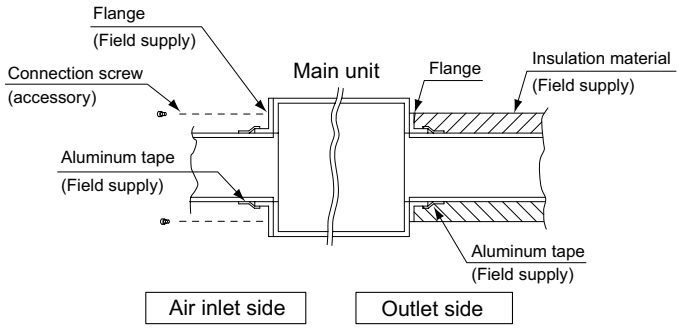
- Attach the duct and intake-side flange (field supply).
- Connect the flange to the main unit with accessory screws (in 20 or 24 positions).
- Wrap the intake-side flange and duct connection area with aluminum tape or something similar to prevent air escaping.

⚠ Caution

When attaching a duct to the intake side, be sure also to attach an air filter inside the air passage on the intake side. (Use an air filter whose dust collecting efficiency is at least 50% in a gravimetric technique.)

Outlet side

- Connect the duct according to the inside of the outlet-side flange.
- Wrap the outlet-side flange and the duct connection area with aluminum tape or something similar to prevent air escaping.



⚠ Caution

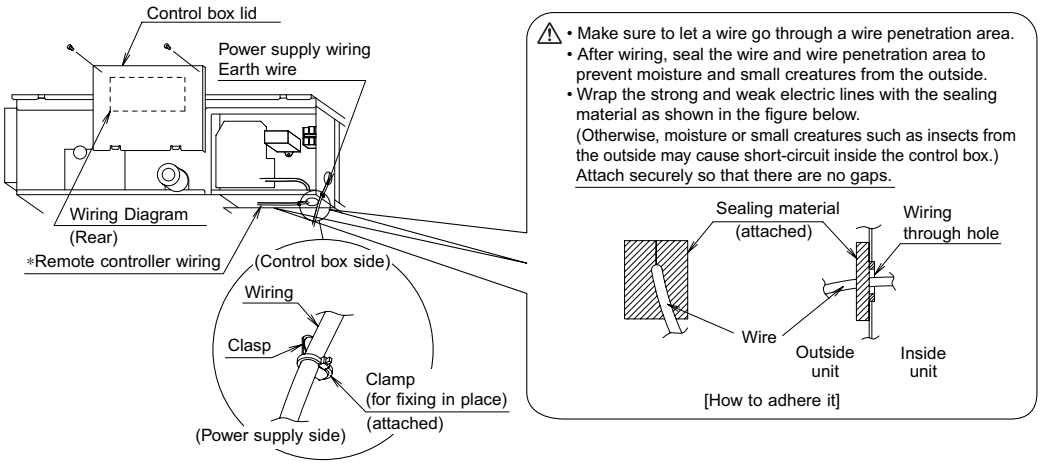
- Be sure to insulate the duct to prevent condensation from forming. (Material: glass wool or polyethylene foam, 25 mm thick)
- Use electric insulation between the duct and the wall when using metal ducts to pass metal laths of the net or fence shape or metal plating into wooden buildings.

WIRING

See the installation manual supplied with the outdoor unit.

■ **HOW TO CONNECT WIRINGS.**

- Wire only after removing the control box lid as shown in the Fig.



⚠ Caution

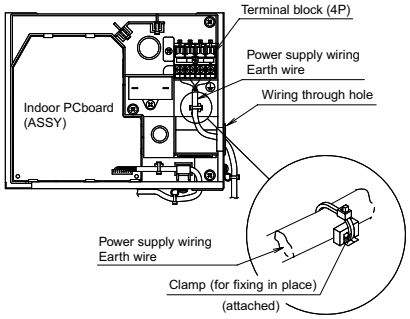
- When clamping the wiring, use the included clamping material as shown in the Fig. to prevent outside pressure being exerted on the wiring connections and clamp firmly.
- When doing the wiring, make sure the wiring is neat and does not cause the control box lid to stick up, then close the cover firmly. When attaching the control box lid, make sure you do not pinch any wires.
- Outside the machine, separate the weak wiring (remote controller wiring) and strong wiring (earth wire and power supply wiring) at least 50 mm so that they do not pass through the same place together. Proximity may cause electrical interference, malfunctions, and breakage.

[PRECAUTIONS]

- See also the “Electrical Wiring Diagram Nameplate” when wiring the unit for electrical power.

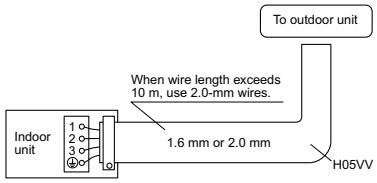
[Connecting electrical wiring]

- **Power supply wiring and Earth wire**
  Remove the control box lid.
  Next, pull the wires into the unit through the wiring through hole and connect to the power wiring terminal block (4P).



⚠ Warning

Do not use tapped wires, stand wires, extensioncords, or starbust connections, as they may cause overheating, electrical shock, or fire.



TRIAL OPERATION AND TESTING

Trial operation and testing

(1) Measure the supply voltage and make sure that it falls in the specified range.
(2) Trial operation should be carried out in either cooling or heating mode.

Trial operation from remote controller
(1) Press ON/OFF button to turn on the system. (2) Simultaneously press center of TEMP button and MODE button. (3) Press MODE button twice. (“ ” will appear on the display to indicate that Trial Operation mode is selected.) (4) Trial run mode terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press ON/OFF button.

■ For Heat pump.
In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.
- Trial operation may be disabled in either mode depending on the room temperature.
- After trial operation is complete, set the temperature to a normal level (26°C to 28°C in cooling mode, 20°C to 24°C in heating mode).
- For protection, the system disables restart operation for 3 minutes after it is turned off.

■ For Cooling only.
Select the lowest programmable temperature.
- Trial operation in cooling mode may be disabled depending on the room temperature.
  Use the remote control for trial operation as described below.
- After trial operation is complete, set the temperature to a normal level (26°C to 28°C).
- For protection, the unit disables restart operation for 3 minutes after it is turned off.

(3) Carry out the test operation in accordance with the Operation Manual to ensure that all functions and parts, are working properly.
* The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
* If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is turned on again.

Test items

Test items	Symptom (diagnostic display on RC)	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Draining line is properly installed.	Water leakage	
System is properly earthed.	Electrical leakage	
The specified wires are used for interconnecting wire connections.	Inoperative or burn damage	
Indoor or outdoor unit’s air inlet or discharge has clear path of air. Shut-off valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote controller commands.	Inoperative	

3P132003-2N

11.2 Outdoor Units

11.2.1 RK(X)S25/35E2V1B

Safety Precautions

- Read these Safety Precautions carefully to ensure correct installation.
- This manual classifies the precautions into WARNING and CAUTION.
  Be sure to follow all the precautions below: they are all important for ensuring safety.

⚠ **WARNING.....Failure to follow any of WARNING is likely to result in such grave consequences as death or serious injury.**

⚠ **CAUTION.....Failure to follow any of CAUTION may result in grave consequences in some cases.**

- The following safety symbols are used throughout this manual:

Be sure to observe this instruction.	Be sure to establish an earth connection.	Never attempt.

- After completing installation, test the unit to check for installation errors. Give the user adequate instructions concerning the use and cleaning of the unit according to the Operation Manual.

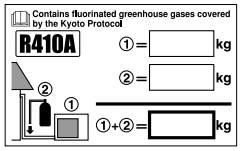
⚠ WARNING
• Installation should be left to the dealer or another professional. Improper installation may cause water leakage, electrical shock, or fire.
• Install the air conditioner according to the instructions given in this manual. Incomplete installation may cause water leakage, electrical shock, or fire.
• Be sure to use the supplied or specified installation parts. Use of other parts may cause the unit to come to lose, water leakage, electrical shock, or fire.
• Install the air conditioner on a solid base that can support the weight of the unit. An inadequate base or incomplete installation may cause injury in the event the unit falls off the base.
• Electrical work should be carried out in accordance with the installation manual and the national electrical wiring rules or code of practice. Insufficient capacity or incomplete electrical work may cause electrical shock or fire.
• Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.
• For wiring, use a cable length enough to cover the entire distance with no connection. Do not use an extension cord. Do not put other loads on the power supply, use a dedicated power circuit. (Failure to do so may cause abnormal heat, electric shock or fire.)
• Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the interconnecting wires so their terminals receive no external stresses. Incomplete connections or clamping may cause terminal overheating or fire.
• After connecting interconnecting and supply wiring be sure to shape the cables so that they do not put undue force on the electrical covers or panels. Install covers over the wires. Incomplete cover installation may cause terminal overheating, electrical shock, or fire.
• If any refrigerant has leaked out during the installation work, ventilate the room. (The refrigerant produces a toxic gas if exposed to flames.)
• After all installation is complete, check to make sure that no refrigerant is leaking out. (The refrigerant produces a toxic gas if exposed to flames.)
• When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air. (Any presence of air or other foreign substance in the refrigerant circuit causes an abnormal pressure rise or rupture, resulting in injury.)
• During pump-down, stop the compressor before removing the refrigerant piping. If the compressor is still running and the stop valve is open during pump-down, air will be sucked in when the refrigerant piping is removed, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.
• During installation, attach the refrigerant piping securely before running the compressor. If the compressor is not attached and the stop valve is open during pump-down, air will be sucked in when the compressor is run, causing abnormal pressure in the freezer cycle which will lead to breakage and even injury.
• Be sure to establish an earth. Do not earth the unit to a utility pipe, arrester, or telephone earth. Incomplete earth may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.
• Be sure to install an earth leakage breaker. Failure to install an earth leakage breaker may result in electric shocks, or fire.

⚠ CAUTION
• Do not install the air conditioner in a place where there is danger of exposure to inflammable gas leakage. If the gas leaks and builds up around the unit, it may catch fire.
• Establish drain piping according to the instructions of this manual. Inadequate piping may cause flooding.
• Tighten the flare nut according to the specified method such as with a torque wrench. If the flare nut is tightened too hard, the flare nut may crack after a long time and cause refrigerant leakage.
• Make sure to provide for adequate measures in order to prevent that the outdoor unit be used as a shelter by small animals. Small animals making contact with electrical parts can cause malfunctions, smoke or fire. Please instruct the customer to keep the area around the unit clean.

1 ■English

Accessories

Accessories supplied with the outdoor unit:

(A) Installation Manual	1	(B) Drain plug (Heat pump-Models)  There is on the bottom packing case.	1
(C) Refrigerant charge label 	1		

Precautions for Selecting the Location

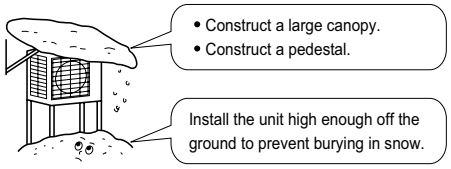
1) Choose a place solid enough to bear the weight and vibration of the unit, where the operation noise will not be amplified.
2) Choose a location where the hot air discharged from the unit or the operation noise will not cause a nuisance to the neighbors of the user.
3) Avoid places near a bedroom and the like, so that the operation noise will cause no trouble.
4) There must be sufficient spaces for carrying the unit into and out of the site.
5) There must be sufficient space for air passage and no obstructions around the air inlet and the air outlet.
6) The site must be free from the possibility of flammable gas leakage in a nearby place.
7) Install units, power cords and inter-unit cables at least 3 meter away from television and radio sets. This is to prevent interference to images and sounds. (Noises may be heard even if they are more than 3 meter away depending on radio wave conditions.)
8) In coastal areas or other places with salty atmosphere of sulfate gas, corrosion may shorten the life of the air conditioner.
9) Since drain flows out of the outdoor unit, do not place under the unit anything which must be kept away from moisture.

NOTE
Cannot be installed hanging from ceiling or stacked.

⚠ CAUTION

When operating the air conditioner in a low outdoor ambient temperature, be sure to follow the instructions described below.

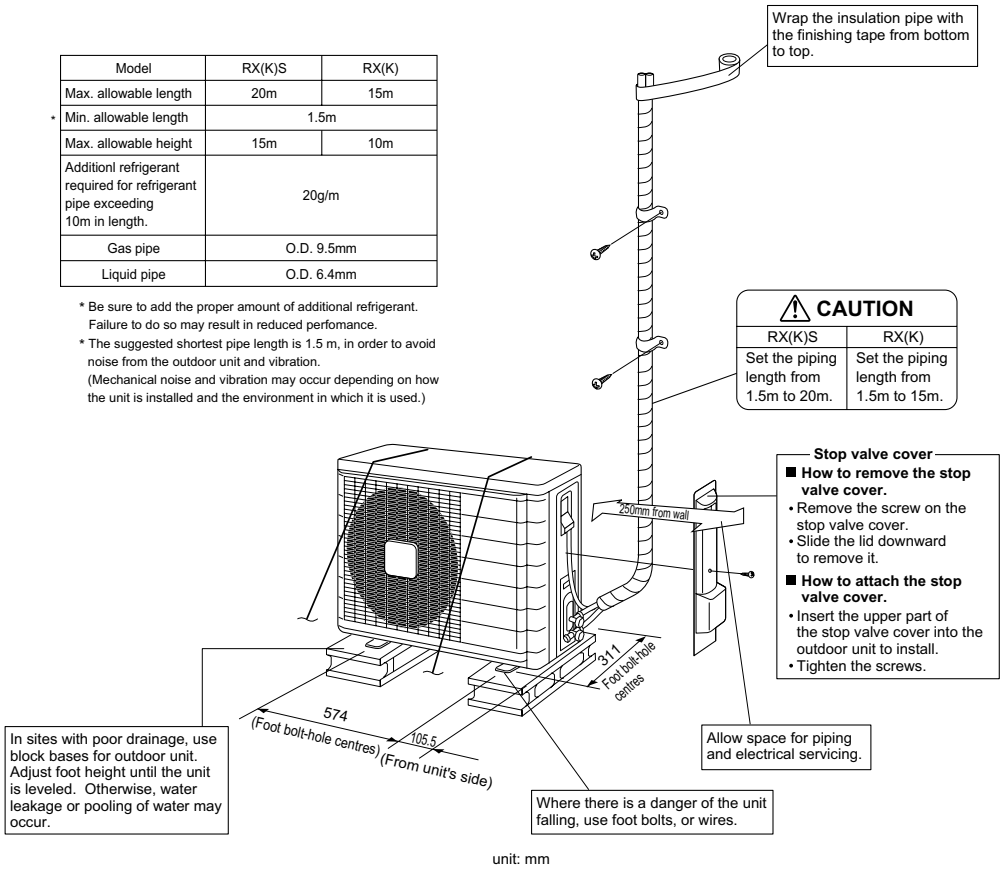
1) To prevent exposure to wind, install the outdoor unit with its suction side facing the wall.
2) Never install the outdoor unit at a site where the suction side may be exposed directly to wind.
3) To prevent exposure to wind, it is recommended to install a baffle plate on the air discharge side of the outdoor unit.
4) In heavy snowfall areas, select an installation site where the snow will not affect the unit.



Outdoor Unit Installation Drawings

Model	RX(K)S	RX(K)
Max. allowable length	20m	15m
* Min. allowable length	1.5m	
Max. allowable height	15m	10m
Additionl refrigerant required for refrigerant pipe exceeding 10m in length.	20g/m	
Gas pipe	O.D. 9.5mm	
Liquid pipe	O.D. 6.4mm	

* Be sure to add the proper amount of additional refrigerant. Failure to do so may result in reduced perfomance.
* The suggested shortest pipe length is 1.5 m, in order to avoid noise from the outdoor unit and vibration. (Mechanical noise and vibration may occur depending on how the unit is installed and the environment in which it is used.)

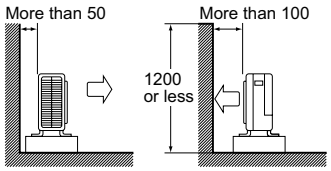


unit: mm

Installation Guidelines

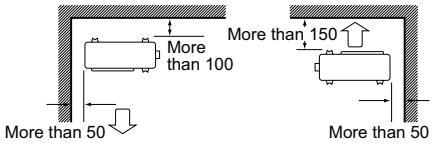
- Where a wall or other obstacle is in the path of outdoor unit's intake or exhaust airflow, follow the installation guidelines below.
- For any of the below installation patterns, the wall height on the exhaust side should be 1200mm or less.

Wall facing one side



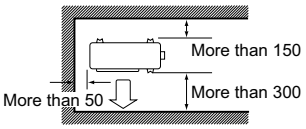
Side view

Walls facing two sides



Top view

Walls facing three sides

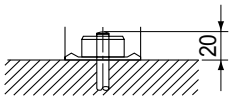


Top view

Unit: mm

Precautions on Installation

- Check the strength and level of the installation ground so that the unit will not cause any operating vibration or noise after installed.
- In accordance with the foundation drawing, fix the unit securely by means of the foundation bolts. (Prepare four sets of M8 or M10 foundation bolts, nuts and washers each which are available on the market.)
- It is best to screw in the foundation bolts until their length are 20mm from the foundation surface.



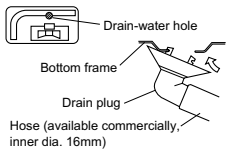
Outdoor Unit Installation

1. Installing outdoor unit.

1) When installing the outdoor unit, refer to "Precautions for Selecting the Location" and the "Outdoor Unit Installation Drawings."
2) If drain work is necessary, follow the procedures below.

2. Drain work. (Heat pump-models.)

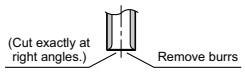
1) Use drain plug for drainage.
2) If the drain port is covered by a mounting base or floor surface, place additional foot bases of at least 30mm in height under the outdoor unit's feet.
3) In cold areas, do not use a drain hose with the outdoor unit.
(Otherwise, drain water may freeze, impairing heating performance.)



Outdoor Unit Installation

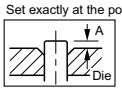
3. Flaring the pipe end.

1) Cut the pipe end with a pipe cutter.
2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
3) Put the flare nut on the pipe.
4) Flare the pipe.
5) Check that the flaring is properly made.



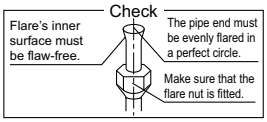
Flaring

Set exactly at the position shown below.



	Flare tool for R410A	Conventional flare tool	
	Clutch-type	Clutch-type (Rigid-type)	Wing-nut type (Imperial-type)
A	0-0.5mm	1.0-1.5mm	1.5-2.0mm

Check

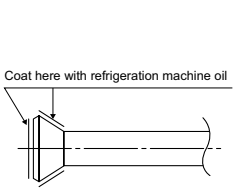


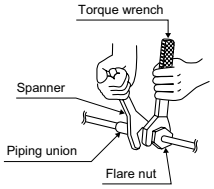
⚠ WARNING

1) Do not use mineral oil on flared part.
2) Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
3) Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
4) Do never install a drier to this R410A unit in order to guarantee its lifetime.
5) The drying material may dissolve and damage the system.
6) Incomplete flaring may cause refrigerant gas leakage.

4. Refrigerant piping.

1) Align the centres of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.
   • Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and escaping gas.
2) To prevent gas leakage, apply refrigeration machine oil on both inner and outer surfaces of the flare. (Use refrigeration oil for R410A)





Flare nut tightening torque	
Gas side	Liquid side
3/8 inch	1/4 inch
32.7-39.9N • m (333-407kgf • cm)	14.2-17.2N • m (144-175kgf • cm)

Valve cap tightening torque	
Gas side	Liquid side
3/8 inch	1/4 inch
21.6-27.4N • m (220-280kgf • cm)	21.6-27.4N • m (220-280kgf • cm)

Service port cap tightening torque	10.8~14.7N • m (110~150kgf • cm)

5 ■English

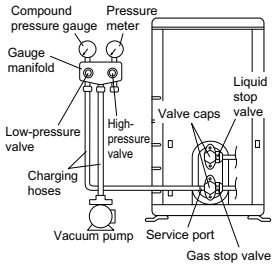
5. Purging air and checking gas leakage.

• When piping work is completed, it is necessary to purge the air and check for gas leakage.

⚠ WARNING

1) Do not mix any substance other than the specified refrigerant (R410A) into the refrigeration cycle.
2) When refrigerant gas leaks occur, ventilate the room as soon and as much as possible.
3) R410A, as well as other refrigerants, should always be recovered and never be released directly into the environment.
4) Use a vacuum pump for R410A exclusively. Using the same vacuum pump for different refrigerants may damage the vacuum pump or the unit.

- If using additional refrigerant, perform air purging from the refrigerant pipes and indoor unit using a vacuum pump, then charge additional refrigerant.
- Use a hexagonal wrench (4mm) to operate the stop valve rod.
- All refrigerant pipe joints should be tightened with a torque wrench at the specified tightening torque.



1) Connect projection side of charging hose (which comes from gauge manifold) to gas stop valve's service port.

↓

2) Fully open gauge manifold's low-pressure valve (Lo) and completely close its high-pressure valve (Hi).
(High-pressure valve subsequently requires no operation.)

↓

3) Do vacuum pumping and make sure that the compound pressure gauge reads –0.1MPa (–76cmHg)*1.

↓

4) Close gauge manifold's low-pressure valve (Lo) and stop vacuum pump.
(Keep this state for a few minutes to make sure that the compound pressure gauge pointer does not swing back.)*2.

↓

5) Remove caps from liquid stop valve and gas stop valve.

↓

6) Turn the liquid stop valve's rod 90 degrees counterclockwise with a hexagonal wrench to open valve.
Close it after 5 seconds, and check for gas leakage.
Using soapy water, check for gas leakage from indoor unit's flare and outdoor unit's flare and valve rods.
After the check is complete, wipe all soapy water off.

↓

7) Disconnect charging hose from gas stop valve's service port, then fully open liquid and gas stop valves.
(Do not attempt to turn valve rod beyond its stop.)

↓

8) Tighten valve caps and service port caps for the liquid and gas stop valves with a torque wrench at the specified torques.

*1. Pipe length vs. vacuum pump run time.

Pipe length	Up to 15 metres	More than 15 metres
Run time	Not less than 10 min.	Not less than 15 min.

*2. If the compound pressure gauge pointer swings back, refrigerant may have water content or a loose pipe joint may exists. Check all pipe joints and retighten nuts as needed, then repeat steps 2) through 4).

Outdoor Unit Installation

6. Refilling the refrigerant.

Check the type of refrigerant to be used on the machine nameplate.

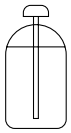
Precautions when adding R410A

Fill from the liquid pipe in liquid form.

It is a mixed refrigerant, so adding it in gas form may cause the refrigerant composition to change, preventing normal operation.

1) Before filling, check whether the cylinder has a siphon attached or not. (It should have something like “liquid filling siphon attached” displayed on it.)

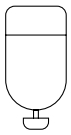
Filling a cylinder with an attached siphon



Stand the cylinder upright when filling.

There is a siphon pipe inside, so the cylinder need not be upside-down to fill with liquid.

Filling other cylinders



Turn the cylinder upside-down when filling.

- Be sure to use the R410A tools to ensure pressure and to prevent foreign objects entering.

Important information regarding the refrigerant used

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent gases into the atmosphere.

Refrigerant type: **R410A**

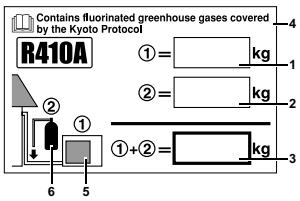
GWP(1) value: **1975** (1) GWP = global warming potential

Please fill in with indelible ink,

- ■ ① the factory refrigerant charge of the product,
- ■ ② the additional refrigerant amount charged in the field and
- ■ ①+② the total refrigerant charge

on the refrigerant charge label supplied with the product.

The filled out label must be adhered in the proximity of the product charging port (e.g. onto the inside of the stop valve cover).



1 factory refrigerant charge of the product: see unit name plate

2 additional refrigerant amount charged in the field

3 total refrigerant charge

4 Contains fluorinated greenhouse gases covered by the Kyoto Protocol

5 outdoor unit

6 refrigerant cylinder and manifold for charging

7. Refrigerant piping work.

7-1 Cautions on pipe handling.

1) Protect the open end of the pipe against dust and moisture.
2) All pipe bends should be as gentle as possible. Use a pipe bender for bending.
   (Bending radius should be 30 to 40mm or larger.)

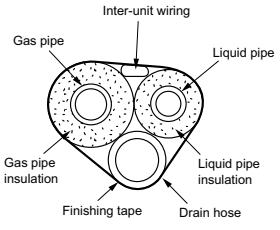
7-2 Selection of copper and heat insulation materials.

When using commercial copper pipes and fittings, observe the following:

1) Insulation material: Polyethylene foam
   Heat transfer rate: 0.041 to 0.052W/mK (0.035 to 0.045kcal/(mh •°C))
   Refrigerant gas pipe’s surface temperature reaches 110°C max.
   Choose heat insulation materials that will withstand this temperature.
2) Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side	Liquid side	Gas pipe thermal insulation	Liquid pipe thermal insulation
O.D. 9.5mm	O.D. 6.4mm	I.D. 12-15mm	I.D. 8-10mm
Thickness 0.8mm		Thickness 10mm Min.	

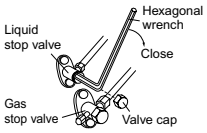
3) Use separate thermal insulation pipes for gas and liquid refrigerant pipes.



Pump Down Operation

In order to protect the environment, be sure to pump down when relocating or disposing of the unit.

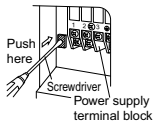
1) Remove the valve cap from liquid stop valve and gas stop valve.
2) Carry out forced cooling operation.
3) After five to ten minutes, close the liquid stop valve with a hexagonal wrench.
4) After two to three minutes, close the gas stop valve and stop forced cooling operation.



How to force cooling operation mode

■ **Using the outdoor unit forced cooling operation switch**

1) Push on "▨" with a screwdriver. The unit will start operating.
2) The forced cooling mode is selected, and terminates in approx. 15 minutes.



■ **Using the indoor unit operation/stop button**

Press the indoor unit operation/stop button for at least five seconds. (Operation will start.)

- Forced cooling operation will stop automatically after around 15 minutes. To force a test run to stop, press the indoor unit operation/stop button.

■ **Using the main unit's remote control**

1) Press the "operation/stop" button. (Operation will start.)
2) Press the temperature ▲▼ button and the "operation select" button at the same time.
3) Press the "operation select" button twice. (┐ will be displayed and the unit will enter test run mode.)
4) Press the "operation select" button to return the operation mode to cooling.

- Test run mode will stop automatically after around 30 minutes. To force a test run to stop, press the operation/stop button.

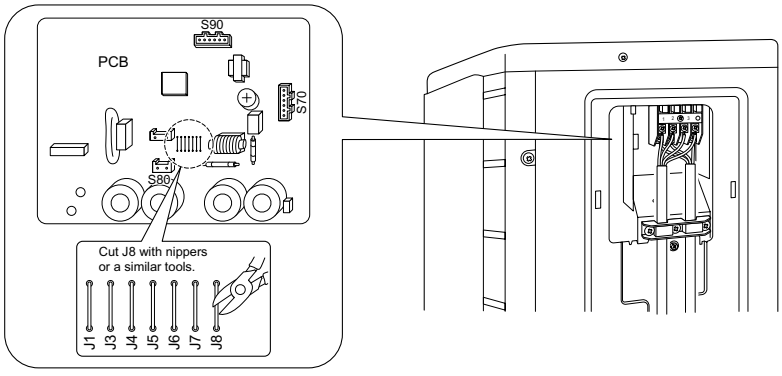
⚠ CAUTION

1) When pressing the switch, do not touch the terminal block. It has a high voltage, so doing so may cause electric shock.
2) After closing the liquid stop valve, close the gas stop valve within three minutes, then stop the forced operation.

Facility Setting (RKS20/25/35E2V1B only) (cooling at low outdoor temperature)

This function is limited only for facilities (the target of air conditioning is equipment (such as computer)). Never use it in a residence or office (the space where there is a human).

1) Cutting jumper8 (J8) on the circuit board will expand the operation range down to –15°C. However it will stop if the outdoor temperature drops below –20°C and start back up once the temperature rises again.



⚠ CAUTION

1) If the outdoor unit is installed where the heat exchanger of the unit is exposed to direct wind, provide a windbreak wall.
2) Intermittent noises may be produced by the indoor unit due to the outdoor fan turning on and off when using facility settings.
3) Do not place humidifiers or other items which might raise the humidity in rooms where facility settings are being used. A humidifier might cause dew jumping from the indoor unit outlet vent.
4) Cutting jumper 8 (J8) sets the indoor fan tap to the highest position. Notify the user about this.

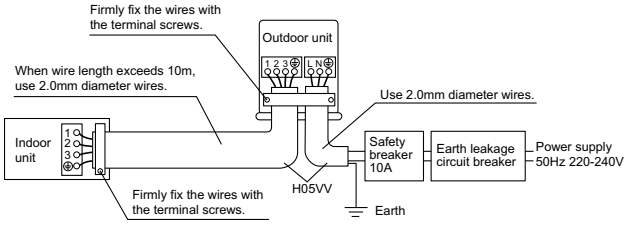
Wiring

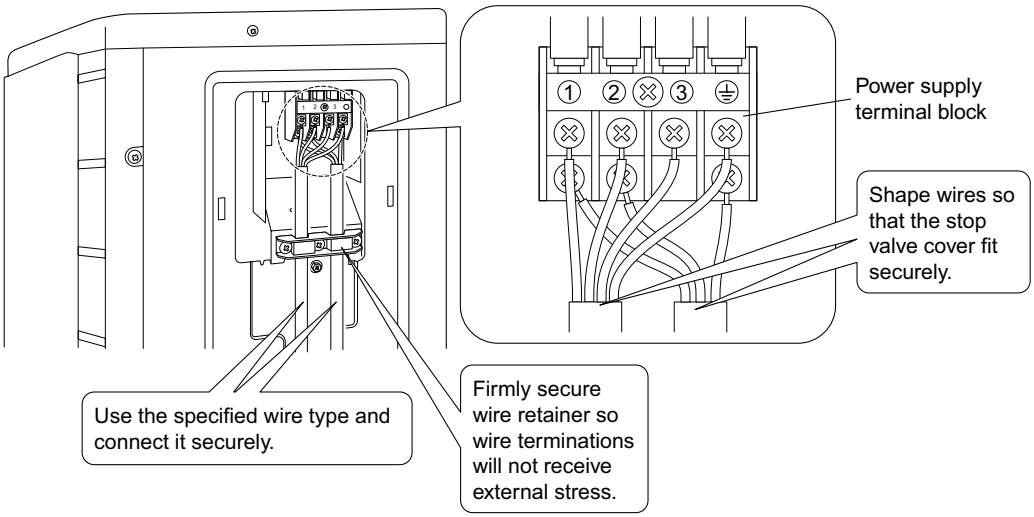
⚠ WARNING

1) Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.
2) Do not use locally purchased electrical parts inside the product. (Do not branch the power for the drain pump, etc., from the terminal block.) Doing so may cause electric shock or fire.
3) Be sure to install an earth leak detector. (One that can handle higher harmonics.)
   (This unit uses an inverter, which means that it must be used an earth leak detector capable handling harmonics in order to prevent malfunctioning of the earth leak detector itself.)
4) Use an all-pole disconnection type breaker with at least 3mm between the contact point gaps.

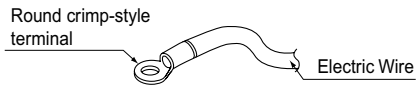
- Do not turn ON the safety breaker until all work is completed.

1) Strip the insulation from the wire (20mm).
2) Connect the connection wires between the indoor and outdoor units **so that the terminal numbers match.** Tighten the terminal screws securely. We recommend a flathead screwdriver be used to tighten the screws. The screws are packed with the terminal board.



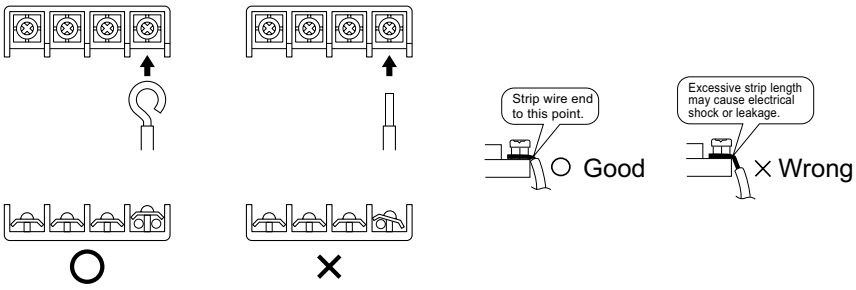


Observe the notes mentioned below when wiring to the power supply terminal board.
Precautions to be taken for power supply wiring.
Use a round crimp-style terminal for connection to the power supply terminal board. In case it cannot be used due to unavoidable reasons, be sure to observe the following instruction.
Place the round crimp-style terminals on the wires up to the covered part and secure in place.



⚠ CAUTION

When connecting the connection wires to the terminal board using a single core wire, be sure to perform curling.
Problems with the work may cause heat and fires.



Stripping wire at terminal block

3) Pull the wire and make sure that it does not disconnect. Then fix the wire in place with a wire stop.

Test Run and Final Check

1. Trial operation and testing.

1-1 Measure the supply voltage and make sure that it falls in the specified range.

1-2 Trial operation should be carried out in either cooling or heating mode.

■ For heat pump

• In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.

1) Trial operation may be disabled in either mode depending on the room temperature. Use the remote control for trial operation as described below.
2) After trial operation is complete, set the temperature to a normal level (26°C to 28°C in cooling mode, 20°C to 24°C in heating mode).
3) For protection, the system disables restart operation for 3 minutes after it is turned off.

■ For cooling only

• Select the lowest programmable temperature.

1) Trial operation in cooling mode may be disabled depending on the room temperature. Use the remote control for trial operation as described below.
2) After trial operation is complete, set the temperature to a normal level (26°C to 28°C).
3) For protection, the unit disables restart operation for 3 minutes after it is turned off.

1-3 Carry out the test operation in accordance with the operation manual to ensure that all functions and parts, such as louver movement, are working properly.

• The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
• If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is opened again.

2. Test items.

Test items	Symptom (diagnostic display on RC)	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Draining line is properly installed.	Water leakage	
System is properly earthed.	Electrical leakage	
The specified wires are used for interconnecting wire connections.	Inoperative or burn damage	
Indoor or outdoor unit's air intake or exhaust has clear path of air. Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote control commands.	Inoperative	

3P192882-1C

12. Operation Manual

12.1 Operations

12.1.1 Duct Connected Type FDK(X)S25/35EAVMB

Safety precautions

- Keep this manual where the operator can easily find them.
- Read this manual attentively before starting up the unit.
- For safety reason the operator must read the following cautions carefully.
- This manual classifies precautions into WARNING and CAUTION. Be sure to follow all precautions below: they are all important for ensuring safety.

⚠ WARNING	⚠ CAUTION
If you do not follow these instructions exactly, the unit may cause property damage, personal injury or loss of life.	If you do not follow these instructions exactly, the unit may cause minor or moderate property damage or personal injury.

Never do.

Be sure to follow the instructions.

Be sure to earth the air conditioner.

Never cause the air conditioner (including the remote controller) to get wet.

Never touch the air conditioner (including the remote controller) with a wet hand.

⚠ WARNING

- In order to avoid fire, explosion or injury, do not operate the unit when harmful, among which flammable or corrosive gases, are detected near the unit.
- It is not good for health to expose your body to the air flow for a long time.
- Do not put a finger, a rod or other objects into the air outlet or inlet. As the fan is rotating at a high speed, it will cause injury.
- Do not attempt to repair, relocate, modify or reinstall the air conditioner by yourself. Incorrect work will cause electric shocks, fire etc.
  For repairs and reinstallation, consult your Daikin dealer for advice and information.

- The refrigerant used in the air conditioner is safe. Although leaks should not occur, if for some reason any refrigerant happens to leak into the room, make sure it does not come in contact with any flame as of gas heaters, kerosene heaters or gas range.
- If the air conditioner is not cooling (heating) properly, the refrigerant may be leaking, so call your dealer.
  When carrying out repairs accompanying adding refrigerant, check the content of the repairs with our service staff.
- Do not attempt to install the air conditioner by your self. Incorrect work will result in water leakage, electric shocks or fire. For installation, consult the dealer or a qualified technician.
- In order to avoid electric shock, fire or injury, if you detect any abnormally such as smell of fire, stop the operation and turn off the breaker. And call your dealer for instructions.
- Depending on the environment, an earth leakage breaker must be installed. Lack of an earth leakage breaker may result in electric shocks or fire.

- The air conditioner must be earthed. Incomplete earthing may result in electric shocks. Do not connect the earth line to a gas pipe, water pipe, lightning rod, or a telephone earth line.

⚠ CAUTION

- In order to avoid any quality deterioration, do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Never expose little children, plants or animals directly to the air flow.

- Do not place appliances which produce open fire in places exposed to the air flow from the unit or under the indoor unit. It may cause incomplete combustion or deformation of the unit due to the heat.
- Do not block air inlets nor outlets. Impaired air flow may result in insufficient performance or trouble.
- Do not stand or sit on the outdoor unit. Do not place any object on the unit to avoid injury, do not remove the fan guard.
- Do not place anything under the indoor or outdoor unit that must be kept away from moisture. In certain conditions, moisture in the air may condense and drip.
- After a long use, check the unit stand and fittings for damage.
- Do not touch the air inlet and alminum fins of outdoor unit. It may cause injury.
- The appliance is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the appliance.

- To avoid oxygen deficiency, ventilate the room sufficiently if equipment with burner is used together with the air conditioner.

- Before cleaning, be sure to stop the operation, turn the breaker off or pull out the supply cord.
- Do not connect the air conditioner to a power supply different from the one as specified. It may cause trouble or fire.
- Arrange the drain hose to ensure smooth drainage. Incomplete draining may cause wetting of the building, furniture etc.
- Do not place things that must be kept dry under the indoor unit. Water may drip from the indoor unit if the humidity is 80% or above or when the drain outlet is clogged or the air-filter is dirtied.
- Do not place objects in direct proximity of the outdoor unit and do not let leaves and other debris accumulate around the unit.
  Leaves are a hotbed for small animals which can enter the unit. Once in the unit, such animals can cause malfunctions, smoke or fire when making contact with electrical parts.

- Do not operate the air conditioner with wet hands.

- Do not wash the indoor unit with excessive water, only use a slightly wet cloth.
- Do not place things such as vessels containing water or anything else on top of the unit. Water may penetrate into the unit and degrade electrical insulations, resulting in an electric shock.

Installation site.

■ To install the air conditioner in the following types of environments, consult the dealer.
- Places with an oily ambient or where steam or soot occurs.
- Salty environment such as coastal areas.
- Places where sulfide gas occurs such as hot springs.
- Places where snow may block the outdoor unit.

The drain from the outdoor unit must be discharged to a place of good drainage.

Consider nuisance to your neighbours from noises.

■ For installation, choose a place as described below.
- A place solid enough to bear the weight of the unit which does not amplify the operation noise or vibration.
- A place from where the air discharged from the outdoor unit or the operation noise will not annoy your neighbours.

Electrical work.

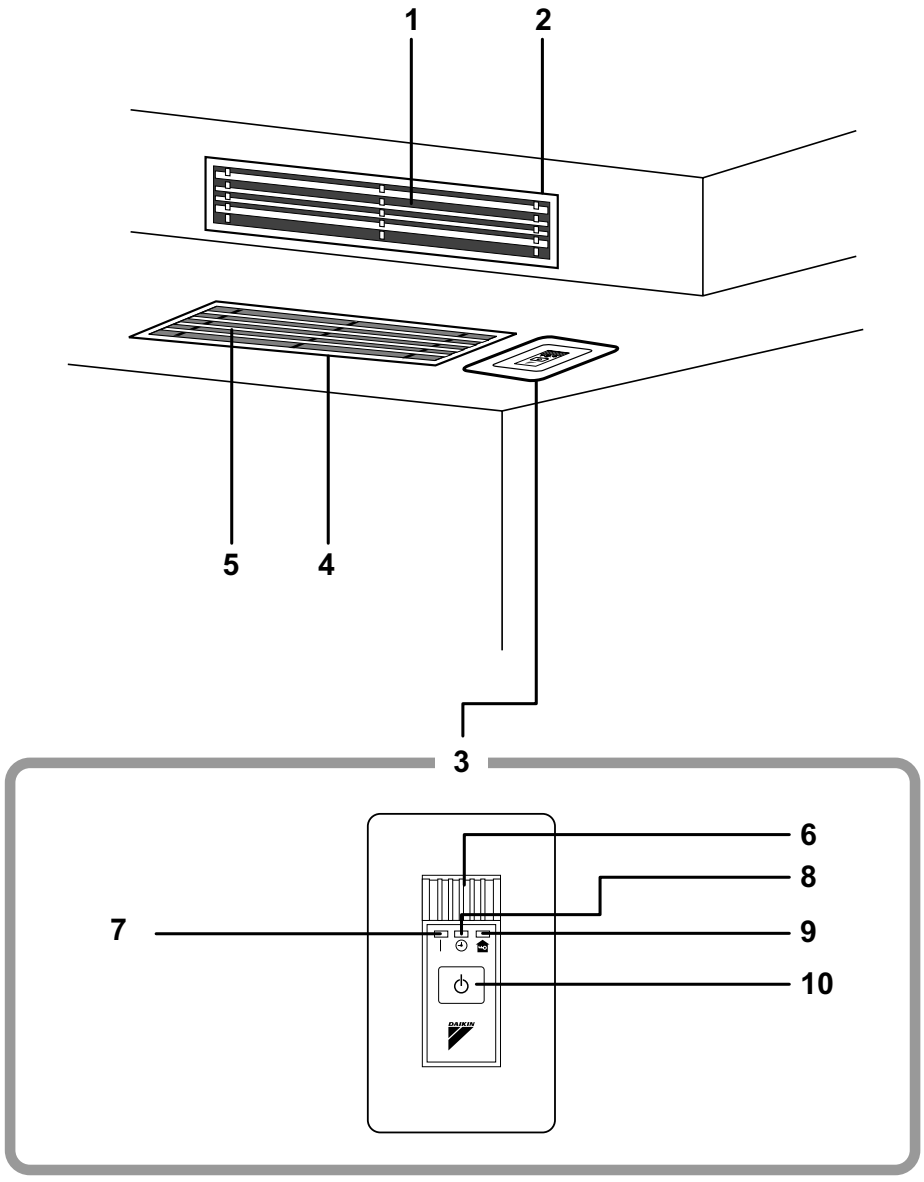
- For power supply, be sure to use a separate power circuit dedicated to the air conditioner.

System relocation.

- Relocating the air conditioner requires specialized knowledge and skills. Please consult the dealer if relocation is necessary for moving or remodeling.

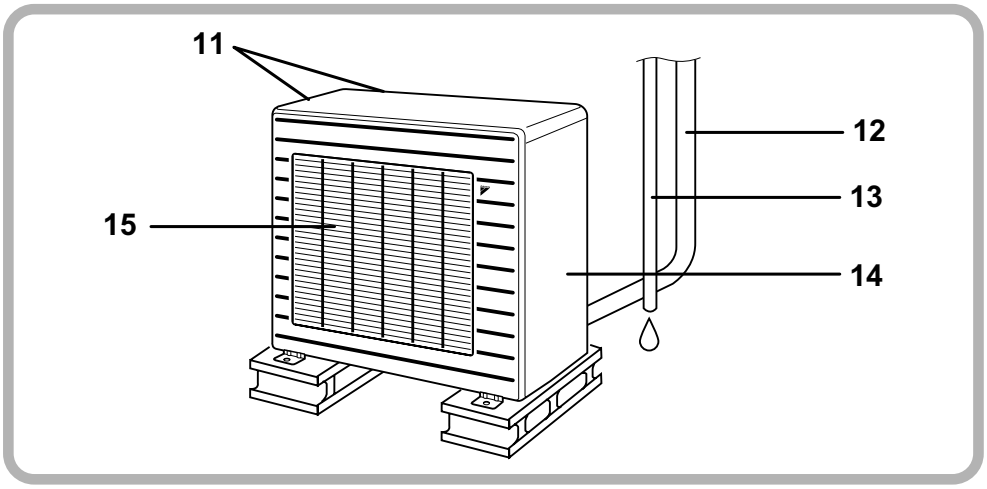
Names of parts

■ Indoor Unit



4

■ Outdoor Unit



■ Indoor Unit

1. **Air outlet**
2. **Air outlet grille:** (Field supply)
   - Appearance of the Air outlet grille and Air inlet grille may differ with some models.
3. **Receiver**
4. **Suction grille:** (Option)
   - Appearance of the suction grille and Air inlet grille may differ with some models.
5. **Air inlet**
6. **Room temperature sensor:**
   - It senses the air temperature around the unit.
7. **Operation lamp (green)**
8. **TIMER lamp (yellow):** (page 16.)
9. **HOME LEAVE lamp (red):**
   - Lights up when you use HOME LEAVE operation. (page 14.)
10. **Indoor Unit ON/OFF switch:**
    - Push this switch once to start operation. Push once again to stop it.
    - This switch is useful when the remote controller is missing.

- **The operation mode refers to the following table.**

	Mode	Temperature setting	Air flow rate
FDKS	COOL	22°C	AUTO
FDXS	AUTO	25°C	AUTO

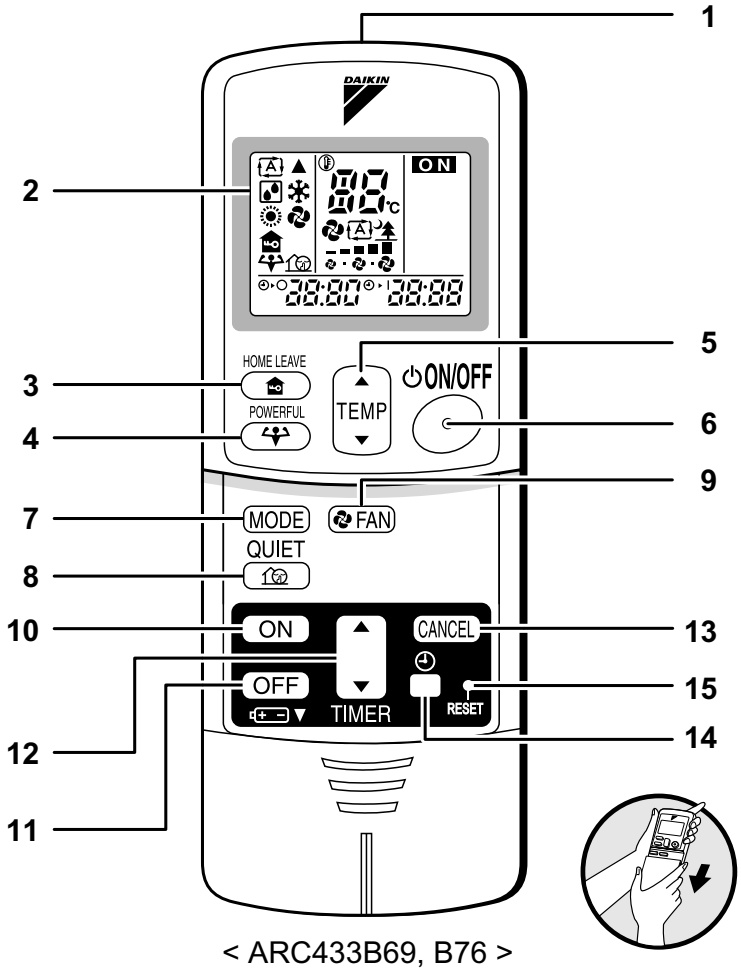
■ Outdoor Unit

11. **Air inlet:** (Back and side)
12. **Refrigerant piping and inter-unit cable**
13. **Drain hose**
14. **Earth terminal:**
    - It is inside of this cover.
15. **Air outlet**

Appearance of the outdoor unit may differ from some models.

5

■ Remote Controller



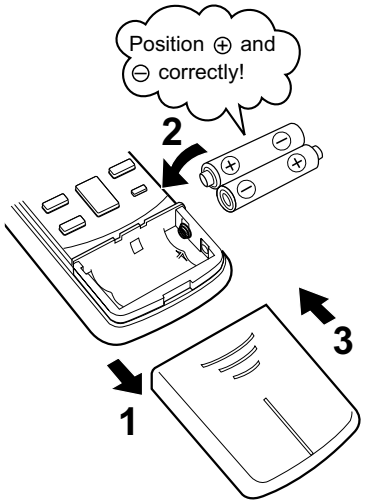
< ARC433B69, B76 >

1. **Signal transmitter:**
   - It sends signals to the indoor unit.
2. **Display:**
   - It displays the current settings. (In this illustration, each section is shown with all its displays ON for the purpose of explanation.)
3. **HOME LEAVE button:** HOME LEAVE operation (page 14.)
4. **POWERFUL button:** POWERFUL operation (page 12.)
5. **TEMPERATURE adjustment buttons:**
   - It changes the temperature setting.
6. **ON/OFF button:**
   - Press this button once to start operation. Press once again to stop it.
7. **MODE selector button:**
   - It selects the operation mode. (AUTO/DRY/COOL/HEAT/FAN) (page 10.)
8. **QUIET button:** OUTDOOR UNIT QUIET operation (page 13.)
9. **FAN setting button:**
   - It selects the air flow rate setting.
10. **ON TIMER button:** (page 17.)
11. **OFF TIMER button:** (page 16.)
12. **TIMER Setting button:**
    - It changes the time setting.
13. **TIMER CANCEL button:**
    - It cancels the timer setting.
14. **CLOCK button:** (page 9.)
15. **RESET button:**
    - Restart the unit if it freezes.
    - Use a thin object to push.

Preparation Before Operation

■ To set the batteries

1. **Slide the front cover to take it off.**
2. **Set two dry batteries (AAA).**
3. **Set the front cover as before.**



ATTENTION

■ **About batteries**

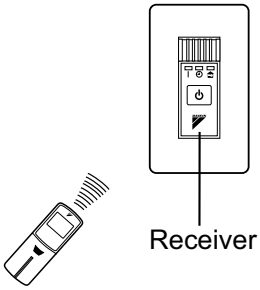
- When replacing the batteries, use batteries of the same type, and replace the two old batteries together.
- When the system is not used for a long time, take the batteries out.
- We recommend replacing once a year, although if the remote controller display begins to fade or if reception deteriorates, please replace with new alkali batteries. Do not use manganese batteries.
- The attached batteries are provided for the initial use of the system.
  The usable period of the batteries may be short depending on the manufactured date of the air conditioner.

7

Preparation Before Operation

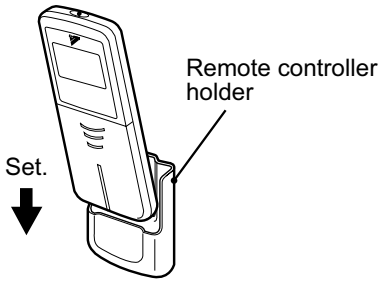
■ To operate the remote controller

- To use the remote controller, aim the transmitter at the indoor unit. If there is anything to block signals between the unit and the remote controller, such as a curtain, the unit will not operate.
- Do not drop the remote controller. Do not get it wet.
- The maximum distance for communication is about 4m.



■ To fix the remote controller holder on the wall

1. **Choose a place from where the signals reach the unit.**
2. **Fix the holder to a wall, a pillar, etc. with the screws supplied with the holder.**
3. **Place the remote controller in the remote controller holder.**



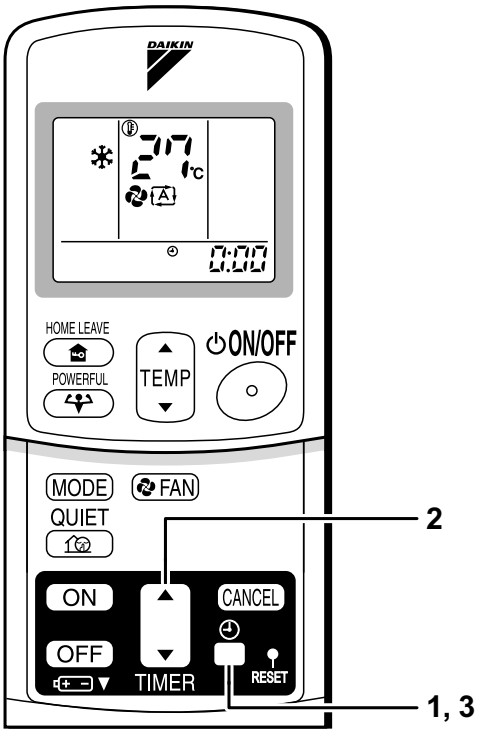
● To remove, pull it upwards.

ATTENTION

■ **About remote controller**

- Never expose the remote controller to direct sunlight.
- Dust on the signal transmitter or receiver will reduce the sensitivity. Wipe off dust with soft cloth.
- Signal communication may be disabled if an electronic-starter-type fluorescent lamp (such as inverter-type lamps) is in the room. Consult the shop if that is the case.
- If the remote controller signals happen to operate another appliance, move that appliance to somewhere else, or consult the shop.

■ To set the clock



1. **Press “CLOCK button”.**

   0:00 is displayed.

   ◷ blinks.

2. **Press “TIMER setting button” to set the clock to the present time.**

   Holding down “ ▲ ” or “ ▼ ” button rapidly increases or decreases the time display.

3. **Press “CLOCK button”.**

   : blinks.

■ Turn the breaker ON

- Turning ON the breaker opens the flap, then closes it again. (This is a normal procedure.)

NOTE

■ Tips for saving energy

- Be careful not to cool (heat) the room too much.
  Keeping the temperature setting at a moderate level helps save energy.
- Cover windows with a blind or a curtain.
  Blocking sunlight and air from outdoors increases the cooling (heating) effect.
- Clogged air filters cause inefficient operation and waste energy. Clean them once in about every two weeks.

Recommended temperature setting
For cooling:26°C – 28°C For heating:20°C – 24°C

■ Please note

- The air conditioner always consumes 15-35 watts of electricity even while it is not operating.
- If you are not going to use the air conditioner for a long period, for example in spring or autumn, turn the breaker OFF.
- Use the air conditioner in the following conditions.

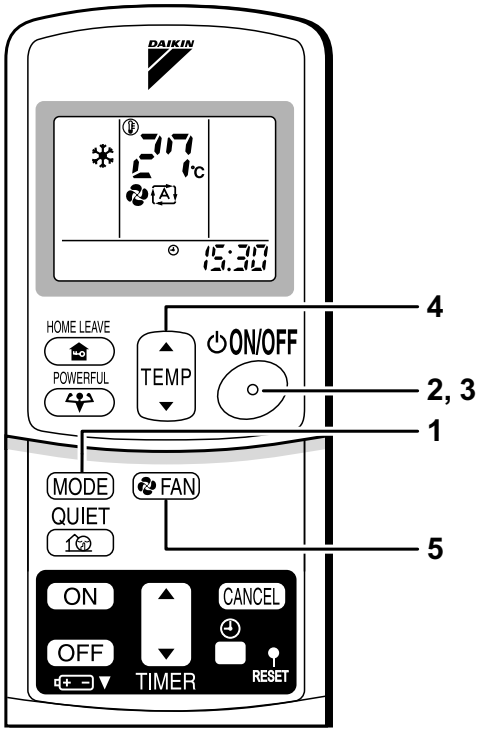
Mode	Operating conditions	If operation is continued out of this range
COOL	Outdoor temperature: 〈2MK(X)S40〉 10 to 46°C 〈2MXS52〉 –10 to 46°C 〈3/4/5MK(X)S〉 –10 to 46°C 〈RK(X)S〉 –10 to 46°C Indoor temperature: 18 to 32°C Indoor humidity: 80% max.	• A safety device may work to stop the operation. (In multi system, it may work to stop the operation of the outdoor unit only.) • Condensation may occur on the indoor unit and drip.
HEAT	Outdoor temperature: 〈2MXS40〉 –10 to 15.5°C 〈2MXS52〉 –15 to 15.5°C 〈3/4/5MXS〉 –15 to 15.5°C 〈RXS20/25/35〉 –15 to 20°C 〈RXS50/60〉 –15 to 18°C Indoor temperature: 10 to 30°C	• A safety device may work to stop the operation.
DRY	Outdoor temperature: 〈2MK(X)S40〉 10 to 46°C 〈2MXS52〉 –10 to 46°C 〈3/4/5MK(X)S〉 –10 to 46°C 〈RK(X)S〉 –10 to 46°C Indoor temperature: 18 to 32°C Indoor humidity: 80% max.	• A safety device may work to stop the operation. • Condensation may occur on the indoor unit and drip.

- Operation outside this humidity or temperature range may cause a safety device to disable the system.

9

AUTO · DRY · COOL · HEAT · FAN Operation

The air conditioner operates with the operation mode of your choice. From the next time on, the air conditioner will operate with the same operation mode.



■ To start operation

1. Press “MODE selector button” and select a operation mode.

- Each pressing of the button advances the mode setting in sequence.

: AUTO

: DRY

: COOL

: HEAT

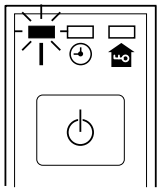
: FAN

<FDKS>

<FDXS>

2. Press “ON/OFF button” .

- The OPERATION lamp lights up.



■ To stop operation

3. Press “ON/OFF button” again.

- Then OPERATION lamp goes off.

■ To change the temperature setting

4. Press “TEMPERATURE adjustment button”.

DRY or FAN mode	AUTO or COOL or HEAT mode
The temperature setting is not variable.	Press “▲” to raise the temperature and press “▼” to lower the temperature.
	Set to the temperature you like. 

■ To change the air flow rate setting

5. Press “FAN setting button”.

DRY mode	AUTO or COOL or HEAT or FAN mode
The air flow rate setting is not variable.	Five levels of air flow rate setting from “ ” to “ ” plus “ ” “ ” are available. 

- Indoor unit quiet operation

  When the air flow is set to “ ”, the noise from the indoor unit will become quieter. Use this when making the noise quieter.

  The unit might lose power when the fan strength is set to a weak level.

NOTE

■ **Note on HEAT operation**
- Since this air conditioner heats the room by taking heat from outdoor air to indoors, the heating capacity becomes smaller in lower outdoor temperatures. If the heating effect is insufficient, it is recommended to use another heating appliance in combination with the air conditioner.
- The heat pump system heats the room by circulating hot air around all parts of the room. After the start of heating operation, it takes some time before the room gets warmer.
- In heating operation, frost may occur on the outdoor unit and lower the heating capacity. In that case, the system switches into defrosting operation to take away the frost.
- During defrosting operation, hot air does not flow out of indoor unit.

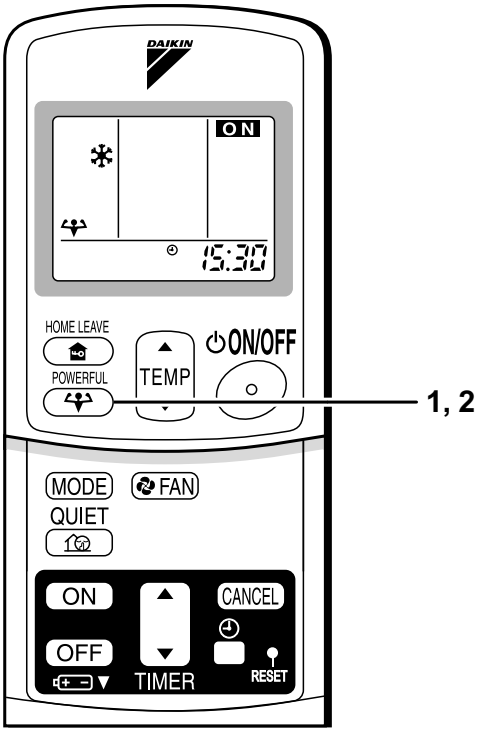
■ **Note on DRY operation**
- The computer chip works to rid the room of humidity while maintaining the temperature as much as possible. It automatically controls temperature and fan strength, so manual adjustment of these functions is unavailable.

■ **Note on AUTO operation**
- In AUTO operation, the system selects a temperature setting and an appropriate operation mode (COOL or HEAT) based on the room temperature at the start of the operation.
- The system automatically reselects setting at a regular interval to bring the room temperature to user-setting level.
- If you do not like AUTO operation, you can manually select the operation mode and setting you like.

■ **Note on air flow rate setting**
- At smaller air flow rates, the cooling (heating) effect is also smaller.

POWERFUL Operation

POWERFUL operation quickly maximizes the cooling (heating) effect in any operation mode. You can get the maximum capacity .



■ To start POWERFUL operation

1. Press "POWERFUL button".

- POWERFUL operation ends in 20 minutes. Then the system automatically operates again with the settings which were used before POWERFUL operation.
- When using POWERFUL operation, there are some functions which are not available.
- " " is displayed on the LCD.

■ To cancel POWERFUL operation

2. Press "POWERFUL button" again.

- " " disappears from the LCD.

NOTE

■ **Notes on POWERFUL operation**

- **In COOL and HEAT mode**
  To maximize the cooling (heating) effect, the capacity of outdoor unit must be increased and the air flow rate be fixed to the maximum setting.
  The temperature and air flow settings are not variable.
- **In DRY mode**
  The temperature setting is lowered by 2.5°C and the air flow rate is slightly increased.
- **In FAN mode**
  The air flow rate is fixed to the maximum setting.
- **When using priority-room setting**
  See "Note for multi system" (page 18.)

OUTDOOR UNIT QUIET Operation

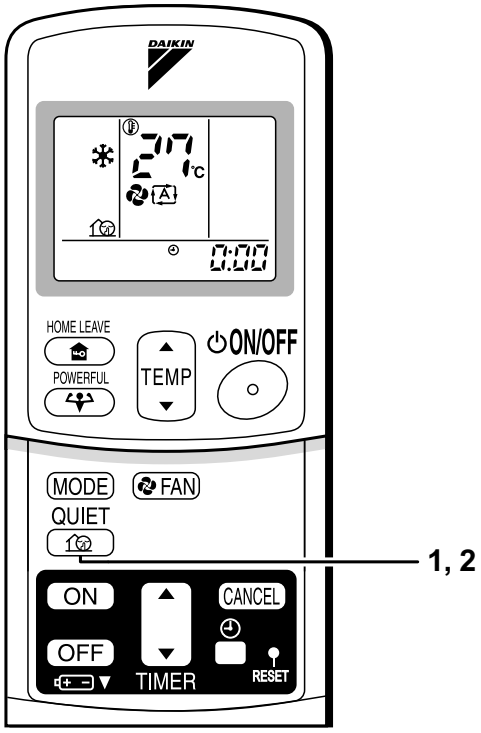
OUTDOOR UNIT QUIET operation lowers the noise level of the outdoor unit by changing the frequency and fan speed on the outdoor unit. This function is convenient during night.

■ To start OUTDOOR UNIT QUIET operation

1. **Press “QUIET button”.**
   - “ ” is displayed on the LCD.

■ To cancel OUTDOOR UNIT QUIET operation

2. **Press “QUIET button” again.**
   - “ ” disappears from the LCD.



NOTE

■ **Note on OUTDOOR UNIT QUIET operation**

- If using a multi system, this function will work only when the OUTDOOR UNIT QUIET operation is set on all operated indoor units.
  However, if using priority-room setting, see “Note for multi system” (page 18.)
- This function is available in COOL, HEAT, and AUTO modes.
  (This is not available in FAN and DRY mode.)
- POWERFUL operation and OUTDOOR UNIT QUIET operation cannot be used at the same time.
  Priority is given to POWERFUL operation.
- If operation is stopped using the remote controller or the main unit ON/OFF switch when using OUTDOOR UNIT QUIET operation, “ ” will remain on the remote controller display.

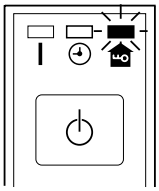
HOME LEAVE Operation

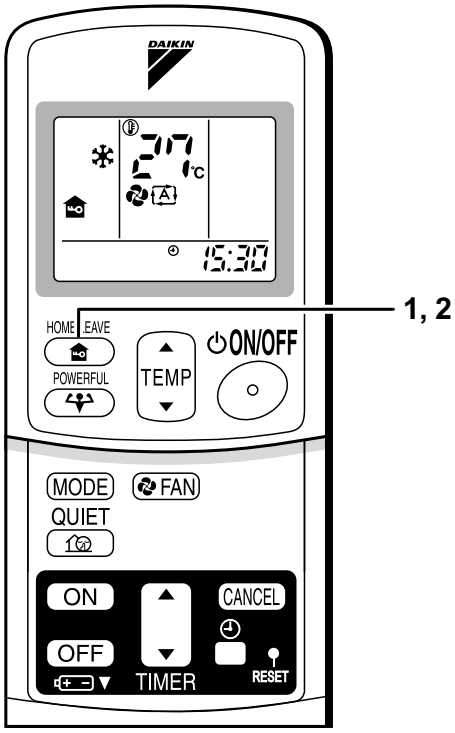
HOME LEAVE operation is a function which allows you to record your preferred temperature and air flow rate settings.

■ To start HOME LEAVE operation

1. Press "HOME LEAVE button".

- " " is displayed on the LCD.
- The HOME LEAVE lamp lights up.





■ To cancel HOME LEAVE operation

2. Press "HOME LEAVE button" again.

- The HOME LEAVE lamp goes off.
- " " disappears from the LCD.

Before using HOME LEAVE operation.

■ To set the temperature and air flow rate for HOME LEAVE operation

When using HOME LEAVE operation for the first time, please set the temperature and air flow rate for HOME LEAVE operation. Record your preferred temperature and air flow rate.

	Initial setting		Selectable range	
	temperature	Air flow rate	temperature	Air flow rate
Cooling	25°C	" A"	18-32°C	5 step, " A" and " "
Heating	25°C	" A"	10-30°C	5 step, " A" and " "

1. Press "HOME LEAVE button". Make sure " " is displayed in the remote control display.

2. Adjust the set temperature with " " or " " as you like.

3. Adjust the air flow rate with "FAN" setting button as you like.

Home leave operation will run with these settings the next time you use the unit. To change the recorded information, repeat steps 1 – 3.

■ What's the HOME LEAVE operation?

Is there a set temperature and air flow rate which is most comfortable, a set temperature and air flow rate which you use the most? HOME LEAVE operation is a function that allows you to record your favorite set temperature and air flow rate. You can start your favorite operation mode simply by pressing the HOME LEAVE button on the remote control. This function is convenient in the following situations.

■ Useful in these cases

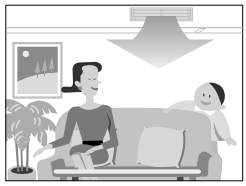
1.Use as an energy-saving mode.

Set the temperature 2-3°C higher (cooling) or lower (heating) than normal. Setting the fan strength to the lowest setting allows the unit to be used in energy-saving mode. Also convenient for use while you are out or sleeping.

- **Every day before you leave the house...**

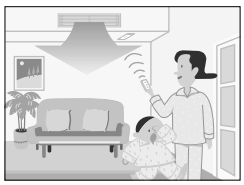
When you go out, push the "HOME LEAVE Operation" button, and the air conditioner will adjust capacity to reach the preset temperature for HOME LEAVE Operation.

When you return, you will be welcomed by a comfortably air conditioned room.



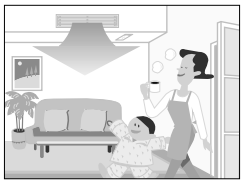
Push the "HOME LEAVE Operation" button again, and the air conditioner will adjust capacity to the set temperature for normal operation.

- **Before bed...**



Set the unit to HOME LEAVE Operation before leaving the living room when going to bed.

The unit will maintain the temperature in the room at a comfortable level while you sleep.



When you enter the living room in the morning, the temperature will be just right.
Disengaging HOME LEAVE Operation will return the temperature to that set for normal operation. Even the coldest winters will pose no problem!

2.Use as a favorite mode.

Once you record the temperature and air flow rate settings you most often use, you can retrieve them by pressing HOME LEAVE button. You do not have to go through troublesome remote control operations.

NOTE

- Once the temperature and air flow rate for HOME LEAVE operation are set, those settings will be used whenever HOME LEAVE operation is used in the future. To change these settings, please refer to the "Before using HOME LEAVE operation" section above.
- HOME LEAVE operation is only available in COOL and HEAT mode. Cannot be used in AUTO, DRY, and FAN mode.
- HOME LEAVE operation runs in accordance with the previous operation mode (COOL or HEAT) before using HOME LEAVE operation.
- HOME LEAVE operation and POWERFUL operation cannot be used at the same time.
  Last button that was pressed has priority.
- The operation mode cannot be changed while HOME LEAVE operation is being used.
- When operation is shut off during HOME LEAVE operation, using the remote controller or the indoor unit ON/OFF switch, " " will remain on the remote controller display.

15

TIMER Operation

Timer functions are useful for automatically switching the air conditioner on or off at night or in the morning. You can also use OFF TIMER and ON TIMER in combination.

■ To use OFF TIMER operation

- Check that the clock is correct.
  If not, set the clock to the present time. (page 9.)

1. Press “OFF TIMER button”.

0:00 is displayed.

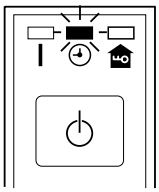
⏲ blinks.

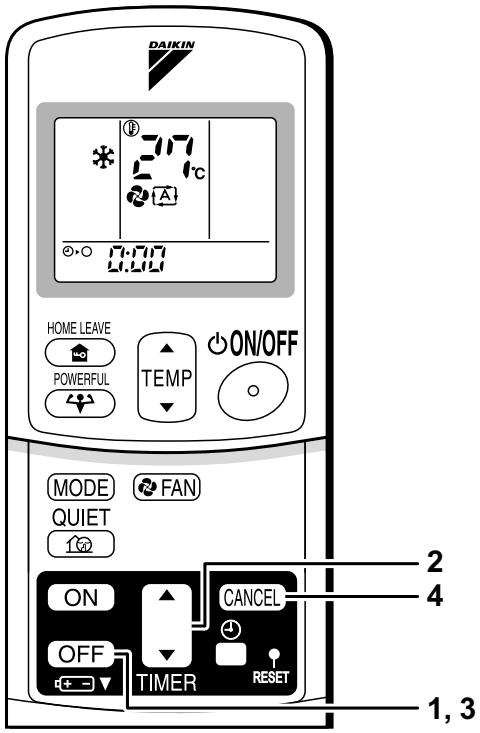
2. Press “TIMER Setting button” until the time setting reaches the point you like.

- Every pressing of either button increases or decreases the time setting by 10 minutes. Holding down either button changes the setting rapidly.

3. Press “OFF TIMER button” again.

- The TIMER lamp lights up.





■ To cancel the OFF TIMER operation

4. Press “CANCEL button”.

- The TIMER lamp goes off.

NOTE

- When TIMER is set, the present time is not displayed.
- Once you set ON, OFF TIMER, the time setting is kept in the memory. (The memory is canceled when remote controller batteries are replaced.)
- When operating the unit via the ON/OFF Timer, the actual length of operation may vary from the time entered by the user. (Maximum approx. 10 minutes)

■ NIGHT SET MODE

When the OFF TIMER is set, the air conditioner automatically adjusts the temperature setting (0.5°C up in COOL, 2.0°C down in HEAT) to prevent excessive cooling (heating) for your pleasant sleep.

■ To use ON TIMER operation

- Check that the clock is correct. If not, set the clock to the present time (page 9.).

1. Press “ON TIMER button”.

6:00 is displayed.

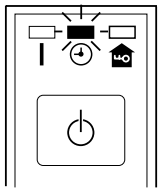
⊙▸| blinks.

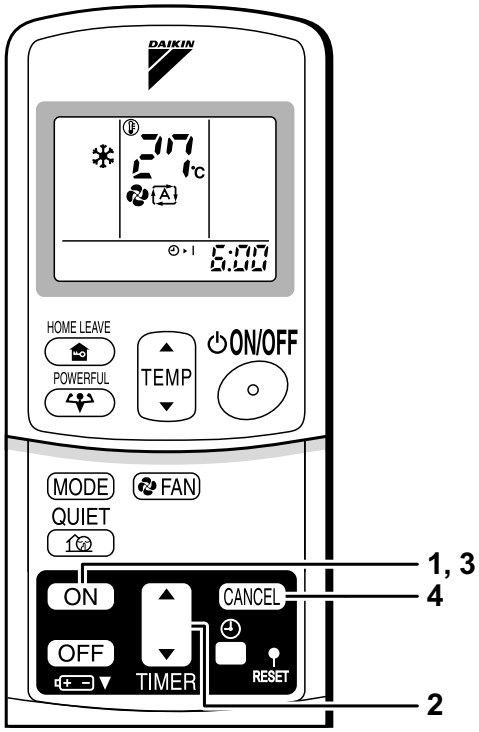
2. Press “TIMER Setting button” until the time setting reaches the point you like.

- Every pressing of either button increases or decreases the time setting by 10 minutes. Holding down either button changes the setting rapidly.

3. Press “ON TIMER button” again.

- The TIMER lamp lights up.





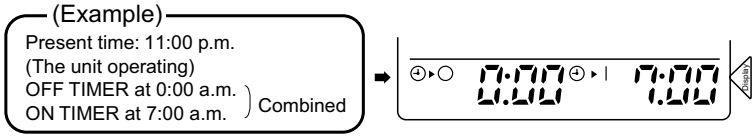
■ To cancel ON TIMER operation

4. Press “CANCEL button”.

- The TIMER lamp goes off.

■ To combine ON TIMER and OFF TIMER

- A sample setting for combining the two timers is shown below.



ATTENTION

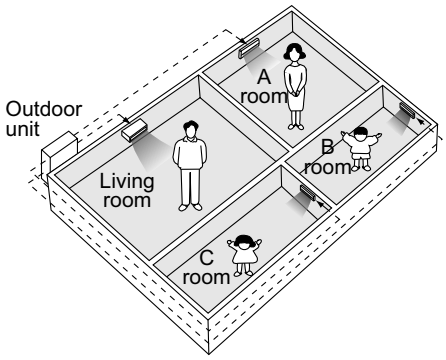
■ **In the following cases, set the timer again.**

- After a breaker has turned OFF.
- After a power failure.
- After replacing batteries in the remote controller.

Note for Multi System

〈〈 What is a "Multi System"? 〉〉

This system has one outdoor unit connected to multiple indoor units.



■ Selecting the Operation Mode

1. With the Priority Room Setting present but inactive or not present.

When more than one indoor unit is operating, priority is given to the first unit that was turned on.
In this case, set the units that are turned on later to the same operation mode (*1) as the first unit.
Otherwise, they will enter the Standby Mode, and the operation lamp will flash; this does not indicate malfunction.

(*1)

- COOL, DRY and FAN mode may be used at the same time.
- AUTO mode automatically selects COOL mode or HEAT mode based on the room temperature. Therefore, AUTO mode is available when selecting the same operation mode as that of the room with the first unit to be turned on.

〈CAUTION〉

Normally, the operation mode in the room where the unit is first run is given priority, but the following situations are exceptions, so please keep this in mind.
If the operation mode of the first room is **FAN Mode**, then using **Heating Mode** in any room after this will give priority to **heating.** In this situation, the air conditioner running in FAN Mode will go on standby, and the operation lamp will flash.

2. With the Priority Room Setting active.

See "Priority Room Setting" on the next page.

■ NIGHT QUIET Mode (Available only for cooling operation)

NIGHT QUIET Mode requires initial programming during installation. Please consult your retailer or dealer for assistance. NIGHT QUIET Mode reduces the operation noise of the outdoor unit during the night time hours to prevent annoyance to neighbors.

- The NIGHT QUIET Mode is activated when the temperature drops 5°C or more below the highest temperature recorded that day. Therefore, when the temperature difference is less than 5°C, this function will not be activated.
- NIGHT QUIET Mode reduces slightly the cooling efficiency of the unit.

■ OUTDOOR UNIT QUIET Operation (page 13.)

1. With the Priority Room Setting present but inactive or not present.

When using the OUTDOOR UNIT QUIET operation feature with the Multi system, set all indoor units to OUTDOOR UNIT QUIET operation using their remote controllers.
When clearing OUTDOOR UNIT QUIET operation, clear one of the operating indoor units using their remote controller. However OUTDOOR UNIT QUIET operation display remains on the remote controller for other rooms. We recommend you release all rooms using their remote controllers.

2. With the Priority Room Setting active.

See "Priority Room Setting" on the next page.

■ Cooling / Heating Mode Lock (Available only for heat pump models)

The Cooling / Heating Mode Lock requires initial programming during installation.Please consult your retailer or dealer for assistance. The Cooling / Heating Mode Lock sets the unit forcibly to either Cooling or Heating Mode. This function is convenient when you wish to set all indoor units connected to the Multi system to the same operation mode.

■ Priority Room Setting

The Priority Room Setting requires initial programming during installation. Please consult your retailer or dealer for assistance.

The room designated as the Priority Room takes priority in the following situations;

1. Operation Mode Priority.

As the operation mode of the Priority Room takes precedence, the user can select a different operation mode from other rooms.

〈Example〉

* Room A is the Priority Room in the examples.

When COOL mode is selected in Room A while operating the following modes in Room B,C and D :

Operation mode in Room B, C and D	Status of Room B, C and D when the unit in Room A is in COOL mode
COOL or DRY or FAN	Current operation mode maintained
HEAT	The unit enters Standby Mode. Operation resumes when the Room A unit stops operating.
AUTO	If the unit is set to COOL mode, operation continues. If set to HEAT mode, it enters Standby Mode. Operation resumes when the Room A unit stops operating.

2. Priority when POWERFUL operation is used.

〈Example〉

* Room A is the Priority Room in the examples.

The indoor units in Rooms A,B,C and D are all operating. If the unit in Room A enters POWERFUL operation, operation capacity will be concentrated in Room A. In such a case, the cooling (heating) efficiency of the units in Rooms B,C and D may be slightly reduced.

3. Priority when using OUTDOOR UNIT QUIET operation.

〈Example〉

* Room A is the Priority Room in the examples.

Just by setting the unit in Room A to QUIET operation, the air conditioner starts OUTDOOR UNIT QUIET operation.

You don’t have to set all the operated indoor units to QUIET operation.

Care and Cleaning

⚠ CAUTION

- **Only a qualified service person is allowed to perform maintenance.**
- **Before cleaning, be sure to stop the operation and turn the breaker OFF.**

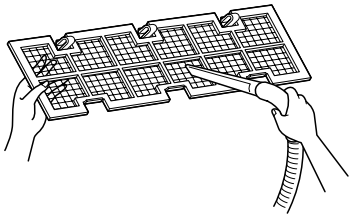
■ Cleaning the air filter

1.Removing the air filter.

- Rear suction
  Pull the bottom side of the air filter backwards, over the bends. (2 bends for 25/35 type, 3 bends for 50/60 type)
- Bottom suction
  Pull the filter over the bends (2 bends for 25/35 type, 3 bends for 50/60 type) situated at the backside of the unit.

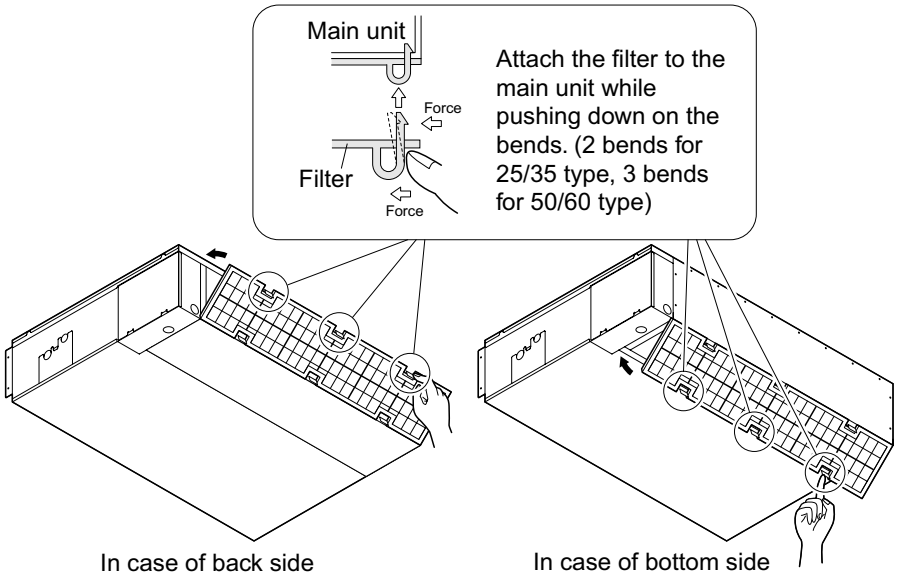
2.Cleaning the air filter.

Remove dust from the air filter using a vacuum cleaner and gently rinse them in cool water. Do not use detergent or hot water to avoid filter shrinking or deformation. After cleaning dry them in the shade.



3.Replacing the air filter.

- Rear suction
  Hook the filter behind the flap situated at the top of the unit and push the other side gently over the bends. (2 bends for 25/35 type, 3 bends for 50/60 type)
- Bottom suction
  Hook the filter behind the flap situated at the middle of the unit and push the other side gently over the bends. (2 bends for 25/35 type, 3 bends for 50/60 type)



■ Cleaning the drain pan

- Clean the drain pan periodically, or drain piping may be clogged with dust and may result in water leakage. Ask your DAIKIN dealer to clean them.
- Prepare a cover locally to prevent any dust in the air around the indoor unit from getting in the drain pan, if there is a great deal of dust present.

CAUTION

- Do not operate the air conditioner without filters, this to avoid dust accumulation inside the unit.
- Do not remove the air filter except when cleaning.
  Unnecessary handling may damage the filter.
- Do not use gasoline, benzene, thinner, polishing powder, liquid insecticide, It may cause discoloring or warping.
- Do not let the indoor unit get wet. It may cause an electric shock or a fire.
- Operation with dusty air filters lowers the cooling and heating capacity and wastes energy.
- The suction grille is option.
- Do not use water or air of 50°C or higher for cleaning air filters and outside panels.
- Ask your DAIKIN dealer how to clean it.

Check

Check that the base, stand and other fittings of the outdoor unit are not decayed or corroded.
Check that nothing blocks the air inlets and the outlets of the indoor unit and the outdoor unit.
Check that the drain comes smoothly out of the drain hose during COOL or DRY operation. • If no drain water is seen, water may be leaking from the indoor unit. Stop operation and consult the service shop if this is the case.

■ Before a long idle period

1. **Operate the “FAN only” for several hours on a fine day to dry out the inside.**
   - Press “MODE selector button” and select “FAN” operation.
   - Press “ON/OFF button” and start operation.
2. **Clean the air filters and set them again.**
3. **Take out batteries from the remote controller.**
4. **Turn OFF the breaker for the room air conditioner.**
   - When a multi outdoor unit is connected, make sure the heating operation is not used at the other room before you use the fan operation. (page 18.)

Trouble Shooting

These cases are not troubles.

The following cases are not air conditioner troubles but have some reasons. You may just continue using it.

Case	Explanation
Operation does not start soon. • When ON/OFF button was pressed soon after operation was stopped. • When the mode was reselected.	• This is to protect the air conditioner. You should wait for about 3 minutes.
Hot air does not flow out soon after the start of heating operation.	• The air conditioner is warming up. You should wait for 1 to 4 minutes. (The system is designed to start discharging air only after it has reached a certain temperature.)
The heating operation stops suddenly and a flowing sound is heard.	• The system is taking away the frost on the outdoor unit. You should wait for about 3 to 8 minutes.
The outdoor unit emits water or steam.	■ In HEAT mode • The frost on the outdoor unit melts into water or steam when the air conditioner is in defrost operation. ■ In COOL or DRY mode • Moisture in the air condenses into water on the cool surface of outdoor unit piping and drips.
Mists come out of the indoor unit.	■ This happens when the air in the room is cooled into mist by the cold air flow during cooling operation.
The indoor unit gives out odour.	■ This happens when smells of the room, furniture, or cigarettes are absorbed into the unit and discharged with the air flow. (If this happens, we recommend you to have the indoor unit washed by a technician. Consult the service shop where you bought the air conditioner.)
The outdoor fan rotates while the air conditioner is not in operation.	■ After operation is stopped: • The outdoor fan continues rotating for another 30 seconds for system protection. ■ While the air conditioner is not in operation: • When the outdoor temperature is very high, the outdoor fan starts rotating for system protection.
The operation stopped suddenly. (OPERATION lamp is on.)	■ For system protection, the air conditioner may stop operating on a sudden large voltage fluctuation. It automatically resumes operation in about 3 minutes.

Check again.

Please check again before calling a repair person.

Case	Check
The air conditioner does not operate. (OPERATION lamp is off.)	• Hasn't a breaker turned OFF or a fuse blown? • Isn't it a power failure? • Are batteries set in the remote controller? • Is the timer setting correct?
Cooling (Heating) effect is poor.	• Are the air filters clean? • Is there anything to block the air inlet or the outlet of the indoor and the outdoor units? • Is the temperature setting appropriate? • Are the windows and doors closed? • Are the air flow rate and the air direction set appropriately?
Operation stops suddenly. (OPERATION lamp blinks.)	• Are the air filters clean? • Is there anything to block the air inlet or the outlet of the indoor and the outdoor units? Clean the air filters or take all obstacles away and turn the breaker OFF. Then turn it ON again and try operating the air conditioner with the remote controller. If the lamp still blinks, call the service shop where you bought the air conditioner. • Are operation modes all the same for indoor units connected to outdoor units in the **multi system**? If not, set all indoor units to the same operation mode and confirm that the lamps blink. Moreover, when the operation mode is in "AUTO", set all indoor unit operation modes to "COOL" or "HEAT" for a moment and check again that the lamps are normal. If the lamps stop blinking after the above steps, there is no malfunction. (page 18.)
An abnormal functioning happens during operation.	• The air conditioner may malfunction with lightning or radio waves. Turn the breaker OFF, turn it ON again and try operating the air conditioner with the remote controller.

Call the service shop immediately.

⚠ WARNING

■ When an abnormality (such as a burning smell) occurs, stop operation and turn the breaker OFF.
Continued operation in an abnormal condition may result in troubles, electric shocks or fire.
Consult the service shop where you bought the air conditioner.

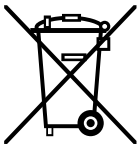
■ Do not attempt to repair or modify the air conditioner by yourself.
Incorrect work may result in electric shocks or fire.
Consult the service shop where you bought the air conditioner.

If one of the following symptoms takes place, call the service shop immediately.

■ **The power cord is abnormally hot or damaged.** ■ **An abnormal sound is heard during operation.** ■ **The safety breaker, a fuse, or the earth leakage breaker cuts off the operation frequently.** ■ **A switch or a button often fails to work properly.** ■ **There is a burning smell.** ■ **Water leaks from the indoor unit.**	▶ Turn the breaker OFF and call the service shop.

■ After a power failure The air conditioner automatically resumes operation in about 3 minutes. You should just wait for a while.	■ Lightning If lightning may strike the neighbouring area, stop operation and turn the breaker OFF for system protection.

Disposal requirements



Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste.

Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other parts must be done by a qualified installer in accordance with relevant local and national legislation.

Air conditioners must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information.

Batteries must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.

We recommend periodical maintenance.

In certain operating conditions, the inside of the air conditioner may get foul after several seasons of use, resulting in poor performance. It is recommended to have periodical maintenance by a specialist aside from regular cleaning by the user. For specialist maintenance, contact the service shop where you bought the air conditioner. The maintenance cost must be born by the user.

Important information regarding the refrigerant used.

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Refrigerant type:**R410A**

GWP(1) value:**1975**

(1) GWP = global warming potential

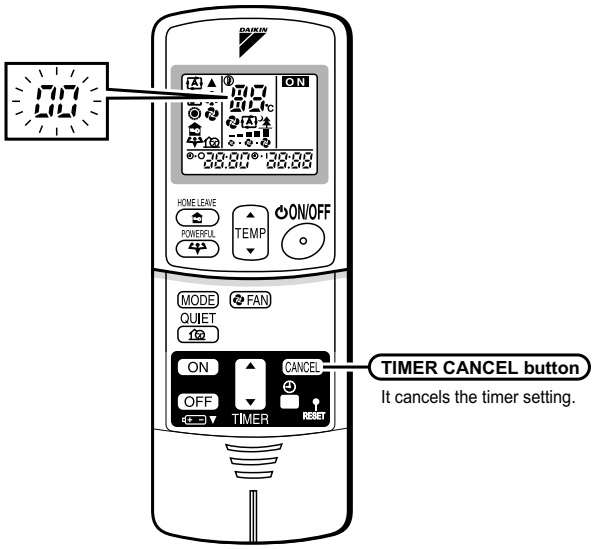
Periodical inspections for refrigerant leaks may be required depending on European or local legislation. Please contact your local dealer for more information.

Fault diagnosis.

FAULT DIAGNOSIS BY REMOTE CONTROLLER

In the ARC433 series, the temperature display sections on the main unit indicate corresponding codes.

1. **When the TIMER CANCEL button is held down for 5 seconds, a "00" indication flashes on the temperature display section.**



2. **Press the TIMER CANCEL button repeatedly until a continuous beep is produced.**
   - The code indication changes in the sequence shown below, and notifies with along beep.

	CODE	MEANING
SYSTEM	00	NORMAL
	U0	REFRIGERANT SHORTAGE
	U2	DROP VOLTAGE OR MAIN CIRCUIT OVERVOLTAGE
	U4	FAILURE OF TRANSMISSION (BETWEEN INDOOR UNIT AND OUTDOOR UNIT)
INDOOR UNIT	A1	INDOOR PCB DEFECTIVENESS
	A5	HIGH PRESSURE CONTROL OR FREEZE-UP PROTECTOR
	A6	FAN MOTOR FAULT
	C4	FAULTY HEAT EXCHANGER TEMPERATURE SENSOR
	C9	FAULTY SUCTION AIR TEMPERATURE SENSOR
OUTDOOR UNIT	EA	COOLING-HEATING SWITCHING ERROR
	E5	OL STARTED
	E6	FAULTY COMPRESSOR START UP
	E7	DC FAN MOTOR FAULT
	E8	OPERATION HALT DUE TO DETECTION OF INPUT OVER CURRENT
	F3	HIGH TEMPERATURE DISCHARGE PIPE CONTROL
	F6	HIGH PRESSURE CONTROL (IN COOLING)
	H6	OPERATION HALT DUE TO FAULTY POSITION DETECTION SENSOR
	H8	CT ABNORMALITY
	H9	FAULTY SUCTION AIR TEMPERATURE SENSOR
	J3	FAULTY DISCHARGE PIPE TEMPERATURE SENSOR
	J6	FAULTY HEAT EXCHANGER TEMPERATURE SENSOR
	L4	HIGH TEMPERATURE AT INVERTER CIRCUIT HEATSINK
	L5	OUTPUT OVERCURRENT
	P4	FAULTY INVERTER CIRCUIT HEATSINK TEMPERATURE SENSOR

NOTE

1. A short beep and two consecutive beeps indicate non-corresponding codes.
2. To cancel the code display, hold the TIMER CANCEL button down for 5 seconds. The code display also cancel itself if the button is not pressed for 1 minute.

LED ON OUTDOOR UNIT PCB 2MXS, 3MXS, 3MKS, 4MXS, 4MKS, 5MXS, 5MKS series

GREEN	RED					
MICROCOMPUTER NORMAL	MALFUNCTION DETECTION					
LED-A	LED1	LED2	LED3	LED4	LED5	DIAGNOSIS
☼	●	●	●	●	●	NORMAL → CHECK INDOOR UNIT
☼	☼	●	☼	☼	●	HIGH PRESSURE PROTECTOR WORKED OR FREEZE-UP IN OPERATING UNIT OR STAND-BY UNIT
☼	☼	●	☼	●	●	* OVERLOAD RELAY WORKED OR HIGH DISCHARGE PIPE TEMPERATURE
☼	●	☼	☼	●	●	FAULTY COMPRESSOR START
☼	●	☼	●	☼	●	INPUT OVERCURRENT
☼	☼	☼	●	●	●	* THERMISTOR OR CT ABNORMALITY
☼	☼	☼	●	☼	●	HIGH TEMPERATURE SWITCHBOX
☼	●	●	●	☼	●	HIGH TEMPERATURE AT INVERTER CIRCUIT HEATSINK
☼	●	●	☼	●	●	* OUTPUT OVERCURRENT
☼	●	●	☼	☼	●	* REFRIGERANT SHORTAGE
☼	☼	●	●	☼	●	LOW VOLTAGE TO MAIN CIRCUIT OR MOMENTARY VOLTAGE LOSS
☼	☼	●	●	●	●	REVERSING SOLENOID VALVE SWITCHING FAILURE
☼	☼	☼	☼	☼	●	FAN MOTOR FAULT
☼	–	–	–	–	●	[NOTE 1]
●	–	–	–	–	●	POWER SUPPLY FAULT OR [NOTE 2]

NOTE: The LED5 is only available in the 5M Series.

GREEN	NORMALLY FLASHING
RED	NORMALLY OFF
☼	ON
☼	FLASHING
●	OFF
–	IRRELEVANT

LED ON OUTDOOR UNIT PCB 2MXS, 2MKS series

GREEN	
MICROCOMPUTER NORMAL	
LED-A	DIAGNOSIS
☼	NORMAL → CHECK INDOOR UNIT
☼	[NOTE 1]
●	POWER SUPPLY FAULT OR [NOTE 2]

GREEN	NORMALLY FLASHING
☼	ON
☼	FLASHING
●	OFF

NOTE

1. Turn the power off and then on again. If the LED display recurs,the outdoor unit PCB is faulty.
2. Diagnosis marked
   * Do not apply to some cases. For details, refer to the service guide.

3P196326-9B

12.1.2 Duct Connected Type FDK(X)S25/35CAVMB

Safety precautions

- Keep this manual where the operator can easily find them.
- Read this manual attentively before starting up the unit.
- For safety reason the operator must read the following cautions carefully.
- This manual classifies precautions into WARNING and CAUTION. Be sure to follow all precautions below: they are all important for ensuring safety.

⚠ WARNING	⚠ CAUTION
If you do not follow these instructions exactly, the unit may cause property damage, personal injury or loss of life.	If you do not follow these instructions exactly, the unit may cause minor or moderate property damage or personal injury.

Never do.

Be sure to follow the instructions.

Be sure to earth the air conditioner.

Never cause the air conditioner (including the remote controller) to get wet.

Never touch the air conditioner (including the remote controller) with a wet hand.

⚠ WARNING

- In order to avoid fire, explosion or injury, do not operate the unit when harmful, among which flammable or corrosive gases, are detected near the unit.
- It is not good for health to expose your body to the air flow for a long time.
- Do not put a finger, a rod or other objects into the air outlet or inlet. As the fan is rotating at a high speed, it will cause injury.
- Do not attempt to repair, relocate, modify or reinstall the air conditioner by yourself. Incorrect work will cause electric shocks, fire etc.
  For repairs and reinstallation, consult your Daikin dealer for advice and information.

- The refrigerant used in the air conditioner is safe. Although leaks should not occur, if for some reason any refrigerant happens to leak into the room, make sure it does not come in contact with any flame as of gas heaters, kerosene heaters or gas range.
- If the air conditioner is not cooling (heating) properly, the refrigerant may be leaking, so call your dealer.
  When carrying out repairs accompanying adding refrigerant, check the content of the repairs with our service staff.
- Do not attempt to install the air conditioner by your self. Incorrect work will result in water leakage, electric shocks or fire. For installation, consult the dealer or a qualified technician.
- In order to avoid electric shock, fire or injury, if you detect any abnormally such as smell of fire, stop the operation and turn off the breaker. And call your dealer for instructions.
- Depending on the environment, an earth leakage breaker must be installed. Lack of an earth leakage breaker may result in electric shocks or fire.

- The air conditioner must be earthed. Incomplete earthing may result in electric shocks. Do not connect the earth line to a gas pipe, water pipe, lightning rod, or a telephone earth line.

⚠ CAUTION

- In order to avoid any quality deterioration, do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Never expose little children, plants or animals directly to the air flow.

2

- Do not place appliances which produce open fire in places exposed to the air flow from the unit or under the indoor unit. It may cause incomplete combustion or deformation of the unit due to the heat.
- Do not block air inlets nor outlets. Impaired air flow may result in insufficient performance or trouble.
- Do not stand or sit on the outdoor unit. Do not place any object on the unit to avoid injury, do not remove the fan guard.
- Do not place anything under the indoor or outdoor unit that must be kept away from moisture. In certain conditions, moisture in the air may condense and drip.
- After a long use, check the unit stand and fittings for damage.
- Do not touch the air inlet and alminum fins of outdoor unit. It may cause injury.
- The appliance is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the appliance.

- To avoid oxygen deficiency, ventilate the room sufficiently if equipment with burner is used together with the air conditioner.

- Before cleaning, be sure to stop the operation, turn the breaker off or pull out the supply cord.
- Do not connect the air conditioner to a power supply different from the one as specified. It may cause trouble or fire.
- Arrange the drain hose to ensure smooth drainage. Incomplete draining may cause wetting of the building, furniture etc.
- Do not place things that must be kept dry under the indoor unit water may drip from the indoor unit if the humidity is 80% or above or when the drain outlet is clogged or the air-filter is dirtied.
- Do not place objects in direct proximity of the outdoor unit and do not let leaves and other debris accumulate around the unit.
  Leaves are a hotbed for small animals which can enter the unit. Once in the unit, such animals can cause malfunctions, smoke or fire when making contact with electrical parts.

- Do not operate the air conditioner with wet hands.

- Do not wash the indoor unit with excessive water, only use a slightly wet cloth.
- Do not place things such as vessels containing water or anything else on top of the unit. Water may penetrate into the unit and degrade electrical insulations, resulting in an electric shock.

Installation site.

■ To install the air conditioner in the following types of environments, consult the dealer.
- Places with an oily ambient or where steam or soot occurs.
- Salty environment such as coastal areas.
- Places where sulfide gas occurs such as hot springs.
- Places where snow may block the outdoor unit.

The drain from the outdoor unit must be discharged to a place of good drainage.

Consider nuisance to your neighbours from noises.

■ For installation, choose a place as described below.
- A place solid enough to bear the weight of the unit which does not amplify the operation noise or vibration.
- A place from where the air discharged from the outdoor unit or the operation noise will not annoy your neighbours.

Electrical work.

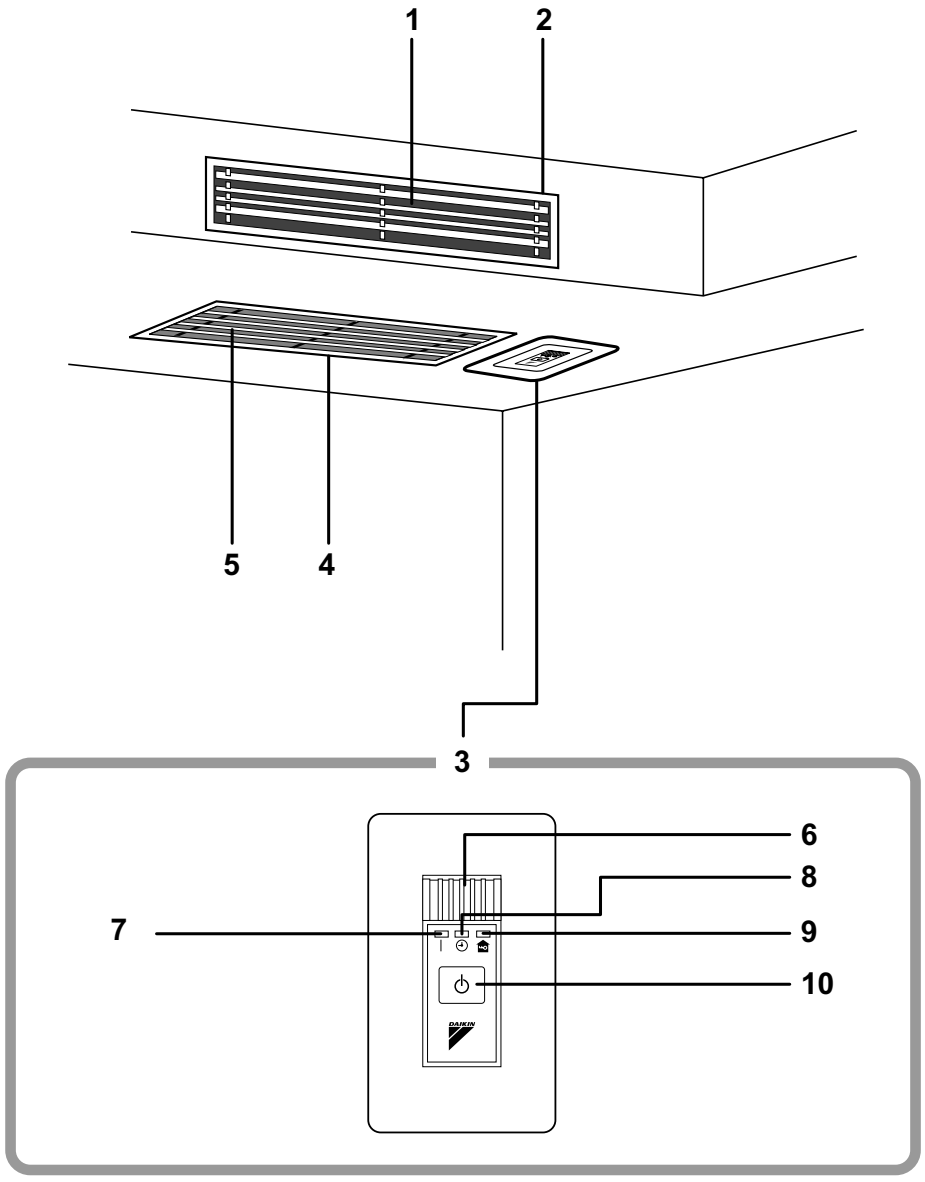
- For power supply, be sure to use a separate power circuit dedicated to the air conditioner.

System relocation.

- Relocating the air conditioner requires specialized knowledge and skills. Please consult the dealer if relocation is necessary for moving or remodeling.

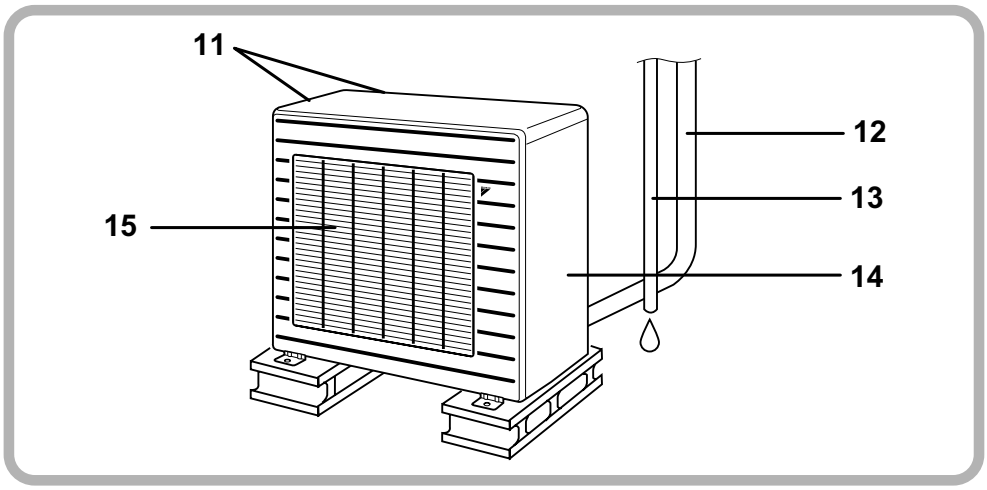
Names of parts

■ Indoor Unit



4

■ Outdoor Unit



■ Indoor Unit

1. **Air outlet**
2. **Air outlet grille:** (Field supply)
   - Appearance of the Air outlet grille and Air inlet grille may differ with some models.
3. **Display, Control panel**
4. **Suction grille:** (Option)
   - Appearance of the suction grille and Air inlet grille may differ with some models.
5. **Air inlet**
6. **Room temperature sensor:**
   - It senses the air temperature around the unit.
7. **Operation lamp (green)**
8. **TIMER lamp (yellow):** (page 16.)
9. **HOME LEAVE lamp (red):**
   - LIghts up when you use HOME LEAVE operation. (page 14.)
10. **Indoor Unit ON/OFF switch:**
    - Push this switch once to start operation. Push once again to stop it.
    - This switch is useful when the remote controller is missing.

- **The operation mode refers to the following table.**

	Mode	Temperature setting	Air flow rate
F(C)DKS	COOL	22°C	AUTO
F(C)DXS	AUTO	25°C	AUTO

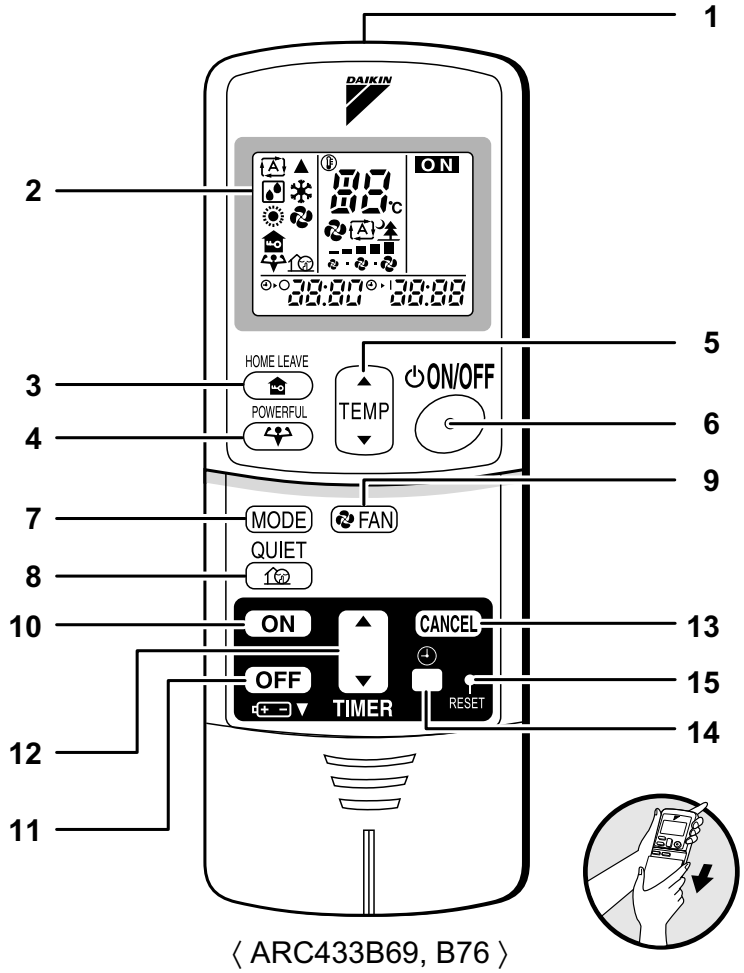
■ Outdoor Unit

11. **Air inlet:** (Back and side)
12. **Refrigerant piping and inter-unit cable**
13. **Drain hose**
14. **Earth terminal:**
    - It is inside of this cover.
15. **Air outlet**

Appearance of the outdoor unit may differ from some models.

5

■ Remote Controller



〈 ARC433B69, B76 〉

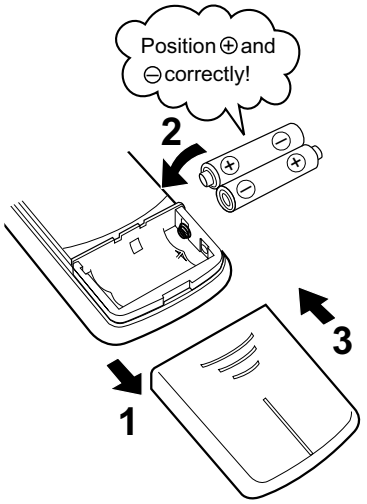
1. **Signal transmitter:**
   - It sends signals to the indoor unit.
2. **Display:**
   - It displays the current settings. (In this illustration, each section is shown with all its displays ON for the purpose of explanation.)
3. **HOME LEAVE button:** HOME LEAVE operation (page 14.)
4. **POWERFUL button:** POWERFUL operation (page 12.)
5. **TEMPERATURE adjustment buttons:**
   - It changes the temperature setting.
6. **ON/OFF button:**
   - Press this button once to start operation. Press once again to stop it.
7. **MODE selector button:**
   - It selects the operation mode. (AUTO/DRY/COOL/HEAT/FAN) (page 10.)
8. **QUIET button:** OUTDOOR UNIT QUIET operation (page 13.)
9. **FAN setting button:**
   - It selects the air flow rate setting.
10. **ON TIMER button:** (page 17.)
11. **OFF TIMER button:** (page 16.)
12. **TIMER Setting button:**
    - It changes the time setting.
13. **TIMER CANCEL button:**
    - It cancels the timer setting.
14. **CLOCK button:** (page 9.)
15. **RESET button:**
    - Restart the unit if it freezes.
    - Use a thin object to push.

6

Preparation Before Operation

■ To set the batteries

1. **Slide the front cover to take it off.**
2. **Set two dry batteries (AAA).**
3. **Set the front cover as before.**



ATTENTION

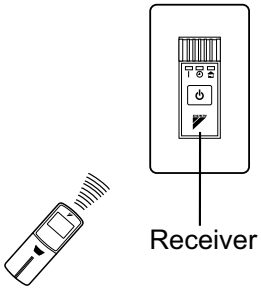
■ **About batteries**

- When replacing the batteries, use batteries of the same type, and replace the two old batteries together.
- When the system is not used for a long time, take the batteries out.
- We recommend replacing once a year, although if the remote controller display begins to fade or if reception deteriorates, please replace with new alkali batteries. Using manganese batteries reduces the lifespan.
- The attached batteries are provided for the initial use of the system.
  The usable period of the batteries may be short depending on the manufactured date of the air conditioner.

Preparation Before Operation

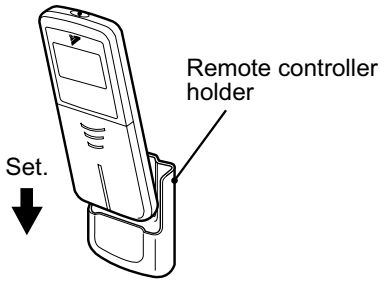
■ To operate the remote controller

- To use the remote controller, aim the transmitter at the indoor unit. If there is anything to block signals between the unit and the remote controller, such as a curtain, the unit will not operate.
- Do not drop the remote controller. Do not get it wet.
- The maximum distance for communication is about 4 m.



■ To fix the remote controller holder on the wall

1. **Choose a place from where the signals reach the unit.**
2. **Fix the holder to a wall, a pillar, or similar location with the screws procured locally.**
3. **Place the remote controller in the remote controller holder.**



• To remove, pull it upwards.

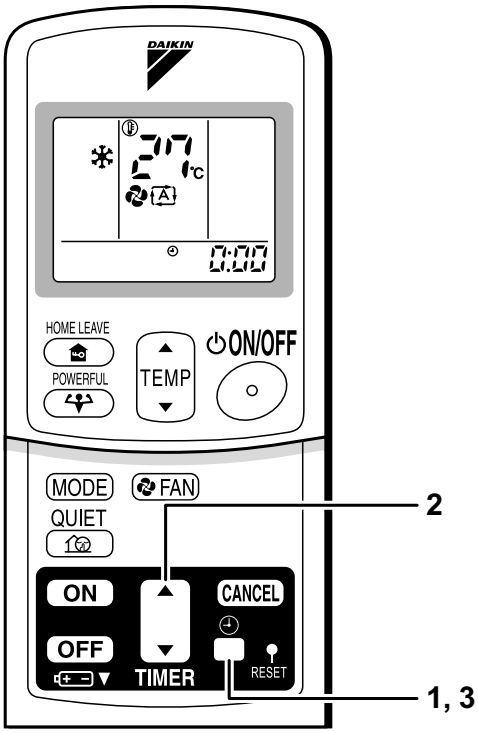
ATTENTION

■ **About remote controller**

- Never expose the remote controller to direct sunlight.
- Dust on the signal transmitter or receiver will reduce the sensitivity. Wipe off dust with soft cloth.
- Signal communication may be disabled if an electronic-starter-type fluorescent lamp (such as inverter-type lamps) is in the room. Consult the shop if that is the case.
- If the remote controller signals happen to operate another appliance, move that appliance to somewhere else, or consult the shop.

8

■ To set the clock



1. **Press "CLOCK button".**

   0:00 is displayed.

   ◷ blinks.

2. **Press "TIMER setting button" to set the clock to the present time.**

   Holding down " ▲ " or " ▼ " button rapidly increases or decreases the time display.

3. **Press "CLOCK button".**

   : blinks.

■ Turn the breaker ON

- Turning ON the breaker opens the flap, then closes it again. (This is a normal procedure.)

NOTE

■ Tips for saving energy

- Be careful not to cool (heat) the room too much.
  Keeping the temperature setting at a moderate level helps save energy.
- Cover windows with a blind or a curtain.
  Blocking sunlight and air from outdoors increases the cooling (heating) effect.
- Clogged air filters cause inefficient operation and waste energy. Clean them once in about every two weeks.

Recommended temperature setting
For cooling:26°C – 28°C For heating:20°C – 24°C

■ Please note

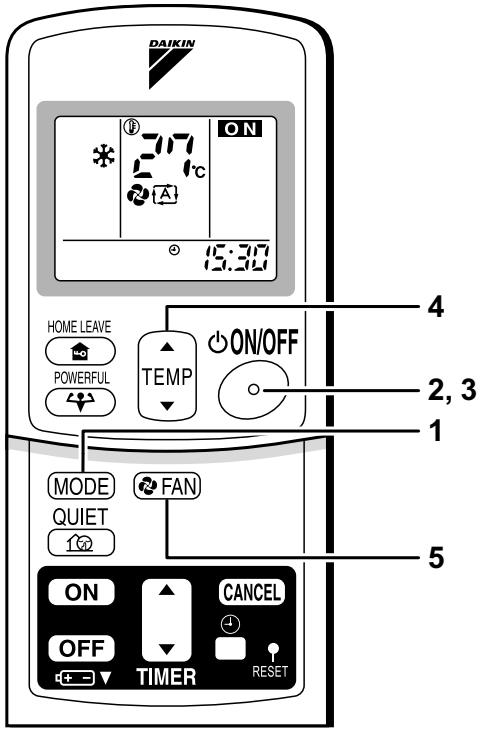
- The air conditioner always consumes 15-35 watts of electricity even while it is not operating.
- If you are not going to use the air conditioner for a long period, for example in spring or autumn, turn the breaker OFF.
- Use the air conditioner in the following conditions.

Mode	Operating conditions	If operation is continued out of this range
COOL	Outdoor temperature: ⟨2MK(X)S40⟩ 10 to 46°C ⟨2MXS52⟩ –10 to 46°C ⟨3/4/5MK(X)S⟩ –10 to 46°C ⟨RK(X)S⟩ –10 to 46°C Indoor temperature: 18 to 32°C Indoor humidity: 80% max.	• A safety device may work to stop the operation. (In multi system, it may work to stop the operation of the outdoor unit only.) • Condensation may occur on the indoor unit and drip.
HEAT	Outdoor temperature: ⟨2MXS40⟩ –10 to 15.5°C ⟨2MXS52⟩ –15 to 15.5°C ⟨3/4/5MXS⟩ –15 to 15.5°C ⟨RXS⟩ –15 to 20°C Indoor temperature: 10 to 30°C	• A safety device may work to stop the operation.
DRY	Outdoor temperature: ⟨2MK(X)S40⟩ 10 to 46°C ⟨2MXS52⟩ –10 to 46°C ⟨3/4/5MK(X)S⟩ –10 to 46°C ⟨RK(X)S⟩ –10 to 46°C Indoor temperature: 18 to 32°C Indoor humidity: 80% max.	• A safety device may work to stop the operation. • Condensation may occur on the indoor unit and drip.

- Operation outside this humidity or temperature range may cause a safety device to disable the system.

AUTO · DRY · COOL · HEAT · FAN Operation

The air conditioner operates with the operation mode of your choice. From the next time on, the air conditioner will operate with the same operation mode.



■ To start operation

1. Press “MODE selector button” and select a operation mode.

- Each pressing of the button advances the mode setting in sequence.

: AUTO

: DRY

: COOL

: HEAT

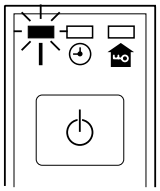
: FAN

<F(C)DKS>

<F(C)DXS>

2. Press “ON/OFF button” .

- The OPERATION lamp lights up.



■ To stop operation

3. Press “ON/OFF button” again.

- Then OPERATION lamp goes off.

■ To change the temperature setting

4. Press “TEMPERATURE adjustment button”.

DRY or FAN mode	AUTO or COOL or HEAT mode
The temperature setting is not variable.	Press “ ▲ ” to raise the temperature and press “ ▼ ” to lower the temperature.
	Set to the temperature you like. 

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■ To change the air flow rate setting

5. Press “FAN setting button”.

DRY mode	AUTO or COOL or HEAT or FAN mode
The air flow rate setting is not variable.	Five levels of air flow rate setting from “ ” to “ ” plus “ ” “ ” are available. 

- Indoor unit quiet operation

  When the air flow is set to “ ”, the noise from the indoor unit will become quieter. Use this when making the noise quieter.

  The unit might lose capacity when the air flow rate is set to a weak level.

NOTE

■ **Note on HEAT operation**
- Since this air conditioner heats the room by taking heat from outdoor air to indoors, the heating capacity becomes smaller in lower outdoor temperatures. If the heating effect is insufficient, it is recommended to use another heating appliance in combination with the air conditioner.
- The heat pump system heats the room by circulating hot air around all parts of the room. After the start of heating operation, it takes some time before the room gets warmer.
- In heating operation, frost may occur on the outdoor unit and lower the heating capacity. In that case, the system switches into defrosting operation to take away the frost.
- During defrosting operation, hot air does not flow out of indoor unit.

■ **Note on COOL operation**
- This air conditioner cools the room by blowing the hot air in the room outside, so if the outside temperature is high, performance drops.

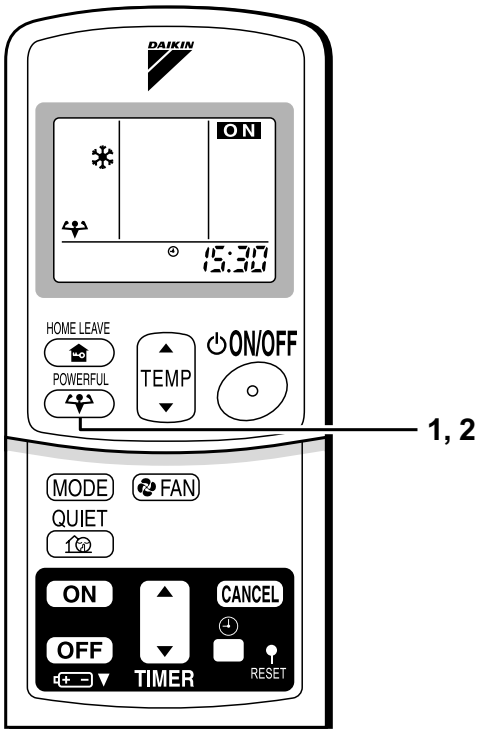
■ **Note on DRY operation**
- The computer chip works to rid the room of humidity while maintaining the temperature as much as possible. It automatically controls temperature and fan strength, so manual adjustment of these functions is unavailable.

■ **Note on AUTO operation**
- In AUTO operation, the system selects a temperature setting and an appropriate operation mode (COOL or HEAT) based on the room temperature at the start of the operation.
- The system automatically reselects setting at a regular interval to bring the room temperature to user-setting level.
- If you do not like AUTO operation, you can manually select the operation mode and setting you like.

■ **Note on air flow rate setting**
- At smaller air flow rates, the cooling (heating) effect is also smaller.

POWERFUL Operation

POWERFUL operation quickly maximizes the cooling (heating) effect in any operation mode. You can get the maximum capacity .



■ To start POWERFUL operation

1. **Press "POWERFUL button".**
   - POWERFUL operation ends in 20 minutes. Then the system automatically operates again with the settings which were used before POWERFUL operation.
   - When using POWERFUL operation, there are some functions which are not available.
   - " " is displayed on the LCD.

■ To cancel POWERFUL operation

2. **Press "POWERFUL button" again.**
   - " " disappears from the LCD.

NOTE

■ **Notes on POWERFUL operation**

- POWERFUL Operation cannot be used together with QUIET Operation. Priority is given to the function of whichever button is pressed last.
- POWERFUL Operation can only be set when the unit is running. Pressing the operation stop button causes the settings to be canceled, and the " " disappears from the LCD.
- **In COOL and HEAT mode**
  To maximize the cooling (heating) effect, the capacity of outdoor unit must be increased and the air flow rate be fixed to the maximum setting.
  The temperature and air flow settings are not variable.
- **In DRY mode**
  The temperature setting is lowered by 2.5°C and the air flow rate is slightly increased.
- **In FAN mode**
  The air flow rate is fixed to the maximum setting.
- **When using priority-room setting**
  See "Note for multi system" (page 18.)

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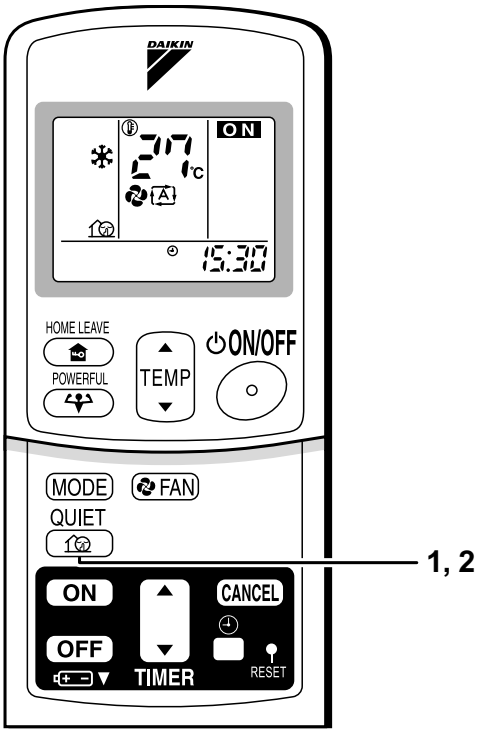
OUTDOOR UNIT QUIET Operation

OUTDOOR UNIT QUIET operation lowers the noise level of the outdoor unit by changing the frequency and fan speed on the outdoor unit. This function is convenient during night.



■ To start OUTDOOR UNIT QUIET operation

1. **Press "QUIET button".**
   - "🏠" is displayed on the LCD.

■ To cancel OUTDOOR UNIT QUIET operation

2. **Press "QUIET button" again.**
   - "🏠" disappears from the LCD.

NOTE

■ **Note on OUTDOOR UNIT QUIET operation**

- If using a multi system, this function will work only when the OUTDOOR UNIT QUIET operation is set on all operated indoor units.
  However, if using priority-room setting, see "Note for multi system" (page 18.)
- This function is available in COOL, HEAT, and AUTO modes.
  (This is not available in FAN and DRY mode.)
- POWERFUL operation and OUTDOOR UNIT QUIET operation cannot be used at the same time.
  Priority is given to the function of whichever button is pressed last.
- If operation is stopped using the remote controller or the main unit ON/OFF switch when using OUTDOOR UNIT QUIET operation, "🏠" will remain on the remote controller display.

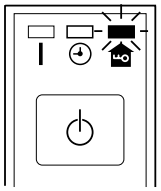
HOME LEAVE Operation

HOME LEAVE operation is a function which allows you to record your preferred temperature and air flow rate settings.

■ To start HOME LEAVE operation

1. Press “HOME LEAVE button”.

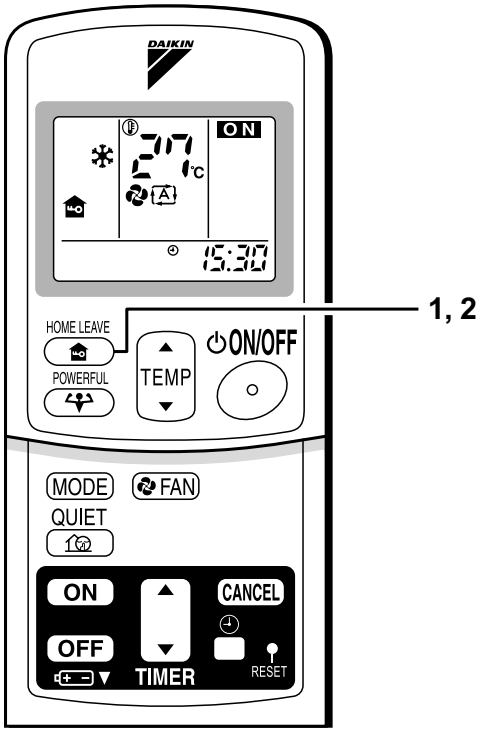
- “ ” is displayed on the LCD.
- The HOME LEAVE lamp lights up.



■ To cancel HOME LEAVE operation

2. Press “HOME LEAVE button” again.

- “ ” disappears from the LCD.
- The HOME LEAVE lamp goes off.



Before using HOME LEAVE operation.

■ To set the temperature and air flow rate for HOME LEAVE operation

When using HOME LEAVE operation for the first time, please set the temperature and air flow rate for HOME LEAVE operation. Record your preferred temperature and air flow rate.

	Initial setting		Selectable range	
	temperature	Air flow rate	temperature	Air flow rate
Cooling	25°C	“A”	18-32°C	5 step, “A” and “ ”
Heating	25°C	“A”	10-30°C	5 step, “A” and “ ”

1. Press “HOME LEAVE button”. Make sure “ ” is displayed in the remote control display.

2. Adjust the set temperature with “ ▲ ” or “ ▼ ” as you like.

3. Adjust the air flow rate with “FAN” setting button as you like.

Home leave operation will run with these settings the next time you use the unit. To change the recorded information, repeat steps 1 – 3.

■ What's the HOME LEAVE operation?

Is there a set temperature and air flow rate which is most comfortable, a set temperature and air flow rate which you use the most? HOME LEAVE operation is a function that allows you to record your favorite set temperature and air flow rate. You can start your favorite operation mode simply by pressing the HOME LEAVE button on the remote control. This function is convenient in the following situations.

■ Useful in these cases

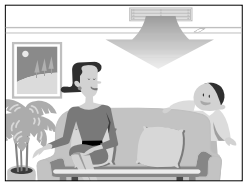
1.Use as an energy-saving mode.

Set the temperature 2-3°C higher (cooling) or lower (heating) than normal. Setting the fan strength to the lowest setting allows the unit to be used in energy-saving mode. Also convenient for use while you are out or sleeping.

- **Every day before you leave the house...**

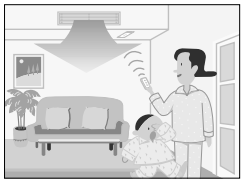
When you go out, push the "HOME LEAVE Operation" button, and the air conditioner will adjust capacity to reach the preset temperature for HOME LEAVE Operation.

When you return, you will be welcomed by a comfortably air conditioned room.



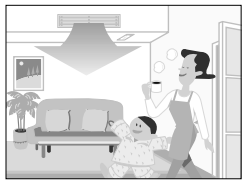
Push the "HOME LEAVE Operation" button again, and the air conditioner will adjust capacity to the set temperature for normal operation.

- **Before bed...**



Set the unit to HOME LEAVE Operation before leaving the living room when going to bed.

The unit will maintain the temperature in the room at a comfortable level while you sleep.



When you enter the living room in the morning, the temperature will be just right. Disengaging HOME LEAVE Operation will return the temperature to that set for normal operation. Even the coldest winters will pose no problem!

2.Use as a favorite mode.

Once you record the temperature and air flow rate settings you most often use, you can retrieve them by pressing HOME LEAVE button. You do not have to go through troublesome remote control operations.

NOTE

- Once the temperature and air flow rate for HOME LEAVE operation are set, those settings will be used whenever HOME LEAVE operation is used in the future. To change these settings, please refer to the "Before using HOME LEAVE operation" section above.
- HOME LEAVE operation is only available in COOL and HEAT mode. Cannot be used in AUTO, DRY, and FAN mode.
- HOME LEAVE operation runs in accordance with the previous operation mode (COOL or HEAT) before using HOME LEAVE operation.
- HOME LEAVE operation and POWERFUL operation cannot be used at the same time. Last button that was pressed has priority.
- The operation mode cannot be changed while HOME LEAVE operation is being used.
- When operation is shut off during HOME LEAVE operation, using the remote controller or the indoor unit ON/OFF switch, " " will remain on the remote controller display.

TIMER Operation

Timer functions are useful for automatically switching the air conditioner on or off at night or in the morning. You can also use OFF TIMER and ON TIMER in combination.

■ To use OFF TIMER operation

- Check that the clock is correct.
  If not, set the clock to the present time.
  (page 9.)

1. Press “OFF TIMER button”.

0:00 is displayed.

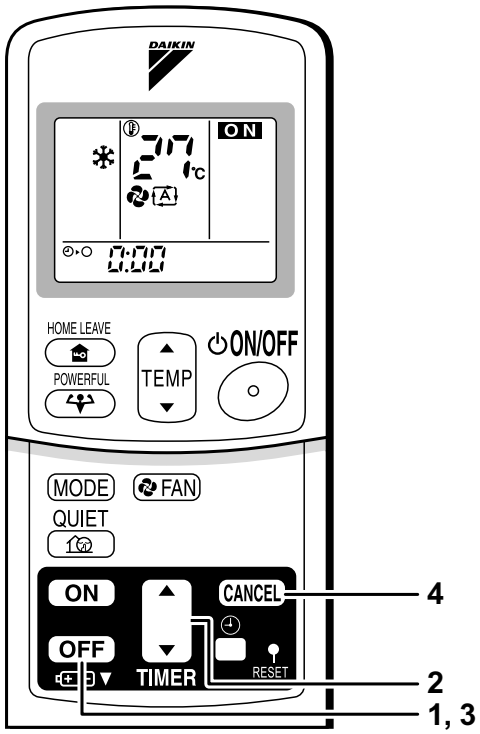
⊙▸○ blinks.

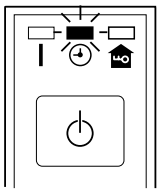
2. Press “TIMER Setting button” until the time setting reaches the point you like.

- Every pressing of either button increases or decreases the time setting by 10 minutes. Holding down either button changes the setting rapidly.

3. Press “OFF TIMER button” again.

- The TIMER lamp lights up.





■ To cancel the OFF TIMER operation

4. Press “CANCEL button”.

- The TIMER lamp goes off.

NOTE

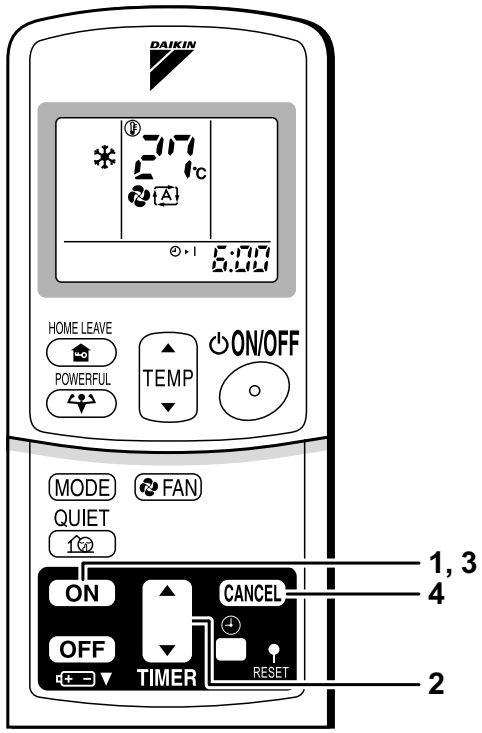
- When TIMER is set, the present time is not displayed.
- Once you set ON, OFF TIMER, the time setting is kept in the memory. (The memory is canceled when remote controller batteries are replaced.)
- When operating the unit via the ON/OFF Timer, the actual length of operation may vary from the time entered by the user. (Maximum approx. 10 minutes)

■ NIGHT SET MODE

When the OFF TIMER is set, the air conditioner automatically adjusts the temperature setting (0.5°C up in COOL, 2.0°C down in HEAT) to prevent excessive cooling (heating) for your pleasant sleep.

■ To use ON TIMER operation

- Check that the clock is correct. If not, set the clock to the present time (page 9.).

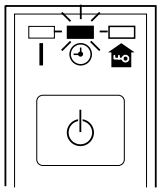


1. **Press “ON TIMER button”.**

   6:00 is displayed.

   ⏲▸| blinks.

2. **Press “TIMER Setting button” until the time setting reaches the point you like.**
   - Every pressing of either button increases or decreases the time setting by 10 minutes. Holding down either button changes the setting rapidly.
3. **Press “ON TIMER button” again.**
   - The TIMER lamp lights up.



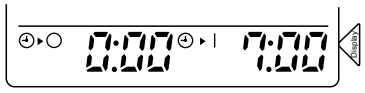
■ To cancel ON TIMER operation

4. **Press “CANCEL button”.**
   - The TIMER lamp goes off.

■ To combine ON TIMER and OFF TIMER

- A sample setting for combining the two timers is shown below.

(Example)
Present time: 11:00 p.m.
(The unit operating)
OFF TIMER at 0:00 a.m.) Combined
ON TIMER at 7:00 a.m.)



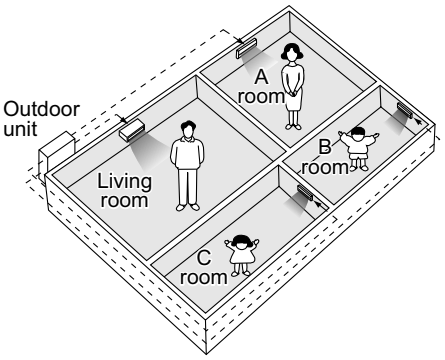
ATTENTION

■ **In the following cases, set the timer again.**
- After a breaker has turned OFF.
- After a power failure.
- After replacing batteries in the remote controller.

Note for Multi System

〈〈 What is a "Multi System"? 〉〉

This system has one outdoor unit connected to multiple indoor units.



■ Selecting the Operation Mode

1. With the Priority Room Setting present but inactive or not present.

When more than one indoor unit is operating, priority is given to the first unit that was turned on.
In this case, set the units that are turned on later to the same operation mode (*1) as the first unit.
Otherwise, they will enter the Standby Mode, and the operation lamp will flash; this does not indicate malfunction.

(*1)

- COOL, DRY and FAN mode may be used at the same time.
- AUTO mode automatically selects COOL mode or HEAT mode based on the room temperature. Therefore, AUTO mode is available when selecting the same operation mode as that of the room with the first unit to be turned on.

〈CAUTION〉

Normally, the operation mode in the room where the unit is first run is given priority, but the following situations are exceptions, so please keep this in mind.
If the operation mode of the first room is **FAN Mode**, then using **Heating Mode** in any room after this will give priority to **heating.** In this situation, the air conditioner running in FAN Mode will go on standby, and the operation lamp will flash.

2. With the Priority Room Setting active.

See "Priority Room Setting" on the next page.

■ NIGHT QUIET Mode (Available only for cooling operation)

NIGHT QUIET Mode requires initial programming during installation. Please consult your retailer or dealer for assistance. NIGHT QUIET Mode reduces the operation noise of the outdoor unit during the night time hours to prevent annoyance to neighbors.

- The NIGHT QUIET Mode is activated when the temperature drops 5°C or more below the highest temperature recorded that day. Therefore, when the temperature difference is less than 5°C, this function will not be activated.
- NIGHT QUIET Mode reduces slightly the cooling efficiency of the unit.

■ OUTDOOR UNIT QUIET Operation (page 13.)

1. With the Priority Room Setting present but inactive or not present.

When using the OUTDOOR UNIT QUIET operation feature with the Multi system, set all indoor units to OUTDOOR UNIT QUIET operation using their remote controllers.
When clearing OUTDOOR UNIT QUIET operation, clear one of the operating indoor units using their remote controller.
However OUTDOOR UNIT QUIET operation display remains on the remote controller for other rooms. We recommend you release all rooms using their remote controllers.

2. With the Priority Room Setting active.

See "Priority Room Setting" on the next page.

■ Cooling / Heating Mode Lock (Available only for heat pump models)

The Cooling / Heating Mode Lock requires initial programming during installation.Please consult your retailer or dealer for assistance. The Cooling / Heating Mode Lock sets the unit forcibly to either Cooling or Heating Mode. This function is convenient when you wish to set all indoor units connected to the Multi system to the same operation mode.

■ Priority Room Setting

The Priority Room Setting requires initial programming during installation. Please consult your retailer or dealer for assistance.

The room designated as the Priority Room takes priority in the following situations;

1. Operation Mode Priority.

As the operation mode of the Priority Room takes precedence, the user can select a different operation mode from other rooms.

〈Example〉

* Room A is the Priority Room in the examples.

When COOL mode is selected in Room A while operating the following modes in Room B,C and D :

Operation mode in Room B, C and D	Status of Room B, C and D when the unit in Room A is in COOL mode
COOL or DRY or FAN	Current operation mode maintained
HEAT	The unit enters Standby Mode. Operation resumes when the Room A unit stops operating.
AUTO	If the unit is set to COOL mode, operation continues. If set to HEAT mode, it enters Standby Mode. Operation resumes when the Room A unit stops operating.

2. Priority when POWERFUL operation is used.

〈Example〉

* Room A is the Priority Room in the examples.

The indoor units in Rooms A,B,C and D are all operating. If the unit in Room A enters POWERFUL operation, operation capacity will be concentrated in Room A. In such a case, the cooling (heating) efficiency of the units in Rooms B,C and D may be slightly reduced.

3. Priority when using OUTDOOR UNIT QUIET operation.

〈Example〉

* Room A is the Priority Room in the examples.

Just by setting the unit in Room A to QUIET operation, the air conditioner starts OUTDOOR UNIT QUIET operation.

You don’t have to set all the operated indoor units to QUIET operation.

Care and Cleaning

⚠ CAUTION

- **Only a qualified service person is allowed to perform maintenance.**
- **Before cleaning, be sure to stop the operation and turn the breaker OFF.**

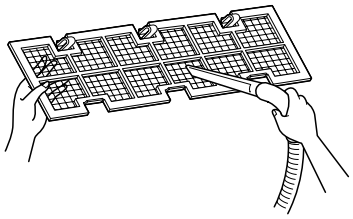
■ Cleaning the air filter

1.Removing the air filter.

- Rear suction
  Pull the bottom side of the air filter backwards, over the 3 bends.
- Bottom suction
  Pull the filter over the 3 bends situated at the backside of the unit.

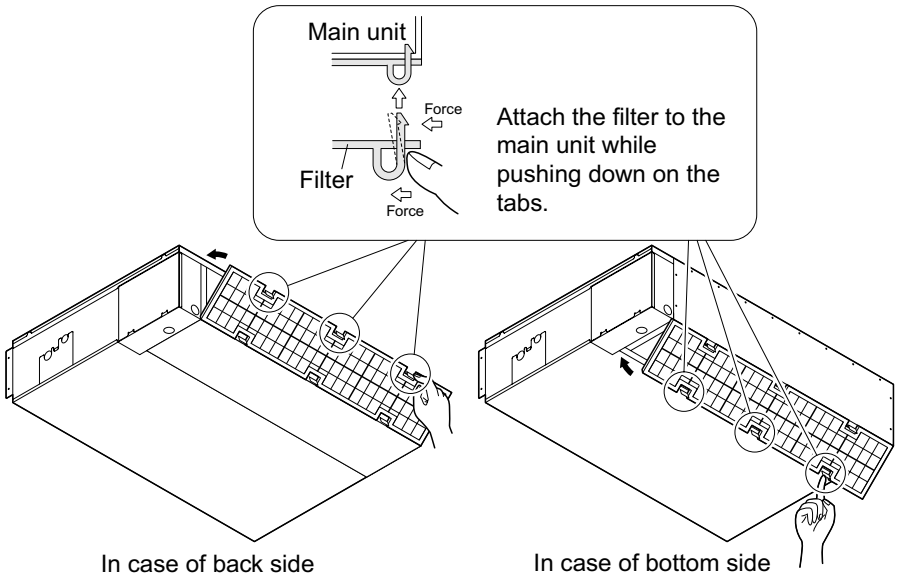
2.Cleaning the air filter.

Remove dust from the air filter using a vacuum cleaner and gently rinse them in cool water. Do not use detergent or hot water to avoid filter shrinking or deformation. After cleaning dry them in the shade.



3.Replacing the air filter.

- Rear suction
  Hook the filter behind the flap situated at the top of the unit and push the other side gently over the 3 bends.
- Bottom suction
  Hook the filter behind the flap situated at the middle of the unit and push the other side gently over the 3 bends.



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■ Cleaning the drain pan

- Clean the drain pan periodically, or drain piping may be clogged with dust and may result in water leakage. Ask your DAIKIN dealer to clean them.
- Prepare a cover locally to prevent any dust in the air around the indoor unit from getting in the drain pan, if there is a great deal of dust present.

CAUTION

- Do not operate the air conditioner without filters, this to avoid dust accummulation inside the unit.
- Do not remove the air filter except when cleaning.
  Unnecessary handling may damage the filter.
- Do not use gasoline, benzene, thinner, polishing powder, liquid insecticide, It may cause discoloring or warping.
- Do not let the indoor unit get wet. It may cause an electric shock or a fire.
- Operation with dusty air filters lowers the cooling and heating capacity and wastes energy.
- The suction grille is option.
- Do not use water or air of 50°C or higher for cleaning air filters and outside panels.

Check

Check that the base, stand and other fittings of the outdoor unit are not decayed or corroded.
Check that nothing blocks the air inlets and the outlets of the indoor unit and the outdoor unit.
Check that the drain comes smoothly out of the drain hose during COOL or DRY operation. • If no drain water is seen, water may be leaking from the indoor unit. Stop operation and consult the service shop if this is the case.

■ Before a long idle period

1. **Operate the “FAN only” for several hours on a fine day to dry out the inside.**
   - Press “MODE selector button” and select “FAN” operation.
   - Press “ON/OFF button” and start operation.
2. **After operation stops, turn off the breaker for the room air conditioner.**
3. **Clean the air filters and set them again.**
4. **Take out batteries from the remote controller.**
   - When a multi outdoor unit is connected, make sure the heating operation is not used at the other room before you use the fan operation. (page 18.)

Trouble Shooting

These cases are not troubles.

The following cases are not air conditioner troubles but have some reasons. You may just continue using it.

Case	Explanation
Operation does not start soon. • When ON/OFF button was pressed soon after operation was stopped. • When the mode was reselected.	• This is to protect the air conditioner. You should wait for about 3 minutes.
Hot air does not flow out soon after the start of heating operation.	• The air conditioner is warming up. You should wait for 1 to 4 minutes. (The system is designed to start discharging air only after it has reached a certain temperature.)
The heating operation stops suddenly and a flowing sound is heard.	• The system is taking away the frost on the outdoor unit. You should wait for about 3 to 8 minutes.
The outdoor unit emits water or steam.	■ In HEAT mode • The frost on the outdoor unit melts into water or steam when the air conditioner is in defrost operation. ■ In COOL or DRY mode • Moisture in the air condenses into water on the cool surface of outdoor unit piping and drips.
Mist comes out of the indoor unit.	■ This happens when the air in the room is cooled into mist by the cold air flow during cooling operation.
The indoor unit gives out odour.	■ This happens when smells of the room, furniture, or cigarettes are absorbed into the unit and discharged with the air flow. (If this happens, we recommend you to have the indoor unit washed by a technician. Consult the service shop where you bought the air conditioner.)
The outdoor fan rotates while the air conditioner is not in operation.	■ After operation is stopped: • The outdoor fan continues rotating for another 30 seconds for system protection. ■ While the air conditioner is not in operation: • When the outdoor temperature is very high, the out door fan starts rotating for system protection.
The operation stopped suddenly. (OPERATION lamp is on.)	■ For system protection, the air conditioner may stop operating on a sudden large voltage fluctuation. It automatically resumes operation in about 3 minutes.

Check again.

Please check again before calling a repair person.

Case	Check
The air conditioner does not operate. (OPERATION lamp is off.)	• Hasn't a breaker turned OFF or a fuse blown? • Isn't it a power failure? • Are batteries set in the remote controller? • Is the timer setting correct?
Cooling (Heating) effect is poor.	• Are the air filters clean? • Is there anything to block the air inlet or the outlet of the indoor and the outdoor units? • Is the temperature setting appropriate? • Are the windows and doors closed? • Are the air flow rate and the air direction set appropriately?
Operation stops suddenly. (OPERATION lamp flashes.)	• Are the air filters clean? • Is there anything to block the air inlet or the outlet of the indoor and the outdoor units? Clean the air filters or take all obstacles away and turn the breaker OFF. Then turn it ON again and try operating the air conditioner with the remote controller. If the lamp still blinks, call the service shop where you bought the air conditioner. • Are operation modes all the same for indoor units connected to outdoor units in the **multi system**? If not, set all indoor units to the same operation mode and confirm that the lamps blink. Moreover, when the operation mode is in "AUTO", set all indoor unit operation modes to "COOL" or "HEAT" for a moment and check again that the lamps are normal. If the lamps stop blinking after the above steps, there is no malfunction. (page 18.)
An abnormal functioning happens during operation.	• The air conditioner may malfunction with lightning or radio waves. Turn the breaker OFF, turn it ON again and try operating the air conditioner with the remote controller.

Call the service shop immediately.

⚠ WARNING

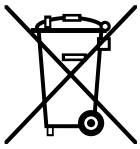
■ When an abnormality (such as a burning smell) occurs, stop operation and turn the breaker OFF.
Continued operation in an abnormal condition may result in troubles, electric shocks or fire.
Consult the service shop where you bought the air conditioner.
■ Do not attempt to repair or modify the air conditioner by yourself.
Incorrect work may result in electric shocks or fire.
Consult the service shop where you bought the air conditioner.

If one of the following symptoms takes place, call the service shop immediately.

■ **The power cord is abnormally hot or damaged.** ■ **An abnormal sound is heard during operation.** ■ **The safety breaker, a fuse, or the earth leakage breaker cuts off the operation frequently.** ■ **A switch or a button often fails to work properly.** ■ **There is a burning smell.** ■ **Water leaks from the indoor unit.**	▶ Turn the breaker OFF and call the service shop.

■ After a power failure The air conditioner automatically resumes operation in about 3 minutes. You should just wait for a while.	■ Lightning If lightning may strike the neighbouring area, stop operation and turn the breaker OFF for system protection.

Disposal requirements



Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste.

Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other parts must be done by a qualified installer in accordance with relevant local and national legislation.

Air conditioners must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information.

Batteries must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.

We recommend periodical maintenance.

In certain operating conditions, the inside of the air conditioner may get foul after several seasons of use, resulting in poor performance. It is recommended to have periodical maintenance by a specialist aside from regular cleaning by the user. For specialist maintenance, contact the service shop where you bought the air conditioner. The maintenance cost must be born by the user.

Important information regarding the refrigerant used.

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Refrigerant type:**R410A**

GWP(1) value:**1975**

(1) GWP = global warming potential

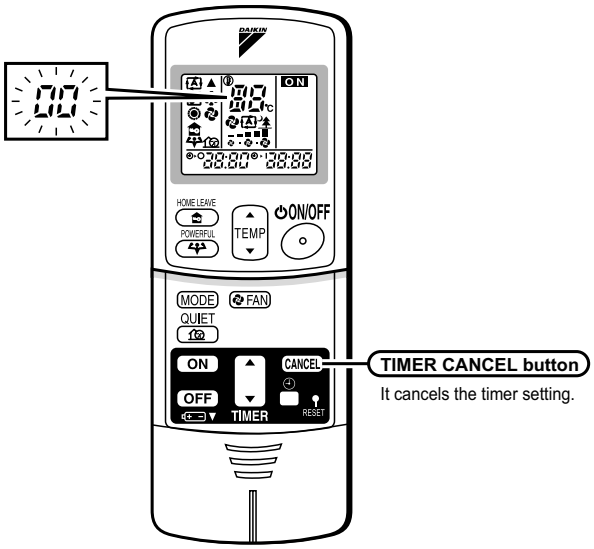
Periodical inspections for refrigerant leaks may be required depending on European or local legislation. Please contact your local dealer for more information.

Fault diagnosis.

FAULT DIAGNOSIS BY REMOTE CONTROLLER

In the ARC433 series, the temperature display sections on the main unit indicate corresponding codes.

1. **When the TIMER CANCEL button is held down for 5 seconds, a "00" indication flashes on the temperature display section.**



2. **Press the TIMER CANCEL button repeatedly until a continuous beep is produced.**
   - The code indication changes in the sequence shown below, and notifies with along beep.

	CODE	MEANING
SYSTEM	00	NORMAL
	U0	REFRIGERANT SHORTAGE
	U2	DROP VOLTAGE OR MAIN CIRCUIT OVERVOLTAGE
	U4	FAILURE OF TRANSMISSION (BETWEEN INDOOR UNIT AND OUTDOOR UNIT)
INDOOR UNIT	A1	INDOOR PCB DEFECTIVENESS
	A5	HIGH PRESSURE CONTROL OR FREEZE-UP PROTECTOR
	A6	FAN MOTOR FAULT
	C4	FAULTY HEAT EXCHANGER TEMPERATURE SENSOR
	C9	FAULTY SUCTION AIR TEMPERATURE SENSOR
OUTDOOR UNIT	EA	COOLING-HEATING SWITCHING ERROR
	E5	OL STARTED
	E6	FAULTY COMPRESSOR START UP
	E7	DC FAN MOTOR FAULT
	E8	OPERATION HALT DUE TO DETECTION OF INPUT OVER CURRENT
	F3	HIGH TEMPERATURE DISCHARGE PIPE CONTROL
	F6	HIGH PRESSURE CONTROL (IN COOLING)
	H6	OPERATION HALT DUE TO FAULTY POSITION DETECTION SENSOR
	H8	CT ABNORMALITY
	H9	FAULTY SUCTION AIR TEMPERATURE SENSOR
	J3	FAULTY DISCHARGE PIPE TEMPERATURE SENSOR
	J6	FAULTY HEAT EXCHANGER TEMPERATURE SENSOR
	L4	HIGH TEMPERATURE AT INVERTER CIRCUIT HEATSINK
	L5	OUTPUT OVERCURRENT
	P4	FAULTY INVERTER CIRCUIT HEATSINK TEMPERATURE SENSOR

NOTE

1. A short beep and two consecutive beeps indicate non-corresponding codes.
2. To cancel the code display, hold the TIMER CANCEL button down for 5 seconds. The code display also cancel itself if the button is not pressed for 1 minute.

LED ON OUTDOOR UNIT PCB 2MXS, 3MXS, 3MKS, 4MXS, 4MKS, 5MXS, 5MKS series

GREEN	RED					
MICROCOMPUTER NORMAL	MALFUNCTION DETECTION					
LED-A	LED1	LED2	LED3	LED4	LED5	DIAGNOSIS
◑	●	●	●	●	●	NORMAL → CHECK INDOOR UNIT
◑	☼	●	☼	☼	●	HIGH PRESSURE PROTECTOR WORKED OR FREEZE-UP IN OPERATING UNIT OR STAND-BY UNIT
◑	☼	●	☼	●	●	* OVERLOAD RELAY WORKED OR HIGH DISCHARGE PIPE TEMPERATURE
◑	●	☼	☼	●	●	FAULTY COMPRESSOR START
◑	●	☼	●	☼	●	INPUT OVERCURRENT
◑	☼	☼	●	●	●	* THERMISTOR OR CT ABNORMALITY
◑	☼	☼	●	☼	●	HIGH TEMPERATURE SWITCHBOX
◑	●	●	●	☼	●	HIGH TEMPERATURE AT INVERTER CIRCUIT HEATSINK
◑	●	●	☼	●	●	* OUTPUT OVERCURRENT
◑	●	●	☼	☼	●	* REFRIGERANT SHORTAGE
◑	☼	●	●	☼	●	LOW VOLTAGE TO MAIN CIRCUIT OR MOMENTARY VOLTAGE LOSS
◑	☼	●	●	●	●	REVERSING SOLENOID VALVE SWITCHING FAILURE
◑	☼	☼	☼	☼	●	FAN MOTOR FAULT
☼	–	–	–	–	●	[NOTE 1]
●	–	–	–	–	●	POWER SUPPLY FAULT OR [NOTE 2]

NOTE: The LED5 is only available in the 5M Series.

GREEN	NORMALLY FLASHING
RED	NORMALLY OFF
☼	ON
◑	FLASHING
●	OFF
–	IRRELEVANT

LED ON OUTDOOR UNIT PCB 2MXS, 2MKS series

GREEN	
MICROCOMPUTER NORMAL	
LED-A	DIAGNOSIS
◑	NORMAL → CHECK INDOOR UNIT
☼	[NOTE 1]
●	POWER SUPPLY FAULT OR [NOTE 2]

GREEN	NORMALLY FLASHING
☼	ON
◑	FLASHING
●	OFF

NOTE

1. Turn the power off and then on again. If the LED display recurs,the outdoor unit PCB is faulty.
2. Diagnosis marked
   * Do not apply to some cases. For details, refer to the service guide.

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3P196326-8B

13. Optional Accessories

13.1 Option List

13.1.1 Indoor Units

Duct Connected Type

	Option Name	FDKS25/35EAVMB FDKS25/35CAVMB FDXS25/35EAVMB FDXS25/35CAVMB
1	Suction Grille	KDGF19A45
2	Insulation Kit for High Humidity	KDT25N50
3	The Remote Controller Loss Prevention with the Chain	KKF917AA4
4	Wiring Adaptor for time clock / remote controller (Normal Open Pulse Contact / Normal Open Contact) ★1	KRP413AA1S
5	5-room Centralized Controller ★2	KRC72A
6	Central Remote Controller ★2	DCS302CA51(Europe)
7	Unified On/Off Controller ★2	DCS301BA51(Europe)
8	Schedule Timer ★2	DST301BA51(Europe)
9	Interface Adaptor for DIII-NET Use	KRP928BA2S

★1 Time clock and other devices ; obtained locally.

★2 Wiring adaptor is also required for each indoor unit.

13.1.2 Outdoor Units

	Option Name	RKS25/35E2V1B RXS25/35E2V1B
1	Air Direction Adjustment Grille	KPW937AA4(Europe)
2	Drain Plug	KKP937A4

13.2 Installation Manual

13.2.1 KRP413AA1S

Safety Precautions

- Read these safety precautions carefully before installing the unit, and be sure to install the unit properly.
- This manual classifies precautions to the user into the following two categories. These warnings and cautions are for your safety. Follow them.

⚠ WARNING	Faulty installation can result in death or serious injury
⚠ CAUTION	Faulty installation can result in serious injury or other serious consequences.

- Below is a key to symbols used in this manual.

ⓘ	Be sure to follow instructions.
⏚	Be sure to perform grounding work.
⊘	Never attempt.

- After installation is complete, test the unit to confirm that it is working properly, and instruct the owner its proper use.

⚠ WARNING

- Installation should be left to the dealer from whom you purchased the unit, or another qualified professionals.
- Install the unit securely according to the installation manual. Faulty installation may lead to electric shock or fire.
- Be sure to use the supplied or specified parts. Using other parts may lead to electric shock or fire.
- Install the unit securely in a location that will support its weight. If installed in a poor location or improperly installed, the unit may not work as intended.
- For electrical work, follow local electric standards and the installation manual. Faulty installation may lead to fire or electric shock.
- Do not bundle the power cord, or attempt to extend it by splicing it with another cord or by using an extension cord. Do not place any other load on the power circuit used for the unit. Improper wiring may lead to electric shock, heat generation or fire.
- Use dedicated wiring for all electrical connections, and be sure to arrange the wiring so that force applied to the wiring will not damage the terminals. Poor wiring or installation may cause electric shock, heat generation or fire.

⚠ CAUTION

- Before installation, unplug the air conditioner to ensure safety. Failure to do so may cause electric shock.
- Static electricity may damage electric components. Before connecting cables and communication lines, and operating the switches, be sure to discharge any electrical charge from your body (by, for example, touching the earth line)
- Do not install the unit in a location where it may be exposed to flammable gases. If gas leaks and build up around the unit, it may catch fire.
- Do not place the wiring close to the power cord, inter-unit cable, or pipes which generate noise. Treat the wiring with care.

1. Functions and Features

- On/Off setting
- Switching between Instantaneous Contact/Normal Contact
- Connection with five-room central controller (KRC72 for oversea model)
- Connection with fan coil remote controller
- Automatic reset after power failure
- Output of normal operation signals/malfunction signals

2. Field Wiring

For interconnecting wiring, use Daikin KDC100A12 cable (not supplied) or other similar cable. The cable should have the specifications shown below.

■ **Optional cable KDC100A12 (without connectors)**

Specifications: 0.2 mm² × 4 core (sheathed)
Outer diameter: ϕ5.3
Length: 100 m
Colour: Grey

■ **Other cable (commercially available)**

Item	Outer dia.	Remarks
Cable for instrumentation (IPVV) 0.3 mm² × 4-core	7.2 mm	Hard sheath
Microphone cord (MVVS) 0.3 mm² × 4-core	8.0 mm	Shielded
Microphone cord (MVVS) 0.2 mm² × 4-core	6.5 mm	
Microphone cord (MVVS) 0.15 mm² × 4-core	4.8 mm	
Intercom cable 0.65 mm² dia. × 4-core		
PVC jumper wire (TJVC) (from 0.5 mm dia. × 4 pcs.)	—	Not sheathed

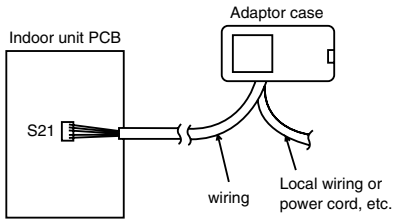
Note 1: Keep any wiring for the control unit away from the power cord to prevent electrical noise.
Note 2: Do not use cables shown above for power cord, inter-unit cord/cable or power cord for lamps.

Installation

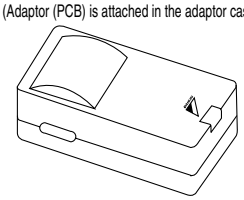
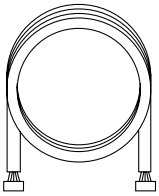
This product is available in two types. The **KRP413A1S · KRP413AA1S** is for installation in a case independent of the indoor unit, and the **KRP413A1** is for installation within the indoor unit.

1. KRP413A1S · KRP413AA1S

1 Installation diagram



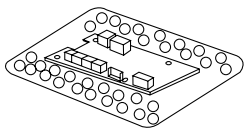
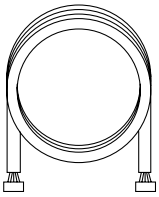
2 Components

① Adaptor case assy (Adaptor (PCB) is attached in the adaptor case.)	② Wiring (approx. 0.8 m)
	
③ Accessories • Binding band (4 pcs.) • Securing tape for attaching to the indoor unit (2 sets) • Screws for attaching the adaptor case (4 pcs.) • Screws for attaching to the wall (3 pcs.)	
④ Installation manual	

2. KRP413A1

For this type, install the adaptor PCB within the indoor unit. The method of installation and connection vary depending on the model of the air conditioner. See your air conditioner installation manual for details.

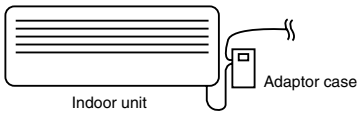
1 Components

① Adaptor PCB	② Wiring (approx. 0.25 m)
	
③ Installation manual	

3. Attaching Adaptor Case Assy (for KRP413A1S · KRP413AA1S)

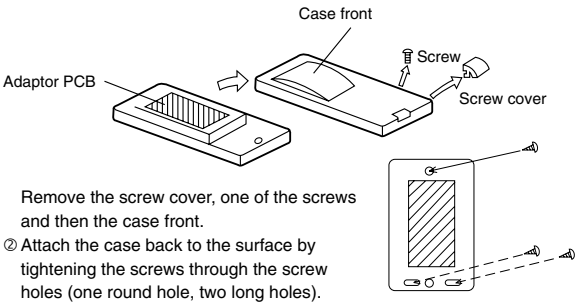
1 Using the screws (to mount on a wall, etc.)

● Use the 3 supplied screws to attach the case assy .



Install the adaptor case assy as close to the indoor unit as possible.

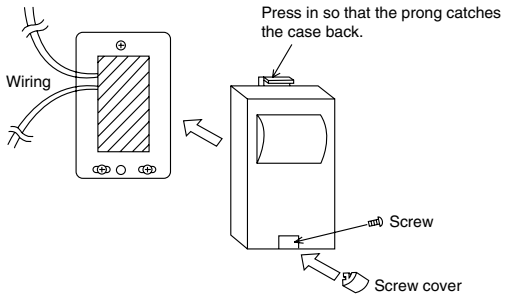
① Removing case front



Remove the screw cover, one of the screws and then the case front.

② Attach the case back to the surface by tightening the screws through the screw holes (one round hole, two long holes).

③ After connecting the cables (refer to the following sections), replace the case front. Be careful not to damage the wiring in the case.



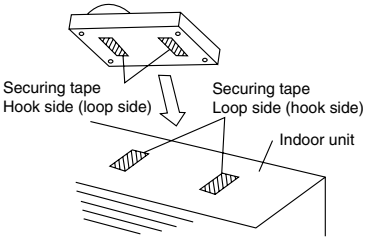
2 Using securing tape (to attach on the indoor unit)

● Attach the adaptor case with the supplied securing tape.

① Remove the case front (as for mounting on a wall).

② After connecting the cables (see the following sections), replace the case front. It can be screwed to the case back from the rear with the four supplied screws.
Be careful not to damage the wiring in the case.

③ Attach the hook side (loop side) of the included securing tape to the rear surface of the HA case, then attach the loop side (hook side) to the top of the air conditioner unit spaced at the same intervals.



To prevent the adaptor case assy from falling, do not use the securing tape for attaching it to a wall or other surface.

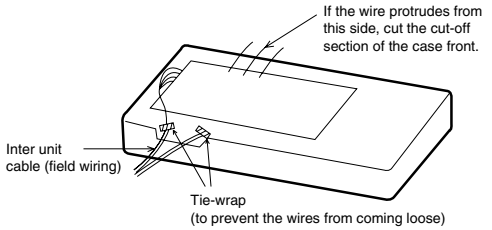
Wiring

1. Wiring

① Connect one end of the wiring to connector S21 of the PCB in the indoor unit.
② Connect the other end of the wiring to connector S6 of the adaptor PCB.
③ Connect field wiring according to the functions assigned to each connection terminal of the adaptor PCB.
④ Secure all wires.

1 Securing wires in the adaptor case assy (for KRP413A1S · KRP413AA1S)

- Fasten with a tie-wrap so that wires will not come loose even if pulled.



2 Securing wires in the indoor unit (for KRP413A1)

- The method for securing wire varies depending on the model of the air conditioner. See your air conditioner installation manual for details.

2. Automatic Reset After Power Failure

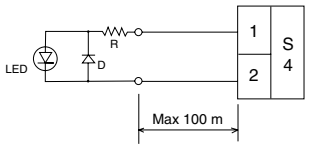
- This PCB stores the following data in the event of a power failure (common features).

① On/Off (see Note 1) ② Operation modes ③ Temperature setting
④ Air flow rate ⑤ On/Off status of remote controller
(Note 1 When SW1-2 is in Off mode, the unit will not be activated.)

3. Monitor Signal Output (normal operation and malfunction)

- Maximum length of the wiring is 100 m.

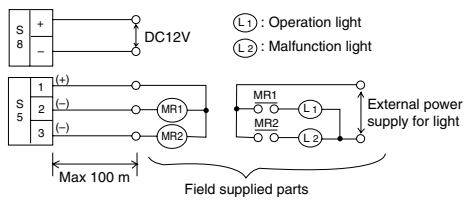
1 Monitor signal output for LED



■ **Locally procured parts**

Item	Manufacturer	Type
LED	Toshiba	TLG208 (green) TLR208 (red)
D	Rohm	1S2473
R		510 ohm 1/4W

2 Monitor signal output (normal operation and malfunction)using external relay contacts



■ **Field procured parts (Recommended external relay contacts)**

Manufacturer	Type	Coil rated voltage	Coil resistance
Omron	MY relay	12 V DC	160 ohm ± 10%
Matsushita	HC relay	12 V DC	160 ohm ± 10%

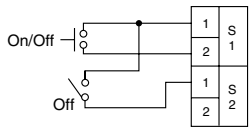
4. Connection with Remote Controller

Example connections with three kinds of remote controllers are shown bellow.
Note: These connections cannot be used in combination.

1 Generic remote controller

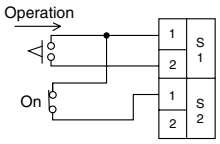
- Set SW1-1 to Off and select Operation Mode 1.

<Instantaneous Contact>



- The remote controller most recently used (local or air conditioner) takes precedence.
- Use a remote controller with a pulse width of 100 msec or more.

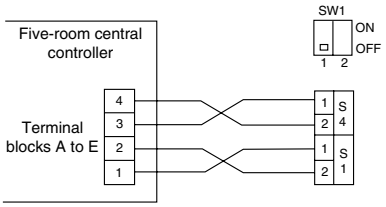
<Normal Contact>



- Power On/Off cannot be controlled from the unit's remote controller.
- When power is restored after a power failure in this mode, On or Off is determined according to the current settings of the remote controller.

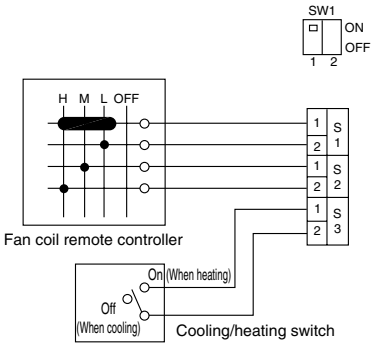
2 Five-room central controller (KRC72)

- Set SW1-1 to Off and select Operation Mode 1.
- The remote controller most recently used takes precedence.



3 Fan coil remote controller

- Set SW1-1 to On and select Operation Mode 2.
- Most settings (power On/Off, air flow rate, mode change) cannot be made using the air conditioner's remote controller.
- When power is restored after a power failure in this mode, On or Off is determined according to the current settings of the remote controller.
- When the Cooling /Heating mode is changed, use the air conditioner's remote controller to adjust the temperature.

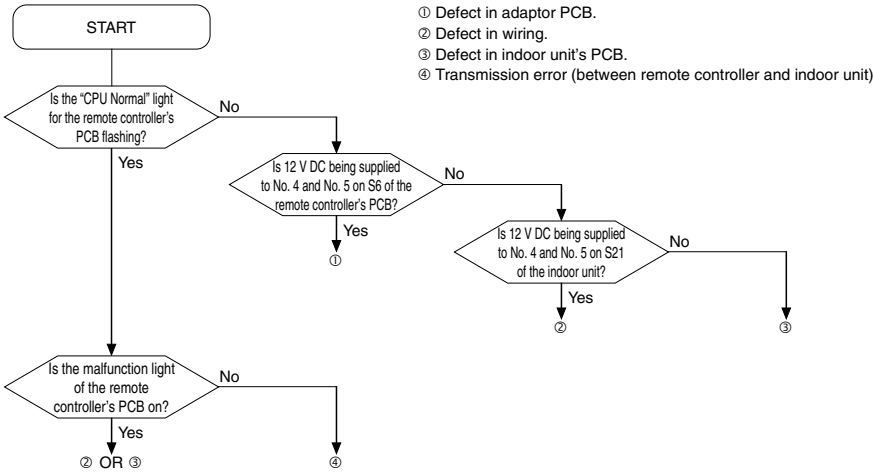


Test Operation and Confirmation

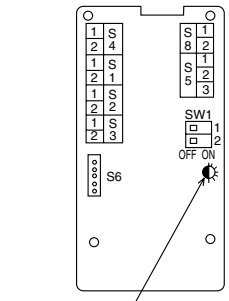
1. When the System is Not Working

☐ Is the air conditioner working properly?
☐ Are the connectors of the wiring properly connected?
☐ Are the remote controller and field wiring properly connected?
☐ Are all switch settings correct?
☐ If there is nothing apparently wrong, conduct a diagnostic check using the following procedure.

■ Diagnostic check



2. Switch Settings and Connection Terminals



CPU normal operation monitor
(Flashes when the operation is normal.)

SW1-1	Selecting the operation mode	OFF	Operation mode 1 (Used with the exception of fan coil remote controller settings)	
		ON	Operation mode 2 (Used with fan coil remote controller settings)	
SW1-2	Selecting On/Off when power is restored after a power failure	OFF	Always Off	
		ON	Off if operation was in Off mode before power failure; On if operation was in On mode before power failure	
S1	SW1-1: OFF (Operation mode 1)		Instantaneous contact	Normal contact
		S1 (1) - S2 (1)	OPEN	CLOSE
		S1 (1) - S1 (2)	Pulse input On/Off switching	OPEN, Not activated
				CLOSE, Activated
		S2 (2), S3	Not used	
S2	SW1-1: ON (Operation mode 2)	S1, S2 OPEN	Not activated	
S3		S1 (1) - S1 (2) CLOSE	On, airflow: L tap	
		S1 (1) - S2 (1) CLOSE	On, airflow: M tap	
		S1 (1) - S2 (2) CLOSE	On, airflow: H tap	
		S3 (With the remote controller only)	OPEN, Cooling	
			CLOSE, Heating	
S4	(1) - (2)	Voltage on (DC12 V), normal operation light output		
S5	(1) - (2)	Normal operation light output (power for light required)		
	(1) - (3)	Malfunction light output (power for light required)		
S6 connector		Connect with connector S21 on the PCB of the indoor unit		
S8	(+) - (–)	Relay DC 12 V power supply terminal (Field supplied parts)		

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13.2.2 KRP928BA2S

Safety Precautions

- Read these Safety Precautions carefully to ensure correct installation.
  This manual classifies precautions into WARNING and CAUTION.

  ⚠**WARNING :** Failure to follow WARNING is very likely to result in such grave consequences as death or serious injury.

  ⚠**CAUTION :** Failure to follow CAUTION may result in serious injury or property damage, and in certain circumstances, may result in a grave consequence.

Be sure to follow all the precautions below ; they are all important for ensuring safety.

⚠ WARNING

- **Installation should be left to the dealer or another qualified professional.**
  Improper installation by yourself may cause malfunction, electrical shock, or fire.
- **Install the set according to the instructions given in this manual.**
  Incomplete or improper installation may cause malfunction, electrical shock, or fire.
- **Be sure to use the standard attachments or the genuine parts.**
  Use of other parts may cause malfunction, electrical shock, or fire.
- **Disconnect power to the connected equipment before starting installation.**
  Failure to do so may cause malfunction, electrical shock, or fire.

⚠ CAUTION

- **An earth leakage circuit breaker should be installed.**
  If the breaker is not installed, electrical shock may occur.
- **Do not install the set in a location where there is danger of exposure to inflammable gas.**
  Gas accumulated around the unit at the worst may cause fire.
- **To prevent damage due to electrostatic discharge, touch your hand to a nearby metal object (doorknob, aluminum sash, etc.) to discharge static electricity from your body before touching this kit.**
  Static electricity can damage this kit.
- **Lay this cable separately from other power cables to avoid external electrical noises.**

- After installation is complete, test the operation of the PCB set to check for problems, and explain how to use the set to the end-user.

1.Overview, Features and Compatible Models

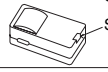
This kit is the interface required when connecting the central controller and a Daikin Room Air Conditioner. Use of the central controller makes it possible to perform the following monitoring and operations. It is compatible with room air conditioners which have an HA connector S21.

1.Run / stop for the central controller and wired remote controller, operating mode selection, and temperature can be set.
2.The operating status, any errors, and the content of those errors can be monitored from the central controller and wired remote controller.
3.Run / stop for the central controller and wireless remote controller, operating mode selection, and the temperature setting can be limited by the central controller.
4.Zone control can be performed from the central controller.
5.The unit can remember the operating status of the air conditioner before a power outage and then start operating in the same status when the power comes back on.
6.Card keys, operating control panels, and other constant / instantaneous connection-compatible equipment can be connected.
7.The Operating / error signals can be read.
8.HA JEM-A-compatible equipment can be connected.
9.The indoor temperature can be monitored from the Ve-up controller.

Precaution
1.When reading the Operating / error signals, a separate external power source (DC 12V) is needed.
2.A separate timer power source (DC 16V) is needed when using the schedule timer independently, and not in conjunction with other central controllers.
3.The range of temperatures that can be set from the central controller is 18°C to 32°C in cooling and 14°C to 28°C in heating.
4.Fan operation cannot be selected from the central controller or wired remote controller.
5.Group control (i.e., control of multiple indoor units with a single remote controller) is not available.
6.Monitoring is not available of the thermo status, compressor operating status, indoor fan operating status, electric heater, or humidifier operating status.
7.Forced thermo off, filter sign display and reset, fan direction and speed settings, air conditioning fee management, energy savings instructions, low-noise instructions, and demand instructions cannot be made.

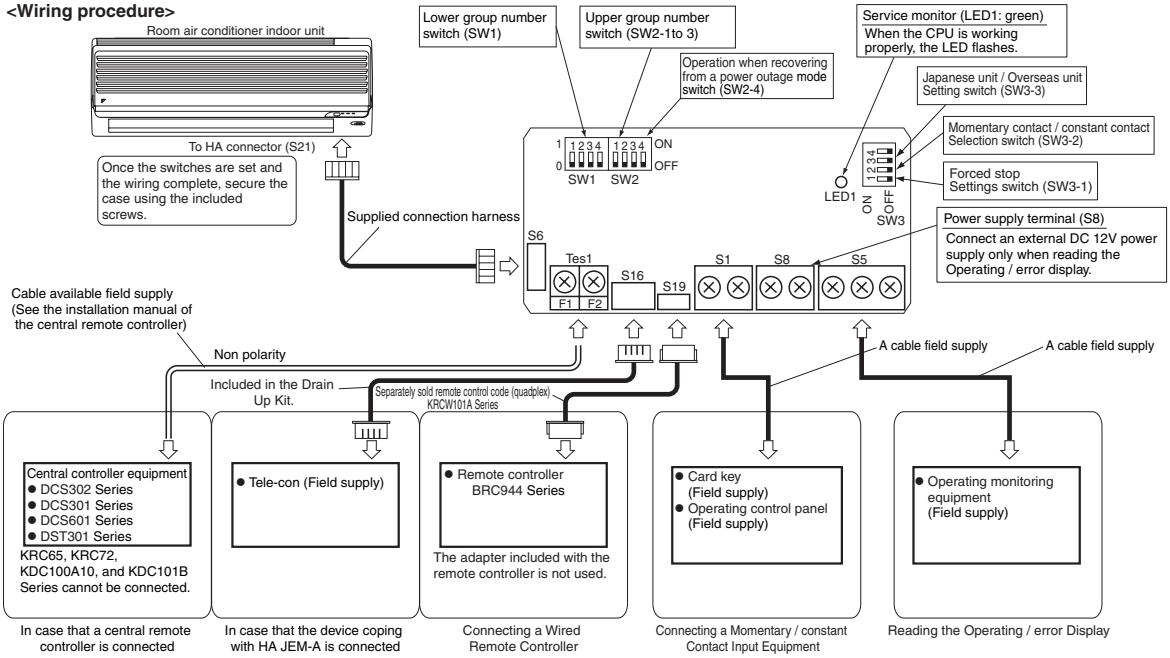
2.Component Parts and Separately-Sold Parts which are Required

This kit includes the following components. Check to ensure that none of these are missing.

Parts	Q'ty	Parts	Q'ty
Kit assy PCB is in the housing.  Screw cover	1	Connection harness (about 1.6m)	1set
		Mounting screws	3pcs.
		Binding band	1pc.
		Installation manual	1set

3.Names of Parts and Electric Wiring

<Wiring procedure>



4.Switch Settings

NOTE Turn the power on after all the switches have been set. Settings made while the power is on are invalid.

Open the Kit's case and set the switches on the circuit board.

(1) For Overseas / Japanese unit setting (SW3-3)
Room air conditioners, different methods are used for setting the temperature in automatic mode, so this switch needs to be set.

Destination	SW3-3 setting	What Happens
Japan	OFF (Factory setting)	● "Automatic" operation is not available from the central controller. When using "automatic" operation using the wireless remote controller, the central controller displays automatic cooling (heating) and 25°C. Even if the temperature is changed, it will return to 25°C after a while.
Overseas	ON	● "Automatic" operation is available from the central controller.

(2) Group number settings (SW1 and SW2-1 to SW2-3)
Set these when using the central controller. (Set to the ■ side.) Do not set more than one unit to the same number.

However, these settings do not need to be made when using the schedule timer independently.
(The settings are needed when used in conjunction with another DCS Series central controller.)
In this case, the schedule timer performs an auto address after the power is turned on, so new group numbers are automatically set. Settings made using the switches will be overwritten.

SW2 setting	Upper group NO.
1 2 3	1—
1 2 3	2—
1 2 3	3—
1 2 3	4—
1 2 3	5—
1 2 3	6—
1 2 3	7—
1 2 3	8—

SW1 setting	Lower group NO.	SW1 setting	Lower group NO.
1 2 3 4	0 0	1 2 3 4	0 8
1 2 3 4	0 1	1 2 3 4	0 9
1 2 3 4	0 2	1 2 3 4	1 0
1 2 3 4	0 3	1 2 3 4	1 1
1 2 3 4	0 4	1 2 3 4	1 2
1 2 3 4	0 5	1 2 3 4	1 3
1 2 3 4	0 6	1 2 3 4	1 4
1 2 3 4	0 7	1 2 3 4	1 5

NOTE also that a separate timer power source is needed when using the schedule timer independently.
Power source specs: DC 16V, +10%, -15%, 200mA.
Recommended power source: Omron S82J-01015A. (Should be used with the output voltage adjusted to the center, DC 16V.)

(3) Settings when recovering from a power outage (SW2-4)
This selects whether to restart operation when the power comes back on after a power outage occurred during operation. This setting is given priority in cases where the indoor unit has an auto start ON / OFF jumper. Note also that regardless of whether switch SW2-4 is on or off, the operating mode, set temperature, fan direction and speed settings, and remote control prohibition status are stored.

SW2-4 setting	What Happens
OFF (Factory setting)	Stops after recovering from a power outage
ON	Stops if the unit was stopped before the power outage and runs if it was running.

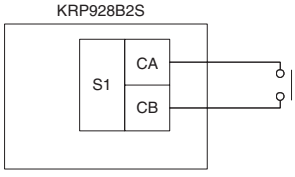
(4) Contact input function settings (SW3-1 to SW3-2)
When using contact input (S1), choose one of the following functions.

S1 operating mode	SW3-1 setting	SW3-2 setting	What Happens	Control mode
Instantaneous contact input (factory setting)	OFF	OFF	The operating status of the air conditioner is reversed by an instantaneous input of 100 msec or more.	Last command priority
Constant contact input		ON	Contact - Open to close: air condition runs. Close to open: air conditioner is stopped (NOTE 1).	ON / OFF control is rejected (operate / stop / timer prohibition) (NOTE 2).
Forced stop or remote controller permission input	ON	Invalid	Contact - Open to close: air condition stops (forced stop). Close to open: no change in operating status.	During a forced stop, all remote controller actions are prohibited.

NOTE1: Since central equipment and HA JEM-A-compatible equipment both use last command priority, the contact status and operating status of the air conditioner might not match sometimes.
Example: If the unit is run from the central controller while the air conditioner is stopped with an open contact, the contact will be open and the unit will be running.

NOTE2: Operating mode and fan direction and speed settings can be changed.

KRP928B2S



Run / stop Input
Contact specs
No-voltage minute electric current contact
(Minimum applicable load DC 12V, 1mA or lower)

Total wire length max: 100m

5.Control Codes

When using a central remote controller, the operating codes can be used to limit operation from wireless remote controllers.
○ : permitted; × : prohibited

S1 operating mode	Control mode	Control code	Operations from the remote controller: "Run" control from the central controller: Run / timer	Stop	Operating mode temperature	Fan direction and fan speed	"Stop" control from the central controller: Run / timer	Stop	Operating mode temperaturet	Fan direction and fan speed	Operations from central controller, contact input and HA JEM-A input
Instantaneous contact mode	ON / OFF control is rejected	0,1,3	×	×	○		×	×	○		
		10,11	×	×	×		×	×	×		
	Only OFF control is accepted	2 12–19	×	○	×		×	○	×		
	Central priority	4	○	○	○		×	○	×		
		5	○	○	○		×	×	○		
	Last command priority	6,7	○	○	○	○	○	○	○	○	○
	Timer operation is accepted by remote controller	8	○*	○*	○*		×	○	×		
		9	○*	○*	○*		×	×	○		
Constant contact mode		2,10-19	×	×	×		×	×	×		
		0,1,3,5-7			○				○		
		4			○				×		
		8			○*				×		
		9			○*				○		
Forced stop			×	×	×	×	×	×	×	×	

*Only during timer operation

The remote controller permission / prohibition settings using the Ve-up controller are as follows.
○ : permitted; × : prohibited

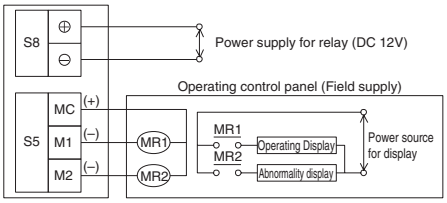
S1 pin operating mode	Ve-up controller settings: Start / stop	Change operating mode	Change set temperature	Operations from the remote controller: Run / timer	Stop	Operating mode temperature	Fan direction and fan speed	Operations from central controller, contact input and HA JEM-A input
Instantaneous contact mode • Constant contact mode	ON / OFF control is rejected	permitted	permitted/prohibited	×	×	○		
		prohibited	permitted/prohibited	×	×	×		
Instantaneous contact mode	Only OFF control is accepted	permitted	permitted	×	×	○		
			prohibited	×	○	×		
		prohibited	permitted/prohibited					
Constant contact mode		permitted	permitted	×	×	○	○	○
			prohibited	×	×	×		
		prohibited	permitted/prohibited					
Instantaneous contact mode	Last command priority	permitted	permitted/prohibited	○	○	○		
		prohibited	permitted/prohibited	×	○	×		
Constant contact mode		permitted	permitted/prohibited	×	×	○		
		prohibited	permitted/prohibited	×	×	×		
Forced stop	Does not affect settings			×	×	×	×	

6.Read Operating / Error Display Signal

The Operating / error signals can be read from the contact output (S5).

Output specs
M1: Turn MR 1 ON when the air conditioner is running.
M2: Turn MR 2 when a communication error has occurred between the KRP928B2S and the air conditioner, or MR 1 is ON and the unit has stopped after an error.
MR 2 is not turned ON during a warning.

KRP928B2S



Relay specs (MR1 and MR2)
Coil voltage: DC 12V
Coil resistance: 160Ω ± 10%
(Matsushita Electric HC Relay, Omron MY Relay)
Wiring length
Max: 100m

7.Combining Equipment

The central controller can be combined with the following devices.

	Central Remote Controller	ON / OFF controller	Schedule timer	D-BIPS	Forced stop contact input	Constant contact input	Instantaneous contact input	HA JEM-A-compatible equipment	Wired Remote Controller	Wireless Remote Controller
Central Remote Controller	○	○	○	○	○	○	○	○	○	○
ON / OFF controller	○	○	○	○	○	○	○	○	○	○
Schedule timer	○	○	×	×	○	○	○	○	○	○
D-BIPS	○	○	×	×	○	○	○	○	○	○
Forced stop contact input	○	○	○	○	×	×	×	○	○	○
Constant contact input	○	○	○	○	×	×	×	○	○	○
Instantaneous contact input	○	○	○	○	×	×	×	○	○	○
HA JEM-A-compatible equipment	○	○	○	○	○	○	○	×	○	○
Wired Remote Controller	○	○	○	○	○	○	○	○	×	×
Wireless Remote Controller	○	○	○	○	○	○	○	○	×	○

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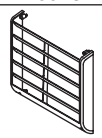
13.2.3 KPW937AA4

■ Before Installation

Checking the parts

Check the following parts

Name	Louver	Installation manual
Shape	 With 4 screws	
Quantity	1piece	1piece

■ Installation Procedure

Selection of Installation Location

Use when installing in a location that meets the following conditions.

- When installing near the border to a neighbor's house
- If exhaust blows directly on passers-by because outdoor unit is installed facing a road.
- Changing the fan direction of the outdoor unit to prevent it blowing directly on shrubbery, etc.

Installation of Louver

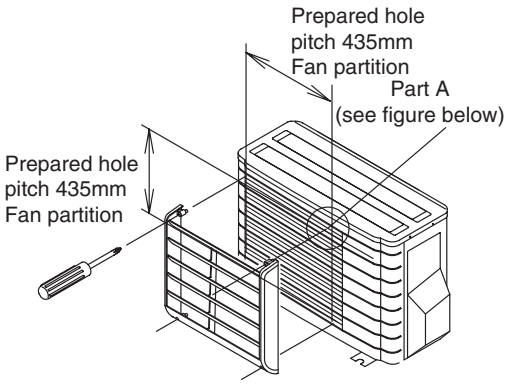
- Installation is possible in the four directions: upward, downward, rightward, and leftward.
- The installation screws are attached to the louver.
- First temporarily attach the louver with 4 screws, then check that the angle is correct, and finally tighten the screws fully.

⚠CAUTION

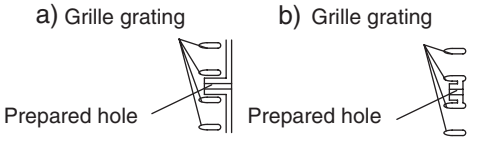
1.Install so that a short circuit is prevented.

2.For the use in snowy regions, avoid installation with the air outlet facing upward. Install so that the air outlet faces leftward, rightward, or downward.
Snow accumulates in the air outlet of the outdoor unit, causing malfunction of the main body of the outdoor unit.

3.Be advised that if the fan direction is up, dead leaves and other foreign matter easily accumulates in the exhaust vent.



The prepared hole is in between the grating of the grille. Part A (prepared hole) cross section (the shape of either a or b)



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Warning

- Daikin Industries, Ltd.'s products are manufactured for export to numerous countries throughout the world. Daikin Industries, Ltd. does not have control over which products are exported to and used in a particular country. Prior to purchase, please therefore confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

JMI-0107

JQA-1452

About ISO 9001

ISO 9001 is a plant certification system defined by the International Organization for Standardization (ISO) relating to quality assurance. ISO 9001 certification covers quality assurance aspects related to the "design, development, manufacture, installation, and supplementary service" of products manufactured at the plant.

EC99J2044

About ISO 14001

ISO 14001 is the standard defined by the International Organization for Standardization (ISO) relating to environmental management systems. Our group has been acknowledged by an internationally accredited compliance organisation as having an appropriate programme of environmental protection procedures and activities to meet the requirements of ISO 14001.

Dealer

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