DAIKIN

Si38 - 606

R-22

Service Manual

VRV II®

R-22 Single Outdoor Unit Series
Cooling Only

VRV II R-22 Cooling Only

1. Introduction

1.1 Safety Cautions

Cautions and Warnings

- Be sure to read the following safety cautions before conducting repair work.
- The caution items are classified into "⚠ **Warning**" and "⚠ **Caution**". The "⚠ **Warning**" items are especially important since they can lead to death or serious injury if they are not followed closely. The "⚠ **Caution**" items can also lead to serious accidents under some conditions if they are not followed. Therefore, be sure to observe all the safety caution items described below.
- About the pictograms

△ This symbol indicates an item for which caution must be exercised.
The pictogram shows the item to which attention must be paid.

◯ This symbol indicates a prohibited action.
The prohibited item or action is shown inside or near the symbol.

● This symbol indicates an action that must be taken, or an instruction.
The instruction is shown inside or near the symbol.

- After the repair work is complete, be sure to conduct a test operation to ensure that the equipment operates normally, and explain the cautions for operating the product to the customer

1.1.1 Caution in Repair

⚠ Warning	
Be sure to disconnect the power cable plug from the plug socket before disassembling the equipment for a repair. Working on the equipment that is connected to a power supply can cause an electrical shook. If it is necessary to supply power to the equipment to conduct the repair or inspecting the circuits, do not touch any electrically charged sections of the equipment.	
If the refrigerant gas discharges during the repair work, do not touch the discharging refrigerant gas. The refrigerant gas can cause frostbite.	
When disconnecting the suction or discharge pipe of the compressor at the welded section, release the refrigerant gas completely at a well-ventilated place first. If there is a gas remaining inside the compressor, the refrigerant gas or refrigerating machine oil discharges when the pipe is disconnected, and it can cause injury.	
If the refrigerant gas leaks during the repair work, ventilate the area. The refrigerant gas can generate toxic gases when it contacts flames.	
The step-up capacitor supplies high-voltage electricity to the electrical components of the outdoor unit. Be sure to discharge the capacitor completely before conducting repair work. A charged capacitor can cause an electrical shock.	
Do not start or stop the air conditioner operation by plugging or unplugging the power cable plug. Plugging or unplugging the power cable plug to operate the equipment can cause an electrical shock or fire.	

Caution	
Do not repair the electrical components with wet hands. Working on the equipment with wet hands can cause an electrical shock.	
Do not clean the air conditioner by splashing water. Washing the unit with water can cause an electrical shock.	
Be sure to provide the grounding when repairing the equipment in a humid or wet place, to avoid electrical shocks.	
Be sure to turn off the power switch and unplug the power cable when cleaning the equipment. The internal fan rotates at a high speed, and cause injury.	
Do not tilt the unit when removing it. The water inside the unit can spill and wet the furniture and floor.	
Be sure to check that the refrigerating cycle section has cooled down sufficiently before conducting repair work. Working on the unit when the refrigerating cycle section is hot can cause burns.	
Use the welder in a well-ventilated place. Using the welder in an enclosed room can cause oxygen deficiency.	

1.1.2 Cautions Regarding Products after Repair

Warning	
Be sure to use parts listed in the service parts list of the applicable model and appropriate tools to conduct repair work. Never attempt to modify the equipment. The use of inappropriate parts or tools can cause an electrical shock, excessive heat generation or fire.	
When relocating the equipment, make sure that the new installation site has sufficient strength to withstand the weight of the equipment. If the installation site does not have sufficient strength and if the installation work is not conducted securely, the equipment can fall and cause injury.	
Be sure to install the product correctly by using the provided standard installation frame. Incorrect use of the installation frame and improper installation can cause the equipment to fall, resulting in injury.	For integral units only
Be sure to install the product securely in the installation frame mounted on a window frame. If the unit is not securely mounted, it can fall and cause injury.	For integral units only
Be sure to use an exclusive power circuit for the equipment, and follow the technical standards related to the electrical equipment, the internal wiring regulations and the instruction manual for installation when conducting electrical work. Insufficient power circuit capacity and improper electrical work can cause an electrical shock or fire.	

Warning	
Be sure to use the specified cable to connect between the indoor and outdoor units. Make the connections securely and route the cable properly so that there is no force pulling the cable at the connection terminals. Improper connections can cause excessive heat generation or fire.	
When connecting the cable between the indoor and outdoor units, make sure that the terminal cover does not lift off or dismount because of the cable. If the cover is not mounted properly, the terminal connection section can cause an electrical shock, excessive heat generation or fire.	
Do not damage or modify the power cable. Damaged or modified power cable can cause an electrical shock or fire. Placing heavy items on the power cable, and heating or pulling the power cable can damage the cable.	
Do not mix air or gas other than the specified refrigerant in the refrigerant system. If air enters the refrigerating system, an excessively high pressure results, causing equipment damage and injury.	
If the refrigerant gas leaks, be sure to locate the leak and repair it before charging the refrigerant. After charging refrigerant, make sure that there is no refrigerant leak. If the leak cannot be located and the repair work must be stopped, be sure to perform pump-down and close the service valve, to prevent the refrigerant gas from leaking into the room. The refrigerant gas itself is harmless, but it can generate toxic gases when it contacts flames, such as fan and other heaters, stoves and ranges.	
When replacing the coin battery in the remote controller, be sure to disposed of the old battery to prevent children from swallowing it. If a child swallows the coin battery, see a doctor immediately.	

Caution	
Installation of a leakage breaker is necessary in some cases depending on the conditions of the installation site, to prevent electrical shocks.	
Do not install the equipment in a place where there is a possibility of combustible gas leaks. If a combustible gas leaks and remains around the unit, it can cause a fire.	
Be sure to install the packing and seal on the installation frame properly. If the packing and seal are not installed properly, water can enter the room and wet the furniture and floor.	For integral units only

1.1.3 Inspection after Repair

Warning	
Check to make sure that the power cable plug is not dirty or loose, then insert the plug into a power outlet all the way. If the plug has dust or loose connection, it can cause an electrical shock or fire.	
If the power cable and lead wires have scratches or deteriorated, be sure to replace them. Damaged cable and wires can cause an electrical shock, excessive heat generation or fire.	
Do not use a joined power cable or extension cable, or share the same power outlet with other electrical appliances, since it can cause an electrical shock, excessive heat generation or fire.	

Caution	
Check to see if the parts and wires are mounted and connected properly, and if the connections at the soldered or crimped terminals are secure. Improper installation and connections can cause excessive heat generation, fire or an electrical shock.	
If the installation platform or frame has corroded, replace it. Corroded installation platform or frame can cause the unit to fall, resulting in injury.	
Check the grounding, and repair it if the equipment is not properly grounded. Improper grounding can cause an electrical shock.	
Be sure to measure the insulation resistance after the repair, and make sure that the resistance is 1 Mohm or higher. Faulty insulation can cause an electrical shock.	
Be sure to check the drainage of the indoor unit after the repair. Faulty drainage can cause the water to enter the room and wet the furniture and floor.	

1.1.4 Using Icons

Icons are used to attract the attention of the reader to specific information. The meaning of each icon is described in the table below:

1.1.5 Using Icons List

Icon	Type of Information	Description
Note:	Note	A “note” provides information that is not indispensable, but may nevertheless be valuable to the reader, such as tips and tricks.
Caution	Caution	A “caution” is used when there is danger that the reader, through incorrect manipulation, may damage equipment, loose data, get an unexpected result or has to restart (part of) a procedure.
Warning	Warning	A “warning” is used when there is danger of personal injury.
	Reference	A “reference” guides the reader to other places in this binder or in this manual, where he/she will find additional information on a specific topic.

1.2 PREFACE

Thank you for your continued patronage of Daikin products.

This is the new service manual for Daikin's Year 2006 VRVII Single Outdoor Units series Cooling Only System.
Daikin offers a wide range of models to respond to building and office air conditioning needs. We are confident that customers will be able to find the models that best suit their needs.

This service manual contains information regarding the servicing of VRVII Single Outdoor Units series Cooling Only System.

January 2007

After Sales Service Division

Part 1
General Information

1. Model Names of Indoor/Outdoor Units

Indoor Units

Type		Model Name											Power Supply
Ceiling Mounted Cassette Type (Double Flow)	FXC	20L	25L	32L	40L	50L	63L	80L	—	125L	—	—	VE
Ceiling Mounted Cassette Type (Multi Flow)	FXF	—	25L	32L	40L	50L	63L	80L	100L	125L	—	—	
Ceiling Mounted Cassette Corner Type	FXK	—	25L	32L	40L	—	63L	—	—	—	—	—	
Slim Ceiling Mounted Duct Type	FXD-PVE	20P	25P	32P	—	—	—	—	—	—	—	—	
	FXD-PVET	20P	25P	32P	—	—	—	—	—	—	—	—	
	FXD-MVE	20M	25M	32M	40M	50M	63M	—	—	—	—	—	
	FXD-MVET	20M	25M	32M	40M	50M	63M	—	—	—	—	—	
Ceiling Mounted Low Silhouette Duct Type	FXYD	20KA	25KA	32KA	40KA	50KA	63KA	—	—	—	—	—	
Ceiling Mounted Built-In Type	FXS	20L	25L	32L	40L	50L	63L	80L	100L	125L	—	—	
Ceiling Mounted Built-In (Rear Suction) Type	FXYB	20K	25K	32K	40K	50K	63K	80K	100K	125K	—	—	V1
Ceiling Mounted Duct Type	FXM	—	—	—	40L	50L	63L	80L	100L	125L	200L	250L	VE
Ceiling Suspended Type	FXH	—	—	32L	—	—	63L	—	100L	—	—	—	
Wall Mounted Type	FXA	20L	25L	32L	40L	50L	63L	—	—	—	—	—	
Floor Standing Type	FXL	20L	25L	32L	40L	50L	63L	—	—	—	—	—	
Concealed Floor Standing Type	FXN	20L	25L	32L	40L	50L	63L	—	—	—	—	—	

Note: FXD has following 2 Series, as shown below.
FXD-P, MVET: without Drain Pump (For General, Asia: except for EU, China and Australia)
FXD-P, MVE: with Drain Pump
VE: 1ϕ, 220V~240V, 50Hz
1ϕ, 220V, 60Hz
V1: 1ϕ, 220V~240V, 50Hz

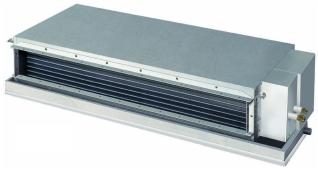
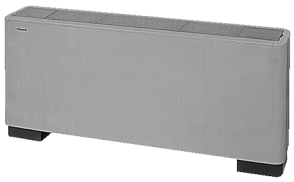
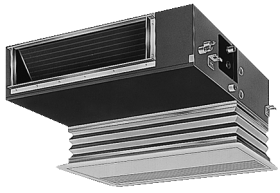
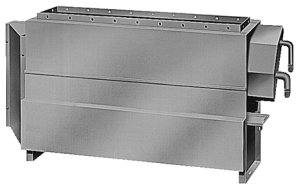
Outdoor Units

Series	Model Name			Power Supply
Cooling Only	RXM	8M	10M	Y1

Y1: 3ϕ, 380-415V, 50Hz

2. External Appearance

2.1 Indoor Units

Ceiling mounted cassette type (Double flow) FXC20L FXC25L FXC32L FXC40L FXC50L FXC63L FXC80L FXC125L 	Ceiling mounted built-in type -rear suction type - FXYB20K FXYB25K FXYB32K FXYB40K FXYB50K FXYB63K FXYB80K FXYB100K FXYB125K 
Ceiling mounted cassette type (Multi flow) FXF25L FXF32L FXF40L FXF50L FXF63L FXF80L FXF100L FXF125L 	Ceiling Mounted Duct Type FXM40L FXM50L FXM63L FXM80L FXM100L FXM125L FXM200L FXM250L  FXM40~125L  FXM200 · 250L
Ceiling mounted cassette corner type FXK25L FXK32L FXK40L FXK63L 	Ceiling suspended type FXH32L FXH63L FXH100L 
Slim Ceiling Mounted Duct Type FXD20P FXD20M FXD25P FXD25M FXD32P FXD32M FXD40M FXD50M FXD63M  with Drain Pump (VE) with Drain Pump (VET)	Wall mounted type FXA20L FXA25L FXA32L FXA40L FXA50L FXA63L 
Ceiling mounted low silhouette duct type FXYD20KA FXYD25KA FXYD32KA FXYD40KA FXYD50KA FXYD63KA 	Floor standing type FXL20L FXL25L FXL32L FXL40L FXL50L FXL63L 
Ceiling mounted built-in type FXS20L FXS25L FXS32L FXS40L FXS50L FXS63L FXS80L FXS100L FXS125L 	Concealed floor standing type FXN20L FXN25L FXN32L FXN40L FXN50L FXN63L 

2.2 Outdoor Units

RXM 8M	RXM 10M
 8HP	 10HP

3. Capacity Range

Outdoor Units

Capacity Range	8HP	10HP
RXM	8M	10M
No of Indoor Units to be Connected	13	16
Total Capacity Index of Indoor Units to be Connected	100 ~ 260	125 ~ 325

Indoor Units

Capacity Range		0.8 HP	1 HP	1.25 HP	1.6 HP	2 HP	2.5 HP	3.2 HP	4 HP	5 HP	8 HP	10 HP
Capacity Index		20	25	31.25	40	50	62.5	80	100	125	200	250
Ceiling Mounted Cassette Type (Double Flow)	FXC	20L	25L	32L	40L	50L	63L	80L	—	125L	—	—
Ceiling Mounted Cassette Type (Multi Flow)	FXF	—	25L	32L	40L	50L	63L	80L	100L	125L	—	—
Ceiling Mounted Cassette Corner Type	FXK	—	25L	32L	40L	—	63L	—	—	—	—	—
Slim Ceiling Mounted Duct Type	FXD-PVE	20P	25P	32P	—	—	—	—	—	—	—	—
	FXD-PVET	20P	25P	32P	—	—	—	—	—	—	—	—
	FXD-MVE	20M	25M	32M	40M	50M	63M	—	—	—	—	—
	FXD-MVET	20M	25M	32M	40M	50M	63M	—	—	—	—	—
Ceiling Mounted Low Silhouette Duct Type	FXYD	20KA	25KA	32KA	40KA	50KA	63KA	—	—	—	—	—
Ceiling Mounted Built-In Type	FXS	20L	25L	32L	40L	50L	63L	80L	100L	125L	—	—
Ceiling Mounted Built-In (Rear Suction) Type	FXYB	20K	25K	32K	40K	50K	63K	80K	100K	125K	—	—
Ceiling Mounted Duct Type	FXM	—	—	—	40L	50L	63L	80L	100L	125L	200L	250L
Ceiling Suspended Type	FXH	—	—	32L	—	—	63L	—	100L	—	—	—
Wall Mounted Type	FXA	20L	25L	32L	40L	50L	63L	—	—	—	—	—
Floor Standing Type	FXL	20L	25L	32L	40L	50L	63L	—	—	—	—	—
Concealed Floor Standing Type	FXN	20L	25L	32L	40L	50L	63L	—	—	—	—	—

Part 2
Specifications

1. Specifications

1.1 Outdoor Units

Model Name			RXM8MY1	RXM10MY1
★1 Cooling Capacity (19.5°CWB)		kcal / h	19,400	24,300
		Btu / h	76,800	96,200
		kW	22.5	28.2
★2 Cooling Capacity (19.0°CWB)		kW	22.4	28.0
Casing Color			Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
Dimensions: (H×W×D)		mm	1600×930×765	1600×1240×765
Heat Exchanger			Cross Fin Coil	Cross Fin Coil
Comp.	Type		Hermetically Sealed Scroll Type	Hermetically Sealed Scroll Type
	Piston Displacement	m³/h	19.36+14.68	19.36+14.68
	Number of Revolutions	r.p.m	6480, 2900	6480, 2900
	Motor Output×Number of Units	kW	(1.1+4.5)×1	(2.1+4.5)×1
	Starting Method		Soft Start	Soft Start
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×1	0.75×1
	Air Flow Rate	m³/min	175	210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	ϕ12.7 (Brazing Connection)	ϕ12.7 (Brazing Connection)
	Gas Pipe	mm	ϕ28.6 (Brazing Connection)	ϕ28.6 (Brazing Connection)
	Oil Equalizer Tube	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
Machine Weight (Mass)		kg	235	290
Safety Devices			High Pressure Switch, Fan Driver Overload Protector, Over Current Relay, Inverter Overload Protector, Fusible Plugs	High Pressure Switch, Fan Driver Overload Protector, Over Current Relay, Inverter Overload Protector, Fusible Plugs
Capacity Control		%	14~100	14~100
Refrigerant	Refrigerant Name		R-22	R-22
	Charge	kg	13.1	14.9
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K	SUNISO 4GSDID-K
	Charge Volume	L	1.9+1.6	1.9+1.6
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			C : 4D052966	C : 4D052967

Notes:
★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5m, level difference : 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5m, level difference : 0m.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

1.2 Indoor Units

Ceiling Mounted Cassette Type (Double-flow)

Model			FXC20LVE	FXC25LVE	FXC32LVE	FXC40LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200	4,000
		Btu/h	7,800	9,900	12,600	16,000
		kW	2.3	2.9	3.7	4.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6	4.5
★3 Heating Capacity		kcal/h	2,200	2,800	3,400	4,300
		Btu/h	8,500	10,900	13,600	17,000
		kW	2.5	3.2	4.0	5.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	305×775×600	305×775×600	305×775×600	305×990×600
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×10×1.5	2×10×1.5	2×10×1.5	2×10×1.5
	Face Area	m²	2×0.100	2×0.100	2×0.100	2×0.145
Fan	Model		D17K2AA1	D17K2AB1	D17K2AB1	2D17K1AA1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	10×1	15×1	15×1	20×1
	Air Flow Rate (H/L)	m³/min	7/5	9/6.5	9/6.5	12/9
		cfm	247/177	318/230	318/230	424/318
	Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Wool/Urethane Foam	Glass Wool/Urethane Foam	Glass Wool/Urethane Foam	Glass Wool/Urethane Foam
Piping Connections	Liquid Pipes	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
	Gas Pipes	mm	φ12.7 (Flare Connection)	φ12.7 (Flare Connection)	φ12.7 (Flare Connection)	φ12.7 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	26	26	26	31
★5 Sound Level (H/L) (220V)		dBA	32/27	34/28	34/28	34/29
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 ; M Series	R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Decoration Panels (Option)	Model		BYBC32G-W1	BYBC32G-W1	BYBC32G-W1	BYBC50G-W1
	Panel Color		White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)	mm	53×1,030×680	53×1,030×680	53×1,030×680	53×1,245×680
	Air Filter		Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
	Weight	kg	8	8	8	8.5
Standard Accessories			Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.
Drawing No.			3D034244A			

Notes:

- ★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
- ★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
- ★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
- 4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- ★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Cassette Type (Double-flow)

Model			FXC50LVE	FXC63LVE	FXC80LVE	FXC125LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	5,000	6,300	8,000	12,500
		Btu/h	19,800	24,900	31,700	49,500
		kW	5.8	7.3	9.3	14.5
★2 Cooling Capacity (19.0°CWB)		kW	5.6	7.1	9.0	14.0
★3 Heating Capacity		kcal/h	5,400	6,900	8,600	13,800
		Btu/h	21,500	27,300	34,100	54,600
		kW	6.3	8.0	10.0	16.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	305×990×600	305×1,175×600	305×1,665×600	305×1,665×600
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×10×1.5	2×10×1.5	2×10×1.5	2×10×1.5
	Face Area	m²	2×0.145	2×0.184	2×0.287	2×0.287
Fan	Model		2D17K1AA1	2D17K2AA1VE	3D17K2AA1	3D17K2AB1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	20×1	30×1	50×1	85×1
	Air Flow Rate (H/L)	m³/min	12/9	16.5/13	26/21	33/25
		cfm	424/318	582/459	918/741	1,165/883
	Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Wool/Urethane Foam	Glass Wool/Urethane Foam	Glass Wool/Urethane Foam	Glass Wool/Urethane Foam
Piping Connections	Liquid Pipes	mm	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)
	Gas Pipes	mm	φ15.9 (Flare Connection)	φ15.9 (Flare Connection)	φ15.9 (Flare Connection)	φ19.1 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	32	35	47	48
★5 Sound Level (H/L)		dBA	34/29	37/32	39/34	44/38
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 ; M Series	R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Decoration Panels (Option)	Model		BYBC50G-W1	BYBC63G-W1	BYBC125G-W1	BYBC125G-W1
	Panel Color		White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)	mm	53×1,245×680	53×1,430×680	53×1,920×680	53×1,920×680
	Air Filter		Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
	Weight	kg	8.5	9.5	12	12
Standard Accessories			Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Washer for Hanging Brackets, Clamp Metal, Drain Hose, Insulation for Fitting, Washer Fixing Plates, Sealing Pads, Clamps, Screws, Washers.
Drawing No.			3D034244A			

Notes:

- ★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
- ★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
- ★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
- 4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- ★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Cassette Type (Multi-flow)

Model			FXF25LVE	FXF32LVE	FXF40LVE	FXF50LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,500	3,200	4,000	5,000
		Btu/h	9,900	12,600	16,000	19,800
		kW	2.9	3.7	4.7	5.8
★2 Cooling Capacity (19.0°CWB)		kW	2.8	3.6	4.5	5.6
★3 Heating Capacity		kcal/h	2,800	3,400	4,300	5,400
		Btu/h	10,900	13,600	17,000	21,500
		kW	3.2	4.0	5.0	6.3
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	246×840×840	246×840×840	246×840×840	246×840×840
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×8×1.2	2×8×1.2	2×8×1.2	2×8×1.2
	Face Area	m²	0.363	0.363	0.363	0.363
Fan	Model		QTS46D14M	QTS46D14M	QTS46D14M	QTS46D14M
	Type		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output × Number of Units	W	30×1	30×1	30×1	30×1
	Air Flow Rate (H/L)	m³/min	13/10	13/10	15/11	16/11
		cfm	459/353	459/353	530/388	565/388
	Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Polyurethane Form	Polyurethane Form	Polyurethane Form	Polyurethane Form
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	24	24	24	24
★5 Sound Level (H/L) (220V)(cooling)		dBA	30/27	30/27	31/27	32/27
Safety Devices			Fuse	Fuse	Fuse	Fuse
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 ; M Series	R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Decoration Panels (Option)	Model		BYCP125D-W1	BYCP125D-W1	BYCP125D-W1	BYCP125D-W1
	Panel Color		White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)	mm	45×950×950	45×950×950	45×950×950	45×950×950
	Air Filter		Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
	Weight	kg	5.5	5.5	5.5	5.5
Standard Accessories			Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.	Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.	Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.	Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.
Drawing No.			3D034210A			

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Cassette Type (Multi-flow)

Model			FXF63LVE	FXF80LVE	FXF100LVE	FXF125LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	6,300	8,000	10,000	12,500
		Btu/h	24,900	31,700	39,600	49,500
		kW	7.3	9.3	11.6	14.5
★2 Cooling Capacity (19.0°CWB)		kW	7.1	9.0	11.2	14.0
★3 Heating Capacity		kcal/h	6,900	8,600	10,800	13,800
		Btu/h	27,300	34,100	42,700	54,600
		kW	8.0	10.0	12.5	16.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	246×840×840	246×840×840	288×840×840	288×840×840
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×10×1.2	2×10×1.2	2×12×1.2	2×12×1.2
	Face Area	m²	0.454	0.454	0.544	0.544
Fan	Model		QTS46D14M	QTS46D14M	QTS46C17M	QTS46C17M
	Type		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output × Number of Units	W	30×1	30×1	120×1	120×1
	Air Flow Rate (H/L)	m³/min	18.5/14	20/15	26/21	30/24
		cfm	653/494	706/530	918/741	1,059/847
	Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Polyurethane Form	Polyurethane Form	Polyurethane Form	Polyurethane Form
Piping Connections	Liquid Pipes	mm	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)
	Gas Pipes	mm	φ15.9 (Flare Connection)	φ15.9 (Flare Connection)	φ19.1 (Flare Connection)	φ19.1 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	25	25	29	29
★5 Sound Level (H/L)(cooling)		dBA	33/28	36/31	39/33	42/36
Safety Devices			Fuse	Fuse	Fuse	Fuse
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 ; M Series	R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Decoration Panels (Option)	Model		BYCP125D-W1	BYCP125D-W1	BYCP125D-W1	BYCP125D-W1
	Panel Color		White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)	mm	45×950×950	45×950×950	45×950×950	45×950×950
	Air Filter		Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
	Weight	kg	5.5	5.5	5.5	5.5
Standard Accessories			Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.	Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.	Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.	Operation manual, Installation manual, Paper pattern for installation, Drain hose, Clamp metal, Washer fixing plate, Sealing pads, Clamps, Screws, Washer for hanging bracket, Insulation for fitting.
Drawing No.			3D034210A			

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Cassette Corner Type

Model				FXK25LVE	FXK32LVE	FXK40LVE	FXK63LVE
★1 Cooling Capacity (19.5°CWB)			kcal/h	2,500	3,200	4,000	6,300
			Btu/h	9,900	12,600	16,000	24,900
			kW	2.9	3.7	4.7	7.3
★2 Cooling Capacity (19.0°CWB)			kW	2.8	3.6	4.5	7.1
★3 Heating Capacity			kcal/h	2,800	3,400	4,300	6,900
			Btu/h	10,900	13,600	17,000	27,300
			kW	3.2	4.0	5.0	8.0
Casing				Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)			mm	215×1,110×710	215×1,110×710	215×1,110×710	215×1,310×710
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch		mm	2×11×1.75	2×11×1.75	2×11×1.75	3×11×1.75
	Face Area		m^2	0.180	0.180	0.180	0.226
Fan	Model			3D12H1AN1V1	3D12H1AN1V1	3D12H1AP1V1	4D12H1AJ1V1
	Type			Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units		W	15×1	15×1	20×1	45×1
	Air Flow Rate (H/L)	50Hz	m^3/min	11/9	11/9	13/10	18/15
			cfm	388/318	388/318	459/353	635/530
		60Hz	m^3/min	11/8.5	11/8.5	13/10	18/13
			cfm	388/300	388/300	459/353	635/459
	Drive			Direct Drive	Direct Drive	Direct Drive	Direct Drive
Temperature Control				Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material				Polyethylene Foam	Polyethylene Foam	Polyethylene Foam	Polyethylene Foam
Piping Connections	Liquid Pipes		mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes		mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe		mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)			kg	31	31	31	34
★5 Sound Level (H/L) (220V)			dBA	38/33	38/33	40/34	42/37
Safety Devices				Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
Refrigerant Control				Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Units				R-22 ; M Series	R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Decoration Panels (Option)	Model			BYK45FJW1	BYK45FJW1	BYK45FJW1	BYK71FJW1
	Panel Color			White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)		mm	70×1,240×800	70×1,240×800	70×1,240×800	70×1,440×800
	Air Filter			Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
	Weight		kg	8.5	8.5	8.5	9.5
Standard Accessories				Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers, Positioning Jig for Installation, Insulation for Hanger Bracket, Air Outlet Blocking Pad.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers, Positioning Jig for Installation, Insulation for Hanger Bracket, Air Outlet Blocking Pad.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers, Positioning Jig for Installation, Insulation for Hanger Bracket, Air Outlet Blocking Pad.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers, Positioning Jig for Installation, Insulation for Hanger Bracket, Air Outlet Blocking Pad.
Drawing No.				3D037070			

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Slim Ceiling Mounted Duct Type

Model			FXD20PVE(T)	FXD25PVE(T)	FXD32PVE(T)
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,800	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	200×700×620	200×700×620	200×700×620
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×12×1.5	2×12×1.5	3×12×1.5
	Face Area	m^2	0.126	0.126	0.126
Fan	Model		—	—	—
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	62×1	62×1	62×1
	Air Flow Rate (H/L)	m^3/min	8.0/6.4	8.0/6.4	8.0/6.4
	External Static Pressure	Pa	35-15 ★5	35-15 ★5	35-15 ★5
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Foamed Polyethylene	Foamed Polyethylene	Foamed Polyethylene
Air Filter			—★7	—★7	—★7
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	mm	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)
Machine Weight (Mass)		kg	23	23	23
★6 Sound Level (H/L)		dBA	33/29	33/29	33/29
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.
Drawing No.			C: 3D052137		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 External static pressure is changeable to set by the remote controller this pressure means “High static pressure - Standard static pressure”.

★6 The operation sound levels are the conversion values in anechoic chamber. In practice, the sound tend to be larger than the specified values due to ambient noise or reflections.
When the place of suction is changed to the bottom suction, the sound level will increase by approx, 5dBA.

★7 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Slim Ceiling Mounted Duct Type (with Drain Pump)

Model			FXD20MVE	FXD25MVE	FXD32MVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,800	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	200×900×620	200×900×620	200×900×620
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×12×1.5	2×12×1.5	2×12×1.5
	Face Area	m^2	0.176	0.176	0.176
Fan	Model		—	—	—
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	62×1	62×1	62×1
	Air Flow Rate (H/L)	m^3/min	9.5/7.5	9.5/7.5	10.5/8.5
	External Static Pressure	Pa	49-20 ★4	49-20 ★4	49-20 ★4
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Foamed Polyethylene	Foamed Polyethylene	Foamed Polyethylene
Air Filter			—★6	—★6	—★6
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	mm	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)
Machine Weight (Mass)		kg	25	25	25
★5 Sound Level (H/L)		dBA	33/29	33/29	33/29
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.
Drawing No.			3D044731		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to set by the remote controller this pressure means “High static pressure - Standard static pressure”.

★5 The operation sound levels are the conversion values in anechoic chamber. In practice, the sound tend to be larger than the specified values due to ambient noise or reflections.
When the place of suction is changed to the bottom suction, the sound level will increase by approx, 5dBA.

★6 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Slim Ceiling Mounted Duct Type (with Drain Pump)

Model			FXD40MVE	FXD50MVE	FXD63MVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	16,000	19,800	24,900
		kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1
★3 Heating Capacity		kcal/h	4,300	5,400	6,900
		Btu/h	17,000	21,500	27,300
		kW	5.0	6.3	8.0
Casing Color			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	200×900×620	200×900×620	200×1100×620
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×12×1.5	3×12×1.5	3×12×1.5
	Face Area	m²	0.176	0.176	0.227
Fan	Model		—	—	—
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	62×1	130×1	130×1
	Air Flow Rate (H/L)	m³/min	10.5/8.5	12.5/10.0	16.5/13.0
	External Static Pressure	Pa	49-20 ★4	49-20 ★4	49-20 ★4
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Foamed Polyethylene	Foamed Polyethylene	Foamed Polyethylene
Air Filter			—★6	—★6	—★6
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)
Machine Weight (Mass)		kg	26	27	31
★5 Sound Level (H/L)		dBA	34/30	35/31	36/32
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.
Drawing No.			3D044731		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to set by the remote controller this pressure means “High static pressure - Standard static pressure”.

★5 The operation sound levels are the conversion values in anechoic chamber. In practice, the sound tend to be larger than the specified values due to ambient noise or reflections.
When the place of suction is changed to the bottom suction, the sound level will increase by approx, 5dBA.

★6 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Slim Ceiling Mounted Duct Type (without Drain Pump)

Model			FXD20MVET	FXD25MVET	FXD32MVET
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,800	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	200×900×620	200×900×620	200×900×620
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×12×1.5	2×12×1.5	2×12×1.5
	Face Area	m^2	0.176	0.176	0.176
Fan	Model		—	—	—
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	62×1	62×1	62×1
	Air Flow Rate (H/L)	m^3/min	9.5/7.5	9.5/7.5	10.5/8.5
	External Static Pressure	Pa	49-20 ★4	49-20 ★4	49-20 ★4
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Foamed Polyethylene	Foamed Polyethylene	Foamed Polyethylene
Air Filter			—★6	—★6	—★6
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	mm	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)
Machine Weight (Mass)		kg	25	25	25
★5 Sound Level (H/L)		dBA	33/29	33/29	33/29
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.
Drawing No.			3D049692A		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to set by the remote controller this pressure means “High static pressure - Standard static pressure”.

★5 The operation sound levels are the conversion values in anechoic chamber. In practice, the sound tend to be larger than the specified values due to ambient noise or reflections.
When the place of suction is changed to the bottom suction, the sound level will increase by approx, 5dBA.

★6 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Slim Ceiling Mounted Duct Type (without Drain Pump)

Model			FXD40MVET	FXD50MVET	FXD63MVET
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	16,000	19,800	24,900
		kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1
★3 Heating Capacity		kcal/h	4,300	5,400	6,900
		Btu/h	17,000	21,500	27,300
		kW	5.0	6.3	8.0
Casing Color			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	200×900×620	200×900×620	200×1100×620
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×12×1.5	3×12×1.5	3×12×1.5
	Face Area	m²	0.176	0.176	0.227
Fan	Model		—	—	—
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	62×1	130×1	130×1
	Air Flow Rate (H/L)	m³/min	10.5/8.5	12.5/10.0	16.5/13.0
	External Static Pressure	Pa	49-20 ★4	49-20 ★4	49-20 ★4
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Foamed Polyethylene	Foamed Polyethylene	Foamed Polyethylene
Air Filter			—★6	—★6	—★6
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)
Machine Weight (Mass)		kg	26	27	31
★5 Sound Level (H/L)		dBA	34/30	35/31	36/32
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.	Operation Manual, Installation Manual, Warranty, Drain Hose, Sealing Pads, Clamps, Washers, Insulation for Fitting, Clamp Metal, Washer Fixing Plate, Screws for Duct Flanges.
Drawing No.			3D049692A		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to set by the remote controller this pressure means “High static pressure - Standard static pressure”.

★5 The operation sound levels are the conversion values in anechoic chamber. In practice, the sound tend to be larger than the specified values due to ambient noise or reflections.
When the place of suction is changed to the bottom suction, the sound level will increase by approx, 5dBA.

★6 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Low Silhouette Duct Type

★6 Model			FXYD20KAVE	FXYD25KAVE	FXYD32KAVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,900	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	260×900×580	260×900×580	260×900×580
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×10×1.75	2×10×1.75	2×10×1.75
	Face Area	m^2	0.147	0.147	0.147
Fan	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	45×1	45×1	45×1
	Air Flow Rate (H/L)	m^3/min	12/11	12/11	12/11
		cfm	424/388	424/388	424/388
	External Static Pressure	Pa	49	49	49
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Regulator			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Form Polyethylene	Form Polyethylene	Form Polyethylene
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	in.	3/4B	3/4B	3/4B
Machine Weight (Mass)		kg	23	23	23
★5 Sound Level (H/L)		dBA	38/35	38/35	38/35
Safety Devices			Fuse Thermal Protector for Fan Motor	Fuse Thermal Protector for Fan Motor	Fuse Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws for Duct Flanges.	Operation Manual, Installation Manual, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws for Duct Flanges.	Operation Manual, Installation Manual, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws for Duct Flanges.
Drawing No.			C : 3D024660		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.
When the place of suction is changed to the bottom suction, the sound level will increase by approx. 5 dBA.

★6 Model name for other country

For General Country	FXYD20KAVE	FXYD25KAVE	FXYD32KAVE
For Thailand	FXYD20KVES	FXYD25KVES	FXYD32KVES

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Ceiling Mounted Low Silhouette Duct Type

★6 **Model**			**FXYD40KAVE**	**FXYD50KAVE**	**FXYD63KAVE**
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	16,000	19,800	24,900
		kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1
★3 Heating Capacity		kcal/h	4,300	5,400	6,900
		Btu/h	17,000	21,500	27,300
		kW	5.0	6.3	8.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	260×900×580	260×1,300×580	260×1,300×580
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×10×1.75	2×10×1.75	3×10×1.75
	Face Area	m^2	0.147	0.231	0.231
Fan	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	45×1	65×1	65×1
	Air Flow Rate (H/L)	m^3/min	12/11	17/15	17/15
		cfm	424/388	600/530	600/530
	External Static Pressure	Pa	49	49	49
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Form Polyethylene	Form Polyethylene	Form Polyethylene
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	in.	3/4B	3/4B	3/4B
Machine Weight (Mass)		kg	24	31	32
★5 Sound Level (H/L)		dBA	38/35	41/38	41/38
Safety Devices			Fuse Thermal Protector for Fan Motor	Fuse Thermal Protector for Fan Motor	Fuse Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws for Duct Flanges.	Operation Manual, Installation Manual, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws for Duct Flanges.	Operation Manual, Installation Manual, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws for Duct Flanges.
Drawing No.			C : 3D024660		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.
When the place of suction is changed to the bottom suction, the sound level will increase by approx. 5 dBA.

★6 Model name for other country

For General Country	FXYD40KAVE	FXYD50KAVE	FXYD63KAVE
For Thailand	FXYD40KVES	FXYD50KVES	FXYD63KVES

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Ceiling Mounted Built-in Type

Model				FXS20LVE	FXS25LVE	FXS32LVE
★1 Cooling Capacity (19.5°CWB)			kcal/h	2,000	2,500	3,200
			Btu/h	7,800	9,900	12,600
			kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)			kW	2.2	2.8	3.6
★3 Heating Capacity			kcal/h	2,200	2,800	3,400
			Btu/h	8,500	10,900	13,600
			kW	2.5	3.2	4.0
Casing				Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)			mm	300×550×800	300×550×800	300×550×800
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch		mm	3×14×1.75	3×14×1.75	3×14×1.75
	Face Area		m²	0.088	0.088	0.088
Fan	Model			D18H3A	D18H3A	D18H3A
	Type			Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units		W	50×1	50×1	50×1
	Air Flow Rate (H/L)	(50Hz)	m³/min	9/6.5	9/6.5	9.5/7
		(60Hz)	m³/min	9/6.5	9/6.5	9.5/6.5
	★4 Static external pressure	(50Hz)	Pa	88-39-20	88-39-20	64-39-15
		(60Hz)	Pa	73-24-10	73-24-10	86-42-10
	Drive			Direct Drive	Direct Drive	Direct Drive
Temperature Control				Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material				Glass Fiber	Glass Fiber	Glass Fiber
Air Filter				Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes		mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes		mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe		mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)			kg	30	30	30
★6 Sound Level (H/L) (220V)			dBA	37/32	37/32	38/32
Safety Devices				Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control				Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit				R-22 : M Series	R-22 : M Series	R-22 : M Series
Decoration Panel (Option)	Model			BYBS32DJW1	BYBS32DJW1	BYBS32DJW1
	Panel Color			White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)		mm	55×650×500	55×650×500	55×650×500
	Weight		kg	3	3	3
Standard Accessories				Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.
Drawing No.				3D036931		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 Static external pressure is changeable to change over the connectors inside electrical box, this pressure means “High static pressure-Standard -Low static pressure”.

★5 Static external pressure is changeable to change over the connectors inside electrical box, this pressure means “High static pressure-Standard”.

6 Capacities are net, including a deduction for cooling (an additional for heating) for indoor fan motor heat.

★7 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Built-in Type

Model				FXS40LVE	FXS50LVE	FXS63LVE
★1 Cooling Capacity (19.5°CWB)			kcal/h	4,000	5,000	6,300
			Btu/h	16,000	19,800	24,900
			kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)			kW	4.5	5.6	7.1
★3 Heating Capacity			kcal/h	4,300	5,400	6,900
			Btu/h	17,000	21,500	27,300
			kW	5.0	6.3	8.0
Casing				Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)			mm	300×700×800	300×700×800	300×1,000×800
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch		mm	3×14×1.75	3×14×1.75	3×14×1.75
	Face Area		m²	0.132	0.132	0.221
Fan	Model			D18H2A	D18H2A	2D18H2A
	Type			Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units		W	65×1	85×1	125×1
	Air Flow Rate (H/L)	(50Hz)	m³/min	11.5/9	15/11	21/15.5
		(60Hz)	m³/min	11.5/9	15/11	21/14
	★4 Static external pressure	(50Hz)	Pa	88-49-20	88-59-29	88-49-20
		(60Hz)	Pa	88-29-10	88-41-10	122-66-10
	Drive			Direct Drive	Direct Drive	Direct Drive
Temperature Control				Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material				Glass Fiber	Glass Fiber	Glass Fiber
Air Filter				Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes		mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes		mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe		mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)			kg	30	31	41
★6 Sound Level (H/L)			dBA	38/32	41/36	42/35
Safety Devices				Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control				Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit				R-22 : M Series	R-22 : M Series	R-22 : M Series
Decoration Panel (Option)	Model			BYBS45DJW1	BYBS45DJW1	BYBS71DJW1
	Panel Color			White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)		mm	55×800×500	55×800×500	55×1,100×500
	Weight		kg	3.5	3.5	4.5
Standard Accessories				Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.
Drawing No.				3D036931		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
★4 Static external pressure is changeable to change over the connectors inside electrical box, this pressure means “High static pressure-Standard -Low static pressure”.
★5 Static external pressure is changeable to change over the connectors inside electrical box, this pressure means “High static pressure-Standard”.
6 Capacities are net, including a deduction for cooling (an additional for heating) for indoor fan motor heat.
★7 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Built-in Type

Model				FXS80LVE	FXS100LVE	FXS125LVE
★1 Cooling Capacity (19.5°CWB)			kcal/h	8,000	10,000	12,500
			Btu/h	31,700	39,600	49,500
			kW	9.3	11.6	14.5
★2 Cooling Capacity (19.0°CWB)			kW	9.0	11.2	14.0
★3 Heating Capacity			kcal/h	8,600	10,800	13,800
			Btu/h	34,100	42,700	54,600
			kW	10.0	12.5	16.0
Casing				Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)			mm	300×1,400×800	300×1,400×800	300×1,400×800
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch		mm	3×14×1.75	3×14×1.75	3×14×1.75
	Face Area		m^2	0.338	0.338	0.338
Fan	Model			3D18H2A	3D18H2A	3D18H2A
	Type			Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units		W	225×1	225×1	225×1
	Air Flow Rate (H/L)	(50Hz)	m^3/min	27/21.5	28/22	38/28
		(60Hz)	m^3/min	27/20.5	28/21	38/27
	★5 Static external pressure	(50Hz)	Pa	113-82	107-75	78-39
		(60Hz)	Pa	147-92	136-83	78-20
	Drive			Direct Drive	Direct Drive	Direct Drive
Temperature Control				Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material				Glass Fiber	Glass Fiber	Glass Fiber
Air Filter				Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes		mm	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes		mm	ϕ15.9 (Flare Connection)	ϕ19.1 (Flare Connection)	ϕ19.1 (Flare Connection)
	Drain Pipe		mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)			kg	51	51	52
★6 Sound Level (H/L)			dBA	43/37	43/37	46/41
Safety Devices				Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control				Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit				R-22 : M Series	R-22 : M Series	R-22 : M Series
Decoration Panel (Option)	Model			BYBS125DJW1	BYBS125DJW1	BYBS125DJW1
	Panel Color			White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
	Dimensions: (H×W×D)		mm	55×1,500×500	55×1,500×500	55×1,500×500
	Weight		kg	6.5	6.5	6.5
Standard Accessories				Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws, Washers.
Drawing No.				3D036931		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
★4 Static external pressure is changeable to change over the connectors inside electrical box, this pressure means “High static pressure-Standard -Low static pressure”.
★5 Static external pressure is changeable to change over the connectors inside electrical box, this pressure means “High static pressure-Standard”.
6 Capacities are net, including a deduction for cooling (an additional for heating) for indoor fan motor heat.
★7 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Ceiling Mounted Built-in (Rear Suction Type)

Model			FXYB20KV1	FXYB25KV1	FXYB32KV1
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,800	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	300×550×800	300×550×800	300×550×800
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.75	3×14×1.75	3×14×1.75
	Face Area	m^2	0.088	0.088	0.088
Fan	Model		D18H3AA1V1	D18H3AA1V1	D18H3AA1V1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	50×1	50×1	50×1
	Air Flow Rate (H/L)	m^3/min	9/6.5	9/6.5	9/6.5
		cfm	318/230	318/230	318/230
	★4 External Static Pressure	Pa	88-39-20	88-39-20	88-39-20
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber	Glass Fiber	Glass Fiber
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	30	30	30
★6 Sound Level (H/L) (220V)		dBA	27/23	27/23	27/23
Safety Devices			Fuse Thermal Protector for Fan Motor	Fuse Thermal Protector for Fan Motor	Fuse Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.
Drawing No.			C : 3D023749		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to change over the connectors inside electrical box, this pressure means "High static pressure-Standard-Low static pressure".

5 Capacities are net, including a deduction for cooling (an additional for heating) for indoor fan motor heat.

★6 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Ceiling Mounted Built-in (Rear Suction Type)

Model			FXYB40KV1	FXYB50KV1	FXYB63KV1
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	16,000	19,800	24,900
		kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1
★3 Heating Capacity		kcal/h	4,300	5,400	6,900
		Btu/h	17,000	21,500	27,300
		kW	5.0	6.3	8.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	300×700×800	300×700×800	300×1,000×800
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.75	3×14×1.75	3×14×1.75
	Face Area	m²	0.132	0.132	0.221
Fan	Model		D18H2AC1V1	D18H2AB1V1	2D18H2AB1V1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	65×1	85×1	125×1
	Air Flow Rate (H/L)	m³/min	11.5/9	14/10	19/14
		cfm	406/318	494/353	671/494
	★4 External Static Pressure	Pa	88-49-20	88-49-20	88-49-20
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber	Glass Fiber	Glass Fiber
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	30	31	41
★6 Sound Level (H/L)		dBA	28/24	30/25	32/25
Safety Devices			Fuse Thermal Protector for Fan Motor	Thermal Protector for Fan Motor	Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.
Drawing No.			C : 3D023749		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to change over the connectors inside electrical box, this pressure means "High static pressure-Standard-Low static pressure".

5 Capacities are net, including a deduction for cooling (an additional for heating) for indoor fan motor heat.

★6 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Built-in (Rear Suction Type)

Model			FXYB80KV1	FXYB100KV1	FXYB125KV1
★1 Cooling Capacity (19.5°CWB)		kcal/h	8,000	10,000	12,500
		Btu/h	31,700	39,600	49,500
		kW	9.3	11.6	14.5
★2 Cooling Capacity (19.5°CWB)		kW	9.0	11.2	14.0
★3 Heating Capacity		kcal/h	8,600	10,800	13,800
		Btu/h	34,100	42,700	54,600
		kW	10.0	12.5	16.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	300×1,400×800	300×1,400×800	300×1,400×800
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.75	3×14×1.75	3×14×1.75
	Face Area	m²	0.338	0.338	0.338
Fan	Model		3D18H2AH1V1	3D18H2AH1V1	3D18H2AG1V1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	135×1	135×1	225×1
	Air Flow Rate (H/L)	m³/min	27/20	27/20	35/24
		cfm	953/706	953/706	1,236/847
	★4 External Static Pressure	Pa	88-49	88-49	88-49
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber	Glass Fiber	Glass Fiber
Piping Connections	Liquid Pipes	mm	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ15.9 (Flare Connection)	ϕ19.1 (Flare Connection)	ϕ19.1 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	51	51	52
★6 Sound Level (H/L)		dBA	32/27	32/27	34/27
Safety Devices			Thermal Fuse for Fan Motor	Thermal Fuse for Fan Motor	Fuse Thermal Fuse for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Sealing Pads, Clamps, Fuses, Screws, Washers.
Drawing No.			C : 3D023749		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to change over the connectors inside electrical box, this pressure means "High static pressure-Standard".

5 Capacities are net, including a deduction for cooling (an additional for heating) for indoor fan motor heat.

★6 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Duct Type

Model			FXM40LVE	FXM50LVE	FXM63LVE	FXM80LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300	8,000
		Btu/h	16,000	19,800	24,900	31,700
		kW	4.7	5.8	7.3	9.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1	9.0
★3 Heating Capacity		kcal/h	4,300	5,400	6,900	8,600
		Btu/h	17,000	21,500	27,300	34,100
		kW	5.0	6.3	8.0	10.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	390×720×690	390×720×690	390×720×690	390×1,110×690
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×16×2.0	3×16×2.0	3×16×2.0	3×16×2.0
	Face Area	m²	0.181	0.181	0.181	0.319
Fan	Model		D11/2D3AB1VE	D11/2D3AB1VE	D11/2D3AA1VE	2D11/2D3AG1VE
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	100×1	100×1	160×1	270×1
	Air Flow Rate (H/L)	m³/min	14/11.5	14/11.5	19.5/16	29/23
		cfm	494/406	494/406	688/565	1,024/812
	External Static Pressure 50/60Hz	Pa	157/157-118/108 ★4	157/157-118/108 ★4	157/160-108/98 ★4	157/172-98/98 ★4
	Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber	Glass Fiber	Glass Fiber	Glass Fiber
Air Filter			★5	★5	★5	★5
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Machine Weight (Mass)		kg	44	44	45	62
★7 Sound Level (H/L)		dBA	39/35	39/35	42/38	43/39
Safety Devices			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 ; M Series	R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws.
Drawing No.			3D034584A			

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

★4 External static pressure is changeable to change over the connectors inside electrical box, this pressure means "High static pressure-Standard".

★5 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.

6 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★7 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Mounted Duct Type

Model			FXM100LVE	FXM125LVE	FXM200LVE	FXM250LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	10,000	12,500	19,800	24,800
		Btu/h	39,600	49,500	78,500	98,300
		kW	11.6	14.5	23.0	28.8
★2 Cooling Capacity (19.0°CWB)		kW	11.2	14.0	22.4	28.0
★3 Heating Capacity		kcal/h	10,800	13,800	21,500	27,000
		Btu/h	42,700	54,600	85,300	107,500
		kW	12.5	16.0	25.0	31.5
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	390×1,110×690	390×1,110×690	470×1,380×1,100	470×1,380×1,100
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×16×2.0	3×16×2.0	3×26×2.0	3×26×2.0
	Face Area	m²	0.319	0.319	0.68	0.68
Fan	Model		2D11/2D3AG1VE	2D11/2D3AF1VE	D13/4G2DA1×2	D13/4G2DA1×2
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	270×1	430×1	380×2	380×2
	Air Flow Rate (H/L)	m³/min	29/23	36/29	58/50	72/62
		cfm	1,024/812	1,271/1,024	2,047/1,765	2,542/2,189
	External Static Pressure 50/60Hz	Pa	157/172-98/98 ★4	191/245-152/172 ★4	221/270-132 ★4	270/191-147 ★4
	Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber	Glass Fiber	Glass Fiber	Glass Fiber
Air Filter			★5	★5	★5	★5
Piping Connections	Liquid Pipes	mm	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Gas Pipes	mm	ϕ19.1 (Flare Connection)	ϕ19.1 (Flare Connection)	ϕ25.4 (Brazing Connection)	ϕ28.6 (Brazing Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 / Internal Dia. 25)	VP25 (External Dia. 32 / Internal Dia. 25)	PS1B	PS1B
Machine Weight (Mass)		kg	63	65	137	137
★8 Sound Level (H/L)		dBA	43/39	45/42	48/45	48/45
Safety Devices			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 ; M Series	R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws.	Operation Manual, Installation Manual, Drain Hose, Clamp Metal, Insulation for Fitting, Sealing Pads, Clamps, Screws.	Operation Manual, Installation Manual, Sealing Pads, Connection Pipes, Screws, Clamps.	Operation Manual, Installation Manual, Sealing Pads, Connection Pipes, Screws, Clamps.
Drawing No.			3D034584A			

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
★4 External static pressure is changeable to change over the connectors inside electrical box, this pressure means "High static pressure-Standard".
★5 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.
6 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
★7 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Ceiling Suspended Type

Model			FXH32LVE	FXH63LVE	FXH100LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	3,200	6,300	10,000
		Btu/h	12,600	24,900	39,600
		kW	3.7	7.3	11.6
★2 Cooling Capacity (19.0°CWB)		kW	3.6	7.1	11.2
★3 Heating Capacity		kcal/h	3,400	6,900	10,800
		Btu/h	13,600	27,300	42,700
		kW	4.0	8.0	12.5
Casing Color			White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
Dimensions: (H×W×D)		mm	195×960×680	195×1,160×680	195×1,400×680
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×12×1.75	3×12×1.75	3×12×1.75
	Face Area	m^2	0.182	0.233	0.293
Fan	Model		3D12K1AA1	4D12K1AA1	3D12K2AA1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	62×1	62×1	130×1
	Air Flow Rate (H/L)	m^3/min	12/10	17.5/14	25/19.5
		cfm	424/353	618/494	883/688
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Wool	Glass Wool	Glass Wool
Air Filter			Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ19.1 (Flare Connection)
	Drain Pipe	mm	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)
Machine Weight (Mass)		kg	24	28	33
★5 Sound Level (H/L)		dBA	36/31	39/34	45/37
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22 ; M Series	R-22 ; M Series	R-22 ; M Series
Standard Accessories			Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Clamps, Washers, Flare Nut.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Clamps, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Clamps, Washers.
Drawing No.			3D035297		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Wall Mounted Type

Model			FXA20LVE	FXA25LVE	FXA32LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,800	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing Color			White (3.0Y8.5/0.5)	White (3.0Y8.5/0.5)	White (3.0Y8.5/0.5)
Dimensions: (H×W×D)		mm	290×795×230	290×795×230	290×795×230
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×14×1.4	2×14×1.4	2×14×1.4
	Face Area	m^2	0.161	0.161	0.161
Fan	Model		—	—	—
	Type		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output × Number of Units	W	40×1	40×1	40×1
	Air Flow Rate (H/L)	m^3/min	7.5/4.5	8/5	9/5.5
		cfm	265/159	282/177	318/194
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Foamed Polystyrene / Foamed Polyethylene	Foamed Polystyrene / Foamed Polyethylene	Foamed Polystyrene / Foamed Polyethylene
Air Filter			Resin Net (Washable)	Resin Net (Washable)	Resin Net (Washable)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	mm	VP13 (External Dia. 18 Internal Dia. 13)	VP13 (External Dia. 18 Internal Dia. 13)	VP13 (External Dia. 18 Internal Dia. 13)
Machine Weight (Mass)		kg	11	11	11
★5 Sound Level (H/L)		dBA	35/29	36/29	37/29
Safety Devices			Fuse	Fuse	Fuse
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22: M Series	R-22: M Series	R-22: M Series
Standard Accessories			Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.	Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.	Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.
Drawing No.			3D034904B		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length:7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Wall Mounted Type

Model			FXA40LVE	FXA50LVE	FXA63LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	16,000	19,800	24,900
		kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1
★3 Heating Capacity		kcal/h	4,300	5,400	6,900
		Btu/h	17,000	21,500	27,300
		kW	5.0	6.3	8.0
Casing Color			White (3.0Y8.5/0.5)	White (3.0Y8.5/0.5)	White (3.0Y8.5/0.5)
Dimensions: (H×W×D)		mm	290×1,050×230	290×1,050×230	290×1,050×230
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×14×1.4	2×14×1.4	2×14×1.4
	Face Area	m²	0.213	0.213	0.213
Fan	Model		—	—	—
	Type		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output × Number of Units	W	43×1	43×1	43×1
	Air Flow Rate (H/L)	m³/min	12/9	15/12	19/14
		cfm	424/318	530/424	671/494
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Foamed Polystyrene / Foamed Polyethylene	Foamed Polystyrene / Foamed Polyethylene	Foamed Polystyrene / Foamed Polyethylene
Air Filter			Resin Net (Washable)	Resin Net (Washable)	Resin Net (Washable)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	VP13 (External Dia. 18 Internal Dia. 13)	VP13 (External Dia. 18 Internal Dia. 13)	VP13 (External Dia. 18 Internal Dia. 13)
Machine Weight (Mass)		kg	14	14	14
★5 Sound Level (H/L)		dBA	39/34	42/36	46/39
Safety Devices			Fuse	Fuse	Fuse
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R-22: M Series	R-22: M Series	R-22: M Series
Standard Accessories			Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.	Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.	Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.
Drawing No.			3D034904B		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp; 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Floor Standing Type

Model			FXL20LVE	FXL25LVE	FXL32LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,800	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing Color			Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
Dimensions: (H×W×D)		mm	600×1,000×222	600×1,000×222	600×1,140×222
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.5	3×14×1.5	3×14×1.5
	Face Area	m²	0.159	0.159	0.200
Fan	Model		D14B20	D14B20	2D14B13
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	15×1	15×1	25×1
	Air Flow Rate (H/L)	m³/min	7/6	7/6	8/6
		cfm	247/212	247/212	282/212
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber/ Urethane Foam	Glass Fiber/ Urethane Foam	Glass Fiber/ Urethane Foam
Air Filter			Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	mm	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)
Machine Weight (Mass)		kg	25	25	30
★5 Sound Level (H/L)		dBA	35/32	35/32	35/32
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.
Drawing No.			3D034576A		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m³/min×35.3

Floor Standing Type

Model			FXL40LVE	FXL50LVE	FXL63LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	16,000	19,800	24,900
		kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1
★3 Heating Capacity		kcal/h	4,300	5,400	6,900
		Btu/h	17,000	21,500	27,300
		kW	5.0	6.3	8.0
Casing Color			Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
Dimensions: (H×W×D)		mm	600×1,140×222	600×1,420×222	600×1,420×222
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.5	3×14×1.5	3×14×1.5
	Face Area	m^2	0.200	0.282	0.282
Fan	Model		2D14B13	2D14B20	2D14B20
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	25×1	35×1	35×1
	Air Flow Rate (H/L)	m^3/min	11/8.5	14/11	16/12
		cfm	388/300	494/388	565/424
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber/ Urethane Foam	Glass Fiber/ Urethane Foam	Glass Fiber/ Urethane Foam
Air Filter			Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)
Machine Weight (Mass)		kg	30	36	36
★5 Sound Level (H/L)		dBA	38/33	39/34	40/35
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.
Drawing No.			3D034576A		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Concealed Floor Standing Type

Model			FXN20LVE	FXN25LVE	FXN32LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,200
		Btu/h	7,800	9,900	12,600
		kW	2.3	2.9	3.7
★2 Cooling Capacity (19.0°CWB)		kW	2.2	2.8	3.6
★3 Heating Capacity		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
		kW	2.5	3.2	4.0
Casing Color			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	610×930×220	610×930×220	610×1,070×220
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.5	3×14×1.5	3×14×1.5
	Face Area	m^2	0.159	0.159	0.200
Fan	Model		D14B20	D14B20	2D14B13
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	15×1	15×1	25×1
	Air Flow Rate (H/L)	m^3/min	7/6	7/6	8/6
		cfm	247/212	247/212	282/212
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber/ Urethane Foam	Glass Fiber/ Urethane Foam	Glass Fiber/ Urethane Foam
Air Filter			Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)	ϕ6.4 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)	ϕ12.7 (Flare Connection)
	Drain Pipe	mm	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)
Machine Weight (Mass)		kg	19	19	23
★5 Sound Level (H/L)		dBA	35/32	35/32	35/32
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.
Drawing No.			3D034577A		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

Concealed Floor Standing Type

Model			FXN40LVE	FXN50LVE	FXN63LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	16,000	19,800	24,900
		kW	4.7	5.8	7.3
★2 Cooling Capacity (19.0°CWB)		kW	4.5	5.6	7.1
★3 Heating Capacity		kcal/h	4,300	5,400	6,900
		Btu/h	17,000	21,500	27,300
		kW	5.0	6.3	8.0
Casing Color			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	610×1,070×220	610×1,350×220	610×1,350×220
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.5	3×14×1.5	3×14×1.5
	Face Area	m^2	0.200	0.282	0.282
Fan	Model		2D14B13	2D14B20	2D14B20
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	25×1	35×1	35×1
	Air Flow Rate (H/L)	m^3/min	11/8.5	14/11	16/12
		cfm	388/300	494/388	565/424
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Fiber / Urethane Foam	Glass Fiber / Urethane Foam	Glass Fiber / Urethane Foam
Air Filter			Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ15.9 (Flare Connection)
	Drain Pipe	mm	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)	ϕ21 O.D (Vinyl Chloride)
Machine Weight (Mass)		kg	23	27	27
★5 Sound Level (H/L)		dBA	38/33	39/34	40/35
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-22 : M Series	R-22 : M Series	R-22 : M Series
Standard Accessories			Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.	Operation Manual, Installation Manual, Insulation for Fitting, Drain Hose, Clamps, Screws, Washers, Level Adjustment Screw.
Drawing No.			3D034577A		

Notes:

★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.

★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)

4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

★5 Operation sound is measured in an anechoic chamber.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3412 cfm=m^3/min×35.3

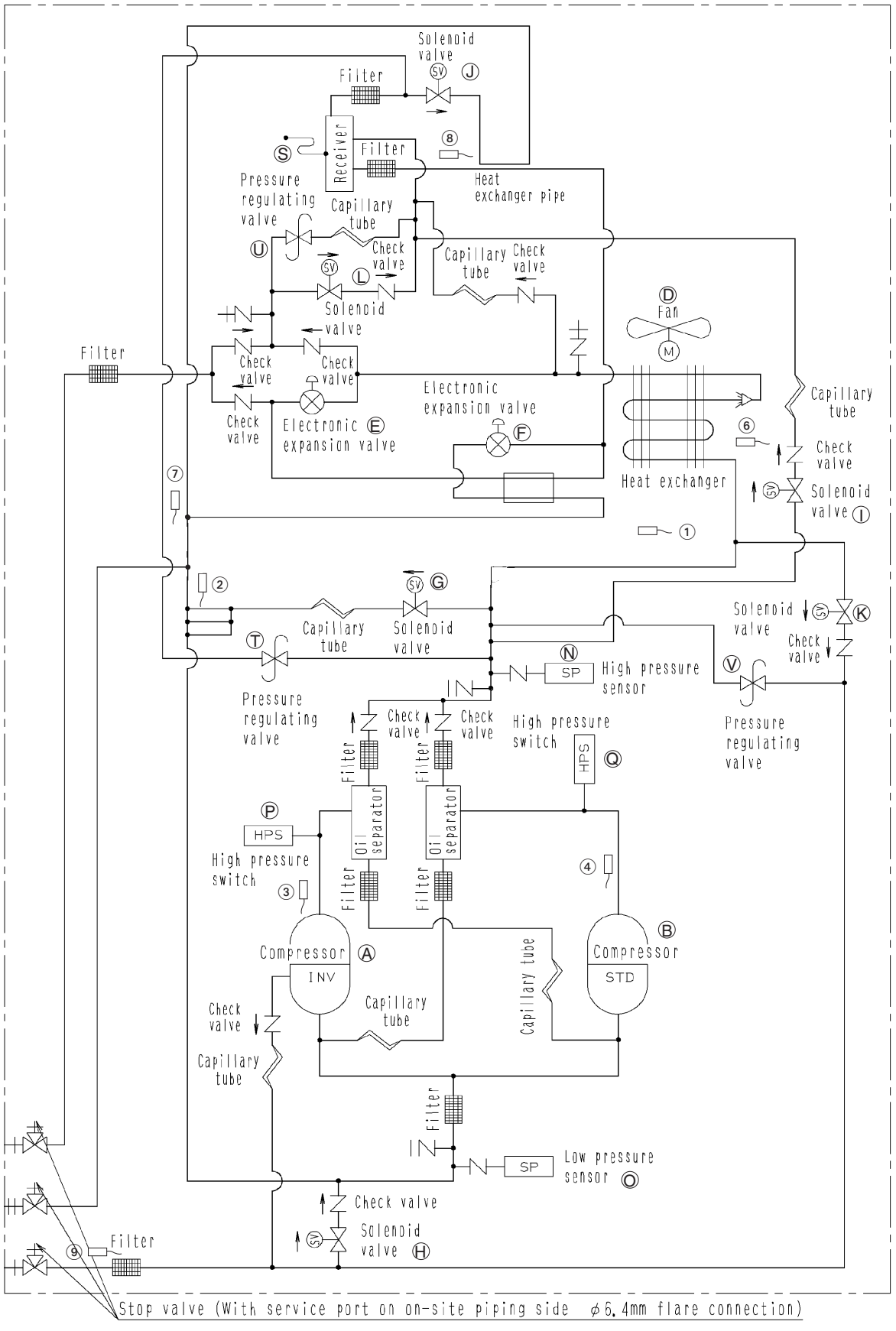
Part 3
Refrigerant Circuit

1. Refrigerant Circuit

1.1 RXM8, 10M

No. in refrigerant system diagram	Symbol	Name	Major Function
A	M1C	Inverter compressor (INV)	Inverter compressor is operated on frequencies between 52 Hz and 210 Hz by using the inverter, while Standard compressor is operated with commercial power supply only. The number of operating steps is as follows when Inverter compressor is operated in combination with Standard compressor. RXM8, 10M: 29 steps
B	M2C	Standard compressor 1 (STD1)	
D	M1F	Inverter fan	Since the system is of air heat exchanging type, the fan is operated at 8-step rotation speed by using the inverter.
E	Y1E	Electronic expansion valve (Main: EV1)	While in heating operation, PI control is applied to keep the outlet superheated degree of air heat exchanger constant.
F	Y2E	Electronic expansion valve (Subcool: EV2)	PI control is applied to keep the outlet superheated degree of subcooling heat exchanger constant.
G	Y1S	Solenoid valve (Hot gas: SVP)	Used to prevent the low pressure from transient falling.
H	Y2S	Solenoid valve (Oil equalization: SVO)	Used for oil equalizing among outdoor units in multiple-outdoor-unit system.
I	Y3S	Solenoid valve (Receiver gas charging: SVL)	Used to maintain high pressure while in cooling operation at low outdoor temperature. And also used to prevent the accumulation of refrigerant in non-operating outdoor units in the case of multiple-outdoor-unit system.
J	Y4S	Solenoid valve (Receiver gas discharging: SVG)	Used to collect refrigerant to receiver.
K	Y5S	Solenoid valve (Non-operating unit gas discharging SVSG)	Used to prevent the accumulation of refrigerant in non-operating outdoor units in the case of multiple-outdoor-unit system.
L	Y6S	Solenoid valve Non-operating unit liquid pipe closing: SVSL)	Used to prevent the accumulation of refrigerant in non-operating outdoor units in the case of multi-outdoor unit system.
N	S1NPH	High pressure sensor	Used to detect high pressure.
O	S1NPL	Low pressure sensor	Used to detect low pressure.
P	S1PH	HP pressure switch (For INV compressor)	In order to prevent the increase of high pressure when a malfunction occurs, this switch is activated at high pressure of 2.7 MPa or more to stop the compressor operation.
Q	S2PH	HP pressure switch (For STD compressor 2)	
S	—	Fusible plug	In order to prevent the increase of pressure when abnormal heating is caused by fire or others, the fusible part of the plug is molten at a temperature of 70 to 75°C to release the pressure into the atmosphere.
T	—	Pressure regulating valve 1 (Receiver to discharge pipe)	This valve opens at a pressure of 1.5 to 2.0 MPa for prevention of pressure increase, thus resulting in no damage of functional parts due to the increase of pressure in transportation or storage.
U	—	Pressure regulating valve 2 (Liquid pipe to receiver)	
V	—	Pressure regulating valve 3 (Equalizing pipe to discharge pipe)	
1	R1T	Thermistor (Outdoor air: Ta)	Used to detect outdoor temperature, correct discharge pipe temperature, and others.
2	R2T	Thermistor (Suction pipe: Ts)	used to detect suction pipe temperature, keep the suction superheated degree constant in heating operation, and others.
3	R31T	Thermistor (INV discharge pipe: Tdi)	used to detect discharge pipe temperature, make the temperature protection control of compressor, and others.
4	R32T	Thermistor (STD1 discharge pipe: Tds1)	
6	R4T	Thermistor (Heat exchanger deicer: Tb)	Used to detect liquid pipe temperature of air heat exchanger, determine defrosting operation, and others.
7	R5T	Thermistor (Subcooling heat exchanger gas pipe: Tsh)	Used to detect gas pipe temperature on the evaporation side of subcooling heat exchanger, keep the superheated degree at the outlet of subcooling heat exchanger constant, and others.
8	R6T	Thermistor (Receiver outlet liquid pipe: Tl)	Used to detect receiver outlet liquid pipe temperature, prevent the drift between outdoor units while in heating operation in the case of multiple-outdoor-unit system, and others.
9	R7T	Thermistor (Oil equalizing pipe: To)	Used to detect equalizing pipe temperature, opening/closing of the equalizing pipe stop valve, and others.

RXM8, 10M

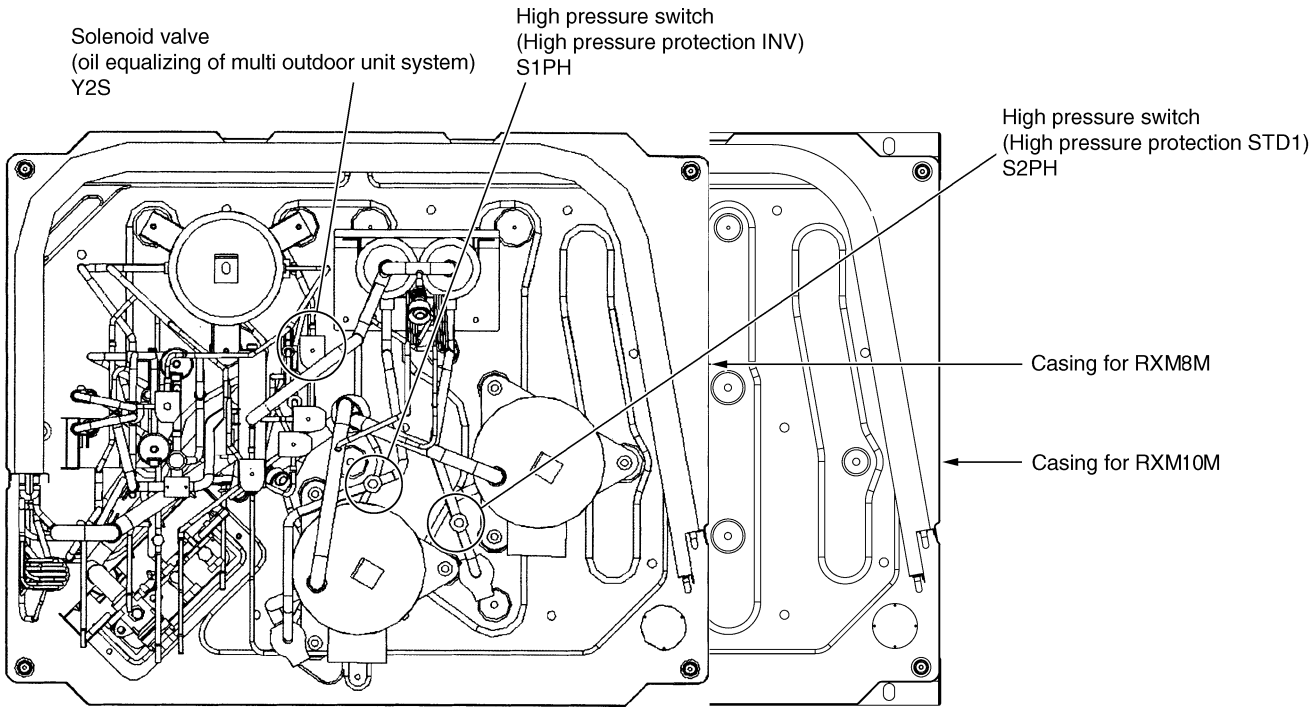


C: 4D041809A

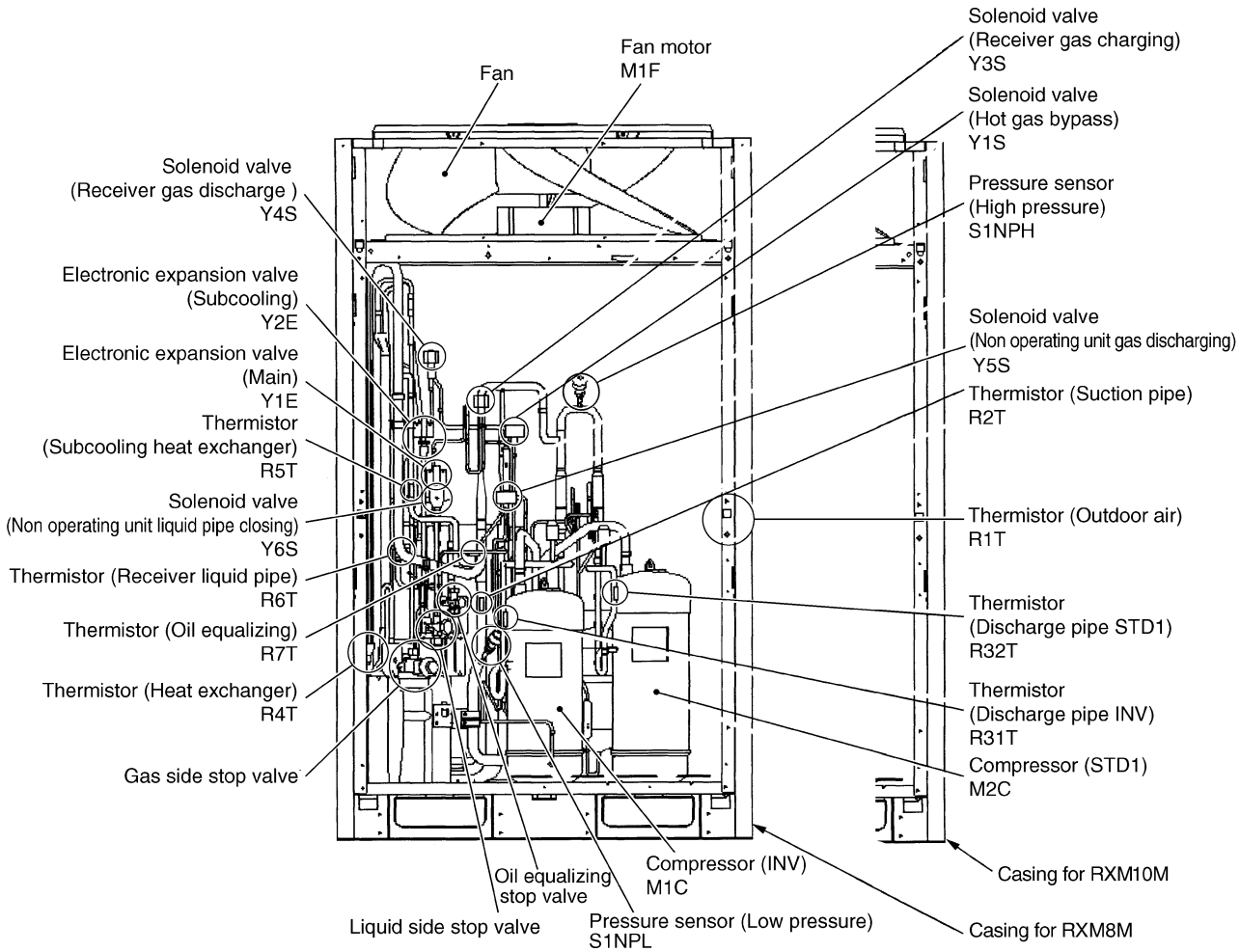
2. Functional Parts Layout

2.1 RXM8, 10M

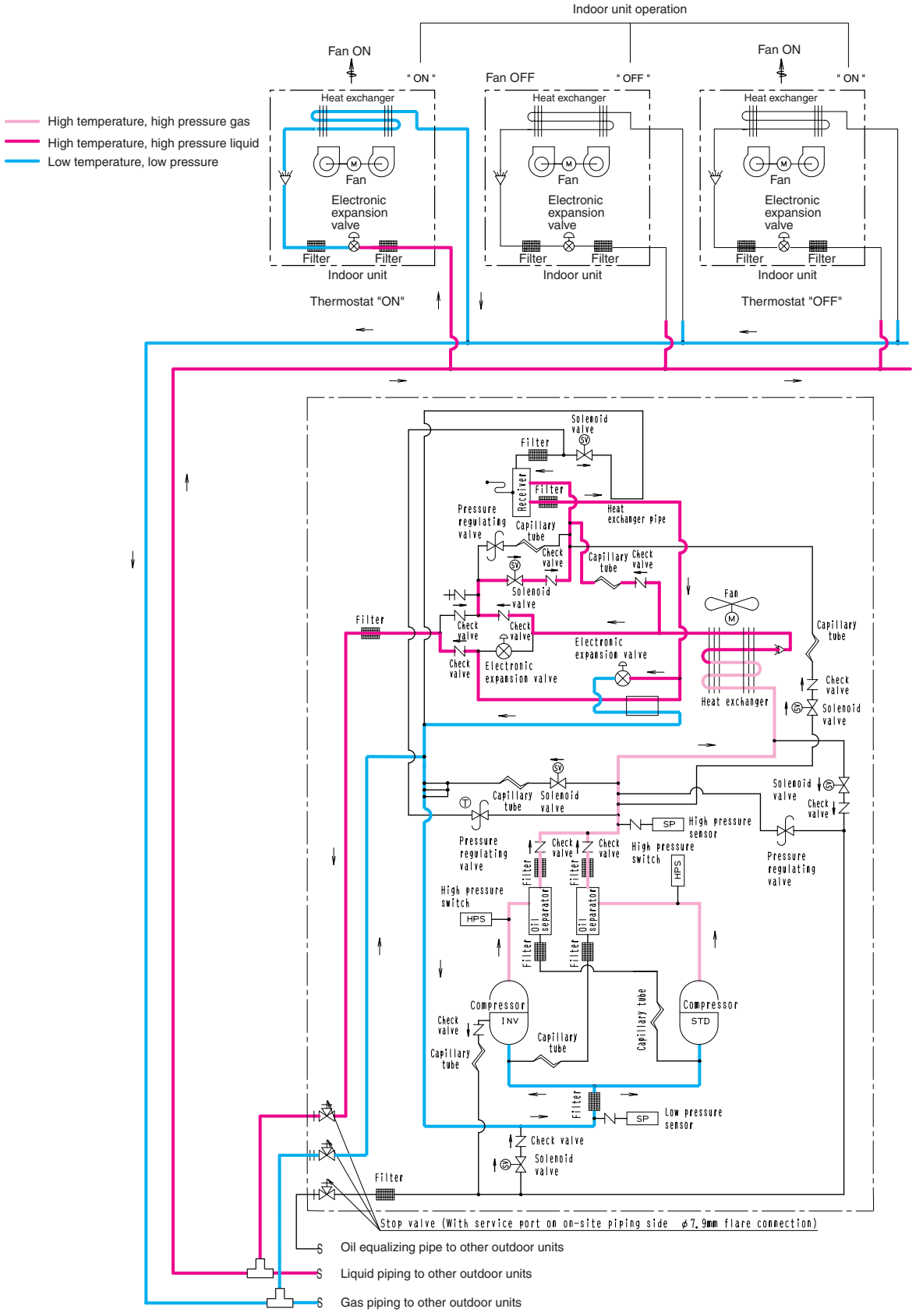
Plan



Front View

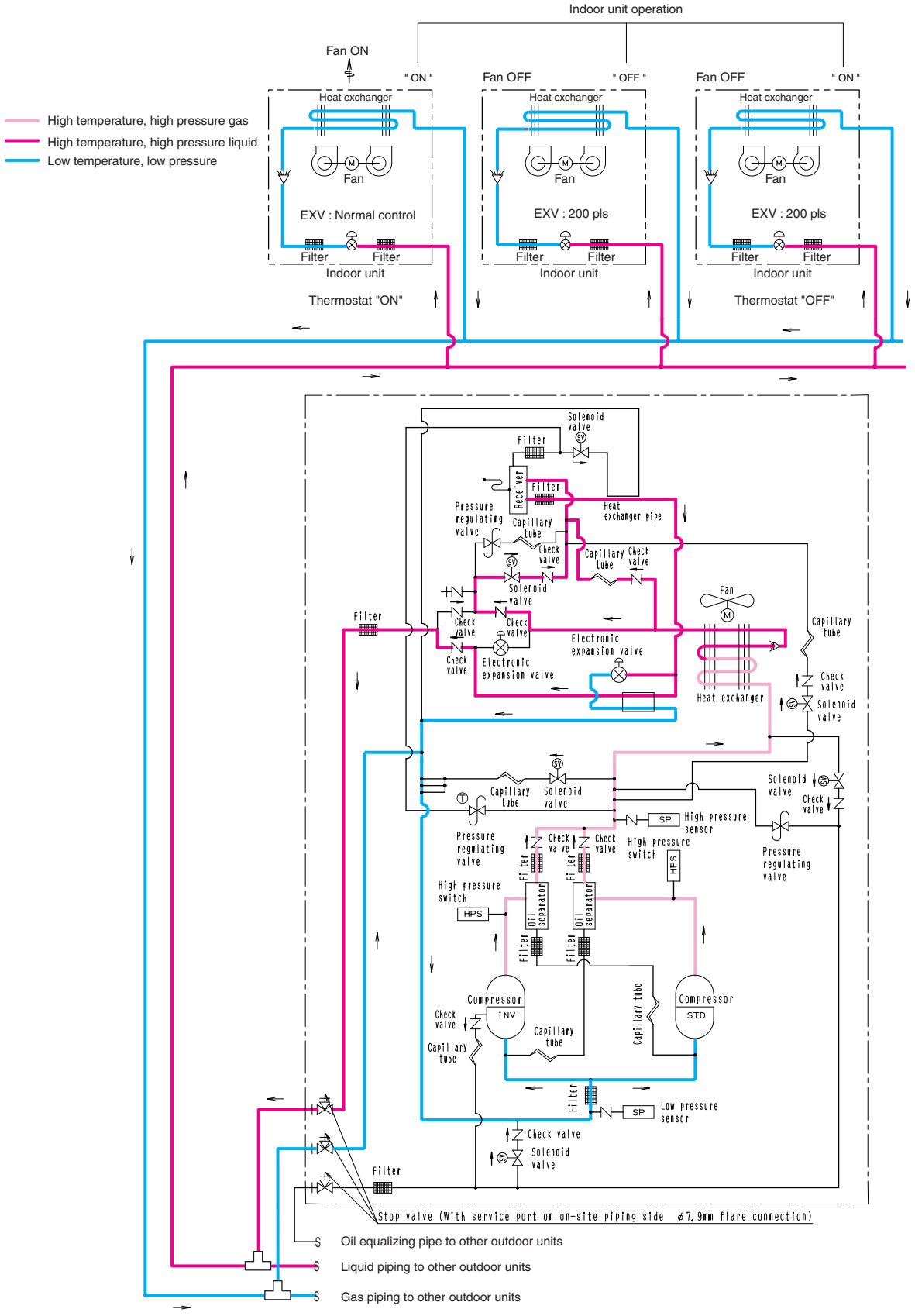


RXM8, 10M
Cooling Operation



C : 4D041809A

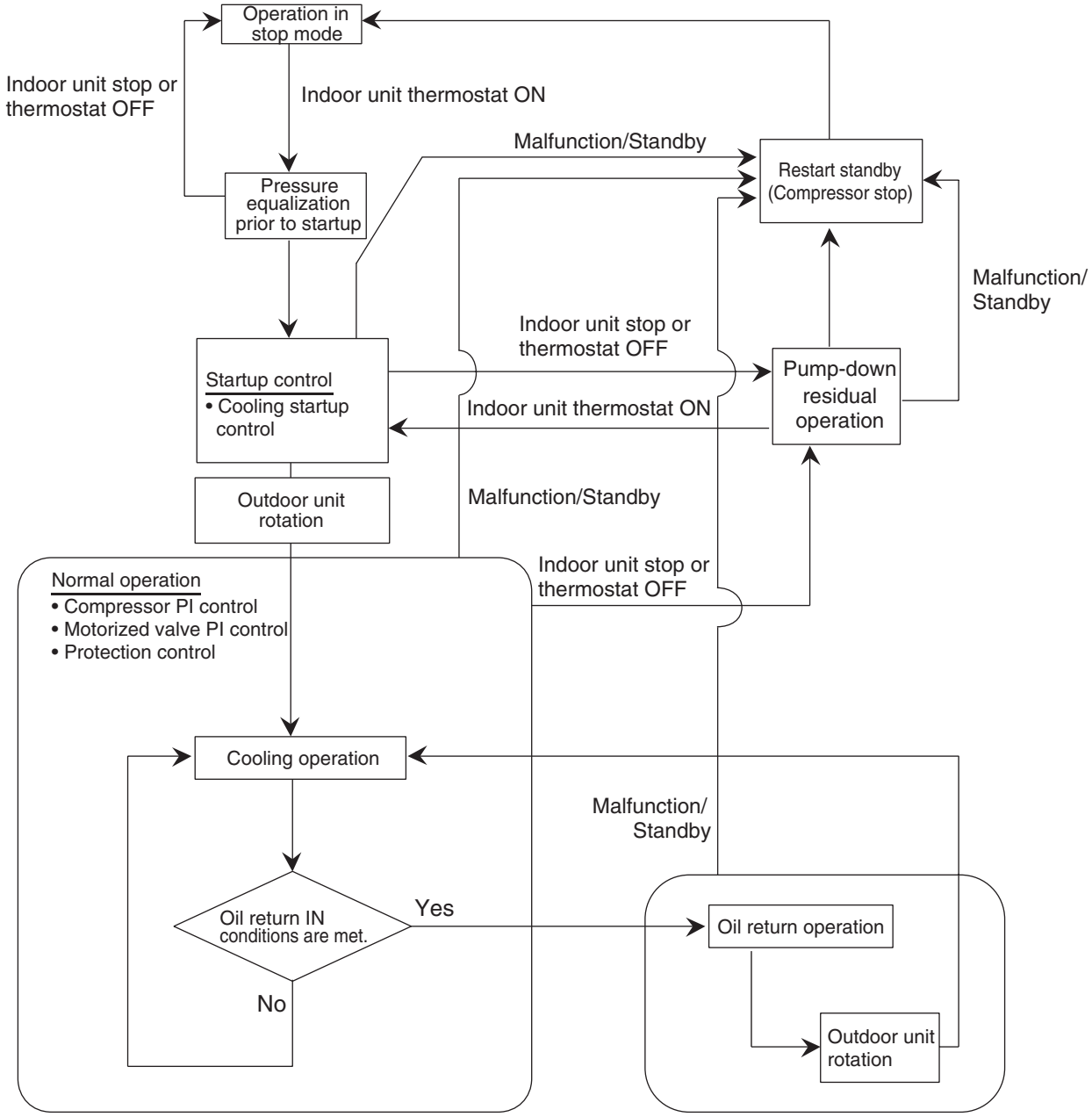
Cooling Oil Return Operation



C : 4D041809A

Part 4
Function

1. Operation Mode



*)
In the event indoor unit stops or the thermostat turns OFF while in oil return operation pump-down residual operation is performed on completion of the oil return operation.

2. Basic Control

2.1 Normal Operation

■ Cooling Operation

Actuator	Operation	Remarks
Compressor	Compressor PI control	Used for high pressure protection control, low pressure protection control, discharge pipe temperature protection control, and compressor operating frequency upper limit control with inverter protection control.
Outdoor unit fan	Cooling fan control	—
Main motorized valve (EV1)	0 pls	—
Subcooling motorized valve (EV2)	PI control	—
Hot gas bypass valve (SVP)	OFF	This valve turns on with low pressure protection control.
Oil equalization valve (SVO)	ON	In the case of multi-outdoor-unit system, this valve repeats ON/OFF operation at regular intervals of time.
Receiver gas charging valve (SVL)	OFF	This valve turns on when outdoor temperature is low.
Receiver gas discharging valve (SVG)	OFF	—
Non-operating unit gas discharging valve (SVSG)	OFF	—
Non-operating unit liquid pipe stop valve (SVSL)	ON	—

2.2 Compressor PI Control

Compressor PI Control

Carries out the compressor capacity PI control to maintain Te at constant during cooling operation and Tc at constant during heating operation to ensure stable unit performance.

[Cooling operation]

Controls compressor capacity to adjust Te to achieve target value (TeS).

Te : Low pressure equivalent saturation temperature (°C)

TeS : Target Te value
(Varies depending on Te setting, operating frequency, etc.)

Te setting

L	M (Normal) (factory setting)	H
3	6	9

■ Compressor Step Control

RXM8, 10M

STEP	INV	STD1
1	52Hz	OFF
2	57Hz	OFF
3	62Hz	OFF
4	68Hz	OFF
5	74Hz	OFF
6	81Hz	OFF
7	88Hz	OFF
8	96Hz	OFF
9	104Hz	OFF
10	110Hz	OFF
11	116Hz	OFF
12	124Hz	OFF
13	133Hz	OFF
14	143Hz	OFF
15	158Hz	OFF
16	165Hz	OFF
17	177Hz	OFF
18	189Hz	OFF
19	202Hz	OFF
20	210Hz	OFF
21	52Hz	ON
22	74Hz	ON
23	96Hz	ON
24	116Hz	ON
25	133Hz	ON
26	158Hz	ON
27	177Hz	ON
28	202Hz	ON
29	210Hz	ON

Notes:

1. INV : Inverter compressor
   STD1 : Standard compressor 1
2. Depending on the operating conditions of compressors, the compressors may run in patterns other than those aforementioned.

2.3 Electronic Expansion Valve PI Control

Main Motorized Valve EV1 Control

Carries out the motorized valve (Y1E) PI control to maintain the evaporator outlet superheated degree (SH) at constant during heating operation to make maximum use of the outdoor unit heat exchanger (evaporator).

SH = Ts - Te

SH : Evaporator outlet superheated degree (°C)

Ts : Suction pipe temperature detected by thermistor R2T (°C)

Te : Low pressure equivalent saturation temperature (°C)

The optimum initial value of the evaporator outlet superheated degree is 5°C, but varies depending on the discharge pipe superheated degree of inverter compressor.

Subcooling Motorized Valve EV2 Control

Makes PI control of the motorized valve (Y2E) to keep the superheated degree of the outlet gas pipe on the evaporator side for the full use of the subcooling heat exchanger.

SH = Tsh -Te

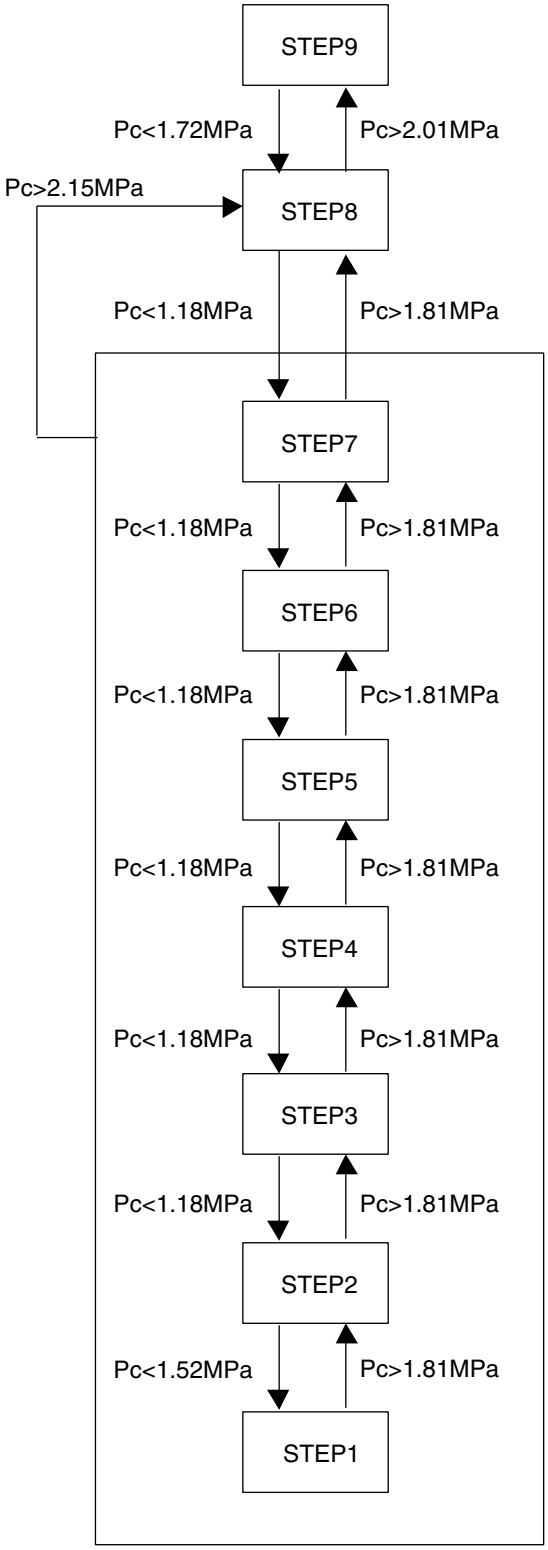
SH : Outlet superheated degree of evaporator (°C)

Tsh : Suction pipe temperature detected with the thermistor R5T (°C)

Te : Low pressure equivalent saturation temperature (°C)

2.4 Cooling Operation Fan Control

In cooling operation with low outdoor air temperature, this control is used to provide the adequate amount of circulation air with liquid pressure secured by high pressure control using outdoor unit fan.



Pc: HP pressure sensor detection value

Fan Steps

	RXM8M	RXM10M
STEP1	0rpm	0rpm
STEP2	300rpm	300rpm
STEP3	320rpm	325rpm
STEP4	345rpm	355rpm
STEP5	385rpm	400rpm
STEP6	465rpm	500rpm
STEP7	575rpm	630rpm
STEP8	765rpm	880rpm
STEP9	825rpm	920rpm

3. Special Control

3.1 Startup Control

3.1.1 Startup Control in Cooling Operation

Actuator	Operation	Remarks
Compressor	Differential pressure control	Compressor operating frequency increases by 2 step / 20 sec until Pc - Pe>0.4 MPa.
Outdoor unit fan	High pressure control	Initial compressor operating frequency is set to STEP 1. 1-step increase with Pc>1.5 MPa 1-step decrease with Pc<1.2 MPa
Main motorized valve (EV1)	0 pls	—
Subcooling motorized valve (EV2)	0 pls	—
Hot gas bypass valve (SVP)	ON	—
Oil equalization valve (SVO)	ON	In the case of multi-outdoor-unit system, this valve repeats ON/OFF operation at regular intervals of time to equalize the oil level of each outdoor unit.
Receiver gas charging valve (SVL)	OFF	—
Receiver gas discharging valve (SVG)	OFF	—
Non-operating unit gas discharging valve (SVSG)	OFF	—
Non-operating unit liquid pipe stop valve (SVSL)	ON	—
Ending conditions	or • 200 sec. • Pc - Pe>0.4 MPa	

3.2 Oil Return Operation

3.2.1 Oil Return Operation in Cooling Operation

Outdoor unit actuator	Oil return preparation operation	Oil return operation	Post-oil-return operation
Compressor	Upper limit control	124 Hz + ON + OFF	124 Hz + ON + OFF
Outdoor unit fan	Fan control	Fan control	Fan control
Main motorized valve (EV1)	0 pls	0 pls	0 pls
Subcooling motorized valve (EV2)	SH control	0 pls	0 pls
Hot gas bypass valve (SVP)	OFF	ON	ON
Oil equalization valve (SVO)	ON	ON	ON
Receiver gas charging valve (SVL)	OFF	OFF	OFF
Receiver gas discharging valve (SVG)	OFF	OFF	OFF
Non-operating unit gas discharging valve (SVSG)	OFF	OFF	OFF
Non-operating unit liquid pipe stop valve (SVSL)	ON	ON	ON
Ending conditions	20 sec.	or • 3 min. • Ts - Te<5	10 sec.

* In the case of multi-outdoor-unit system,
  Master unit: Performs the operations listed in the table above.
  Slave units: Operating units perform the operations listed in the table above.
  Non-operating units perform the operations listed in the table above from the oil return operation.
  (Non-operating unit stops during “oil return preparation operation”.)

Indoor unit actuator		Cooling oil return operation
Fan	Thermostat ON unit	Set Air Volume
	Stopping unit	OFF
	Thermostat OFF unit	OFF
Electronic expansion valve	Thermostat ON unit	Normal opening
	Stopping unit	200 pls
	Thermostat OFF unit	200 pls

3.3 Pump-down Residual Operation

3.3.1 Pump-down Residual Operation in Cooling Operation

Actuator	Master unit operation	Slave unit operation
Compressor	210 Hz + OFF + OFF	OFF
Outdoor unit fan	Fan control	OFF
Main motorized valve (EV1)	0 pls	0 pls
Subcooling motorized valve (EV2)	0 pls	0 pls
Hot gas bypass valve (SVP)	ON	OFF
Oil equalization valve (SVO)	ON	OFF
Receiver gas charging valve (SVL)	OFF	OFF
Receiver gas discharging valve (SVG)	ON	ON
Non-operating unit gas discharging valve (SVSG)	OFF	ON
Non-operating unit liquid pipe stop valve (SVSL)	ON	ON
Ending conditions	or • 5 min. • Pe<0.25 MPa • Td>110°C	

3.4 Restart Standby

Actuator	Operation
Compressor	OFF
Outdoor unit fan	Ta>30°C: STEP5 Ta≤30°C: OFF
Main motorized valve (EV1)	0 pls
Subcooling motorized valve (EV2)	0 pls
Hot gas bypass valve (SVP)	OFF
Oil equalization valve (SVO)	ON
Receiver gas charging valve (SVL)	OFF
Receiver gas discharging valve (SVG)	OFF
Non-operating unit gas discharging valve (SVSG)	OFF
Non-operating unit liquid pipe stop valve (SVSL)	ON
Ending conditions	5 min.

3.5 Stopping Operation

3.5.1 When System is in Stop Mode

Actuator	Operation
Compressor	OFF
Outdoor unit fan	OFF
Main motorized valve (EV1)	0 pls
Subcooling motorized valve (EV2)	0 pls
Hot gas bypass valve (SVP)	OFF
Oil equalization valve (SVO)	OFF
Receiver gas charging valve (SVL)	OFF
Receiver gas discharging valve (SVG)	OFF
Non-operating unit gas discharging valve (SVSG)	OFF
Non-operating unit liquid pipe stop valve (SVSL)	ON
Ending conditions	Indoor unit thermostat is turned ON.

3.6 Pressure Equalization prior to Startup

Actuator	Operation
Compressor	OFF
Outdoor unit fan	OFF
Main motorized valve (EV1)	0 pls
Subcooling motorized valve (EV2)	0 pls
Hot gas bypass valve (SVP)	OFF
Oil equalization valve (SVO)	OFF
Receiver gas charging valve (SVL)	OFF
Receiver gas discharging valve (SVG)	OFF
Non-operating unit gas discharging valve (SVSG)	OFF
Non-operating unit liquid pipe stop valve (SVSL)	ON
Ending conditions	10 sec.

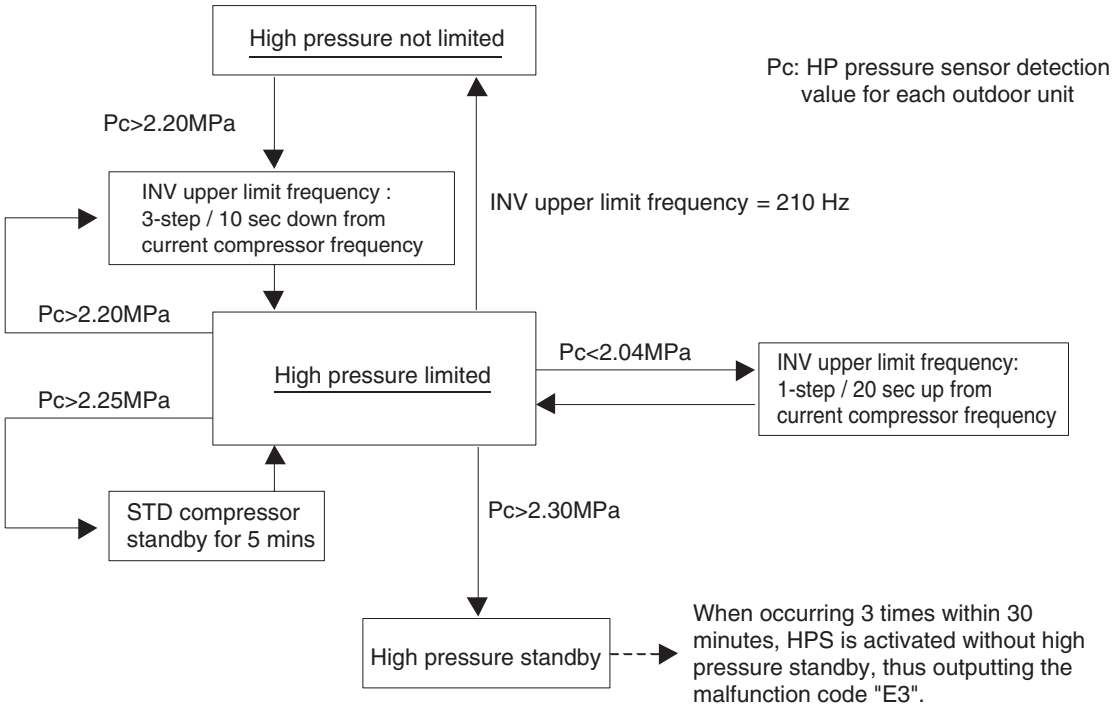
4. Protection Control

4.1 High Pressure Protection Control

This high pressure protection control is used to prevent the activation of protection devices due to abnormal increase of high pressure and to protect compressors against the transient increase of high pressure.

[In cooling operation]

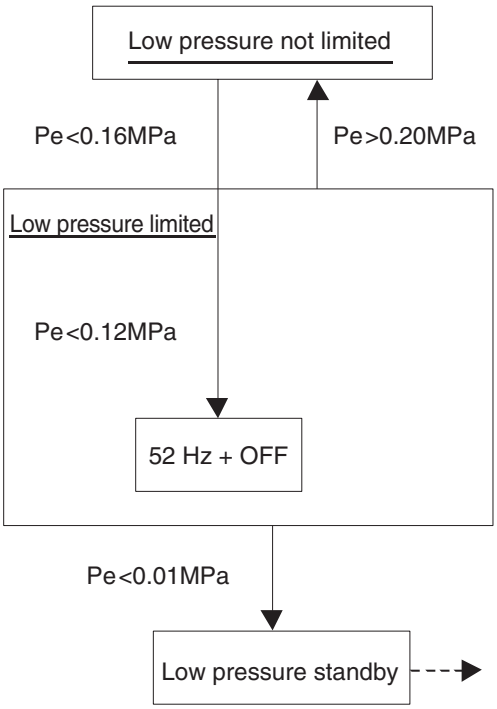
★ In the case of multi-outdoor-unit system, each outdoor unit performs this control individually in the following sequence.



4.2 Low Pressure Protection Control

This low pressure protection control is used to protect compressors against the transient decrease of low pressure.

[In cooling operation].



Pe: LP pressure sensor detection value

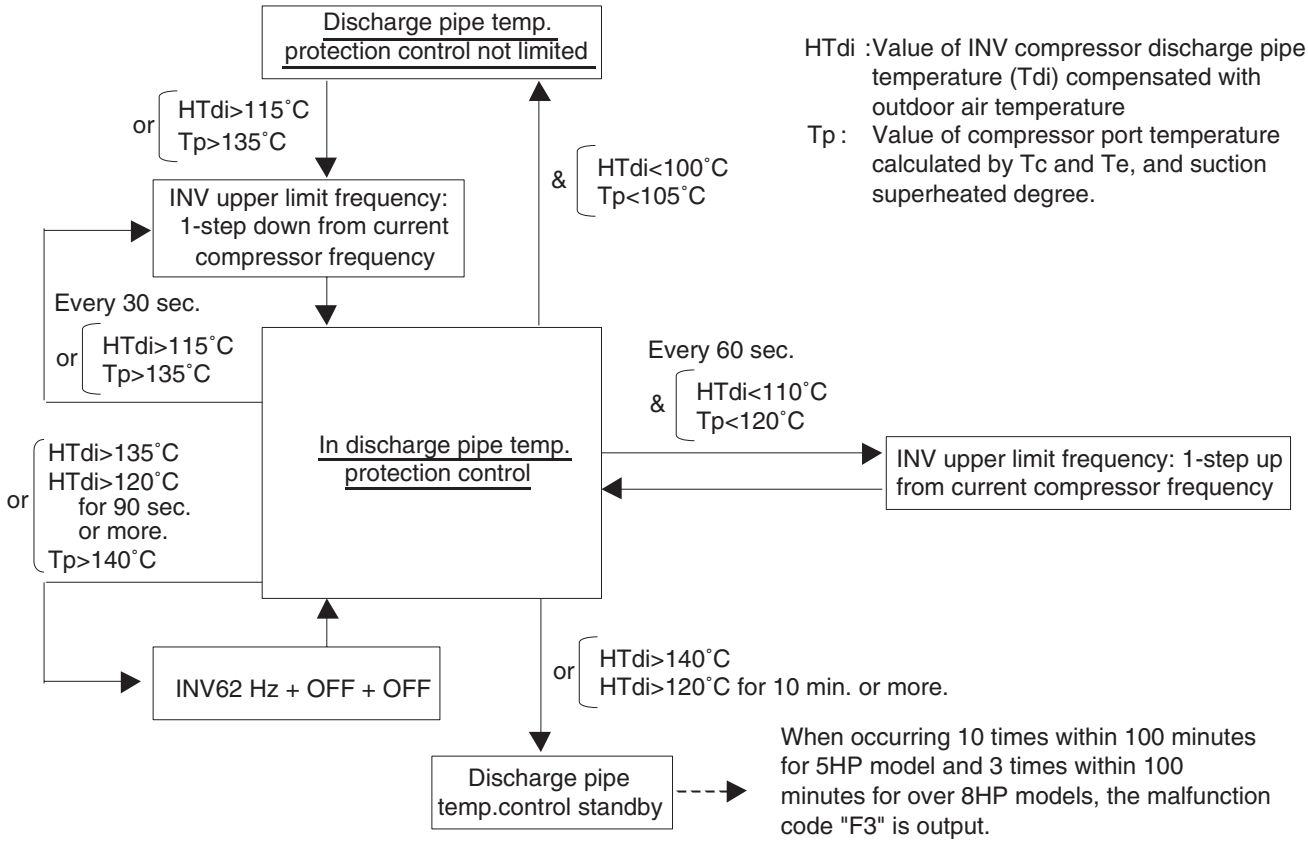
When occurring 3 times within 30 min., the malfunction code“E4”is output.

4.3 Discharge Pipe Protection Control

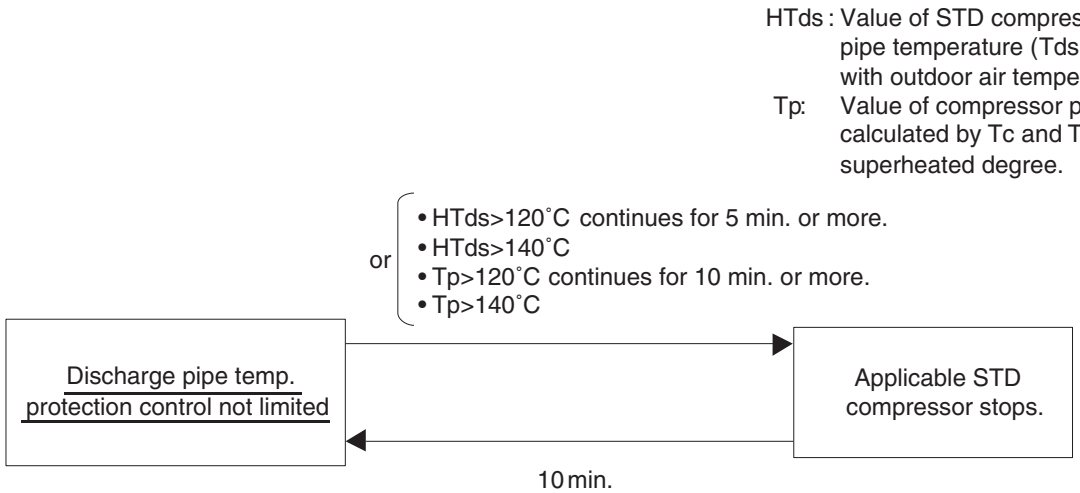
This discharge pipe protection control is used to protect the compressor internal temperature against a malfunction or transient increase of discharge pipe temperature.

★ Each compressor performs the discharge pipe temperature protection control individually in the following sequence.

[INV compressor]



[STD compressor]

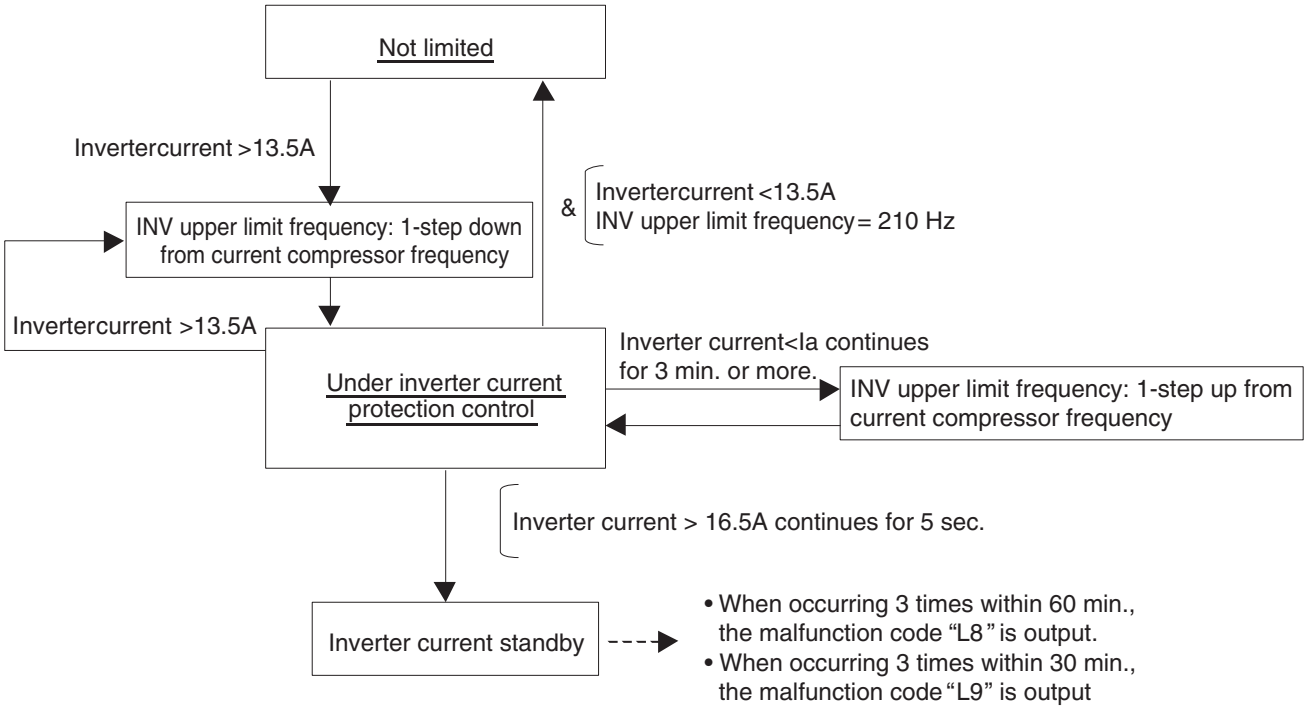


4.4 Inverter Protection Control

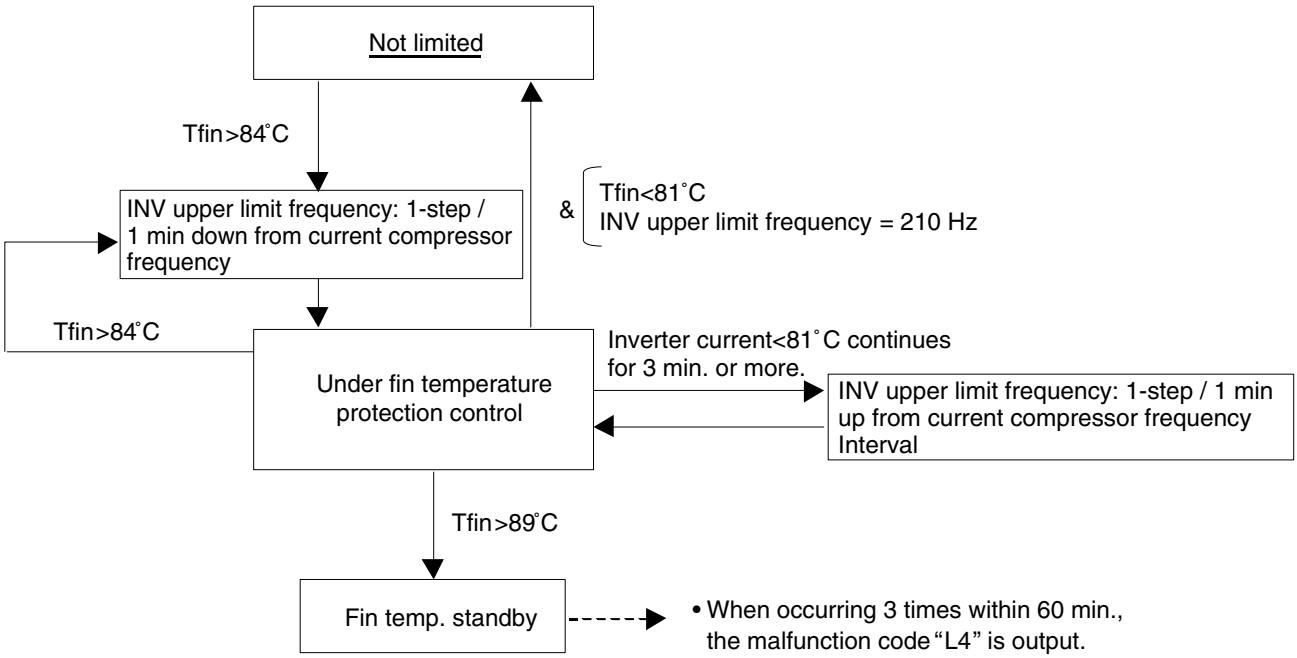
Inverter current protection control and inverter fin temperature control are performed to prevent tripping due to a malfunction, or transient inverter overcurrent, and fin temperature increase.

★ In the case of multi-outdoor-unit system, each INV compressor performs these controls in the following sequence.

[Inverter overcurrent protection control]

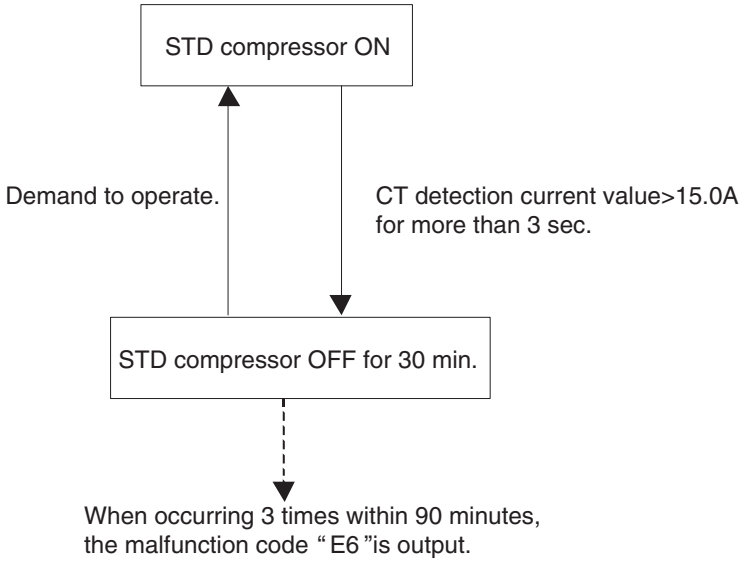


[Inverter fin temperature control]



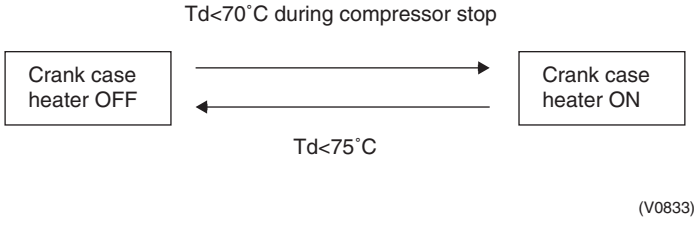
4.5 STD Compressor Overload Protection

This control is used to prevent abnormal heating due to overcurrent to the compressor resulting from failures of STD compressor such as locking.



4.6 Crankcase Heater Control

Controls the crankcase heater to prevent refrigerant from remaining in the inverter and STD compressor.



Td : Compressor discharge pipe temperature.

5. Other Control

5.1 Emergency Operation

If the compressor cannot operate, this control inhibits any applicable compressor or outdoor unit from operating to perform emergency operation only with the operative compressor or outdoor unit.

Caution

"For making a compressor unable to operate due to malfunction, etc., be sure to conduct the work with emergency operation setting.
Never execute work such as disconnection of the power cable from magnet contactor. (Otherwise, other normal compressors may malfunction.)
∗ Because the units will be operated in the combination with which oil pressure equalization between compressors cannot be performed.

5.1.1 Restrictions for Emergency Operation

- In the case of system with 1 outdoor unit installed, only when thermostats of indoor units having a capacity of 50% or more of the outdoor unit capacity turn ON, the emergency operation is functional. (If the total capacity of indoor units with thermostat ON is small, the outdoor unit cannot operate.)
- If the emergency operation is set while the outdoor unit is in operation, the outdoor unit stops once after pump-down residual operation (a maximum of 5 minutes elapsed).

5.1.2 In the Case of 1-Outdoor-Unit System

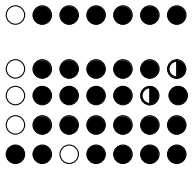
- Emergency operation with settings in service mode

∗ "Inhibition of operation" is set with each compressor.

- To inhibit INV compressor from operating → Set setting mode 2 from No. 0 to No. 2.

(Procedure)
(1) Press and hold the MODE button (BS1) for 5 sec. or more.
(2) Press the RETURN button (BS3) once.
(3) Press the SET button (BS2) once.
(4) Press the RETURN button (BS3) twice.
(5) Press the MODE button (BS1) once.

LED display (○:ON ●:OFF ◑:Blink)
H1P — — — H7P

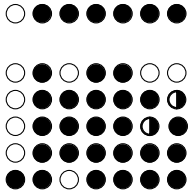


(Factory set)

- To inhibit STD1 compressors from operating → Set setting mode 2 from No. 19 to No. 2.

(Procedure)
(1) Press and hold the MODE button (BS1) for 5 sec. or more.
(2) Press the SET button (BS2) 19 times.
(3) Press the RETURN button (BS3) once.
(4) Press the SET button (BS2) once.
(5) Press the RETURN button (BS3) twice.
(6) Press the MODE button (BS1) once.

LED display (○:ON ●:OFF ◑:Blink)
H1P — — — H7P



(Factory set)

Note : Reset the power supply during the outdoor unit is stopping to cancel the automatic backup operation forcibly.

5.2 Demand Operation

In order to save the power consumption, the capacity of outdoor unit is saved with control forcibly by using “Demand 1 Setting” or “Demand 2 Setting”.
To operate the unit with this mode, additional setting of “Continuous Demand Setting” or external input by external control adapter is required.

[Demand 1 setting]

Setting	Standard for upper limit of power consumption
Demand 1 setting 1	Approx. 60%
Demand 1 setting 2 (factory setting)	Approx. 70%
Demand 1 setting 3	Approx. 80%

[Demand 2 setting]

Setting	Standard for upper limit of power consumption
Demand 2 setting 2 (factory setting)	Approx. 40%

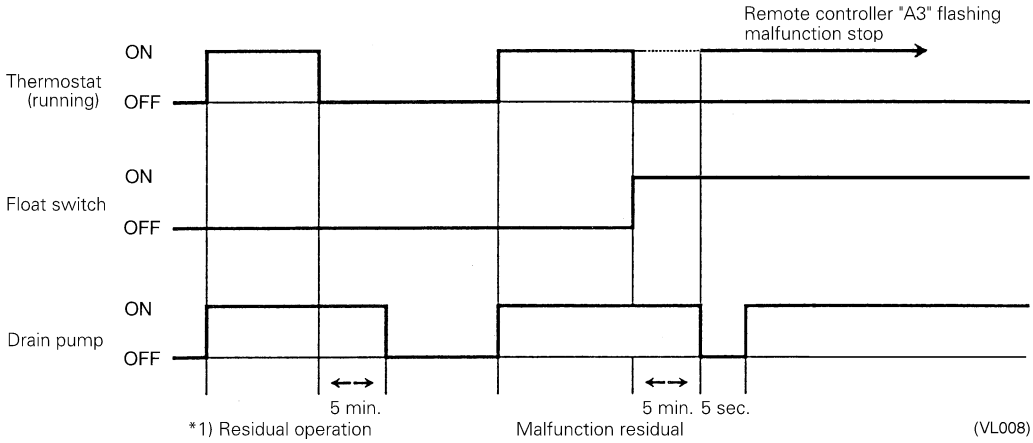
★ Other protection control functions have precedence over the above operation.

6. Outline of Control (Indoor Unit)

6.1 Drain Pump Control

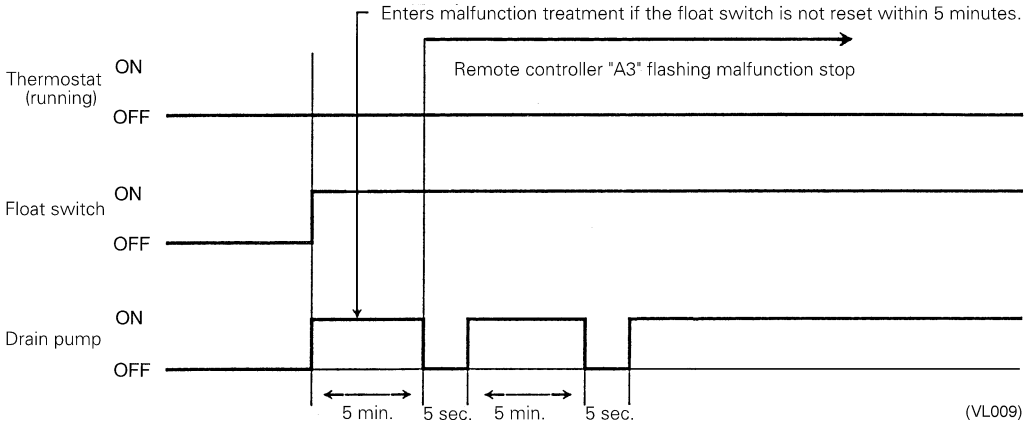
1. The drain pump is controlled by the ON/OFF buttons (4 button (1) - (4) given in the figure below).

6.1.1 When the Float Switch is Tripped while the Cooling Thermostat is ON:

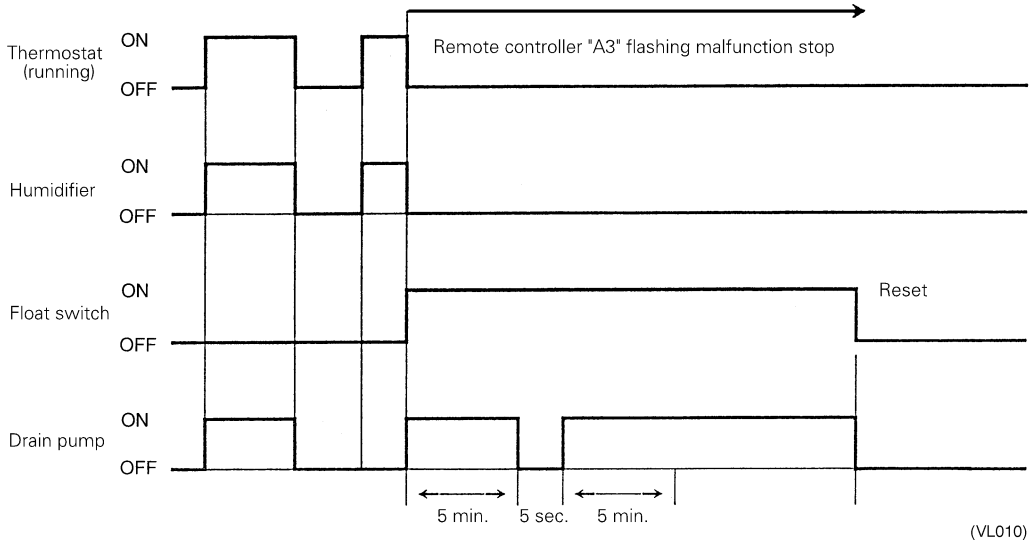


∗ 1. The objective of residual operation is to completely drain any moisture adhering to the fin of the indoor unit heat exchanger when the thermostat goes off during cooling operation.

6.1.2 When the Float Switch is Tripped while the Cooling Thermostat is OFF:

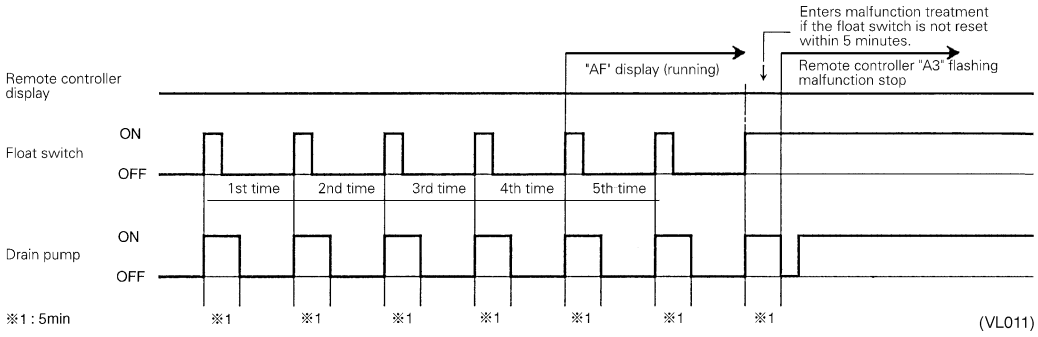


6.1.3 When the Float Switch is Tripped During Heating Operation:



During heating operation, if the float switch is not reset even after the 5 minutes operation, 5 seconds stop, 5 minutes operation cycle ends, operation continues until the switch is reset.

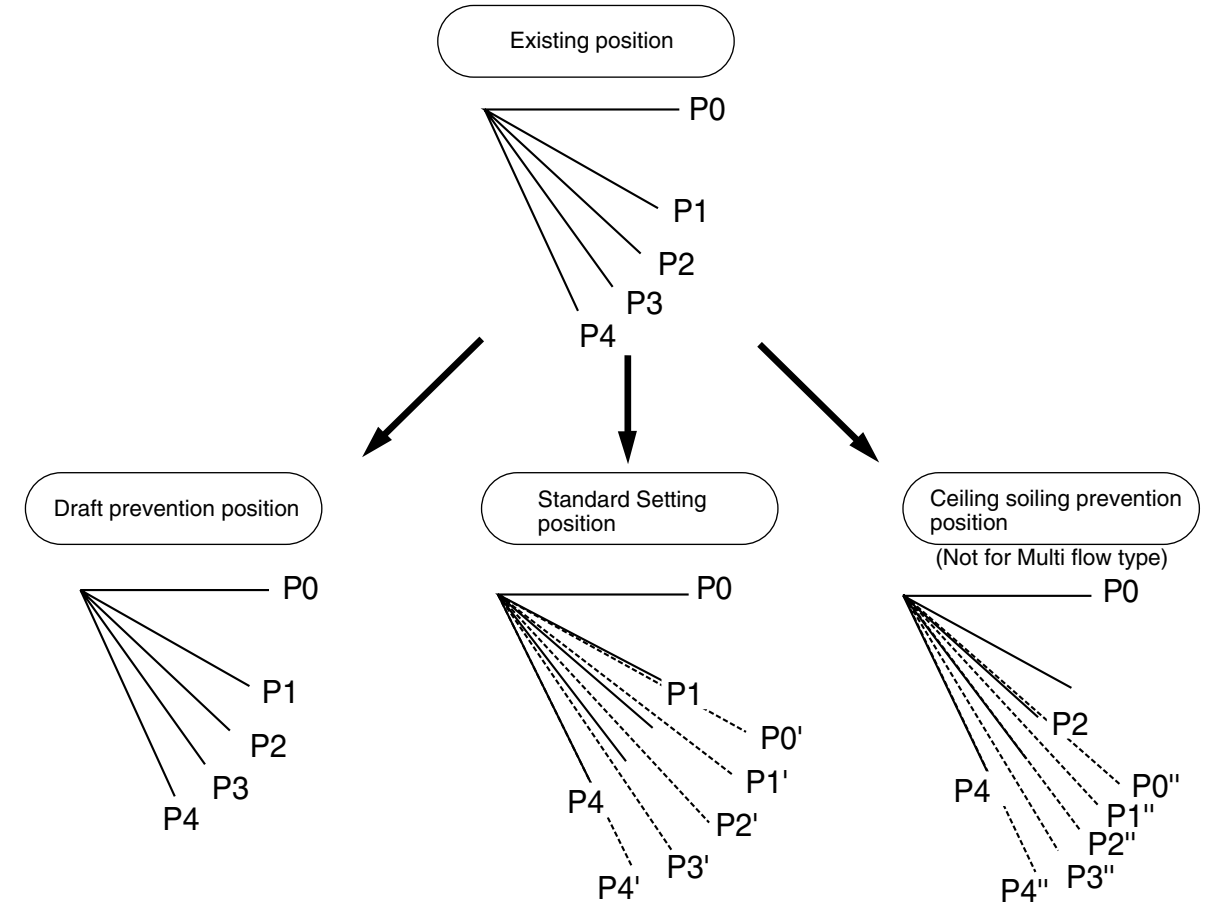
6.1.4 When the Float Switch is Tripped and "AF" is Displayed on the Remote Controller:



Note: If the float switch is tripped five times in succession, a drain malfunction is determined to have occurred. "AF" is then displayed as operation continues.

6.2 Louver Control for Preventing Ceiling Dirt

We have added a control feature that allows you to select the range of in which air direction can be adjusted in order to prevent the ceiling surrounding the air discharge outlet of ceiling mounted cassette type units from being soiled. (This feature is available on double flow, multi-flow and corner types.)



Draft prevention position	P0	P1	P2	P3	P4	Same as existing position
		Range of direction adjustment				
Standard position	Prohibited	P0'	P1'	P2'	P3'	P4'	Separated into 5 positions (P1 - 4)
		Range of direction adjustment				
Dirt prevention position	Prohibited	P0"	P1"	P2"	P3"	P4"	Separated into 5 positions (P2 - 4)

The factory set position is standard position.

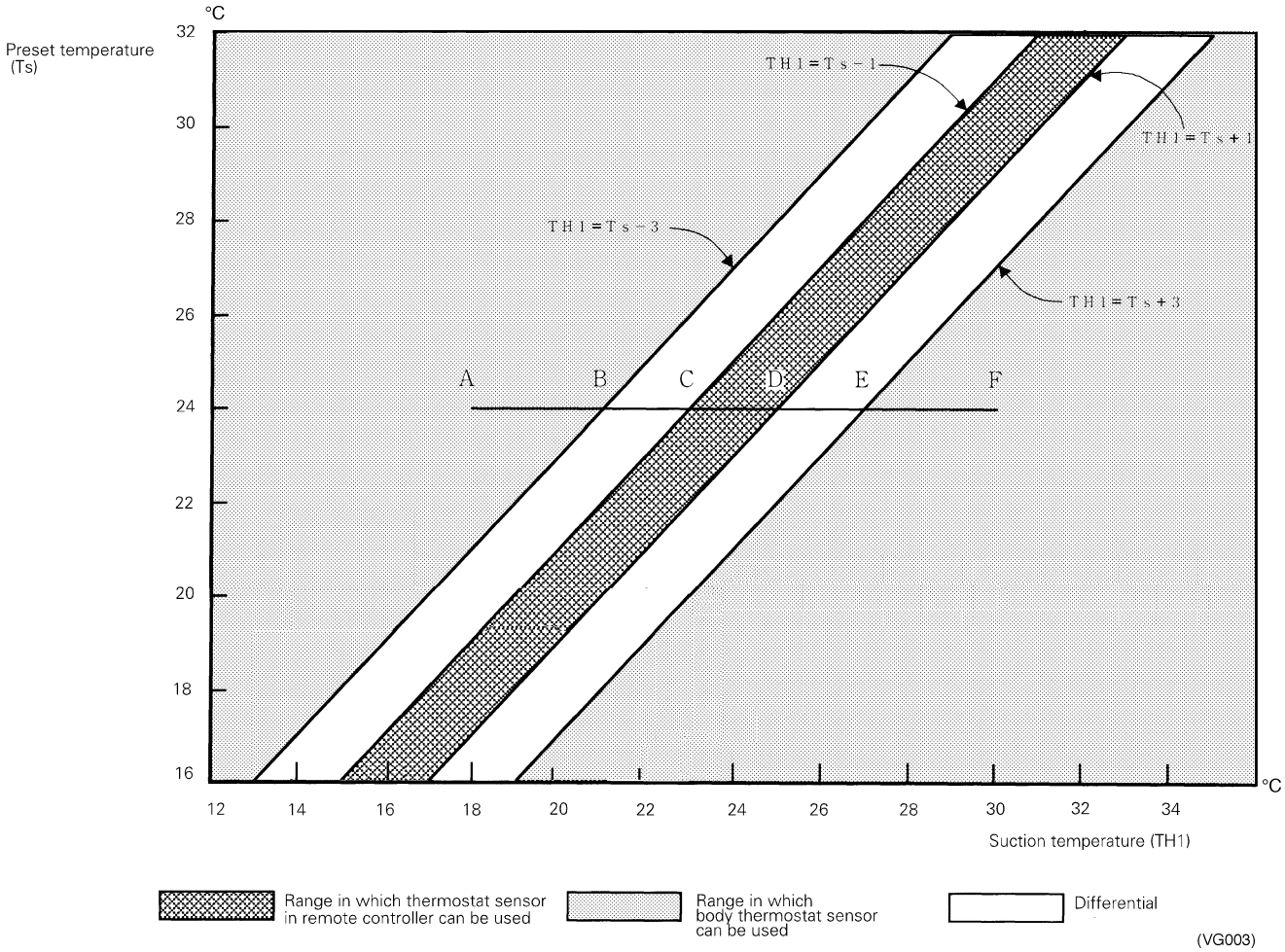
(VL012)

6.3 Thermostat Sensor in Remote Controller

Temperature is controlled by both the thermostat sensor in remote controller and air suction thermostat in the indoor unit. (This is however limited to when the field setting for the thermostat sensor in remote controller is set to “Use.”)

Cooling

If there is a significant difference in the preset temperature and the suction temperature, fine adjustment control is carried out using a body thermostat sensor, or using the sensor in the remote controller near the position of the user when the suction temperature is near the preset temperature.



■ **Ex: When cooling**

Assuming the preset temperature in the figure above is 24°C, and the suction temperature has changed from 18°C to 30°C (A → F):

(This example also assumes there are several other air conditioners, the VRV system is off, and that temperature changes even when the thermostat sensor is off.)

Body thermostat sensor is used for temperatures from 18°C to 23°C (A → C).

Remote controller thermostat sensor is used for temperatures from 23°C to 27°C (C → E).

Body thermostat sensor is used for temperatures from 27°C to 30°C (E → F).

And, assuming suction temperature has changed from 30°C to 18°C (F → A):

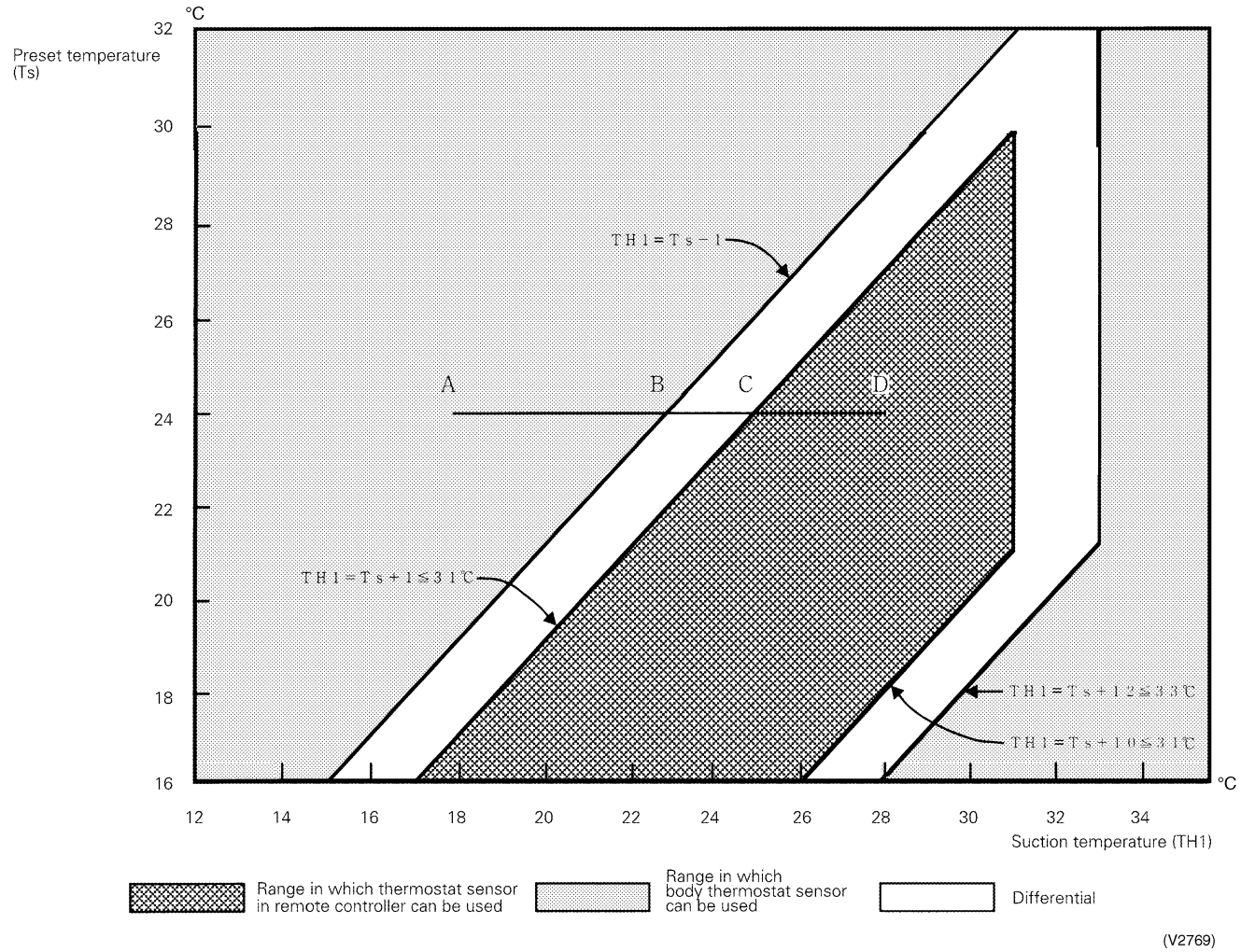
Body thermostat sensor is used for temperatures from 30°C to 25°C (F → D).

Remote controller thermostat sensor is used for temperatures from 25°C to 21°C (D → B).

Body thermostat sensor is used for temperatures from 21°C to 18°C (B → A).

Heating

When heating, the hot air rises to the top of the room, resulting in the temperature being lower near the floor where the occupants are. When controlling by body thermostat sensor only, the unit may therefore be turned off by the thermostat before the lower part of the room reaches the preset temperature. The temperature can be controlled so the lower part of the room where the occupants are doesn't become cold by widening the range in which thermostat sensor in remote controller can be used so that suction temperature is higher than the preset temperature.



■ **Ex: When heating**

Assuming the preset temperature in the figure above is 24°C, and the suction temperature has changed from 18°C to 28°C (A → D):

(This example also assumes there are several other air conditioners, the VRV system is off, and that temperature changes even when the thermostat sensor is off.)

Body thermostat sensor is used for temperatures from 18°C to 25°C (A → C).

Remote controller thermostat sensor is used for temperatures from 25°C to 28°C (C → D).

And, assuming suction temperature has changed from 28°C to 18°C (D → A):

Remote controller thermostat sensor is used for temperatures from 28°C to 23°C (D → B).

Body thermostat sensor is used for temperatures from 23°C to 18°C (B → A).

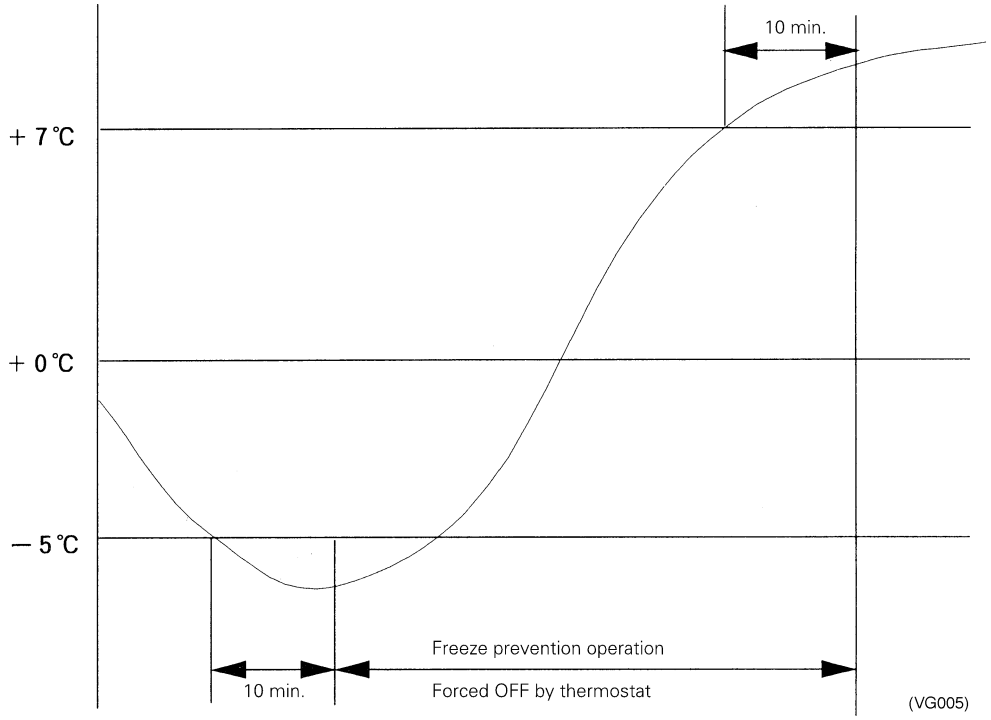
6.4 Freeze Prevention

Freeze Prevention by Off Cycle (Indoor Unit)

When the temperature detected by liquid pipe temperature thermistor (R2T) of the indoor unit heat exchanger drops too low, the unit enters freeze prevention operation in accordance with the following conditions, and is also set in accordance with the conditions given below.

Conditions for starting freeze prevention: Temperature is –1°C or less for total of 40 min., or temperature is –5°C or less for total of 10 min.
Conditions for stopping freeze prevention: Temperature is +7°C or more for 10 min. continuously

Ex: Case where temperature is –5°C or less for total of 10 min.



Part 5
Test Operation

1. Test Operation

1.1 Procedure and Outline

Follow the following procedure to conduct the initial test operation after installation.

1.1.1 Check Work Prior to Turn Power Supply On

Check the below items.
- Power wiring
- Control transmission wiring between units
- Earth wire

⇩

Check on refrigerant piping

⇩

Check on amount of refrigerant charge

○ Is the wiring performed as specified?
○ Are the designated wires used?
○ Is the grounding work completed?
Use a 500V megger tester to measure the insulation.
- Do not use a megger tester for other circuits than 200V (or 240v) circuit.

○ Are the setscrews of wiring not loose?

○ Is pipe size proper? (The design pressure of this product is 3.8MPa.)
○ Are pipe insulation materials installed securely?
Liquid and gas pipes need to be insulated. (Otherwise causes water leak.)
○ Are respective stop valves on liquid, gas and oil equalizing lines securely open?

○ Is refrigerant charged up to the specified amount?
If insufficient, charge the refrigerant from the service port of stop valve on the liquid side with outdoor unit in stop mode after turning power on.
○ Has the amount of refrigerant charge been recorded on “Record Chart of Additional Refrigerant Charge Amount”?

(V3055)

1.1.2 Turn Power On

Turn outdoor unit power on.

⇩

Carry out field setting on outdoor PC board

⇩

Turn indoor unit power on.

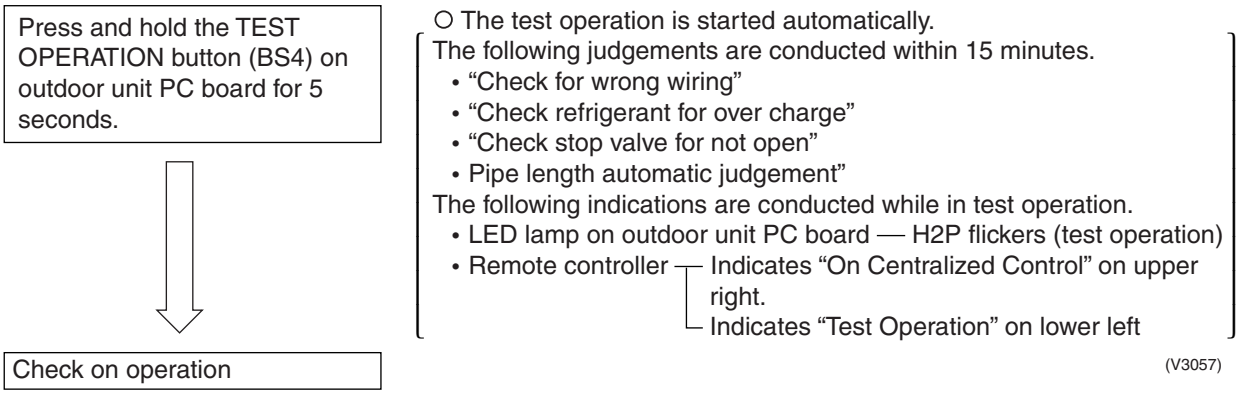
○ Be sure to turn the power on 6 hours before starting operation to protect compressors. (to power on clankcase heater)

○ For field settings, refer to “Field Settings” on and after P87.
After the completion of field settings, set to “Setting mode 1”.

(V3056)

1.1.3 Check Operation

* During check operation, mount front panel to avoid the misjudging.
* Check operation is mandatory for normal unit operation.
  (When the check operation is not executed, alarm code "U3" will be displayed.)



On completion of test operation, LED on outdoor unit PC board displays the following.
H3P ON: Normal completion
H2P and H3P ON: Abnormal completion →Check the indoor unit remote controller for abnormal display and correct it.

Malfunction code
In case of an alarm code displayed on remote controller:

Malfunction code	Installation error	Remedial action
E3 E4 F3 UF	The shutoff valve of an outdoor unit is left closed.	Check referring to the table in "**6-6 Additional Refrigerant Charge**".
U1	The phases of the power to the outdoor units are reversed.	Exchange two of the three phases (L1, L2, L3) to make a positive phase connection.
U1 U4	No power is supplied to an outdoor or indoor unit (including phase interruption).	Check if the power wiring for the outdoor units are connected correctly. (If the power wire is not connected to L2 phase, no malfunction display will appear and the compressor will not work.)
UF	Incorrect interconnections between units	Check if the refrigerant line piping and the unit wiring are consistent with each other.
E3 F6 UF	Refrigerant overcharge	Recalculate the required amount of refrigerant from the piping length and correct the refrigerant charge level by recovering any excessive refrigerant with a refrigerant recovery machine.
E4 F3	Insufficient refrigerant	• Check if the additional refrigerant charge has been finished correctly. • Recalculate the required amount of refrigerant from the piping length and add an adequate amount of refrigerant.
U3	The check operation has not been performed	Perform the check operation

1.1.4 Confirmation on normal operation

- Conduct normal unit operation after the check operation has been completed.
  (When outdoor air temperature is 25°C or higher, the unit can not be operated with heating mode. See the instruction manual attached.)
- Confirm that the indoor/outdoor units can be operated normally.
  (When an abnormal noise due to liquid compression by the compressor can be heard, stop the unit immediately, and turn on the crankcase heater to heat up it sufficiently, then start operation again.)
- Operate indoor unit one by one to check that the corresponding outdoor unit operates.
- Confirm that the indoor unit discharges cold air (or warm air).
- Operate the air direction control button and flow rate control button to check the function of the devices.

1.2 Operation when Power is Turned On

1.2.1 When Turning On Power First Time

The unit cannot be run for up to 12 minutes to automatically set the master power and address (indoor-outdoor address, etc.).

Status

Outdoor unit	Test lamp H2P .... Blinks Can also be set during operation described above.
Indoor unit	If ON button is pushed during operation described above, the “UH” malfunction indicator blinks. (Returns to normal when automatic setting is complete.)

1.2.2 When Turning On Power the Second Time and Subsequent

Tap the RESET button on the outdoor unit PC board. Operation becomes possible for about 2 minutes. If you do not push the RESET button, the unit cannot be run for up to 10 minutes to automatically set master power.

Status

Outdoor unit	Test lamp H2P .... Blinks Can also be set during operation described above.
Indoor unit	If ON button is pushed during operation described above, the operation lamp lights but the compressor does not operate. (Returns to normal when automatic setting is complete.)

1.2.3 When an Indoor Unit or Outdoor unit Has Been Added, or Indoor or Outdoor Unit PC Board Has Been Changed

Be sure to push and hold the RESET button for 5 seconds. If not, the addition cannot be recognized. In this case, the unit cannot be run for up to 12 minutes to automatically set the address (indoor-outdoor address, etc.)

Status

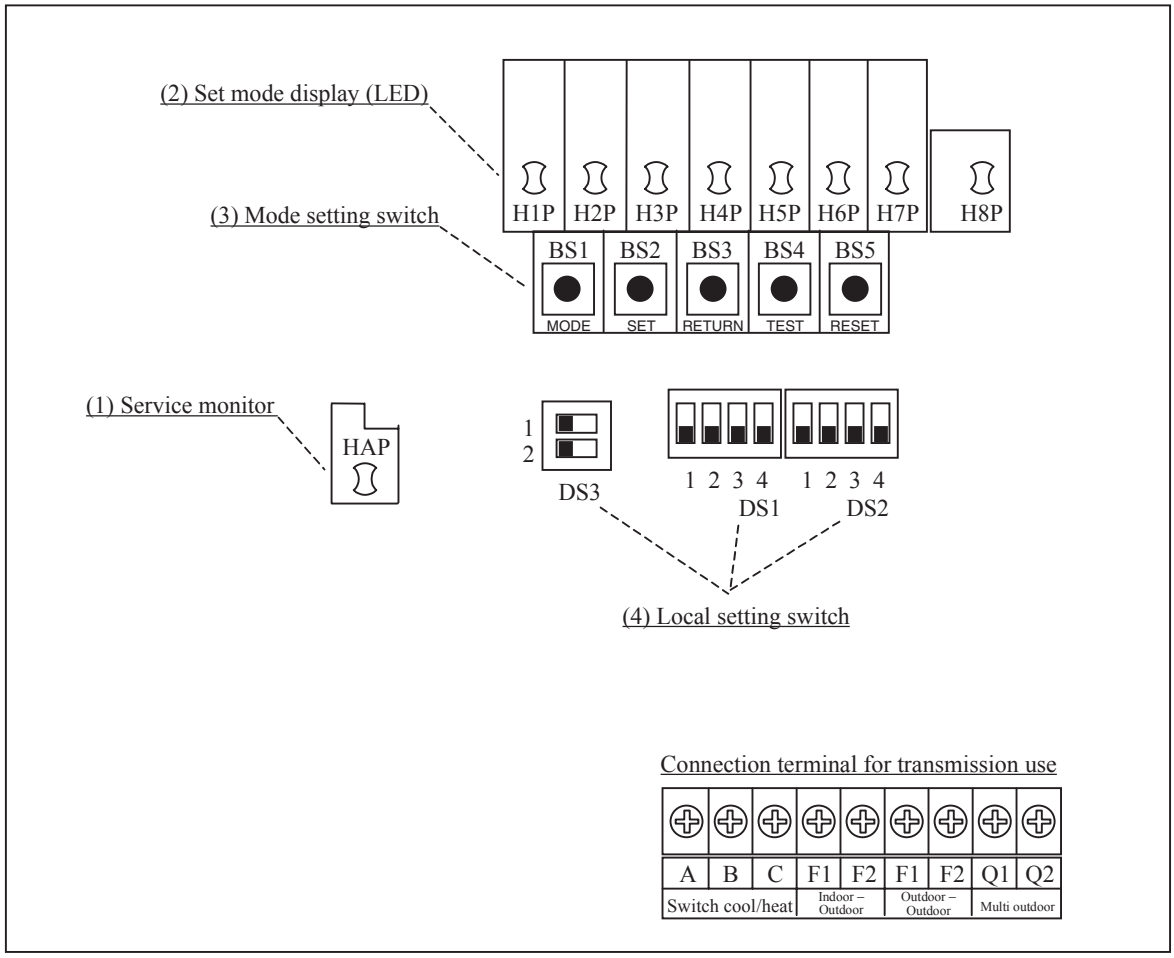
Outdoor unit	Test lamp H2P .... ON Can also be set during operation described above.
Indoor unit	If ON button is pushed during operation described above, the “UH” or “U4” malfunction indicator blinks. (Returns to normal when automatic setting is complete.)

Caution When the 400 volt power supply is applyed to "N" phase by mistake, replace Inverter PC board (A2P) and control transformer (T1R, T2R) in switch box together.

(V0847)

2. Outdoor Unit PC Board Layout

Outdoor unit PC board



(V3054)

(1) Service monitor
This monitor blinks while in normal operation, and turns on or off when a malfunction occurs.

(2) Set mode display (LED)
LEDs display mode according to the setting.

(3) Mode setting switch
Used to change mode.

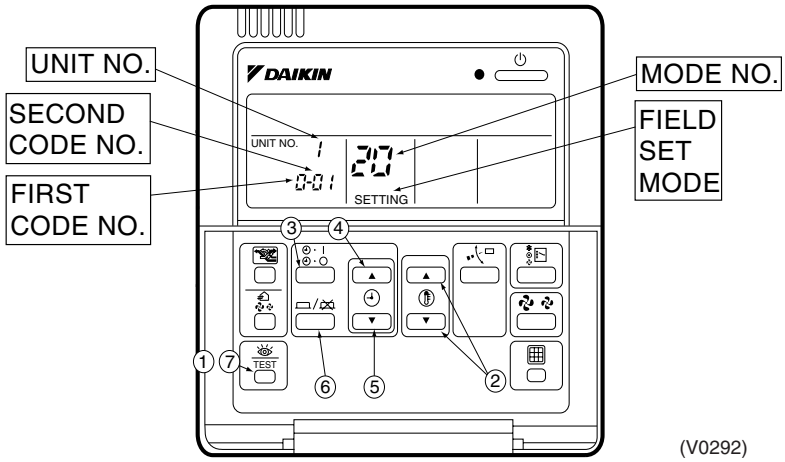
(4) Local setting switch
Used to make local settings.

3. Field Setting

3.1 Field Setting from Remote Controller

Individual function of indoor unit can be changed from the remote controller. At the time of installation or after service inspection / repair, make the local setting in accordance with the following description.
Wrong setting may cause malfunction.
(When optional accessory is mounted on the indoor unit, setting for the indoor unit may be required to change. Refer to information in the option handbook.)

3.1.1 Wired Remote Controller <BRC1C62>



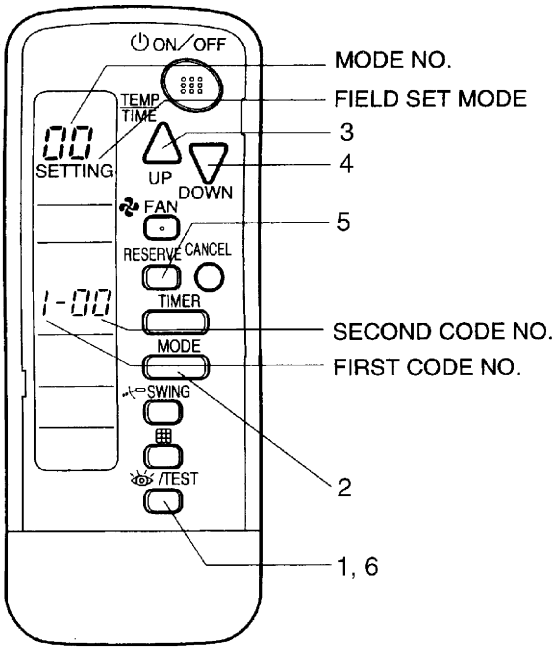
(V0292)

1. When in the normal mode, press the " TEST " button for a minimum of four seconds, and the FIELD SET MODE is entered.
2. Select the desired MODE NO. with the " " button (②).
3. During group control, when setting by each indoor unit (mode No. 20, 22 and 23 have been selected), push the " " button (③) and select the INDOOR UNIT NO to be set. (This operation is unnecessary when setting by group.)
4. Push the " " upper button (④) and select FIRST CODE NO.
5. Push the " " lower button (⑤) and select the SECOND CODE NO.
6. Push the " " button (⑥) once and the present settings are SET.
7. Push the " TEST " button (⑦) to return to the NORMAL MODE.

(Example)
If during group setting and the time to clean air filter is set to FILTER CONTAMINATION, HEAVY, SET MODE NO. to "10" FIRST CODE NO. to "0", and SECOND CODE NO. to "02".

3.1.2 Wireless Remote Controller - Indoor Unit

BRC7C type
BRC7E type
BRC4C type



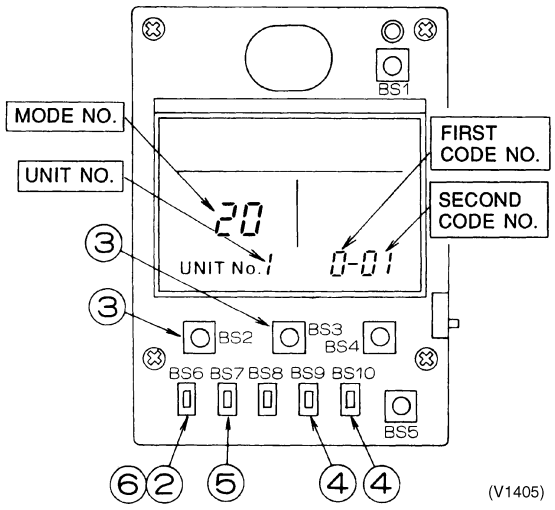
(V2770)

1. When in the normal mode, push the /TEST button for 4 seconds or more, and operation then enters the “field set mode.”
2. Select the desired “mode No.” with the MODE button.
3. Pushing the UP button, select the first code No.
4. Pushing the DOWN button, select the second code No.
5. Push the timer RESERVE button and check the settings.
6. Push the /TEST button to return to the normal mode.

(Example)
When setting the filter sign time to “Filter Dirtiness-High” in all group unit setting, set the Mode No. to “10”, Mode setting No. to “0” and setting position No. to “02”.

3.1.3 Simplified Remote Controller

BRC2A51
BRC2C51



■ Group No. setting by simplified remote controller.

1. Remove the cover of remote controller.
2. While in normal mode, press the [BS6] BUTTON (field set) to enter the FIELD SET MODE.
3. Select the mode No. [00] with [BS2] BUTTON (temperature setting ▲) and [BS3] BUTTON (temperature setting ▼).
4. Select the group No. with [BS9] BUTTON (set A) and [BS10] BUTTON (set B). (Group Nos. increase in the order of 1-00, 1-01.....1-15, 2-00,.....4-15. However, the unified ON/OFF controller displays only group No. set within the range of control.)
5. Press [BS7] BUTTON (set/cancel) to set group No.
6. Press [BS6] BUTTON (field set) to return to the NORMAL MODE.

3.1.4 Setting Contents and Code No. – VRV Unit

VRV system indoor unit settings	Mode No. Note 2	Setting Switch No.	Setting Contents		Second Code No.(Note 3)							
					01		02		03		04	
	10(20)	0	Filter contamination heavy/ light (Setting for display time to clean air filter) (Sets display time to clean air filter to half when there is heavy filter contamination.)	Super long life filter	Light	Approx. 10,000 hrs.	Heavy	Approx. 5,000 hrs.	—		—	
				Long life filter		Approx. 2,500 hrs.		Approx. 1,250 hrs.				
				Standard filter		Approx. 200 hrs.		Approx. 100 hrs.				
		1	Long life filter type		Long life filter		Super long life filter		—		—	
		2	Thermostat sensor in remote controller		Use		No use		—			
		3	Display time to clean air filter calculation (Set when filter sign is not to be displayed.)		Display		No display		—			
	12(22)	0	Optional accessories output selection (field selection of output for adaptor for wiring)		Indoor unit turned ON by thermostat				Operation output		Malfunction output	
		1	ON/OFF input from outside (Set when ON/OFF is to be controlled from outside.)		Forced OFF		ON/OFF control		External protection device input		—	
		2	Thermostat differential changeover (Set when remote sensor is to be used.)		1°C		0.5°C		—		—	
		3	OFF by thermostat fan speed		LL		Set fan speed		—		—	
		4	Automatic mode differential (automatic temperature differential setting for VRV system heat recovery series cool/heat)		01:0	02:1	03:2	04:3	05:4	06:5	07:6	08:7
		5	Power failure automatic reset		Not equipped		Equipped		—		—	
	13(23)	0	High air outlet velocity (Set when installed in place with ceiling higher than 2.7 m.)		N		H		S		—	
		1	Selection of air flow direction (Set when a blocking pad kit has been installed.)		F (4 directions)		T (3 directions)		W (2 directions)		—	
		3	Air flow direction adjustment (Set at installation of decoration panel.)		Equipped		Not equipped				—	
		4	Field set air flow position setting		Draft prevention		Standard		Ceiling Soiling prevention		—	
		5	Field set fan speed selection (fan speed control by air discharge outlet for phase control)		Standard		Optional accessory 1		Optional accessory 2		—	
	15(25)	1	Thermostat OFF excess humidity		Not equipped		Equipped		—		—	
		2	Direct duct connection (when the indoor unit and heat reclaim ventilation unit are connected by duct directly.) ∗Note 6		Not equipped		Equipped		—		—	
		3	Drain pump humidifier interlock selection		Not equipped		Equipped		—		—	
		5	Field set selection for individual ventilation setting by remote controller		Not equipped		Equipped		—		—	
		6	Field set selection for individual ventilation setting by remote controller		Not equipped		Equipped		—		—	

Notes:

1. Settings are made simultaneously for the entire group, however, if you select the mode No. inside parentheses, you can also set by each individual unit. Setting changes however cannot be checked except in the individual mode for those in parentheses.
2. The mode numbers inside parentheses cannot be used by wireless remote controllers, so they cannot be set individually. Setting changes also cannot be checked.
3. Marked ▭ are factory set.
4. Do not make settings other than those described above. Nothing is displayed for functions the indoor unit is not equipped with.
5. “88” may be displayed to indicate the remote controller is resetting when returning to the normal mode.
6. If the setting mode to “Equipped”, heat reclaim ventilation fan conducts the fan residual operation by linking to indoor unit.

3.1.5 Applicable range of Field setting

	Ceiling mounted cassette type			Ceiling mounted built-in type	Slim ceiling mounted duct type	Ceiling mounted duct type	Ceiling suspended type	Wall mounted type	Floor standing type	Concealed Floor standing type	Ceiling mounted built-in (Rear suction type)	Ceiling mounted low silhouette duct type
	Multi flow	Double flow	Corner type									
	FXF	FXC	FXK	FXS	FXD	FXM	FXH	FXA	FXL	FXN	FXYB	FXYD
Filter sign	○	○	○	○	○	○	○	○	○	○	○	○
Ultra long life filter sign	○	○	—	—	—	—	—	—	—	—	—	—
Remote controller thermostat sensor	○	○	○	○	○	○	○	○	○	○	○	○
Set fan speed when thermostat OFF	○	○	○	○	○	○	○	○	○	○	○	○
Air flow adjustment Ceiling height	○	—	—	—	—	—	○	—	—	—	—	—
Air flow direction	○	—	—	—	—	—	—	—	—	—	—	—
Air flow direction adjustment (Down flow operation)	—	—	○	—	—	—	—	—	—	—	—	—
Air flow direction adjustment range	○	○	○	—	—	—	—	—	—	—	—	—
Field set fan speed selection	○	—	—	—	—	—	○	—	—	—	—	—

3.1.6 Detailed Explanation of Setting Modes

Filter Sign Setting

If switching the filter sign ON time, set as given in the table below.

Set Time

Filter Specs. / Setting	Standard	Long Life	Ultra Long Life Filter
Contamination Light	200 hrs.	2,500 hrs.	10,000 hrs.
Contamination Heavy	100 hrs.	1,250 hrs.	5,000 hrs.

Ultra-Long-Life Filter Sign Setting

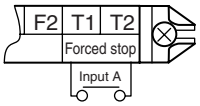
When a Ultra-long-life filter is installed, the filter sign timer setting must be changed.

Setting Table

Mode No.	Setting Switch No.	Setting Position No.	Setting
10 (20)	1	01	Long-Life Filter
		02	Ultra-Long-Life Filter (1)
		03	—

External ON/OFF input

This input is used for "ON / OFF operation" and "Protection device input" from the outside. The input is performed from the T1-T1 terminal of the operation terminal block (X1A) in the electric component box.



Setting Table

Mode No.	Setting Switch No.	Setting Position No.	Operation by input of the signal A
12 (22)	1	01	ON: Forced stop (prohibition of using the remote controller) OFF: Permission of using the remote controller
		02	OFF → ON: Permission of operation ON → OFF: Stop
		03	ON: Operation OFF: The system stops, then the applicable unit indicates "A0". The other indoor units indicate "U9".

Fan Speed Changeover When Thermostat is OFF

By setting to “Set Fan Speed,” you can switch the fan speed to the set fan speed when the heating thermostat is OFF.

∗ Since there is concern about draft if using “fan speed up when thermostat is OFF,” you should take the setup location into consideration.

Setting Table

Mode No.	First Code No.	Second Code No.	Setting
12(22)	3	01	LL Fan Speed
		02	Set Fan Speed

Auto restart after power failure reset

For the air conditioners with no setting for the function (same as factory setting), the units will be left in the stop condition when the power supply is reset automatically after power failure reset or the main power supply is turned on again after once turned off. However, for the air conditioners with the setting, the units may start automatically after power failure reset or the main power supply turned on again (return to the same operation condition as that of before power failure).

For the above reasons, when the unit is set enabling to utilize “Auto restart function after power failure reset”, utmost care should be paid for the occurrence of the following situation.

Caution

1. The air conditioner starts operation suddenly after power failure reset or the main power supply turned on again. Consequently, the user might be surprised (with question for the reason why).

2. In the service work, for example, turning off the main power switch during the unit is in operation, and turning on the switch again after the work is completed start the unit operation (the fan rotates).

Air Flow Adjustment - Ceiling height

Make the following setting according to the ceiling height. The setting position No. is set to “01” at the factory.

■ In the Case of FXA, FXH

Mode No.	Setting Switch No.	Setting Position No.	Setting
13(23)	0	01	Wall-mounted type: Standard
		02	Wall-mounted type: Slight increase
		03	Wall-mounted type: Normal increase

■ In the Case of FXF25~80

Mode No.	First code No.	Second code No.	Setting	Ceiling height		
				4-way Outlets	3-way Outlets	2-way Outlets
13 (23)	0	01	Standard (N)	Lower than 2.7 m	Lower than 3.0 m	Lower than 3.5 m
		02	High Ceiling (H)	Lower than 3.0 m	Lower than 3.3 m	Lower than 3.8 m
		03	Higher Ceiling (S)	Lower than 3.5 m	Lower than 3.5 m	—

■ In the Case of FXF100~125

Mode No.	First code No.	Second code No.	Setting	Ceiling height		
				4-way Outlets	3-way Outlets	2-way Outlets
13 (23)	0	01	Standard (N)	Lower than 3.2 m	Lower than 3.6 m	Lower than 4.2 m
		02	High Ceiling (H)	Lower than 3.6 m	Lower than 4.0 m	Lower than 4.2 m
		03	Higher Ceiling (S)	Lower than 4.2 m	Lower than 4.2 m	—

Air Flow Direction Setting

Set the air flow direction of indoor units as given in the table below. (Set when optional air outlet blocking pad has been installed.) The second code No. is factory set to “01.”

Setting Table

Mode No.	First Code No.	Second Code No.	Setting
13 (23)	1	01	F : 4-direction air flow
		02	T : 3-direction air flow
		03	W : 2-direction air flow

Setting of Air Flow Direction Adjustment

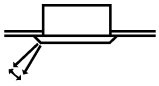
Only the model FXK has the function.
When only the front-flow is used, sets yes/no of the swing flap operation of down-flow.

Setting Table

Setting	Mode No.	First Code No.	Second Code No.
Down-flow operation: Yes	13 (23)	3	01
Down-flow operation: No			02

Setting of Air Flow Direction Adjustment Range

Make the following air flow direction setting according to the respective purpose.



(S2537)

Setting Table

Mode No.	First Code No.	Second Code No.	Setting
13 (23)	4	01	Upward (Draft prevention)
		02	Standard
		03	Downward (Ceiling soiling prevention)

Air flow rate switching at discharge grille for field air flow rate switching

When the optional parts (high performance filter, etc.) is installed, sets to change fan speed for securing air flow rate.
Follow the instruction manual for the optional parts to enter the setting numbers.

Setting of the static pressure selection (for FXD model)

Model No.	First Code No.	Second Code No.	External static pressure
13 (23)	5	01	Standard (15Pa)
		02	High static pressure (44Pa)

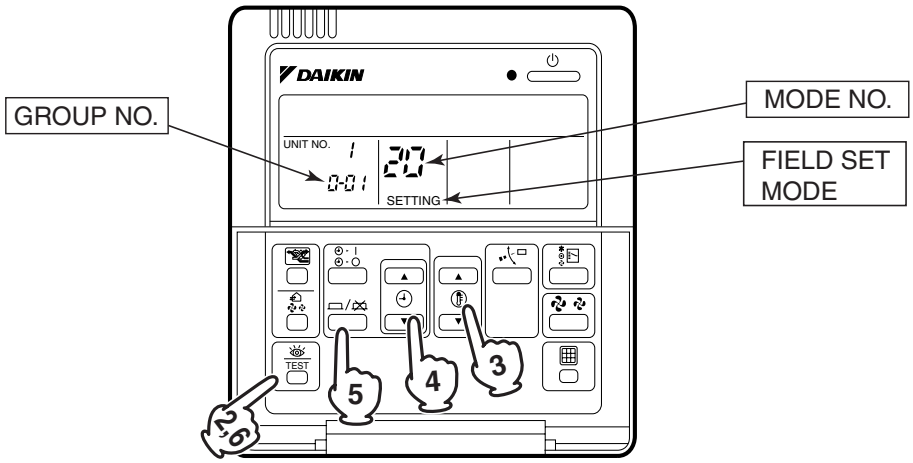
3.1.7 Centralized Control Group No. Setting

BRC1C Type

In order to conduct the central remote control using the central remote controller and the unified ON/OFF controller, Group No. settings should be made by group using the operating remote controller.

Make Group No. settings for central remote control using the operating remote controller.

1. While in normal mode, press and hold the TEST switch for a period of four seconds or more to set the system to "Field Setting Mode".
2. Select the MODE No. "*00*" with the " " button.
3. Use the " " button to select the group No. for each group.
   (Group numbers increase in the order of 1-00, 1-01, ... 1-15, 2-00, ... 4-15.)
4. Press " " to set the selected group No.
5. Press " TEST " to return to the NORMAL MODE.



Note:

- For wireless remote controller, see the following.
- For setting group No. of HRV and wiring adaptor for other air conditioners, etc., refer to the instruction manual attached.

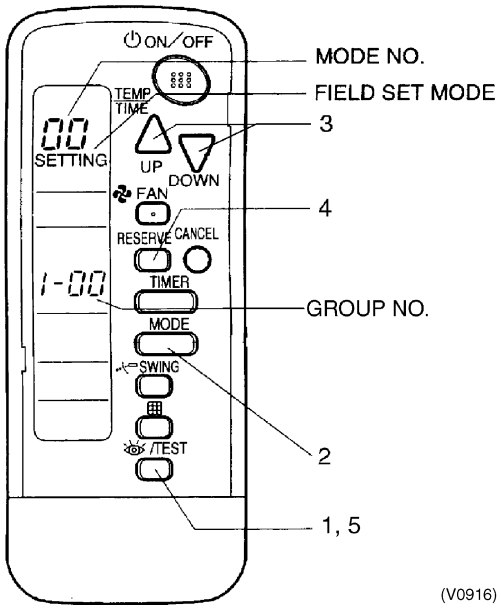
NOTICE

Enter the group No. and installation place of the indoor unit into the attached installation table. Be sure to keep the installation table with the operation manual for maintenance.

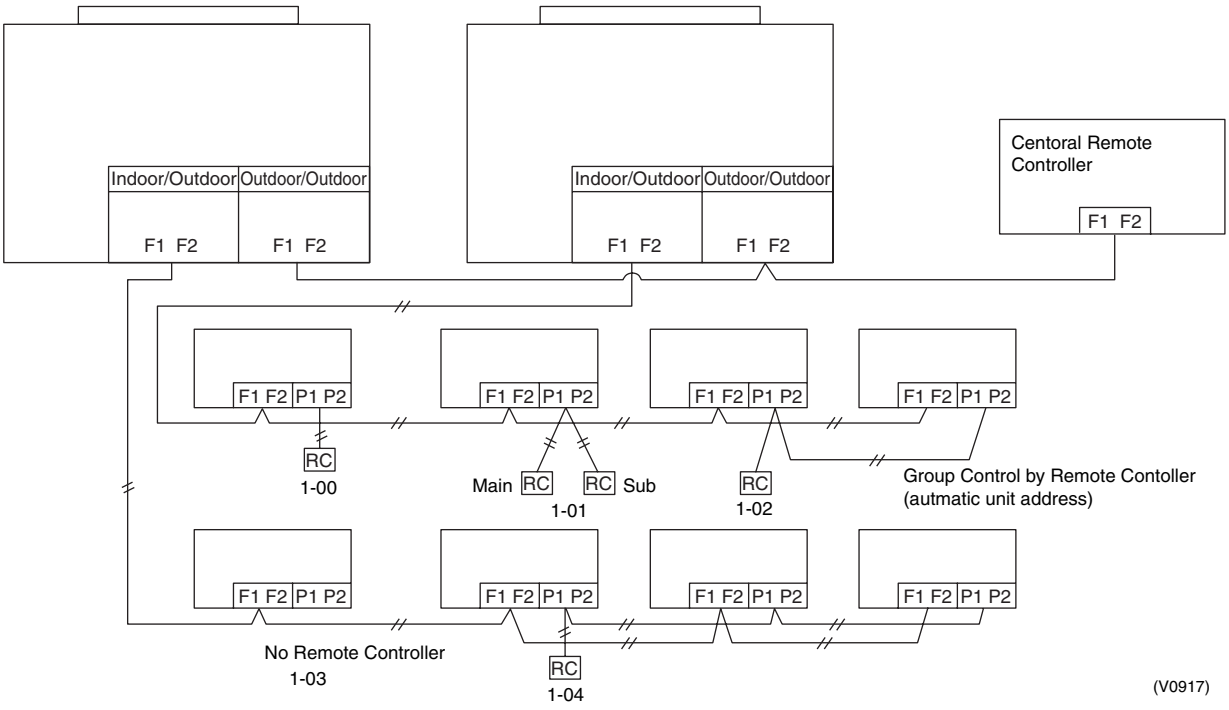
BRC7C Type
BRC7E Type
BRC4C Type

■ Group No. setting by wireless remote controller for centralized control

1. When in the normal mode, push /TEST button for 4 seconds or more, and operation then enters the “field set mode.”
2. Set mode No. “00” with MODE button.
3. Set the group No. for each group with UP DOWN button (advance/backward).
4. Enter the selected group numbers by pushing RESERVE button.
5. Push /TEST button and return to the normal mode.



Group No. Setting Example



Caution When turning the power supply on, the unit may often not accept any operation while "88" is displaying after all indications were displayed once for about 1 minute on the liquid crystal display. This is not an operative fault.

3.1.8 Setting of Operation Control Mode from Remote Controller (Local Setting)

The operation control mode is compatible with a variety of controls and operations by limiting the functions of the operation remote controller. Furthermore, operations such as remote controller ON/OFF can be limited in accordance with the combination conditions. (Refer to information in the table below.)
Centralized controller is normally available for operations. (Except when centralized monitor is connected)

3.1.9 Contents of Control Modes

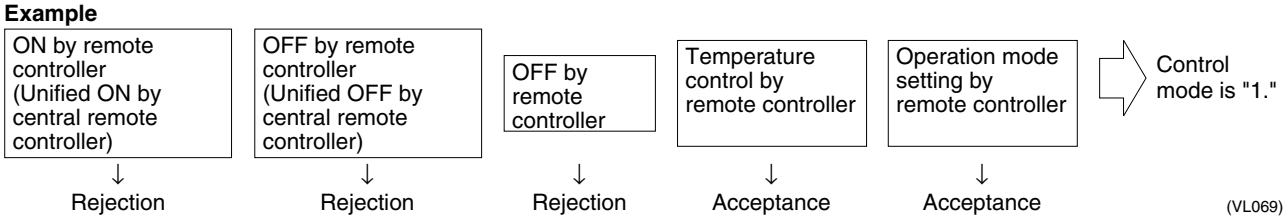
Twenty modes consisting of combinations of the following five operation modes with temperature and operation mode setting by remote controller can be set and displayed by operation modes 0 through 19.

- ON/OFF control impossible by remote controller
  Used when you want to turn on/off by central remote controller only.
  (Cannot be turned on/off by remote controller.)
- OFF control only possible by remote controller
  Used when you want to turn on by central remote controller only, and off by remote controller only.
- Centralized
  Used when you want to turn on by central remote controller only, and turn on/off freely by remote controller during set time.
- Individual
  Used when you want to turn on/off by both central remote controller and remote controller.
- Timer operation possible by remote controller
  Used when you want to turn on/off by remote controller during set time and you do not want to start operation by central remote controller when time of system start is programmed.

How to Select Operation Mode

Whether operation by remote controller will be possible or not for turning on/off, controlling temperature or setting operation mode is selected and decided by the operation mode given on the right edge of the table below.

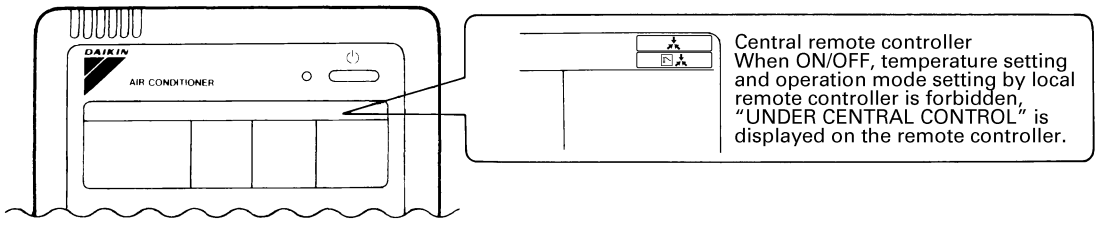
Example



Control mode	Control by remote controller					Control mode
	Operation		OFF	Temperature control	Operation mode setting	
	Unified operation, individual operation by central remote controller, or operation controlled by timer	Unified OFF, individual stop by central remote controller, or timer stop				
ON/OFF control impossible by remote controller	Rejection (Example)	Rejection (Example)	Rejection (Example)	Rejection	Acceptance	0
					Rejection	10
				Acceptance (Example)	Acceptance (Example)	1(Example)
					Rejection	11
OFF control only possible by remote controller			Acceptance	Rejection	Acceptance	2
					Rejection	12
				Acceptance	Acceptance	3
					Rejection	13
Centralized	Acceptance			Rejection	Acceptance	4
					Rejection	14
				Acceptance	Acceptance	5
					Rejection	15
Individual		Acceptance		Rejection	Acceptance	6
					Rejection	16
				Acceptance	Acceptance	7 ∗1
					Rejection	17
Timer operation possible by remote controller	Acceptance (During timer at ON position only)	Acceptance (During timer at ON position only)		Rejection	Acceptance	8
					Rejection	18
				Acceptance	Acceptance	9
					Rejection	19

Do not select “timer operation possible by remote controller” if not using a remote controller. Operation by timer is impossible in this case.

∗1. Factory setting



3.2 Field Setting from Outdoor Unit

3.2.1 Field Setting from Outdoor Unit

■ Setting by dip switches

The following field settings are made by dip switches on PC board.

Dipswitch		Setting item	Description
No.	Setting		
DS1-1	ON	Cool / Heat select	Used to set cool / heat select by remote controller equipped with outdoor unit.
	OFF (Factory set)		
DS1-2 ~DS1-4	ON	Not used	Do not change the factory settings.
	OFF (Factory set)		
DS2-1 ~4	ON	Not used	Do not change the factory settings.
	OFF (Factory set)		
DS3-1, 2	ON	Not used	Do not change the factory settings.
	OFF (Factory set)		

Caution

DIP switch Setting after changing the main P.C.Board(A1P) to spare parts P.C.B.

When you change the main P.C.Board(A1P) to spare parts P.C.B., please carry out the following setting.

DIP Switch Detail

DS No.	Item	Contents	
DS1-1	Cool/Heat change over setting	ON	The Cool/Heat change over setting is carried out by COOL/ HEAT changeover remote controller fitted to outdoor unit.
		OFF	The Cool/Heat change over setting is not carried out by COOL/ HEAT changeover remote controller fitted to outdoor unit.
DS1-2	Domestic/Overseas setting	ON	Domestic Japan
		OFF	Overseas
DS1-3	Cooling only/Heat-pump setting	ON	Cooling only
		OFF	Heat-pump
DS1-4	Not used	OFF	Do not change the factory settings. (Refrigerant classification)
DS2-1		OFF	
DS2-2	HP setting (Horse power)		
DS2-3			
DS2-4			

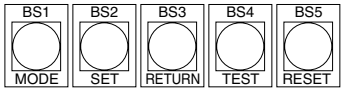
	8	10	HP
DS2-2	OFF	ON	
DS2-3	ON	ON	
DS2-4	OFF	OFF	

■ Setting by pushbutton switches

The following settings are made by pushbutton switches on PC board.
In case of multi-outdoor unit system, various items should be set with the master unit.
(Setting with the slave unit is disabled.)
The master unit and slave unit can be discriminated with the LED indication as shown below.

	H1P	H2P	H3P	H4P	H5P	H6P	H7P	H8P
One outdoor unit installed	●	●	○	●	●	●	●	●

(Factory setting)



(V2760)

There are the following three setting modes.

① **Setting mode 1 (H1P off)**

Initial status (when normal) : Used to select the cool/heat setting. Also indicates during “abnormal”, “low noise control” and “demand control”.

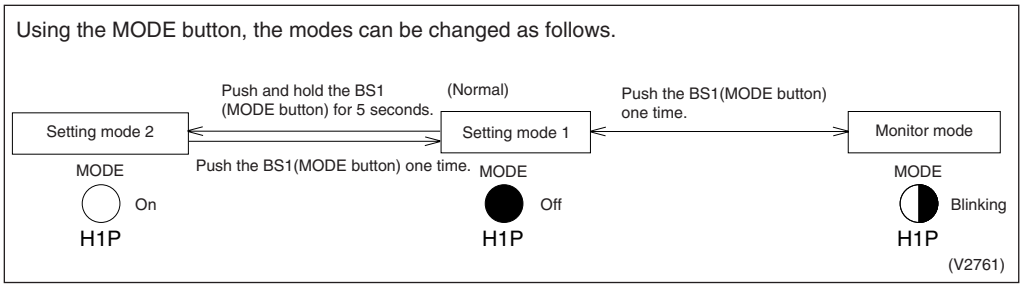
② **Setting mode 2 (H1P on)**

Used to modify the operating status and to set program addresses, etc. Usually used in servicing the system.

③ **Monitor mode (H1P blinks)**

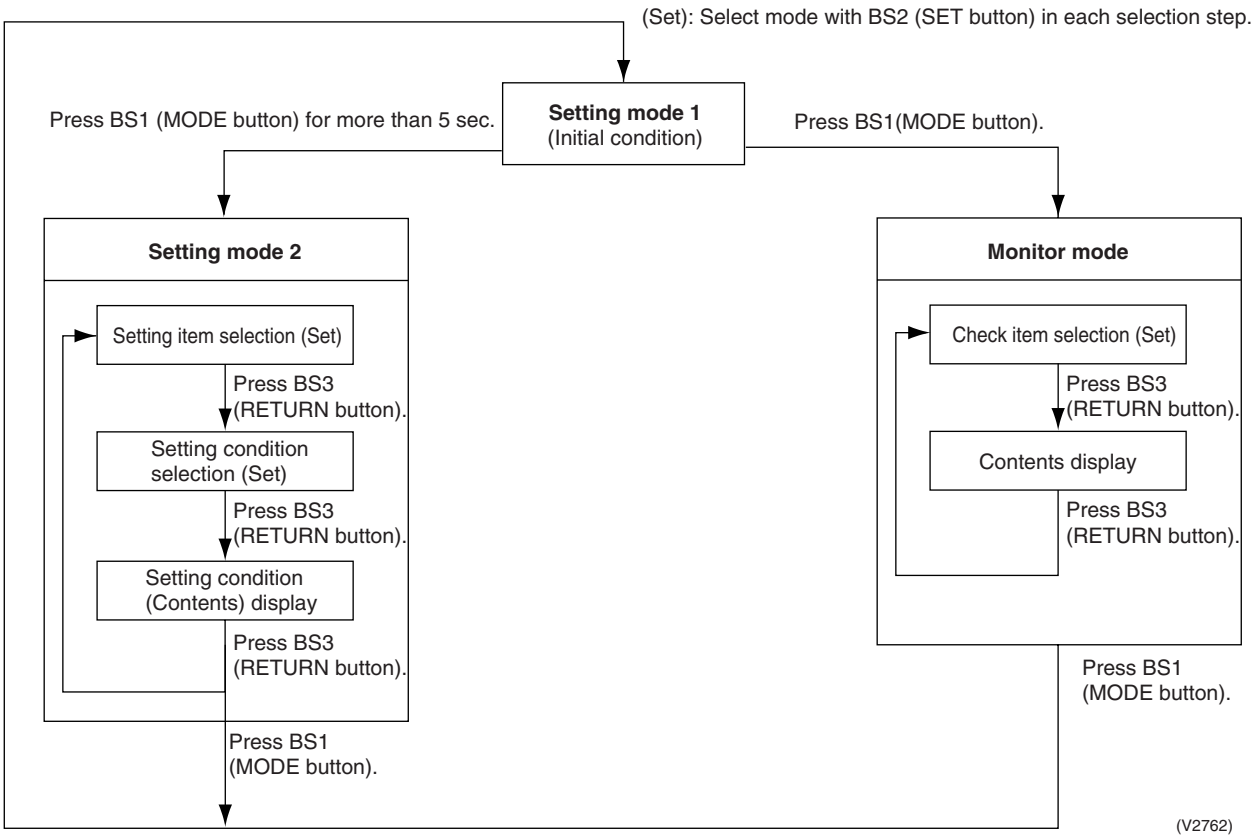
Used to check the program made in Setting mode 2.

■ Mode changing procedure



(V2761)

■ Mode changing procedure



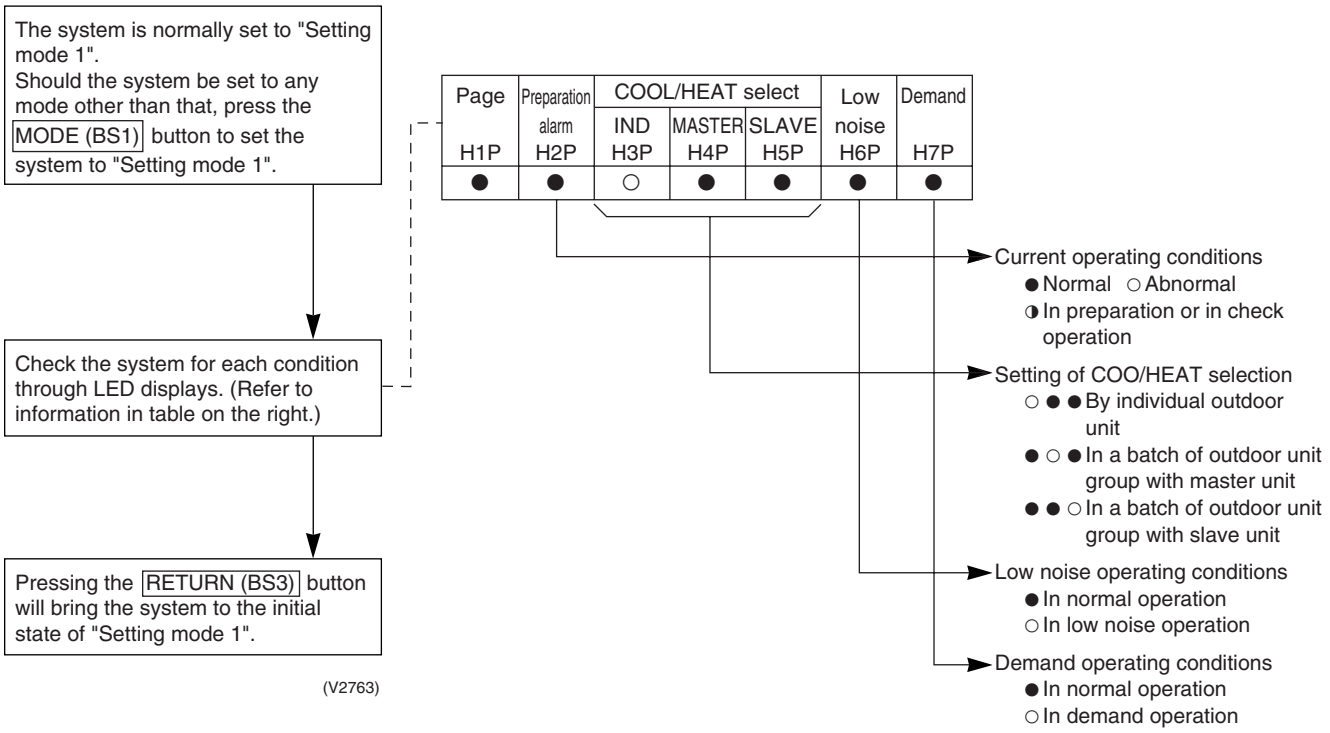
(V2762)

a. “Setting mode 1”

This mode is used to check the following items.

1. Check items ····· The following items can be checked.
   (1) Current operating conditions (Normal / Abnormal / In check operation)
   (2) Setting conditions of COOL/HEAT selection (Individual / Batch master / Batch slave)
   (3) Low noise operating conditions (In normal operation / In low noise operation)
   (4) Demand operating conditions (In normal operation / In demand operation)

Procedure for checking check items



b. “Setting mode 2”

Push and hold the MODE button (BS1) for 5 seconds and set to “Setting mode 2”.

<Selection of setting items>

Push the SET button (BS2) and set the LED display to a setting item shown in the table on the right.
↓
Push the RETURN button (BS3) and decide the item. (The present setting condition is blinked.)

<Selection of setting conditions>

Push the SET button (BS2) and set to the setting condition you want.
↓
Push the RETURN button (BS3) and decide the condition.

Push the RETURN button (BS3) and set to the initial status of “Setting mode 2”.

∗ If you become unsure of how to proceed, push the MODE button (BS1) and return to setting mode 1.

(V2764)

No.	Setting item	Description
0	EMG (Emergency operation 1)	Operates by Standard compressor only when inverter compressor malfunctions. Temporary operation until the compressor is replaced. Since the comfortability is extremely deteriorated, immediately replace the compressor. (This setting is not applicable to RXY5M.)
1	Cool/heat unified address	Sets address for cool/heat unified operation.
2	Low noise/demand address	Address for low noise/demand operation
5	Indoor unit forced fan H	Allows forced operation of indoor unit fan while unit is stopped. (H tap)
6	Indoor unit forced operation	Allows forced operation of indoor unit.
8	Te setting	Target evaporation temperature for cooling
9	Tc setting	Target condensation temperature for heating
11	Sequential operation setting	Sets sequential operation
12	External low noise setting / Demand setting	Reception of external low noise or demand signal
13	AIRNET address	Set address for AIRNET.
18	High static pressure setting	Make this setting in the case of operating in high static pressure mode with diffuser duct mounted.
19	Emergency operation (STD compressor operation prohibited)	Used to operate system only with inverter compressor when STD compressor malfunctions. This is a temporary operation extremely impairing comfortable environment. Therefore, prompt replacement of the compressor is required.
20	Additional refrigerant charge operation setting	Carries out additional refrigerant charge operation.
21	Refrigerant recovery/ vacuuming mode setting	Sets to refrigerant collection mode.
22	Night-time low noise setting	Sets automatic nighttime low noise operation in a simple way. The operating time is based on “Starting set” and “Ending set”.
25	Low noise setting	Sets low noise level when the low noise signal is input from outside.
26	Night-time low noise control starting setting	Sets starting time of nighttime low noise operation. (Nighttime low noise setting is also required.)
27	Night-time low noise control ending setting	Sets ending time of nighttime low noise operation. (Nighttime low noise setting is also required.)
28	Power transistor check mode ∗Check after disconnection of compressor wires	Used for trouble diagnosis of DC compressor. Since the waveform of inverter is output without wiring to the compressor, it is convenient to probe whether the trouble comes from the compressor or PC board.
29	Capacity precedence setting	If the capacity control is required, the low noise control is automatically released by this setting during carrying out low noise operation and nighttime low noise operation.
30	Demand setting 1	Changes target value of power consumption when demand control 1 is input.
32	Normal demand setting	Normally enables demand control 1 without external input. (Effective to prevent a problem that circuit breaker of small capacity is shut down due to large load.

The numbers in the “No.” column represent the number of times to press the SET (BS2) button.

No.	Setting item display								Setting condition display								
	Setting item	MODE H1P	TEST H2P	C/H selection			Low noise H6P	Demand H7P									✻ Factory set
				IND H3P	Master H4P	Slave H5P											
0	EMG (emergency operation) INV compressor operation inhibited.	○	●	●	●	●	●	●	Normal operation		○	●	●	●	●	●	○ ✻
									Emergency operation		○	●	●	●	●	○	●
1	Cool / Heat Unified address	○	●	●	●	●	●	○	Address (6 digits)	0	○	●	●	●	●	●	● ✻
									Binary number	1	○	●	●	●	●	●	○
										~							
										31	○	●	○	○	○	○	○
2	Low noise/demand address	○	●	●	●	●	○	●	Address (6 digits)	0	○	●	●	●	●	●	● ✻
									Binary number	1	○	●	●	●	●	●	○
										~							
										31	○	●	○	○	○	○	○
5	Indoor forced fan H	○	●	●	●	○	●	○	Normal operation		○	●	●	●	●	●	○ ✻
									Indoor forced fan H		○	●	●	●	●	○	●
6	Indoor forced operation	○	●	●	●	○	○	●	Normal operation		○	●	●	●	●	●	○ ✻
									Indoor forced operation		○	●	●	●	●	○	●
8	Te setting	○	●	●	○	●	●	●	High		○	●	●	●	○	●	●
									Normal (factory setting)		○	●	●	●	●	○	● ✻
									Low		○	●	●	●	●	●	○
9	Tc setting	○	●	●	○	●	●	○	High		○	●	●	●	○	●	●
									Normal (factory setting)		○	●	●	●	●	○	● ✻
									Low		○	●	●	●	●	●	○
11	Sequential operation setting	○	●	●	○	●	○	○	OFF		○	●	●	●	●	●	○
									ON		○	●	●	●	●	○	● ✻
12	External low noise/ demand setting	○	●	●	○	○	●	●	External low noise/demand: NO		○	●	●	●	●	●	○ ✻
									External low noise/demand: YES		○	●	●	●	●	○	●
13	Airnet address	○	●	●	○	○	●	○	Address (6 digits)	0	○	●	●	●	●	●	● ✻
									Binary number	1	○	●	●	●	●	●	○
										~							
										63	○	●	○	○	○	○	○
18	High static pressure setting	○	●	○	●	●	○	●	High static pressure setting: OFF		○	●	●	●	●	●	○ ✻
									High static pressure setting: ON		○	●	●	●	●	○	●
19	Emergency operation (STD compressor is inhibited to operate.)	○	●	○	●	●	○	○	OFF		○	●	●	●	●	●	● ✻
									STD 1, 2 operation: Inhibited		○	●	●	●	●	●	○
									STD 2 operation: Inhibited		○	●	●	●	●	○	●
20	Additional refrigerant operation setting	○	●	○	●	○	●	●	Refrigerant charging: OFF		○	●	●	●	●	●	○ ✻
									Refrigerant charging: ON		○	●	●	●	●	○	●
21	Refrigerant recovery/ vacuuming mode setting	○	●	○	●	○	●	○	Refrigerant recovery: OFF		○	●	●	●	●	●	○ ✻
									Refrigerant recovery: ON		○	●	●	●	●	○	●
22	Night-time low noise setting	○	●	○	●	○	○	●	OFF		○	●	●	●	●	●	● ✻
									Level 1 (outdoor fan with 6 step or lower)		○	●	●	●	●	●	○
									Level 2 (outdoor fan with 5 step or lower)		○	●	●	●	●	○	●
									Level 3 (outdoor fan with 4 step or lower)		○	●	●	●	●	○	○
25	Low noise setting	○	●	○	○	●	●	○	Level 1 (outdoor fan with 6 step or lower)		○	●	●	●	●	●	○
									Level 2 (outdoor fan with 5 step or lower)		○	●	●	●	●	○	● ✻
									Level 3 (outdoor fan with 4 step or lower) ✻		○	●	●	●	○	●	●

No.	Setting item display								Setting condition display	
	Setting item	MODE H1P	TEST H2P	C/H selection			Low noise H6P	Demand H7P		✻ Factory set
				IND H3P	Master H4P	Slave H5P				
26	Night-time low noise operation start setting	○	●	○	○	●	○	●	About 20:00 About 22:00 (factory About 24:00	○ ● ● ● ● ● ○ ○ ● ● ● ● ○ ● ✻ ○ ● ● ● ○ ● ●
27	Night-time low noise operation end setting	○	●	○	○	●	○	○	About 6:00 About 7:00 About 8:00 (factory	○ ● ● ● ● ● ○ ○ ● ● ● ● ○ ● ○ ● ● ● ○ ● ● ✻
28	Power transistor check mode	○	●	○	○	○	●	●	OFF ON	○ ● ● ● ● ● ○ ✻ ○ ● ● ● ● ○ ●
29	Capacity precedence setting	○	●	○	○	○	●	○	OFF ON	○ ● ● ● ● ● ○ ✻ ○ ● ● ● ● ○ ●
30	Demand setting 1	○	●	○	○	○	○	●	60 % demand 70 % demand 80 % demand	○ ● ● ● ● ● ○ ○ ● ● ● ● ○ ● ✻ ○ ● ● ● ○ ● ●
32	Normal demand setting	○	○	●	●	●	●	●	OFF ON	○ ● ● ● ● ● ○ ✻ ○ ● ● ● ● ○ ●

c. Monitor mode

To enter the monitor mode, push the MODE button (BS1) when in "Setting mode 1".

<Selection of setting item>

Push the SET button (BS2) and set the LED display to a setting item.

<Confirmation on setting contents>

Push the RETURN button (BS3) to display different data of set items.

Push the RETURN button (BS3) and switches to the initial status of "Monitor mode".

∗ Push the MODE button (BS1) and returns to "Setting mode 1".

(V2765)

*1: Number of indoor units connected
Used to make setting of the number of indoor units connected to an out door unit.

*2: Number of outdoor units connected
Used to make setting of the number of outdoor units connected to DIII-NET that is one of the communication lines.

*3: Number of terminal units
Used to make setting of the number of indoor units connected to DIII-NET that is one of the communication lines.
(Only available for VRV indoor units)

No.	Setting item	LED display							Data display
		H1P	H2P	H3P	H4P	H5P	H6P	H7P	
0	Number of units for sequential starting, and others	◑	●	●	●	●	●	●	See below
1	C/H unified address	◑	●	●	●	●	●	○	Lower 6 digits
2	Low noise/demand address	◑	●	●	●	●	○	●	
3	Not used	◑	●	●	●	●	○	○	
4	Airnet address	◑	●	●	●	○	●	●	
5	Number of connected indoor units *1	◑	●	●	●	○	●	○	
7	Number of connected zone units (Fixed to 0)	◑	●	●	●	○	○	○	
8	Number of outdoor units *2	◑	●	●	○	●	●	●	
11	Number of zone units (excluding outdoor and BS unit)	◑	●	●	○	●	○	○	Lower 6 digits
12	Number of indoor units *3	◑	●	●	○	○	●	●	Lower 4 digits: upper
13	Number of indoor units *3	◑	●	●	○	○	●	○	Lower 4 digits: lower
14	Contents of malfunction (the latest)	○	●	●	○	○	○	●	Malfunction code table
15	Contents of malfunction (1 cycle before)	○	●	●	○	○	○	○	Refer page 95.
16	Contents of malfunction (2 cycle before)	○	●	○	●	●	●	●	
20	Contents of retry (the latest)	○	●	○	●	○	●	●	
21	Contents of retry (1 cycle before)	○	●	○	●	○	●	○	
22	Contents of retry (2 cycle before)	○	●	○	●	○	○	●	

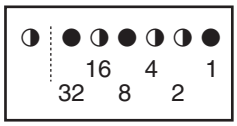
The numbers in the "No." column represent the number of times to press the SET (BS2) button.

Setting item 0 Display contents of "Number of units for sequential start, and others"

EMG operation / backup operation setting	ON	◑	●	●	○	●	●	●
	OFF	◑	●	●	●	●	●	●
Defrost select setting	Short	◑	●	●	●	○	●	●
	Medium	◑	●	●	●	◑	●	●
	Long	◑	●	●	●	●	●	●
Te setting	H	◑	●	●	●	●	○	●
	M	◑	●	●	●	●	◑	●
	L	◑	●	●	●	●	●	●
Tc setting	H	◑	●	●	●	●	●	○
	M	◑	●	●	●	●	●	◑
	L	◑	●	●	●	●	●	●

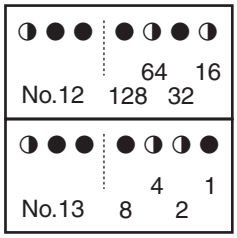
Push the SET button and match with the LEDs No. 1 - 15, push the RETURN button, and enter the data for each setting.

★ Data such as addresses and number of units is expressed as binary numbers; the two ways of expressing are as follows:



The No. 1 cool/heat unified address is expressed as a binary number consisting of the lower 6 digits. (0 - 63)

In ① the address is 010110 (binary number), which translates to 16 + 4 + 2 = 22 (base 10 number). In other words, the address is 22.



The number of terminal blocks for No. 12 and 13 is expressed as an 8-digit binary number, which is the combination of four upper, and four lower digits for No. 12 and 13 respectively. (0 - 128)
In ② the address for No. 12 is 0101, the address for No. 13 is 0110, and the combination of the two is 01010110 (binary number), which translates to 64 + 16 + 4 + 2 = 86 (base 10 number). In other words, the number of terminal block is 86.

★ See the preceding page for a list of data, etc. for No. 0 - 22.

3.2.2 Setting of Low Noise Operation and Demand Operation

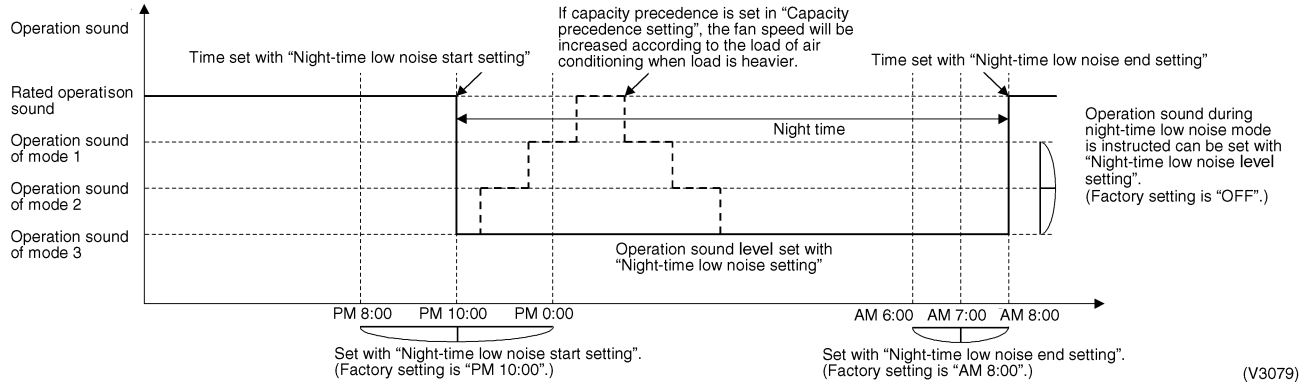
Setting of Low Noise Operation

By connecting the external contact input to the low noise input of the outdoor unit external control adapter (optional), you can lower operating noise by 2-3 dB.

When the low noise operation is carried out automatically at night (The external control adapter for outdoor unit is not required)

1. While in "Setting mode 2", select the setting condition (i.e., "Mode 1", "Mode 2", or "Mode 3") for set item No. 22 (Setting of nighttime low noise level).
2. If necessary, while in "Setting mode 2", select the setting condition (i.e., "20:00", "22:00", or "24:00") for set item No. 26 (Setting of start time of nighttime low noise operation).
   (Use the start time as a guide since it is estimated according to outdoor temperatures.)
3. If necessary, while in "Setting mode 2", select the setting condition (i.e., "06:00", "07:00", or "08:00") for set item No. 27 (Setting of end time of nighttime low noise operation).
   (Use the end time as a guide since it is estimated according to outdoor temperatures.)
4. If necessary, while in "Setting mode 2", set the setting condition for set item No. 29 (Setting of capacity precedence) to "ON".
   (If the condition is set to "ON", when the air-conditioning load reaches a high level, the system will be put into normal operation mode even during nighttime.)

Image of operation



Setting of Demand Operation

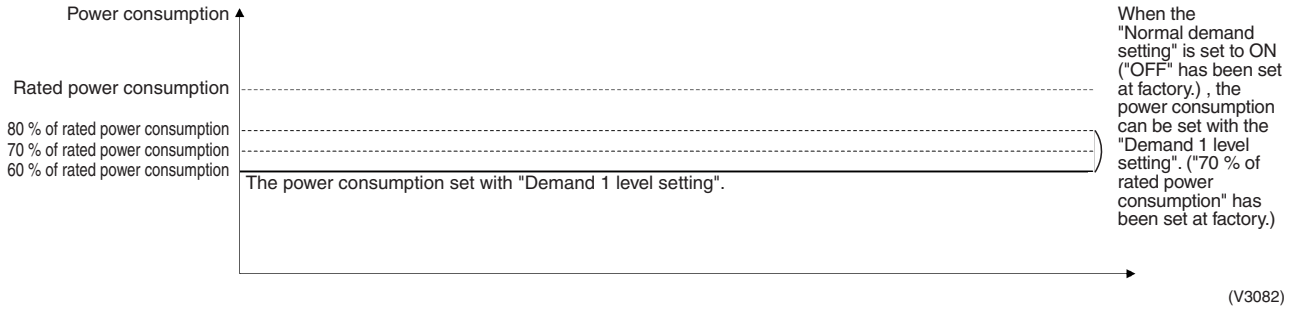
By connecting the external contact input to the demand input of the outdoor unit external control adapter (optional), the power consumption of unit operation can be saved suppressing the compressor operating condition.

Set item	Condition	Content
Demand	Mode 1	The compressor operates at approx. 60% or less of rating.
	Mode 2	The compressor operates at approx. 70% or less of rating.
	Mode 3	The compressor operates at approx. 80% or less of rating.

When the normal demand operation is carried out. (Use of the external control adapter for outdoor unit is not required.)

1. While in "Setting mode 2", make setting of the set item No. 32 (Setting of constant demand) to "ON".
2. While in "Setting mode 2", select the set item No. 30 (Setting of Demand 1 level) and then set the setting condition to targeted mode.

Image of operation



Detailed Setting Procedure of Low Noise Operation and Demand Control

1. Setting mode 1 (H1P off)

① In setting mode 2, push the BS1 (MODE button) one time. → Setting mode 1 is entered and H1P off.
During the setting mode 1 is displayed, “In low noise operation” and “In demand control” are displayed.

2. Setting mode 2 (H1P on)

① In setting 1, push and hold the BS1 (MODE button) for more than 5 seconds. → Setting mode 2 is entered and H1P lights.
② Push the BS2 (SET button) several times and match the LED display with the Setting No. you want.
③ Push the BS3 (RETURN button) one time, and the present setting content is displayed.
→ Push the BS2 (SET button) several times and match the LED display with the setting content (as shown on next page) you want.
④ Push the BS3 (RETURN button) two times. → Returns to ①.
⑤ Push the BS1 (MODE button) one time. → Returns to the setting mode 1 and turns H1P off.

○: ON ●: OFF ◑: Blink

		①							②								③						
Setting No.	Setting contents	Setting No. indication							Setting No. indication							Setting contents	Setting contents indication (Initial setting)						
		H1P	H2P	H3P	H4P	H5P	H6P	H7P	H1P	H2P	H3P	H4P	H5P	H6P	H7P		H1P	H2P	H3P	H4P	H5P	H6P	H7P
12	External low noise / Demand setting	○	●	●	●	●	●	●	○	●	●	○	○	●	●	NO (Factory set)	○	●	●	●	●	●	◑
																YES	○	●	●	●	●	◑	●
22	Night-time low noise setting								○	●	○	●	○	○	●	OFF (Factory setting)	○	●	●	●	●	●	●
																Mode 1	○	●	●	●	●	●	◑
																Mode 2	○	●	●	●	●	◑	●
																Mode 3	○	●	●	●	●	◑	◑
26	Night-time low noise start setting								○	●	○	○	●	○	●	PM 8:00	○	●	●	●	●	●	◑
																PM 10:00 (Factory setting)	○	●	●	●	●	◑	●
																PM 0:00	○	●	●	●	◑	●	●
27	Night-time low noise end setting								○	●	○	○	●	○	○	AM 6:00	○	●	●	●	●	●	◑
																AM 7:00	○	●	●	●	●	◑	●
																AM 8:00 (Factory setting)	○	●	●	●	◑	●	●
29	Capacity precedence setting								○	●	○	○	○	●	○	Low noise precedence (Factory setting)	○	●	●	●	●	●	◑
																Capacity precedence	○	●	●	●	●	◑	●
30	Demand setting 1								○	●	○	○	○	○	●	60 % of rated power consumption	○	●	●	●	●	●	◑
																70 % of rated power consumption (Factory setting)	○	●	●	●	●	◑	●
																80 % of rated power consumption	○	●	●	●	◑	●	●
32	Normal demand setting								○	●	●	●	●	●	●	OFF (Factory setting)	○	●	●	●	●	●	◑
																ON	○	●	●	●	●	◑	●

Setting mode indication section

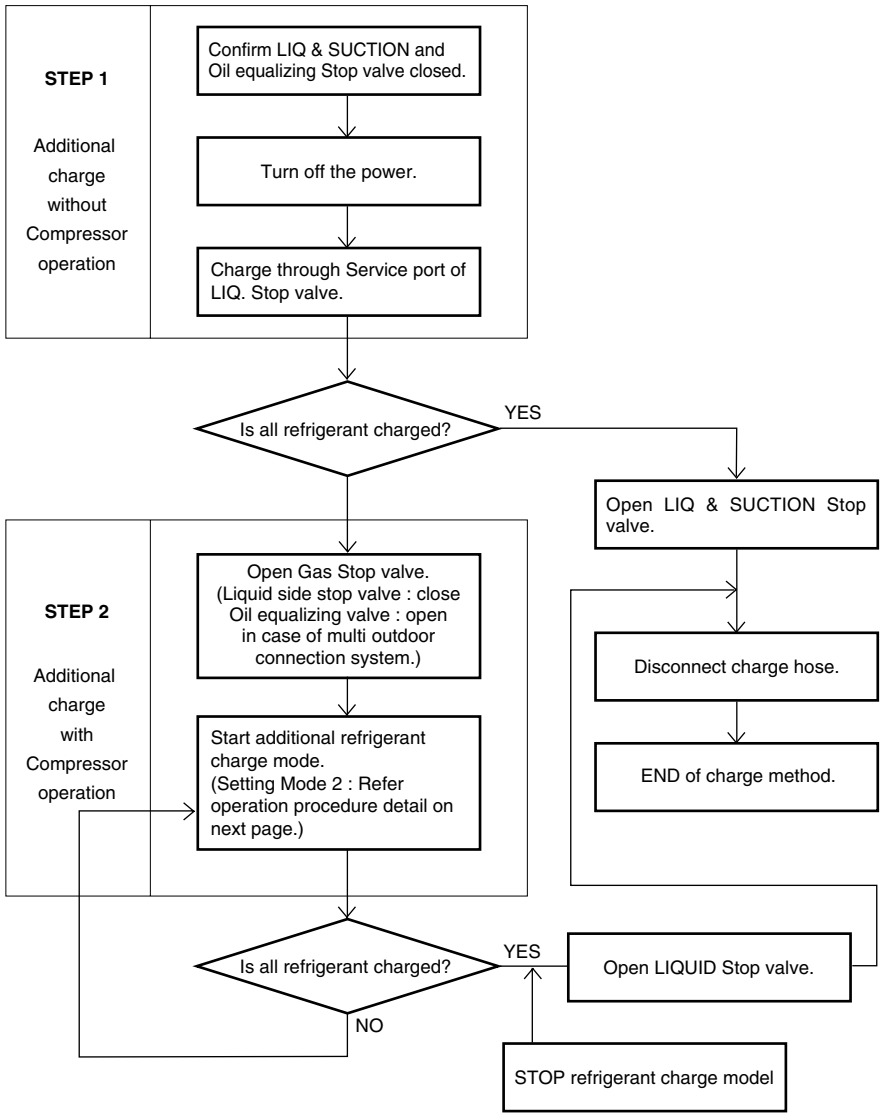
Setting No. indication section

Set contents indication section

3.2.3 Setting of Refrigerant Additional Charging Operation

When additional refrigerant is not charged all with outdoor unit in stop mode, operate the outdoor unit and charge the liquid refrigerant from the service port of liquid stop value. The additional charging operation is activated by pushbutton switch on the outdoor unit PC board.

[Additional refrigerant charge total flow]



(V2892)

[Operation procedure detail]

① After turning the respective remote switch of indoor and outdoor units off and charging the refrigerant, turn on the power of indoor and outdoor units.
Do not fail to turn the power off and charge the refrigerant with outdoor unit in stop mode before adding the refrigerant following this procedure, otherwise resulting in trouble.

② Fully open the stop valve on the gas side and oil equalizing valve for multi outdoor connection, and do not fail to fully close the stop valve on the liquid side. (If the stop valve on the liquid side is open, the refrigerant cannot be charged.)

③ In **Setting mode 2** (H1P : ON) with outdoor unit in stop mode, Set "A Additional refrigerant charging operation" switch to ON to start the operation. (H2P turns to display TEST OPERATION (blinks), and "TEST OPERATION" and "IN CENTRALIZED CONTROL" are displayed on the remote controller.)

④ When the refrigerant is charged up to the specified amount, press the RETURN button (BS3) to stop charging.
The charging operation is automatically stopped after operating for a maximum of about 30 minutes.
If the charging is not complete within 30 minutes, set the A Additional refrigerant charging operation again to start charging. When the charging immediately stops even by restarting, the refrigerant is charged excessively. The refrigerant cannot be charged any more.

⑤ **Do not fail to fully open the stop valve on the liquid side** as soon as disconnecting the refrigerant charging hose.
(The piping may be burst due to the liquid sealing.)

[Operation state]

- Compressor frequency : 210Hz
- Y1S, Y2S, Y3S Solenoid valve : Open
- Outdoor unit fan : High pressure control
- Indoor unit expansion valve (All unit) : 1024 pulse
- Indoor unit fan : H tap

3.2.4 Setting of Refrigerant Recovery Mode

When carrying out the refrigerant collection on site, fully open the respective expansion valve of indoor and outdoor units

[Operation procedure]

① In **setting mode 2** with units in stop mode, set "B Refrigerant Recovery / Vacuuming mode" to ON. The respective expansion valve of indoor and outdoor units are fully opened. (H2P turns to display "TEST OPERATION" (blinks), "TEST OPERATION" and "IN CENTRALIZED CONTROL" are displayed on the remote controller, and the operation is prohibited.

② Collect the refrigerant using a refrigerant recovery unit. (See the instruction attached to the refrigerant recovery unit for more detal.)

③ Press Mode button "BS1" once and reset "Setting Mode 2".

3.2.5 Setting of Vacuuming Mode

In order to perform vacuuming operation at site, fully open the expansion valves of indoor and outdoor units to turn on some solenoid valves.

[Operating procedure]

① With **Setting Mode 2** while the unit stops, set (B) Refrigerant recovery / Vacuuming mode to ON. The expansion valves of indoor and outdoor units fully open and some of solenoid valves open.
(H2P blinks to indicate the test operation, and the remote controller displays "Test Operation" and "In Centralized control", thus prohibiting operation.)
After setting, do not cancel “Setting Mode 2” until completion of Vacuuming operation.

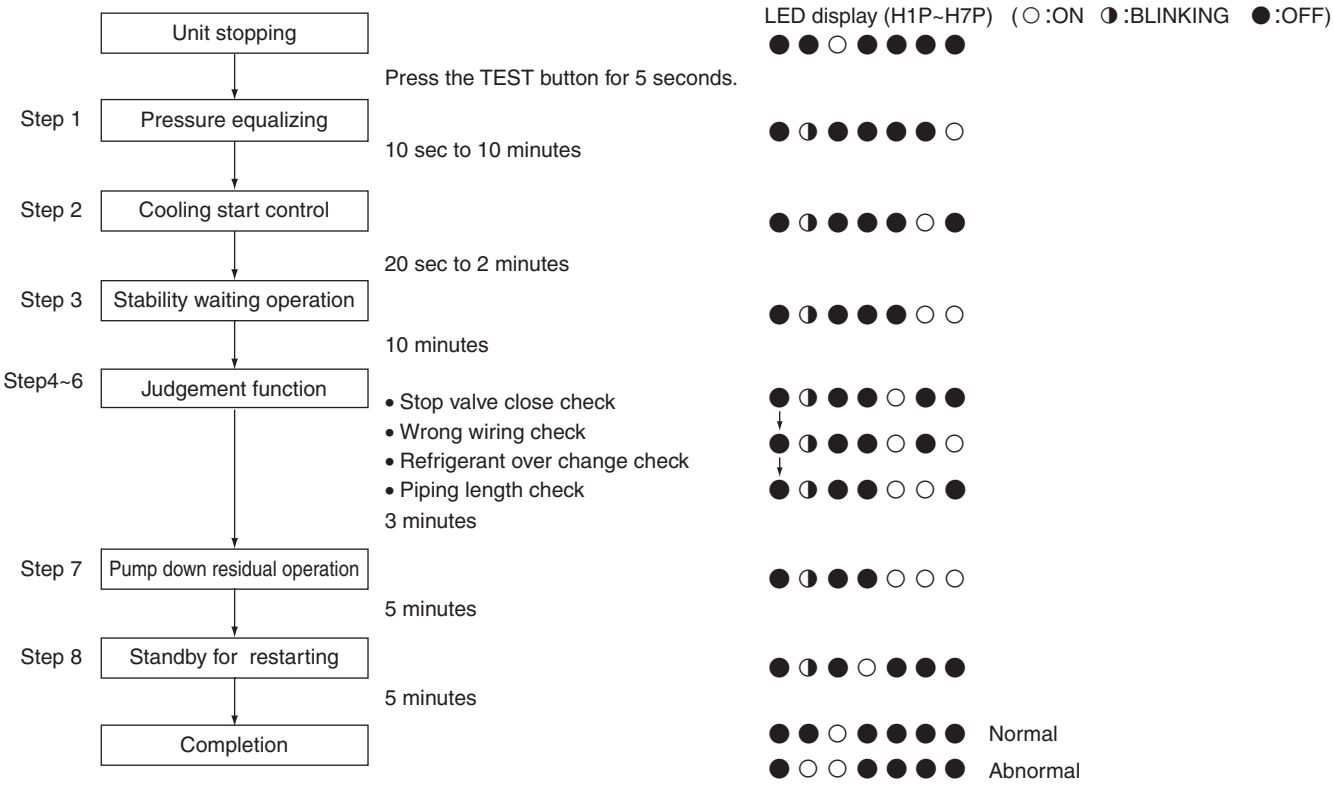
② Use the vacuum pump to perform vacuuming operation.

③ Press Mode button “BS1” once and reset “Setting Mode 2”.

3.2.6 Check Operation

To prevent any trouble in the period of installation at site, the system is provided with a test operation mode enabling check for incorrect wiring, stop valve left in closed, coming out (or misplacing with suction pipe thermistor) of discharge pipe thermistor and judgment of piping length, refrigerant overcharging, and learning for the minimum opening degree of motorized valve.

CHECK OPERATION FUNCTION



3.2.7 Power Transistor Check Operation

When the inverter system malfunctions (malfunction of inverter, INV compressor), to locate where the malfunction occurs, switching to the power transistor check mode of inverter in the service mode setting enables not to judge the position detection signal malfunction but to output waveform only during inverter operation. (The waveform can be checked by disconnecting the wiring of compressor.)

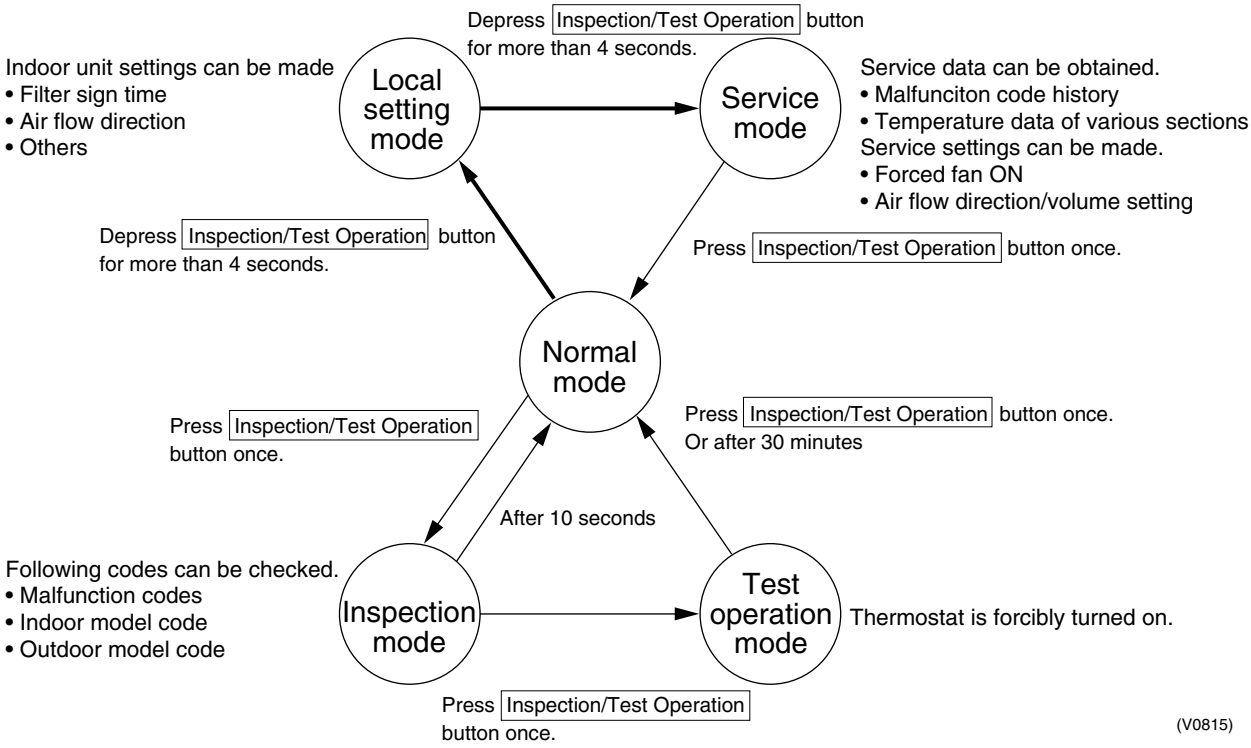
Note: Be sure to disconnect the compressor wiring when conducting the check operation mentioned above.
When the output voltage is approx. 50 V (10 Hz) and the voltage balance between phases U-V, V-W, W-U is within ±5%, the inverter PC board is normal.

Part 6
Troubleshooting

1. Troubleshooting by Remote Controller

1.1 The INSPECTION / TEST Button

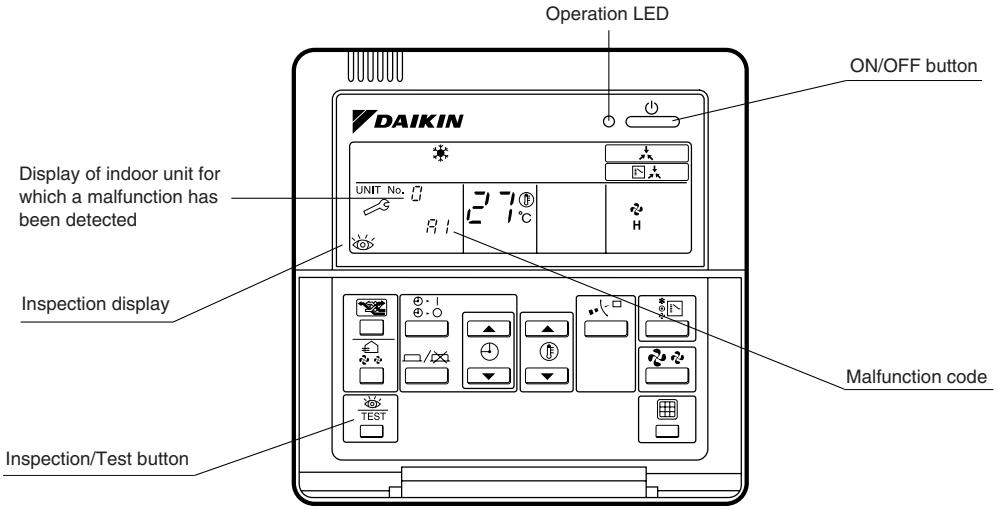
The following modes can be selected by using the [Inspection/Test Operation] button on the remote control.



1.2 Self-diagnosis by Wired Remote Controller

Explanation

If operation stops due to malfunction, the remote controller's operation LED blinks, and malfunction code is displayed. (Even if stop operation is carried out, malfunction contents are displayed when the inspection mode is entered.) The malfunction code enables you to tell what kind of malfunction caused operation to stop. See page 113 for malfunction code and malfunction contents.



Note:

1. Pressing the INSPECTION/TEST button will blink the check indication.
2. While in check mode, pressing and holding the ON/OFF button for a period of five seconds or more will clear the failure history indication shown above. In this case, on the codes display, the malfunction code will blink twice and then change to "00" (=Normal), the Unit No. will change to "0", and the operation mode will automatically switch from check mode to normal mode (displaying the set temperature).

1.3 Self-diagnosis by Wireless Remote Controller

In the Case of BRC7C Type BRC7E Type BRC4C Type

If equipment stops due to a malfunction, the operation indicating LED on the light reception section flashes.
The malfunction code can be determined by following the procedure described below. (The malfunction code is displayed when an operation error has occurred. In normal condition, the malfunction code of the last problem is displayed.)

1. Press the INSPECTION/TEST button to select “Inspection.”
   The equipment enters the inspection mode. The “Unit” indication lights and the Unit No. display shows flashing “0” indication.
2. Set the Unit No.
   Press the UP or DOWN button and change the Unit No. display until the buzzer (*1) is generated from the indoor unit.
   *1 Number of beeps
   3 short beeps : Conduct all of the following operations.
   1 short beep : Conduct steps 3 and 4.
   Continue the operation in step 4 until a buzzer remains ON. The continuous buzzer indicates that the malfunction code is confirmed.
   Continuous beep : No abnormality.
3. Press the MODE selector button.
   The left “0” (upper digit) indication of the malfunction code flashes.
4. Malfunction code upper digit diagnosis
   Press the UP or DOWN button and change the malfunction code upper digit until the malfunction code matching buzzer (*2) is generated.

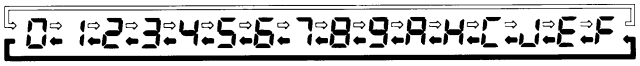
■ The upper digit of the code changes as shown below when the UP and DOWN buttons are pressed.

⇨ ”Advance” button ⬅ ”Backward” button (SE006)

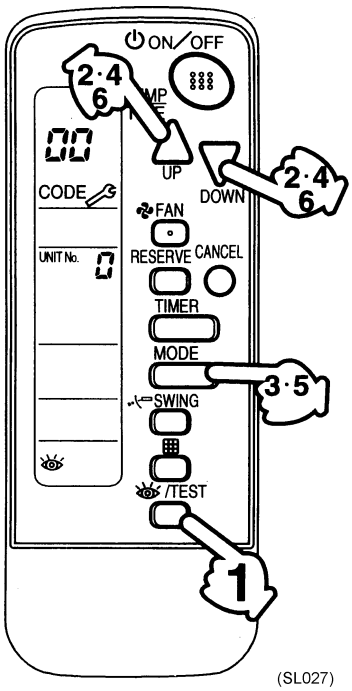
*2 Number of beeps
Continuous beep : Both upper and lower digits matched. (Malfunction code confirmed)
2 short beeps : Upper digit matched.
1 short beep : Lower digit matched.

5. Press the MODE selector button.
   The right “0” (lower digit) indication of the malfunction code flashes.
6. Malfunction code lower digit diagnosis
   Press the UP or DOWN button and change the malfunction code lower digit until the continuous malfunction code matching buzzer (*2) is generated.

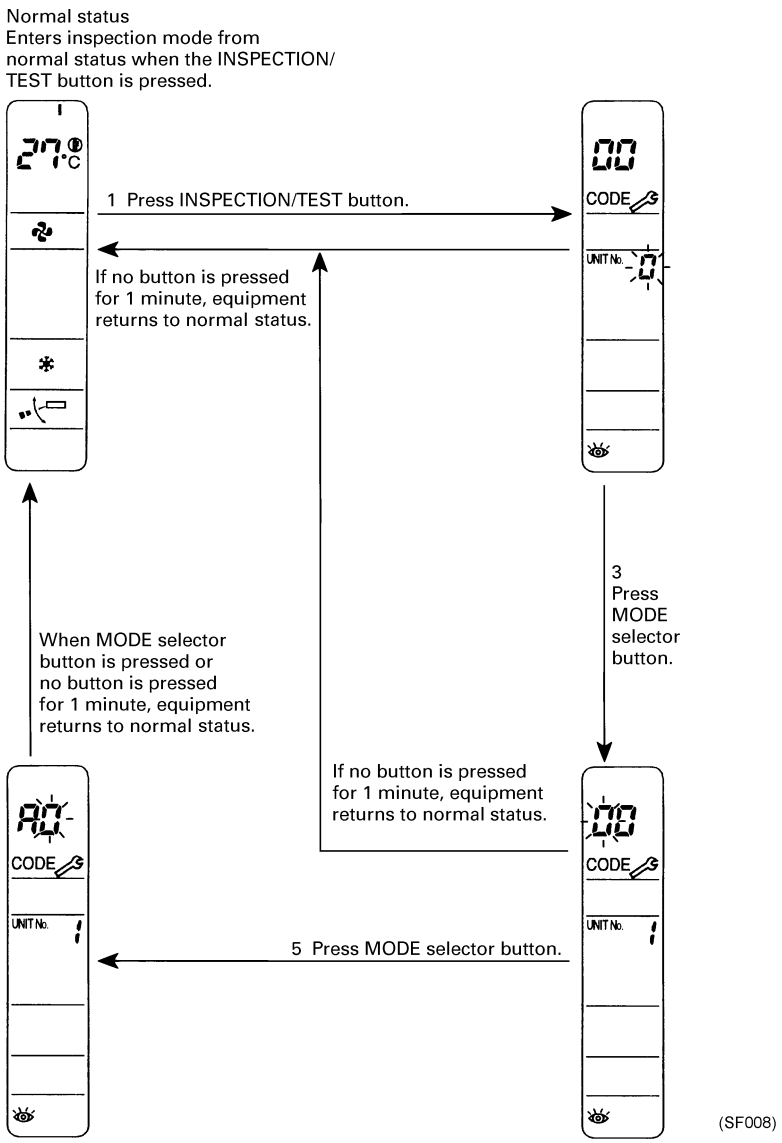
■ The lower digit of the code changes as shown below when the UP and DOWN buttons are pressed.



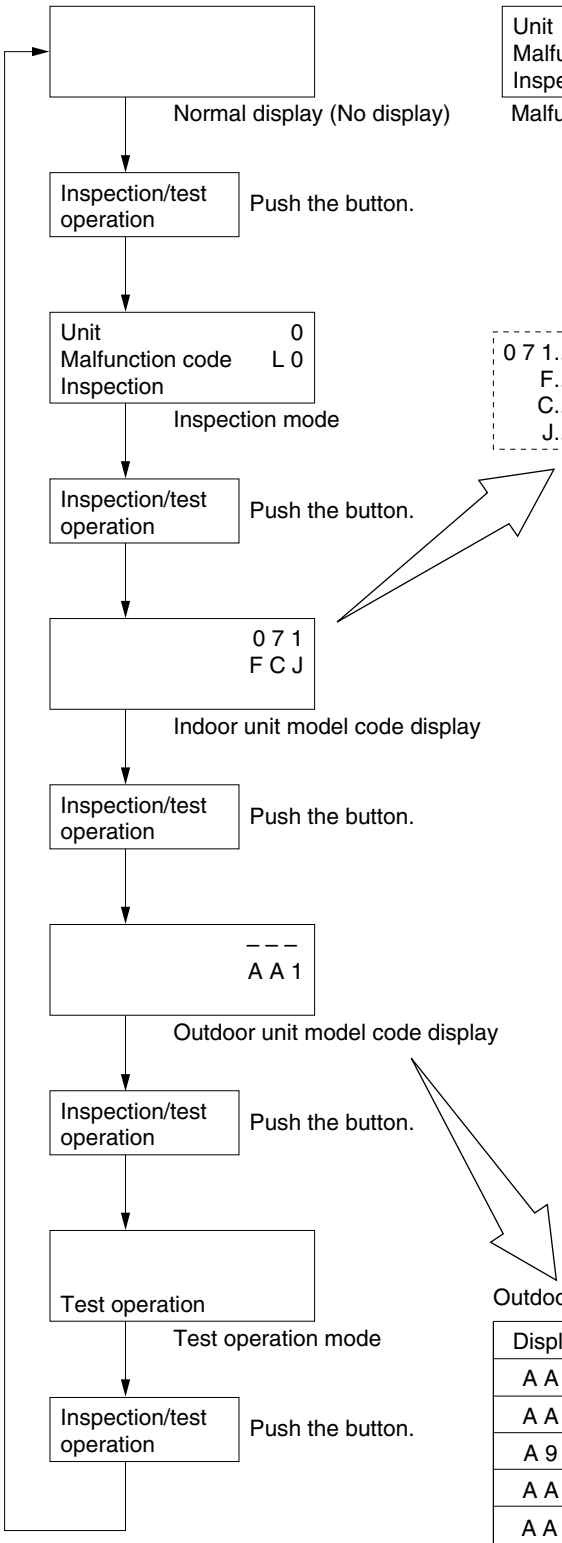
(SE007)



(SL027)


Normal status
Enters inspection mode from
normal status when the INSPECTION/
TEST button is pressed.
1 Press INSPECTION/TEST button.
If no button is pressed
for 1 minute, equipment
returns to normal status.
CODE
UNIT No.
3
Press
MODE
selector
button.
When MODE selector
button is pressed or
no button is pressed
for 1 minute, equipment
returns to normal status.
If no button is pressed
for 1 minute, equipment
returns to normal status.
5 Press MODE selector button.
(SF008)

1.4 Operation of the Remote Controller's Inspection / Test Operation Button



Unit 0
Malfunction code L 0
Inspection

Malfunction code blinks when a malfunction occurs.

0 7 1... Capacity code
F... Indoor unit system code
C... Indoor unit type code
J... Progression code

Example of capacity code display

Example model	Display
FXC25	028
FXF63	071

Indoor unit system code

Display	Product classification	System classification
1	VRV system	(VAV indoor unit)
2	VRV system	Outdoor air intake
F	VRV system	Standard indoor unit
H	VRV system	New ceiling suspended cassette

Indoor unit type code

Display	Type	Model
A	Wall mounted	FXA
C	Double flow	FXC
E	Corner	FXK
6 or F	Multi flow	FXF
H	Ceiling suspended	FXH
J	Built-in	FXS
L	Floor standing	FXL
P	Concealed ceiling duct	FXM
L	Concealed floor standing type	FXN
J	Ceiling mounted built in (Rear suction type)	FXYB
U	Ceiling mounted low silhouette duct type	FXYD

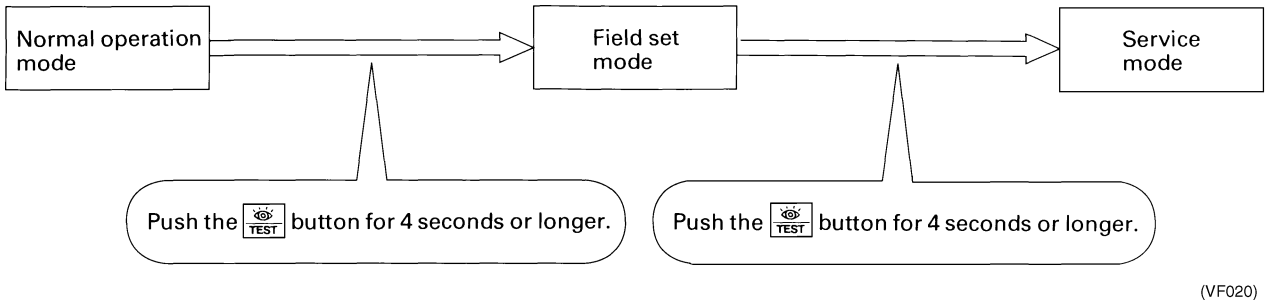
Outdoor model code

Display	Type	Model
A A 1	VRV System Inverter K Series	RSXYP
A A 3	R-407C VRV PLUS Series	RXYP
A 9 2	VRV Heat Recovery Series	RSEYP
A A 5	High COP type R-407C L Series	RSXYP-L
A A A	VRV II	RXYQ-M, RXY-M
A A A	VRV II Single Outdoor Unit Series	RXM-M

(V2775)

1.5 Remote Controller Service Mode

How to Enter the Service Mode



Service Mode Operation Method

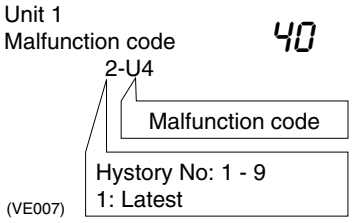
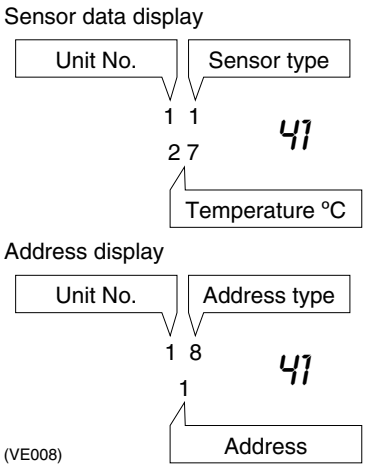
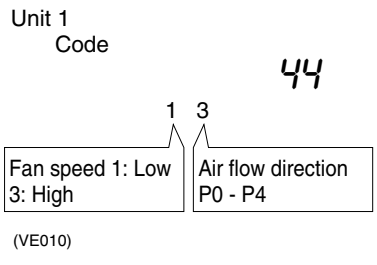
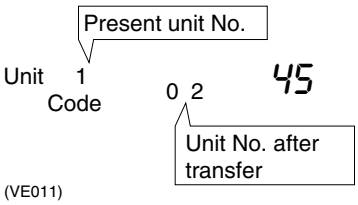
1. Select the mode No.
Set the desired mode No. with the button.
(For wireless remote controller, Mode 43 only can be set.)

2. Select the unit No. (For group control only)
Select the indoor unit No. to be set with the time mode . (For wireless remote controller, button.)

3. Make the settings required for each mode. (Modes 41, 44, 45)
In case of Mode 44, 45, push button to be able to change setting before setting work. (LCD "code" blinks.)
For details, refer to the table in next page.

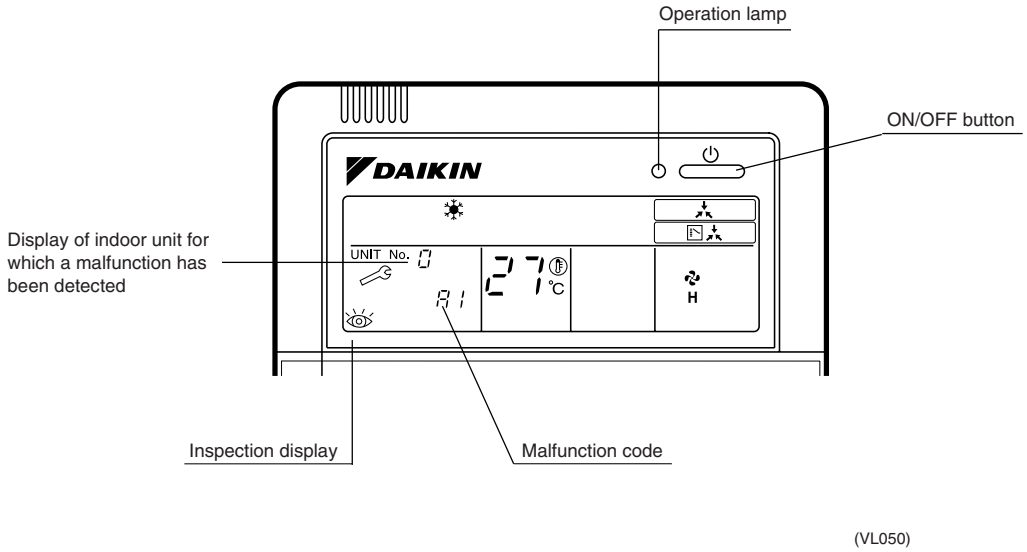
4. Define the setting contents. (Modes 44, 45)
Define by pushing the timer button.
After defining, LCD "code" changes blinking to ON.

5. Return to the normal operation mode.
Push the button one time.

Mode No	Function	Contents and operation method	Remote controller display example
40	Malfunction hysteresis display	Display malfunction hysteresis. The history No. can be changed with the button.	
41	Display of sensor and address data	Display various types of data. Select the data to be displayed with the button. Sensor data 0: Thermostat sensor in remote controller. 1: Suction 2: Liquid pipe 3: Gas pipe Address data 4: Indoor unit address 5: Outdoor unit address 6: BS unit address 7: Zone control address 8: Cool/heat group address 9: Demand / low noise address	
43	Forced fan ON	Manually turn the fan ON by each unit. (When you want to search for the unit No.) By selecting the unit No. with the button, you can turn the fan of each indoor unit on (forced ON) individually.	
44	Individual setting	Set the fan speed and air flow direction by each unit Select the unit No. with the time mode button. Set the fan speed with the button. Set the air flow direction with the button.	
45	Unit No. transfer	Transfer unit No. Select the unit No. with the button. Set the unit No. after transfer with the button.	
46 47	This function is not used by VRV II R-22 Cooling Only 50Hz.		

1.6 Remote Controller Self-Diagnosis Function

The remote controller switches are equipped with a self diagnosis function so that more appropriate maintenance can be carried out. If a malfunction occurs during operation, the operation lamp, malfunction code and display of malfunctioning unit No. let you know the contents and location of the malfunction.
When there is a stop due to malfunction, the contents of the malfunction given below can be diagnosed by a combination of operation lamp, INSPECTION display of the liquid crystal display and display of malfunction code. It also lets you know the unit No. during group control.



(VL050)

	Malfunction code	Operation lamp	Inspection display	Unit No.	Malfunction contents	Page Referred
Indoor Unit	A0	◑	◑	◑	Error of external protection device	118
	A1	◑	◑	◑	PC board defect, E^2 PROM defect	119
	A3	◑	◑	◑	Malfunction of drain level control system (S1L, 33H)	120
	A6	◑	◑	◑	Fan motor (MF) lock, overload	122
	A7	○	●	◑	Malfunction of swing flap motor (MA)	123
	A9	◑	◑	◑	Malfunction of moving part of electronic expansion valve (20E)	125
	AF	○	●	◑	Drain level about limit	127
	AH	○	●	◑	Malfunction of air filter maintenance	—
	AJ	◑	◑	◑	Malfunction of capacity setting	128
	C4	◑	◑	◑	Malfunction of thermistor (R2T) for heat exchange (loose connection, disconnection, short circuit, failure)	129
	C5	◑	◑	◑	Malfunction of thermistor (R3T) for gas pipes (loose connection, disconnection, short circuit, failure)	130
	C9	◑	◑	◑	Malfunction of thermistor (R1T) for air inlet (loose connection, disconnection, short circuit, failure)	131
	CJ	○	○	○	Malfunction of thermostat sensor in remote controller	132
Outdoor Unit	E1	◑	◑	◑	PC board defect	133
	E3	◑	◑	◑	Actuation of high pressure switch	134
	E4	◑	◑	◑	Actuation of low pressure sensor	135
	E5	◑	◑	◑	Compressor motor lock	136
	E6	◑	◑	◑	Standard compressor lock or over current	137
	E7	◑	◑	◑	Malfunction of outdoor unit fan motor	138
	E9	◑	◑	◑	Malfunction of moving part of electronic expansion valve (Y1E~3E)	140
	F3	◑	◑	◑	Abnormal discharge pipe temperature	142
	F6	◑	◑	◑	Refrigerant overcharged	143
	H3	○	●	◑	Malfunction of High pressure switch	—
	H4	◑	◑	◑	Actuation of Low pressure switch	—
	H7	◑	◑	◑	Abnormal outdoor fan motor signal	144
	H9	◑	◑	◑	Malfunction of thermistor (R1T) for outdoor air (loose connection, disconnection, short circuit, failure)	145
	J2	◑	◑	◑	Current sensor malfunction	146
	J3	◑	◑	◑	Malfunction of discharge pipe thermistor (R31~33T) (loose connection, disconnection, short circuit, failure)	147
	J5	◑	◑	◑	Malfunction of thermistor (R2T) for suction pipe (loose connection, disconnection, short circuit, failure)	148
	J6	◑	◑	◑	Malfunction of thermistor (R4T) for heat exchanger (loose connection, disconnection, short circuit, failure)	149
	J7	◑	◑	◑	Malfunction of header thermistor	—
	J8	◑	◑	◑	Malfunction of thermistor (R7T) for oil equalizing pipe. (loose connection, disconnection, short circuit, failure)	—
	J9	◑	◑	◑	Malfunction of receiver gas pipe thermistor (R5T)	150
	JA	◑	◑	◑	Malfunction of discharge pipe pressure sensor	151
	JC	◑	◑	◑	Malfunction of suction pipe pressure sensor	152
	L0	◑	◑	◑	Inverter system error	—
	L4	◑	◑	◑	Malfunction of inverter radiating fin temperature rise	153
	L5	◑	◑	◑	Inverter compressor motor grounding, short circuit	154
	L6	◑	◑	◑	Compressor motor coil grounding on short circuit	—
	L8	◑	◑	◑	Inverter current abnormal	155
	L9	◑	◑	◑	Inverter start up error	156

	Malfunction code	Operation lamp	Inspection display	Unit No.	Malfunction contents	Page Referred
Outdoor Unit	LA	◑	◑	◑	Malfunction of power unit	—
	LC	◑	◑	◑	Malfunction of transmission between inverter and control PC board	157
	P1	◑	◑	◑	Inverter over-ripple protection	159
	P4	◑	◑	◑	Malfunction of inverter radiating fin temperature rise sensor	160
	PJ	◑	◑	◑	Faulty field setting after replacing main PC board or faulty combination of PC board	161
System	U0	○	●	◑	Low pressure drop due to refrigerant shortage or electronic expansion valve failure	162
	U1	◑	◑	◑	Reverse phase / open phase	163
	U2	◑	◑	◑	Power supply insufficient or instantaneous failure	164
	U3	◑	◑	◑	Check operation is not conducted.	166
	U4	◑	◑	◑	Malfunction of transmission between indoor and outdoor units	167
	U5	◑	◑	◑	Malfunction of transmission between remote controller and indoor unit	169
	U5	●	○	●	Failure of remote controller PC board or setting during control by remote controller	169
	U7	◑	◑	◑	Malfunction of transmission between outdoor units	170
	U8	◑	◑	●	Malfunction of transmission between master and slave remote controllers (malfunction of slave remote controller)	172
	U9	◑	◑	◑	Malfunction of transmission between indoor unit and outdoor unit in the same system	173
	UA	◑	◑	◑	Excessive number of indoor units etc.	175
	UC	○	○	○	Address duplication of central remote controller	176
	UE	◑	◑	◑	Malfunction of transmission between central remote controller and indoor unit	177 186
	UF	◑	◑	◑	Refrigerant system not set, incompatible wiring / piping	179
	UH	◑	◑	◑	Malfunction of system, refrigerant system address undefined	180
Centralized Control and Schedule Timer	M1	○ or ●	◑	◑	PC board defect	181 188
	M8	○ or ●	◑	◑	Malfunction of transmission between optional controllers for centralized control	182 189
	MA	○ or ●	◑	◑	Improper combination of optional controllers for centralized control	183 190
	MC	○ or ●	◑	◑	Address duplication, improper setting	185 192
Heat Reclaim Ventilation	64	○	●	◑	Indoor unit's air thermistor error	—
	65	○	●	◑	Outside air thermistor error	—
	68	○	●	◑		—
	6A	○	●	◑	Damper system alarm	—
	6A	◑	◑	◑	Damper system + thermistor error	—
	6F	○	●	◑	Malfunction of simple remote controller	—
	6H	○	●	◑	Malfunction of door switch or connector	—
	94	◑	◑	◑	Internal transmission error	—

The system operates for malfunction codes indicated in black squares, however, be sure to check and repair.

Malfunction code indication by outdoor unit PC board

To enter the monitor mode, push the MODE button (BS1) when in “Setting mode 1”.

* Refer P.93 for Monitor mode.

<Selection of setting item>

Push the SET button (BS2) and set the LED display to a setting item.

* Refer P.93 for Monitor mode.

<Confirmation of malfunction 1>

Push the RETURN button (BS3) once to display "First digit" of malfunction code.

<Confirmation of malfunction 2>

Push the SET button (BS2) once to display "Second digit" of malfunction code.

<Confirmation of malfunction 3>

Push the SET button (BS2) once to display "master or slave1 or slave2" and "malfunction location".

Detail description on next page.

Push the RETURN button (BS3) and switches to the initial status of “Monitor mode”.

* Push the MODE button (BS1) and returns to “Setting mode 1”.

Contents of malfunction		Malfunction code
Abnormal discharge pressure	HPS activated	E3
Abnormal suction pressure	Abnormal Pe	E4
Compressor lock	Detection of INV compressor lock	E5
Activation of OC	Detection of STD1 compressor lock	E6
	Detection of STD2 compressor lock	
Over load, over current,	Instantaneous over current of DC fan motor	E7
abnormal lock of outdoor unit fan motor	Detection of DC fan motor lock	
Malfunction of electronic expansion valve	EV1	E9
	EV2	
	EV3	
Abnormal position signal of outdoor unit fan motor	Abnormal position signal of DC fan motor	H7
Faulty sensor of outdoor air temperature	Faulty Ta sensor	H9
Faulty sensor of heat storage unit		HC
Abnormality in water system of heat storage unit		HJ
Transmission error between heat storage unit and controller		HF
Abnormal discharge pipe temperature	Abnormal Td	F3
Abnormal heat exchanger temperature	Refrigerant over charge	F6
Faulty current sensor	Faulty CT1 sensor	J2
	Faulty CT2 sensor	
Faulty sensor of discharge pipe temperature	Faulty Tdi sensor	J3
	Faulty Tds1 sensor	
	Faulty Tds2 sensor	
Faulty sensor of suction pipe temperature	Faulty Ts sensor	J5
Faulty sensor of heat exchanger temperature	Faulty Tb sensor	J6
Faulty sensor of receiver temperature	Faulty Tl sensor	J7
Faulty sensor of oil pressure equalizing pipe temperature	Faulty To sensor	J8
Faulty sensor of subcool heat exchanger temperature	Faulty Tsh sensor	J9
Faulty sensor of discharge pressure	Faulty Pc sensor	JA
Faulty sensor of suction pressure	Faulty Pe sensor	JC
Inverter radiation fin temperature rising	Over heating of inverter radiation fin temperature	L4
DC output over current	Inverter instantaneous over current	L5
Electronic thermal switch	Electronic thermal switch 1	L8
	Electronic thermal switch 2	
	Out-of-step	
	Speed down after startup	
	Lightening detection	
Stall prevention (Limit time)	Stall prevention (Current increasing)	L9
	Stall prevention (Faulty startup)	
	Abnormal wave form in startup	
	Out-of-step	
Transmission error between inverter and outdoor unit	Inverter transmission error	LC
Open phase/Power supply imbalance	Imbalance of inverter power supply voltage	P1
Faulty temperature sensor inside switch box	Faulty thermistor of inverter box	P3
Faulty temperature sensor of inverter radiation fin	Faulty thermistor of inverter fin	P4
Incorrect combination of inverter and fan driver	Faulty field setting after replacing main PC board or faulty combination of PC board	PJ
Gas shortage	Gas shortage alarm	U0
Reverse phase	Reverse phase error	U1
Abnormal power supply voltage	Insufficient inverter voltage	U2
	Inverter open phase (phase T)	
	Charging error of capacitor in inverter main circuit	
No implementation of test-run		U3
Transmission error between indoor and outdoor unit	I/O transmission error	U4
Transmission error between outdoor units, transmission error between thermal storage units, duplication of IC address	O/O transmission error	U7
Transmission error of other system	Indoor unit system malfunction in other system or other unit of own system	U9
Erroneous on-site setting	Abnormal connection with excessive number of indoor units	UA
	Conflict of refrigerant type in indoor units	
Faulty system function	Incorrect wiring (Auto address error)	UH
Transmission error in accessory devices, conflict in wiring and piping, no setting for system	Malfunction of multi level converter, abnormality in conflict check	UJ UF

Malfunction code	Confirmation of malfunction 1							Confirmation of malfunction 2							Confirmation of malfunction 3						
	LED1	LED2	LED3	LED4	LED5	LED6	LED7	LED1	LED2	LED3	LED4	LED5	LED6	LED7	LED1	LED2	LED3	LED4	LED5	LED6	LED7
E3	◎	●	○	●	●	◎	◎	◎	○	●	●	●	◎	◎	◎	○	○			●	●
E4								◎	○	●	●	◎	●	●	◎	○	○			●	●
E5								◎	○	●	●	◎	●	◎	◎	○	○			●	●
E6								◎	○	●	●	◎	◎	●	◎	○	○			●	◎
								◎	○	●	●	◎	◎	●	◎	○	○			◎	●
E7								◎	○	●	●	◎	◎	◎	◎	○	○			●	◎
E9								◎	○	●	◎	●	●	◎	◎	○	○			●	◎
															◎	○	○			◎	●
															◎	○	○			◎	◎
H7	◎	●	○	●	◎	●	●	◎	○	●	●	◎	◎	◎	◎	○	○			●	◎
H9								◎	○	●	◎	●	●	◎	◎	○	○			●	●
HC								◎	○	●	◎	◎	●	●	◎	○	○			●	●
HJ								◎	○	●	◎	◎	●	◎	◎	○	○			●	●
HF								◎	○	●	◎	◎	◎	◎	◎	○	○			●	●
F3	◎	●	○	●	◎	●	◎	◎	○	●	●	●	◎	◎	◎	○	○			●	●
F6								◎	○	●	●	◎	◎	●	◎	○	○			●	●
J2	◎	●	○	●	◎	◎	●	◎	○	●	●	●	◎	●	◎	○	○			●	◎
															◎	○	○			◎	●
J3								◎	○	●	●	●	◎	◎	◎	○	○			●	◎
															◎	○	○			◎	●
															◎	○	○			◎	◎
J5								◎	○	●	●	◎	●	◎	◎	○	○			●	●
J6								◎	○	●	●	◎	◎	●	◎	○	○			●	●
J7								◎	○	●	●	◎	◎	◎	◎	○	○			●	●
J8								◎	○	●	◎	●	●	●	◎	○	○			●	●
J9								◎	○	●	◎	●	●	◎	◎	○	○			●	●
JA								◎	○	●	◎	●	◎	●	◎	○	○			●	●
JC								◎	○	●	◎	◎	●	●	◎	○	○			●	●
L4								◎	○	●	●	◎	●	●	◎	○	○			●	●
L5								◎	○	●	●	◎	●	◎	◎	○	○			●	●
L8								◎	○	●	◎	●	●	●	◎	○	○			●	●
L9								◎	○	●	◎	●	●	◎	◎	○	○			●	●
LC								◎	○	●	◎	◎	●	●	◎	○	○			●	●
P1	◎	●	○	◎	●	●	●	◎	○	●	●	●	●	◎	◎	○	○			●	●
P3								◎	○	●	●	●	◎	◎	◎	○	○			●	●
P4								◎	○	●	●	◎	●	●	◎	○	○			●	●
PJ								◎	○	●	◎	◎	●	◎	◎	○	○			●	●
U0	◎	●	○	◎	●	●	◎	◎	○	●	●	●	●	●	◎	○	○			●	●
U1								◎	○	●	●	●	●	◎	◎	○	○			●	●
U2								◎	○	●	●	●	◎	●	◎	○	○			●	●
U3								◎	○	●	●	●	◎	◎	◎	○	○			●	●
U4								◎	○	●	●	◎	●	●	◎	○	○			●	●
U7								◎	○	●	●	◎	◎	◎	◎	○	○			●	●
U9								◎	○	●	◎	●	●	◎	◎	○	○			●	●
UA								◎	○	●	◎	●	◎	●	◎	○	○			●	●
UH								◎	○	●	◎	●	◎	◎	◎	○	○			●	●
UJ								◎	○	●	◎	◎	●	◎	◎	○	○			●	●
UF								◎	○	●	◎	◎	◎	◎	◎	○	○			●	●

○ : ON
◎ : Blink
● : OFF

Malfunction code 1st digit display section

○ : ON
◎ : Blink
● : OFF

Malfunction code 2nd digit display section

Master	●	●
Slave 1	●	◎
Slave 2	◎	●

Malfunction location

2. Troubleshooting by Indication on the Remote Controller

2.1 "A0" Indoor Unit: Error of External Protection Device

Remote Controller Display

A0

Applicable Models

All indoor unit models

Method of Malfunction Detection

Detect open or short circuit between external input terminals in indoor unit.

Malfunction Decision Conditions

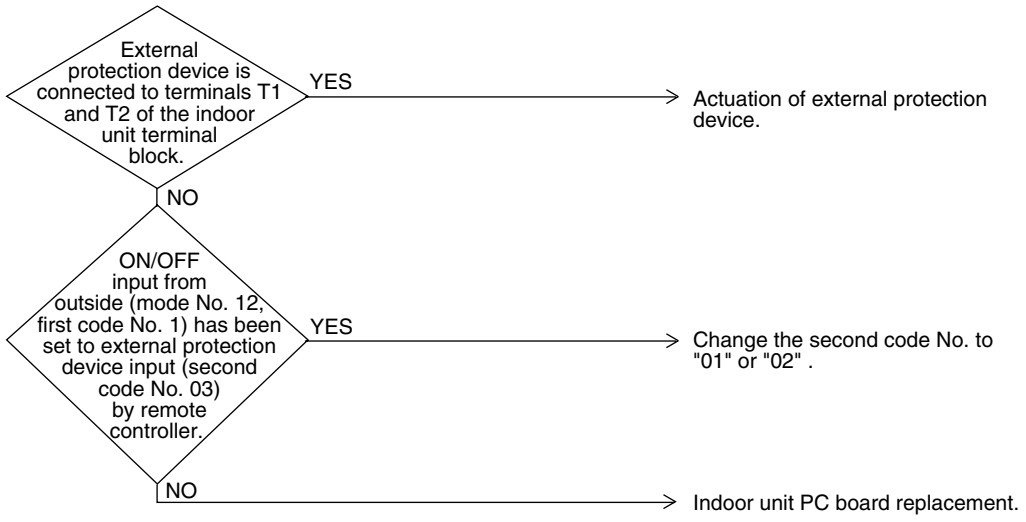
When an open circuit occurs between external input terminals with the remote controller set to "external ON/OFF terminal".

Supposed Causes

- Actuation of external protection device
- Improper field set
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



2.2 "A1" Indoor Unit: PC Board Defect

Remote Controller Display

A1

Applicable Models

All indoor unit models

Method of Malfunction Detection

Check data from E²PROM.

Malfunction Decision Conditions

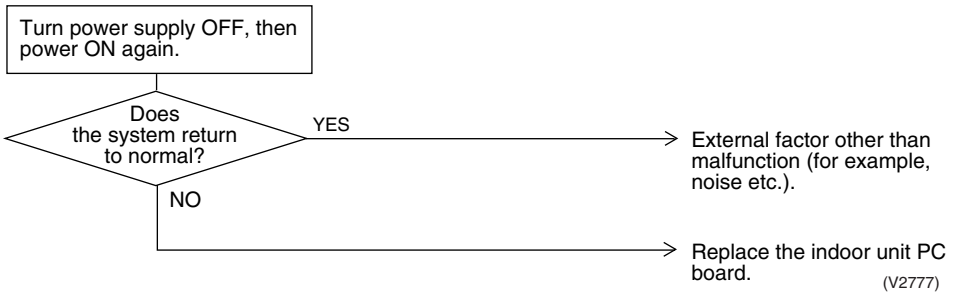
When data could not be correctly received from the E²PROM
E²PROM : Type of nonvolatile memory. Maintains memory contents even when the power supply is turned off.

Supposed Causes

- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.

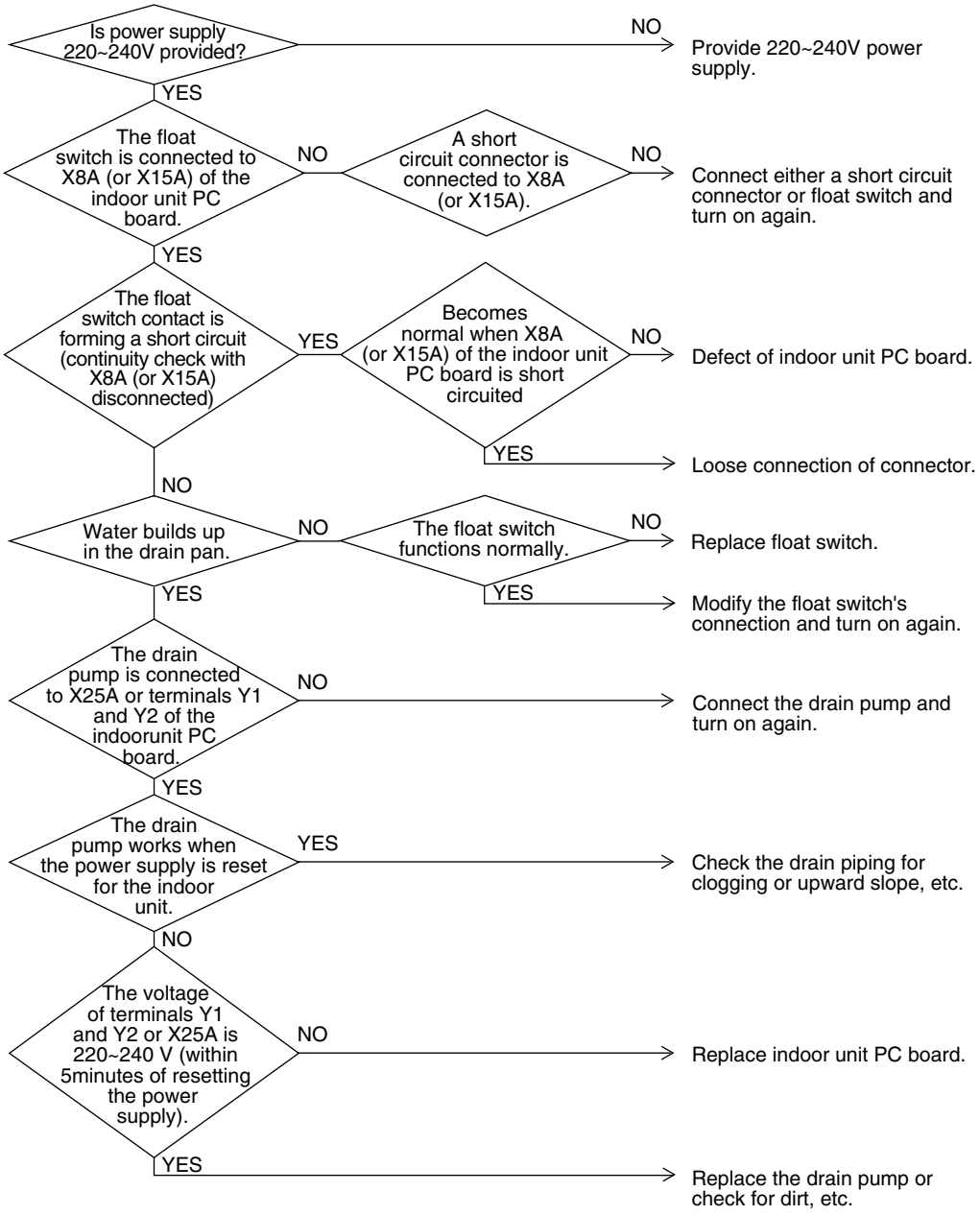


2.3 "A3" Indoor Unit: Malfunction of Drain Level Control System (S1L, 33H)

Remote Controller Display	A3
Applicable Models	FXC, FXF, FXS, FXA, FXK, FXH (Option) , FXM (Option), FXYB
Method of Malfunction Detection	By float switch OFF detection
Malfunction Decision Conditions	When rise of water level is not a condition and the float switch goes OFF.
Supposed Causes	■ 220~240V power supply is not provided ■ Defect of float switch or short circuit connector ■ Defect of drain pump ■ Drain clogging, upward slope, etc. ■ Defect of indoor unit PC board ■ Loose connection of connector

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2778)

2.4 "A6" Indoor Unit: Fan Motor (M1F) Lock, Overload

Remote Controller Display

A6

Applicable Models

All indoor units

Method of Malfunction Detection

Detection by failure of signal for detecting number of turns to come from the fan motor

Malfunction Decision Conditions

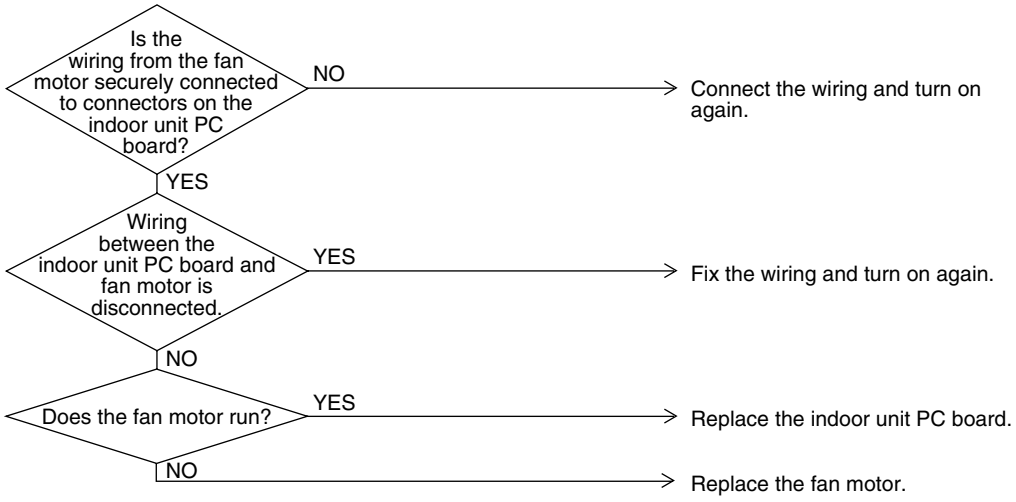
When number of turns can't be detected even when output voltage to the fan is maximum

Supposed Causes

- Fan motor lock
- Disconnected or faulty wiring between fan motor and PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



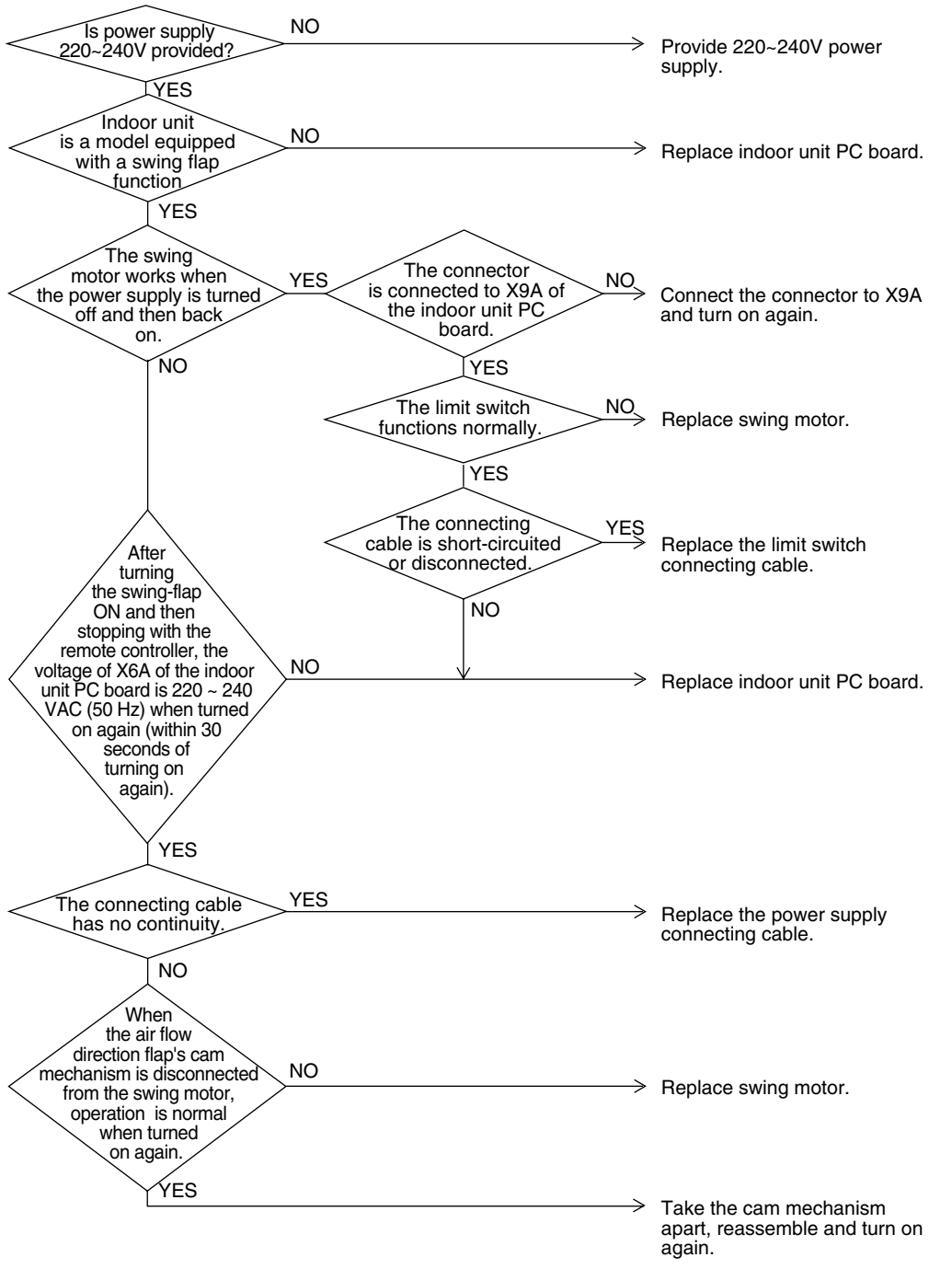
(V2779)

2.5 "A7" Indoor Unit: Malfunction of Swing Flap Motor (MA)

Remote Controller Display	A7
Applicable Models	FXC, FXA, FXF, FXH, FXK
Method of Malfunction Detection	Utilizes ON/OFF of the limit switch when the motor turns.
Malfunction Decision Conditions	When ON/OFF of the microswitch for positioning cannot be reversed even though the swing flap motor is energized for a specified amount of time (about 30 seconds).
Supposed Causes	■ Defect of swing motor ■ Defect of connection cable (power supply and limit switch) ■ Defect of air flow direction adjusting flap-cam ■ Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2780)

2.6 "A9" Indoor Unit: Malfunction of Moving Part of Electronic Expansion Valve (20E)

Remote Controller Display

A9

Applicable Models

All indoor unit models

Method of Malfunction Detection

Detection by failure of signal for detecting number of turns to come from the fan motor

Malfunction Decision Conditions

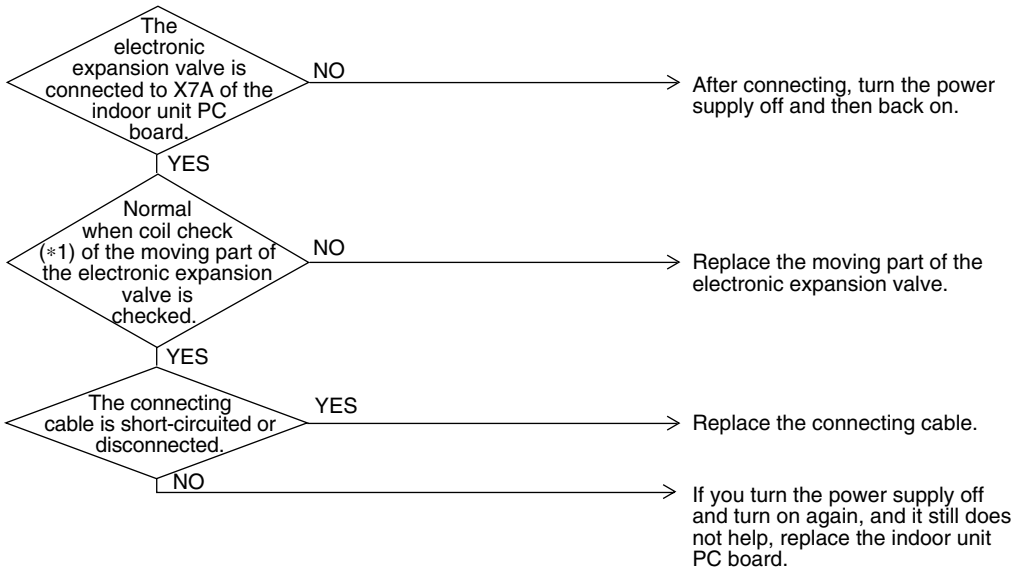
When number of turns can't be detected even when output voltage to the fan is maximum

Supposed Causes

- Malfunction of moving part of electronic expansion valve
- Defect of indoor unit PC board
- Defect of connecting cable

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2781)

∗1: Coil check method for the moving part of the electronic expansion valve
Discount the electronic expansion valve from the PC board and check the continuity between the connector pins.

(Normal)

Pin No.	1. White	2. Yellow	3. Orange	4. Blue	5. Red	6. Brown
1. White		×	○ Approx. 300Ω	×	○ Approx. 150Ω	×
2. Yellow			×	○ Approx. 300Ω	×	○ Approx. 150Ω
3. Orange				×	○ Approx. 150Ω	×
4. Blue					×	○ Approx. 150Ω
5. Red						×
6. Brown						

○: Continuity
×: No continuity

2.7 "AF" Indoor Unit: Drain Level above Limit

Remote Controller Display

AF

Applicable Models

FXC, FXF, FXS, FXK, FXM, FXYB

Method of Malfunction Detection

Water leakage is detected based on float switch ON/OFF operation while the compressor is in non-operation.

Malfunction Decision Conditions

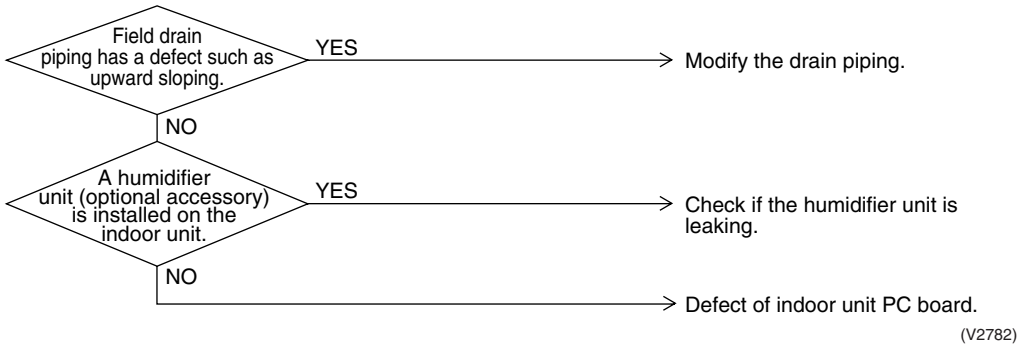
When the float switch changes from ON to OFF while the compressor is in non-operation.

Supposed Causes

- Humidifier unit (optional accessory) leaking
- Defect of drain pipe (upward slope, etc.)
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



2.8 "AJ" Indoor Unit: Malfunction of Capacity Determination Device

Remote controller display

AJ

Applicable Models

All indoor unit models

Method of Malfunction Detection

Capacity is determined according to resistance of the capacity setting adaptor and the memory inside the IC memory on the indoor unit PC board, and whether the value is normal or abnormal is determined.

Malfunction Decision Conditions

Operation and:

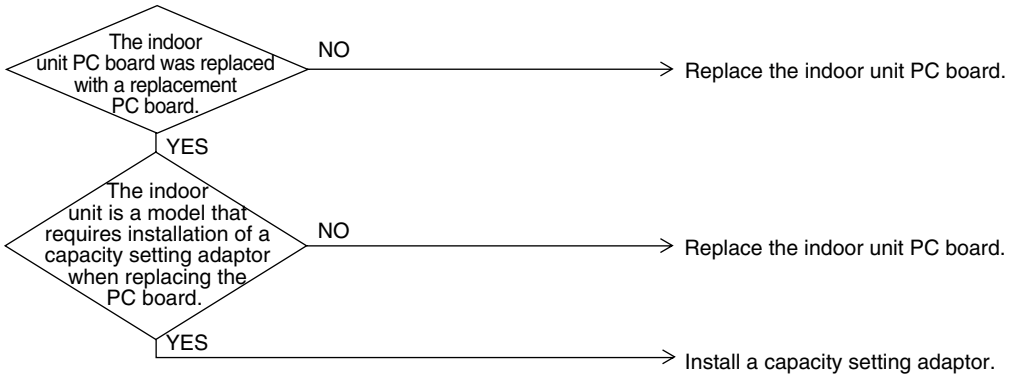
1. When the capacity code is not contained in the PC board's memory, and the capacity setting adaptor is not connected.
2. When a capacity that doesn't exist for that unit is set.

Supposed Causes

- You have forgotten to install the capacity setting adaptor.
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2783)

2.9 "C4" Indoor Unit: Malfunction of Thermistor (R2T) for Heat Exchanger

Remote Controller Display

C4

Applicable Models

All indoor unit models

Method of Malfunction Detection

Malfunction detection is carried out by temperature detected by heat exchanger thermistor.

Malfunction Decision Conditions

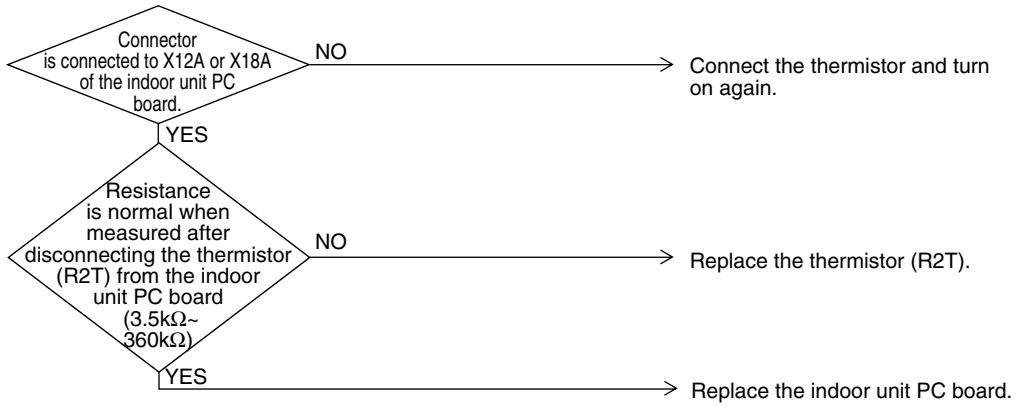
When the heat exchanger thermistor becomes disconnected or shorted while the unit is running.

Supposed Causes

- Defect of thermistor (R2T) for liquid pipe
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2784)

∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.10 "C5" Indoor Unit: Malfunction of Thermistor (R3T) for Gas Pipes

Remote Controller Display

C5

Applicable Models

All indoor unit models

Method of Malfunction Detection

Malfunction detection is carried out by temperature detected by gas pipe thermistor.

Malfunction Decision Conditions

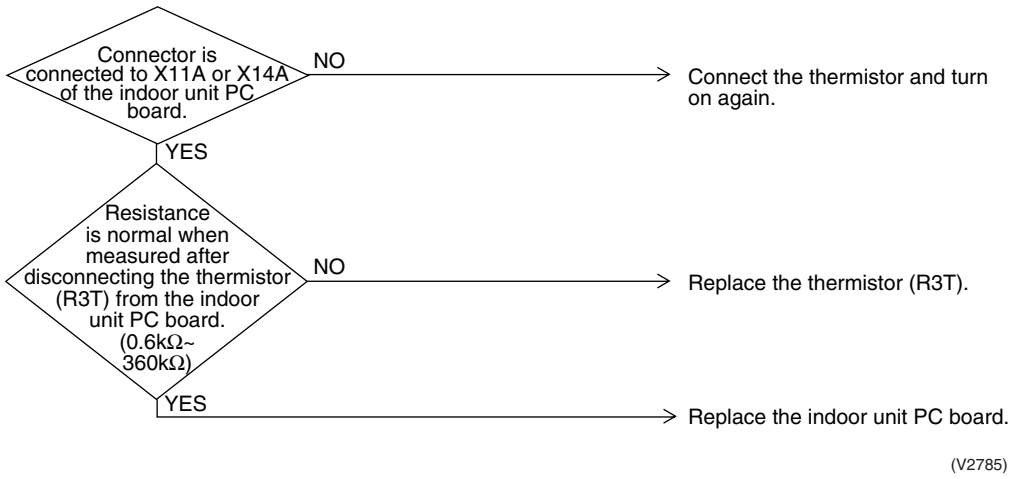
When the gas pipe thermistor becomes disconnected or shorted while the unit is running.

Supposed Causes

- Defect of indoor unit thermistor (R3T) for gas pipe
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.11 "C9" Indoor Unit: Malfunction of Thermistor (R1T) for Suction Air

Remote Controller Display

C9

Applicable Models

All indoor unit models

Method of Malfunction Detection

Malfunction detection is carried out by temperature detected by suction air temperature thermistor.

Malfunction Decision Conditions

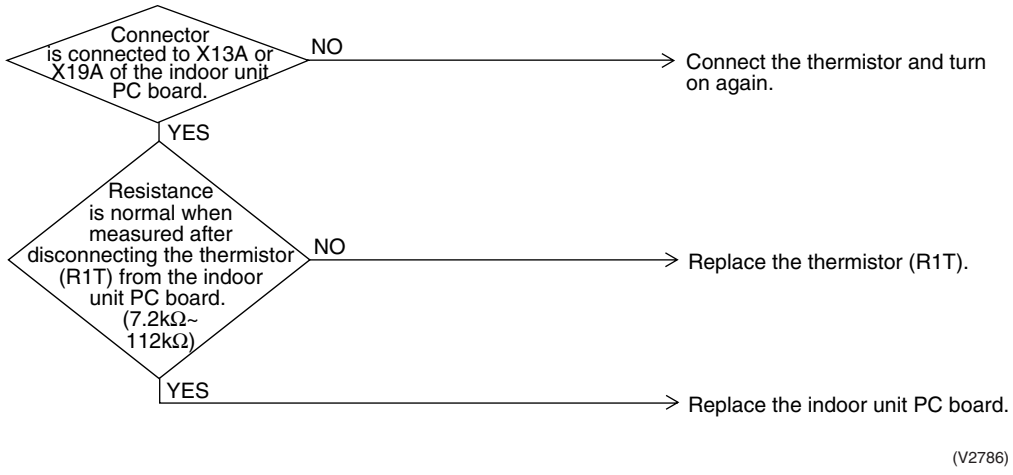
When the suction air temperature thermistor becomes disconnected or shorted while the unit is running.

Supposed Causes

- Defect of indoor unit thermistor (R1T) for air inlet
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.12 "CJ" Indoor Unit: Malfunction of Thermostat Sensor in Remote Controller

Remote Controller Display

CJ

Applicable Models

All indoor unit models

Method of Malfunction Detection

Malfunction detection is carried out by temperature detected by remote controller air temperature thermistor. (Note1)

Malfunction Decision Conditions

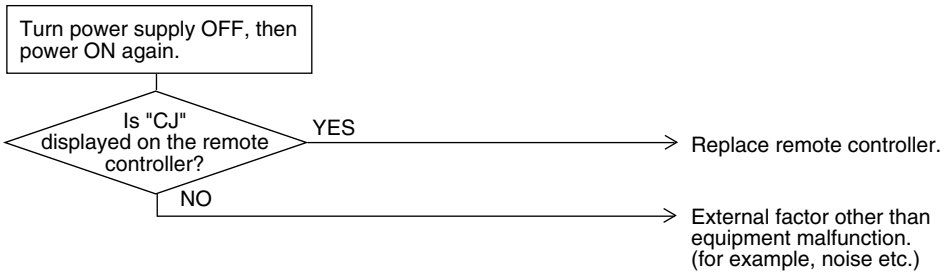
When the remote controller air temperature thermistor becomes disconnected or shorted while the unit is running.

Supposed Causes

- Defect of remote controller thermistor
- Defect of remote controller PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2787)

Note: In case of remote controller thermistor malfunction, unit is still operable by suction air thermistor on indoor unit.

∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.13 "E1" Outdoor Unit: PC Board Defect

Remote Controller Display

E1

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Check data from E²PROM

Malfunction Decision Conditions

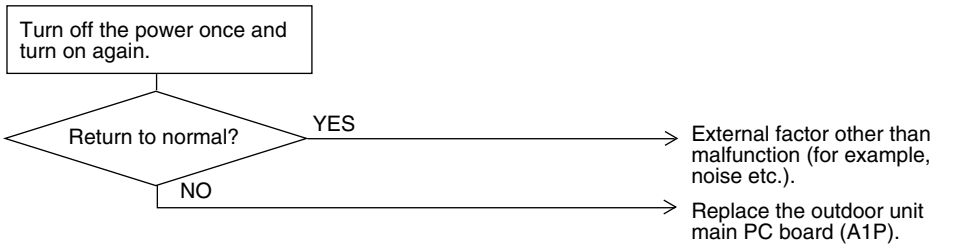
When data could not be correctly received from the E²PROM
E²PROM : Type of nonvolatile memory. Maintains memory contents even when the power supply is turned off.

Supposed Causes

- Defect of outdoor unit PC board (A1P)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3064)

2.14 "E3" Outdoor Unit: Actuation of High Pressure Switch

Remote Controller Display

E3

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Abnormality is detected when the contact of the high pressure protection switch opens.

Malfunction Decision Conditions

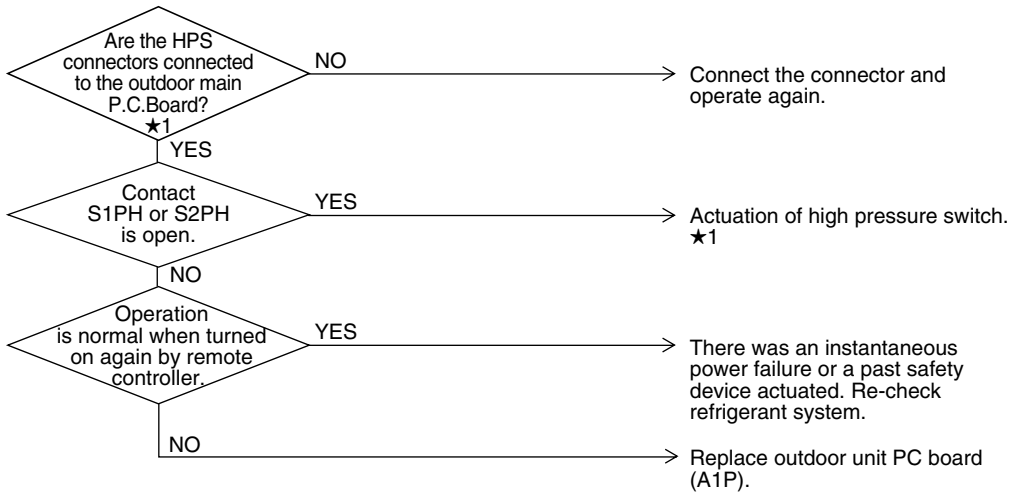
Error is generated when the HPS activation count reaches the number specific to the operation mode.

Supposed Causes

- Actuation of outdoor unit high pressure switch
- Defect of High pressure switch
- Defect of outdoor unit PC board
- Instantaneous power failure
- Faulty high pressure sensor

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3065)

★1: Actuation of high pressure switch (HPS)

- The outdoor unit PC board's connector is disconnected.
- Is the outdoor unit heat exchanger dirty?
- Defect of outdoor fan
- Is the refrigerant over-charged?
- Faulty high pressure sensor

2.15 "E4" Outdoor Unit: Actuation of Low Pressure Sensor

Remote Controller Display

E4

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction Decision Conditions

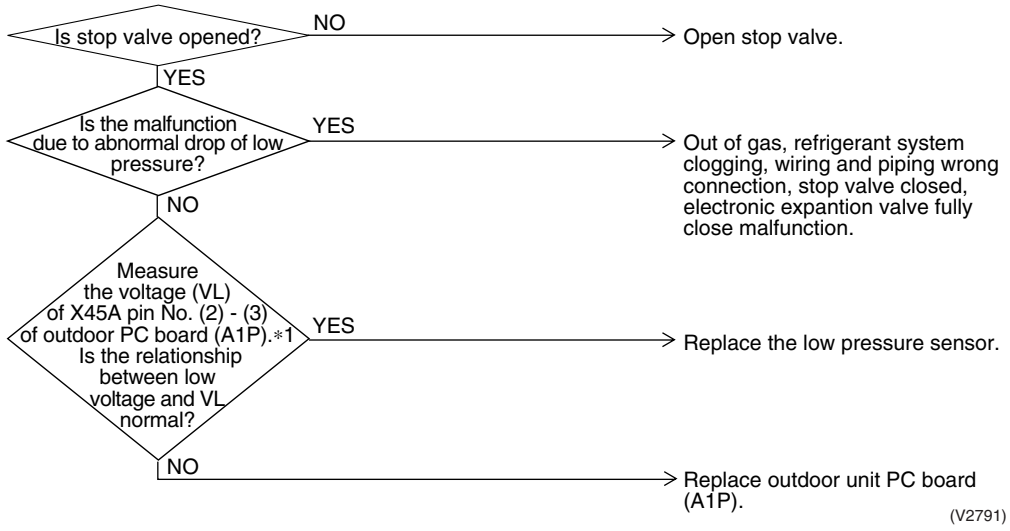
Error is generated when the low pressure is dropped under specific pressure.

Supposed Causes

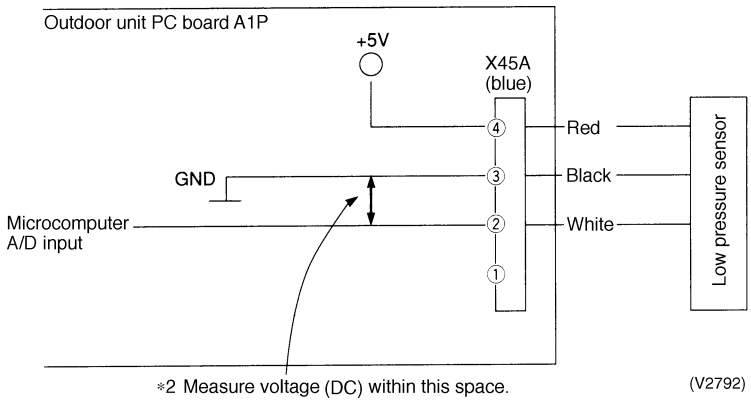
- Abnormal drop of low pressure (Refer to page 54 for Low Pressure Control)
- Defect of low pressure sensor
- Defect of outdoor unit PC board
- Stop valve is not opened.

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



*1: Voltage measurement point



*2: Refer to pressure sensor, pressure / voltage characteristics table on P234.

2.16 "E5" Compressor Motor Lock

Remote Controller Display

E5

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Inverter PC board takes the position signal from UVWN line connected between the inverter and compressor, and detects the position signal pattern.

Malfunction Decision Conditions

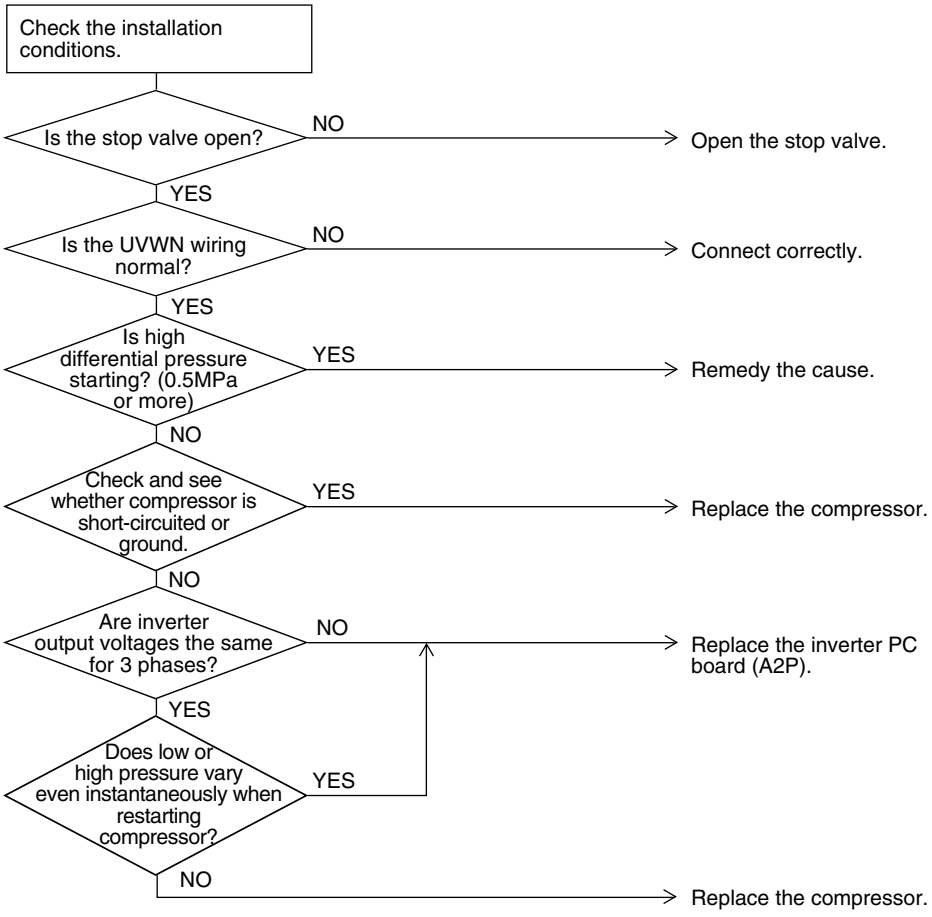
The position signal with 3 times cycle as imposed frequency is detected when compressor motor operates normally, but 2 times cycle when compressor motor locks. When the position signal in 2 times cycle is detected.

Supposed Causes

- Compressor lock
- High differential pressure (0.5MPa or more)
- Incorrect UVWN wiring
- Faulty inverter PC board
- Stop valve is left in closed.

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2793)

2.17 "E6" Standard Compressor Motor Overcurrent/Lock

Remote Controller Display

E6

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Detects the overcurrent with current sensor (CT).

Malfunction Decision Conditions

Malfunction is decided when the detected current value exceeds the below mentioned value for 2 seconds.

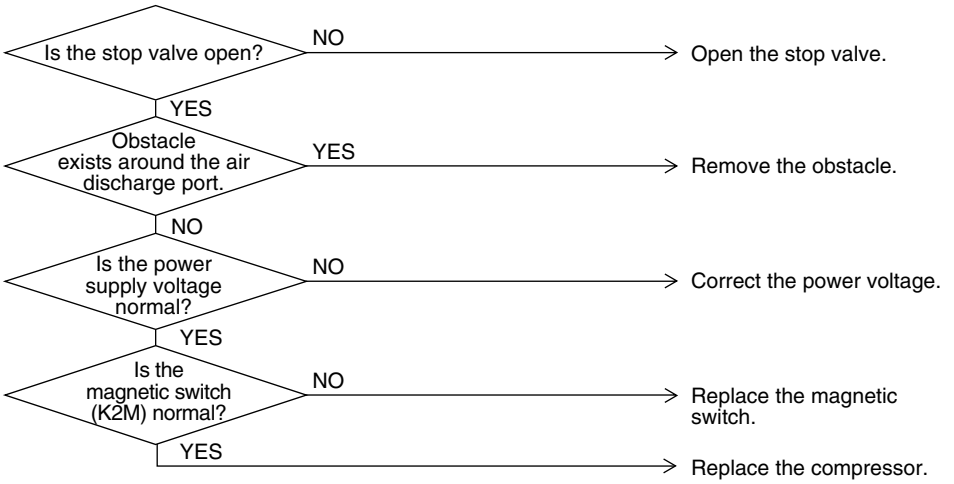
- 400 V unit : 15.0 A

Supposed Causes

- Closed stop value
- Obstacles at the discharge port
- Improper power voltage
- Faulty magnetic switch
- Faulty compressor

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3051)

2.18 "E7" Malfunction of Outdoor Unit Fan Motor

Remote Controller Display

E7

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction of fan motor system is detected according to the fan speed detected by hall IC when the fan motor runs.

Malfunction Decision Conditions

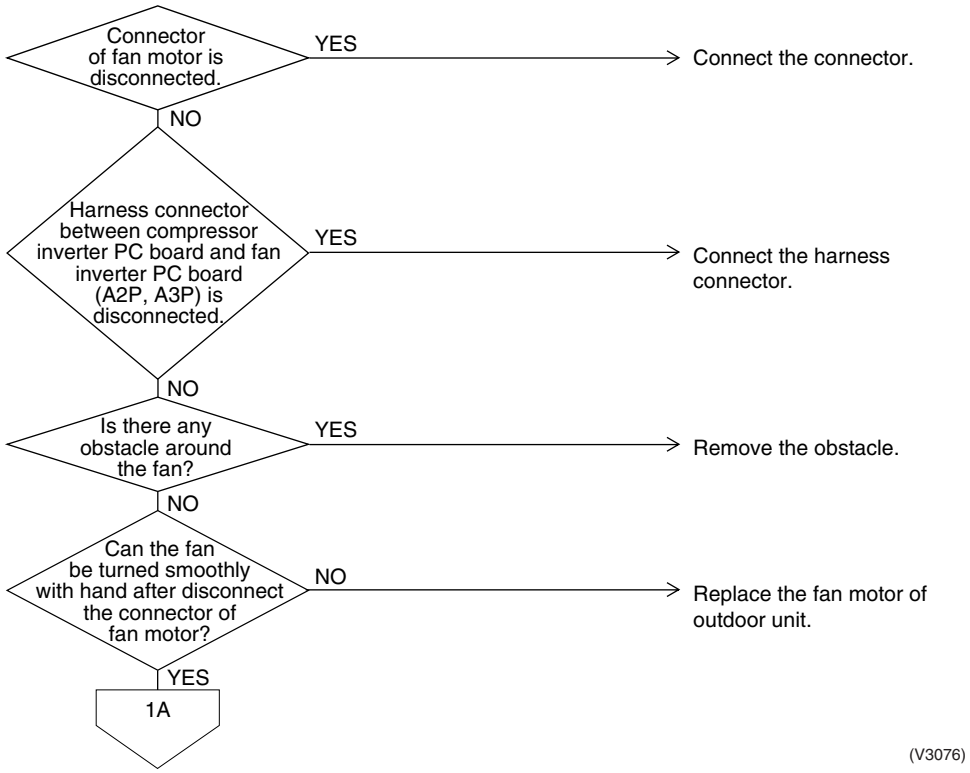
- When the fan runs with speed less than a specified one for 15 seconds or more when the fan motor running conditions are met
- When connector detecting fan speed is disconnected
- When malfunction is generated 4 times, the system shuts down.

Supposed Causes

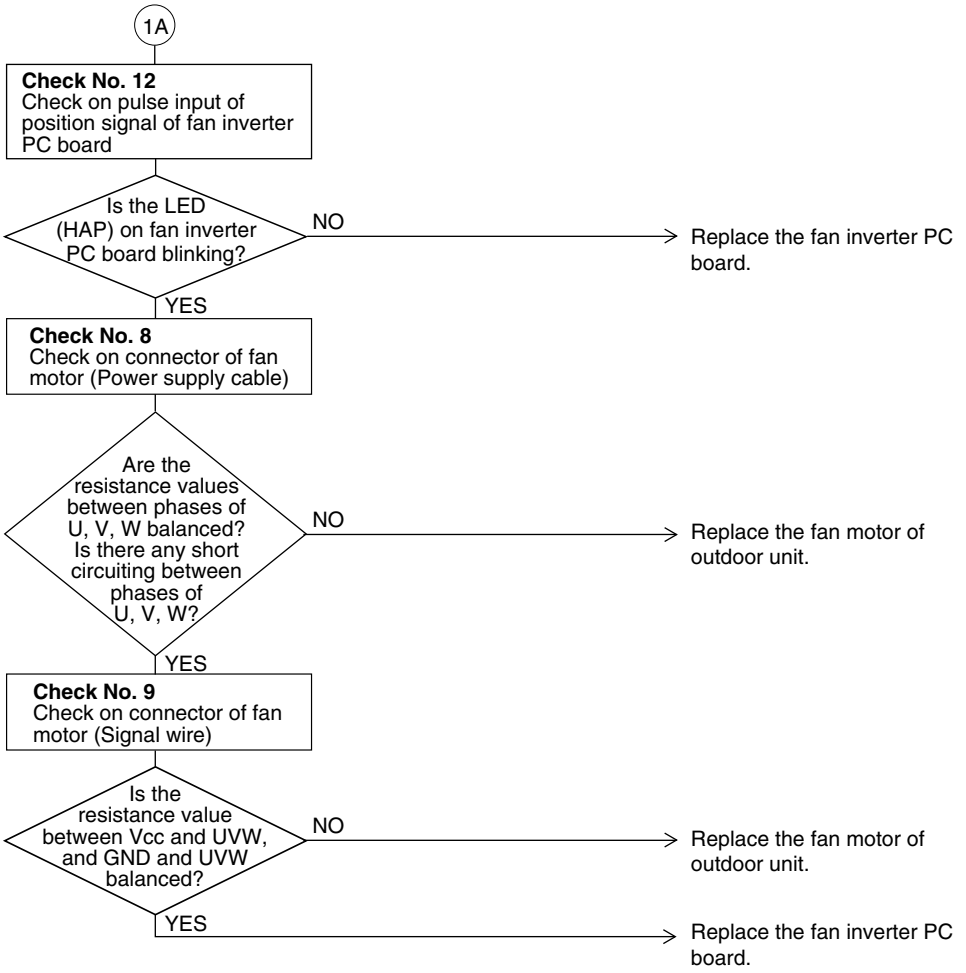
- Malfunction of fan motor
- The harness connector between fan motor and PC board is left in disconnected, or faulty connector
- Fan does not run due to foreign matters tangled
- Clearing condition: Operate for 5 minutes (normal)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



Troubleshooting



Note: Refer check 8, 9 and 12 to P.199~200.

2.19 "E9" Outdoor Unit: Malfunction of Moving Part of Electronic Expansion Valve (Y1E, Y2E)

Remote Controller Display

E9

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Check disconnection of connector
Check continuity of expansion valve coil

Malfunction Decision Conditions

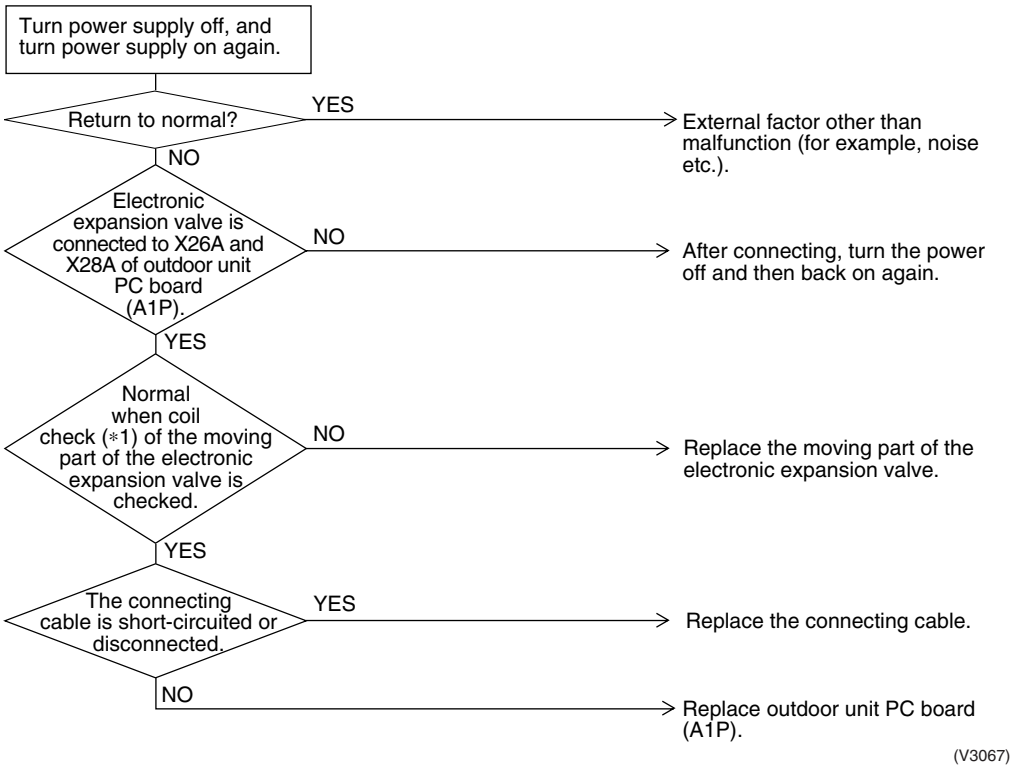
Error is generated under no common power supply when the power is on.

Supposed Causes

- Defect of moving part of electronic expansion valve
- Defect of outdoor unit PC board (A1P)
- Defect of connecting cable

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3067)

∗1: Coil check method for the moving part of the electronic expansion valve
Disconnect the electronic expansion valve from the PC board and check the continuity between the connector pins.

(Normal)

Pin No.	1. White	2. Yellow	3. Orange	4. Blue	5. Red	6. Brown
1. White		×	○ Approx. 300Ω	×	○ Approx. 150Ω	×
2. Yellow			×	○ Approx. 300Ω	×	○ Approx. 150Ω
3. Orange				×	○ Approx. 150Ω	×
4. Blue					×	○ Approx. 150Ω
5. Red						×
6. Brown						

○: Continuity
×: No continuity

2.20 "F3" Outdoor Unit: Abnormal Discharge Pipe Temperature

Remote Controller Display

F3

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Abnormality is detected according to the temperature detected by the discharge pipe temperature sensor.

Malfunction Decision Conditions

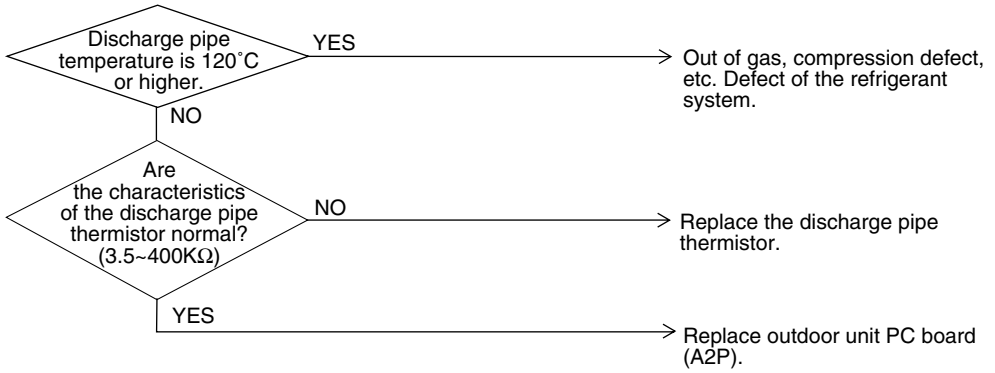
- When the discharge pipe temperature rises to an abnormally high level
- When the discharge pipe temperature rises suddenly

Supposed Causes

- Faulty discharge pipe temperature sensor
- Faulty connection of discharge pipe temperature sensor
- Faulty outdoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3068)

∗: Refer to thermistor resistance / temperature characteristics table on P233.

2.21 "F6" Refrigerant Overcharged

Remote Controller Display

F6

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Refrigerant overcharge is detected from the receiver gas pipe temperature during test operation.

Malfunction Decision Conditions

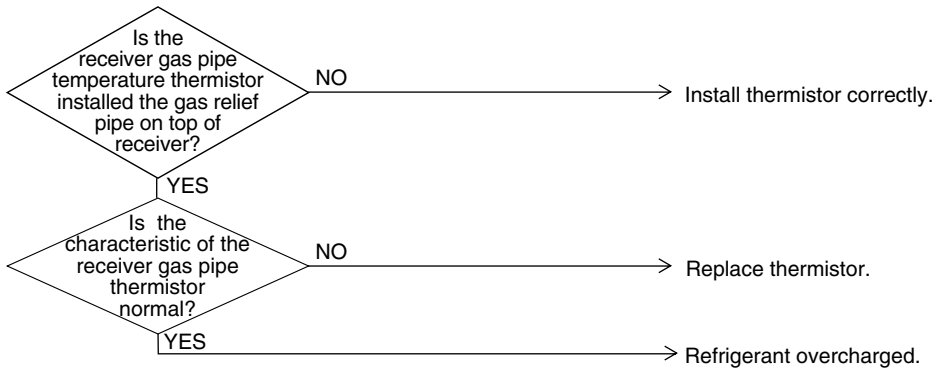
When the receiver gas pipe temperature is lower than evaporating temperature during test operation.

Supposed Causes

- Refrigerant overcharge
- Disconnection of the receiver gas pipe thermistor

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2797)

2.22 "H7" Abnormal Outdoor Fan Motor Signal

Remote Controller Display

H7

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Detection of abnormal signal from fan motor.

Malfunction Decision Conditions

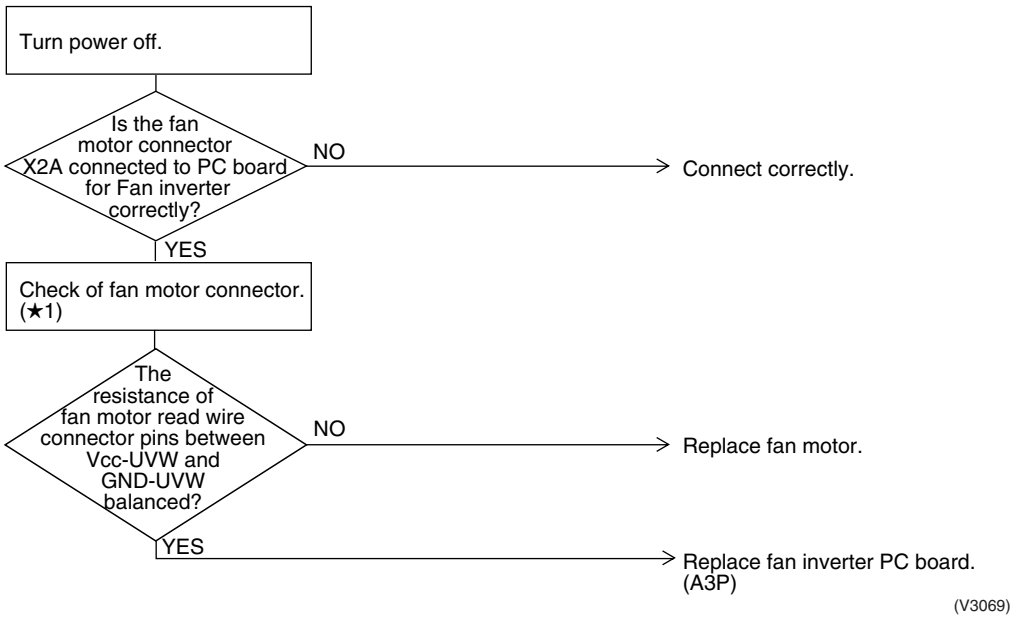
In case of detection of abnormal signal at starting fan motor.

Supposed Causes

- Abnormal fan motor signal (circuit malfunction)
- Broken, short or disconnection connector of fan motor connection cable
- Fan Inverter PC board malfunction

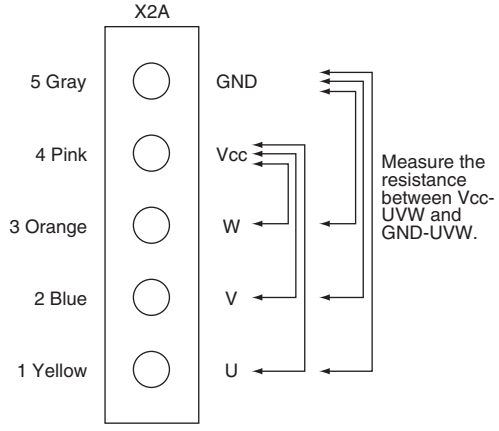
Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3069)

★1: Disconnect connector (X2A) and measure the following resistance.



(V2799)

2.23 "H9" Outdoor Unit: Malfunction of Thermistor for Outdoor Air (R1T)

Remote Controller Display

H9

Applicable Models

RXM8, 10M

Method of Malfunction Detection

The abnormal detection is based on current detected by current sensor.

Malfunction Decision Conditions

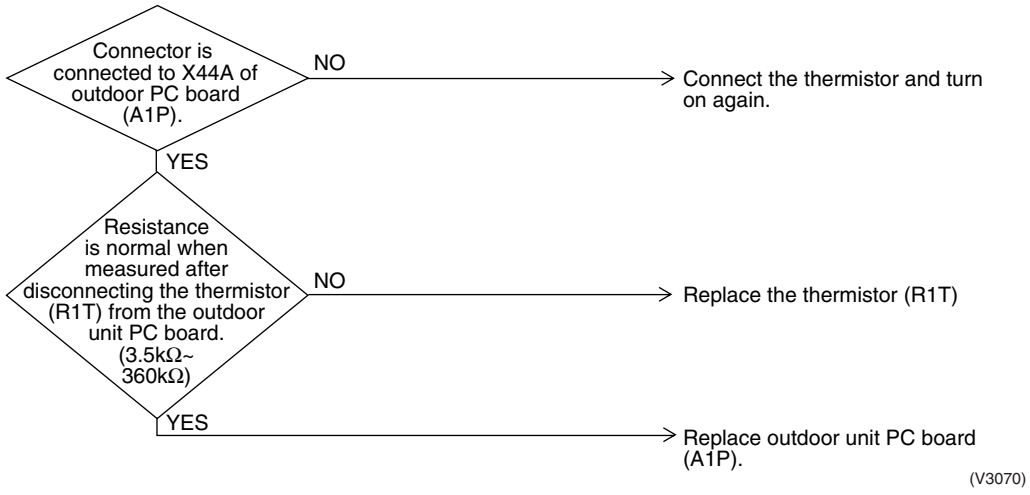
When the outside air temperature sensor has short circuit or open circuit.

Supposed Causes

- Defect of thermistor (R1T) for outdoor air
- Defect of outdoor unit PC board (A1P)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



The alarm indicator is displayed when the fan only is being used also.

∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.24 "J2" Current Sensor Malfunction

Remote Controller Display

J2

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected according to the current value detected by current sensor.

Malfunction Decision Conditions

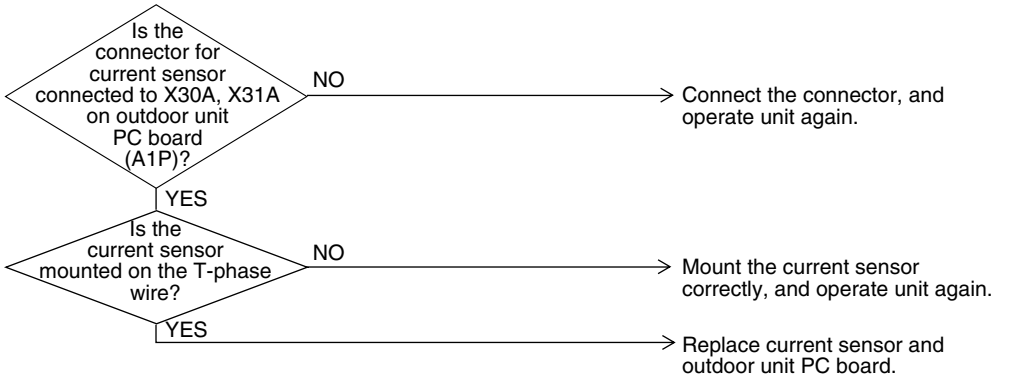
When the current value detected by current sensor becomes 5A (400 V unit) or lower during STD compressor operation and 40A or more during STD compressor stop.

Supposed Causes

- Faulty current sensor
- Faulty outdoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3071)

2.25 "J3" Outdoor Unit: Malfunction of Discharge Pipe Thermistor (R31 or 32T)

Remote Controller Display

J3

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected from the temperature detected by discharge pipe temperature thermistor.

Malfunction Decision Conditions

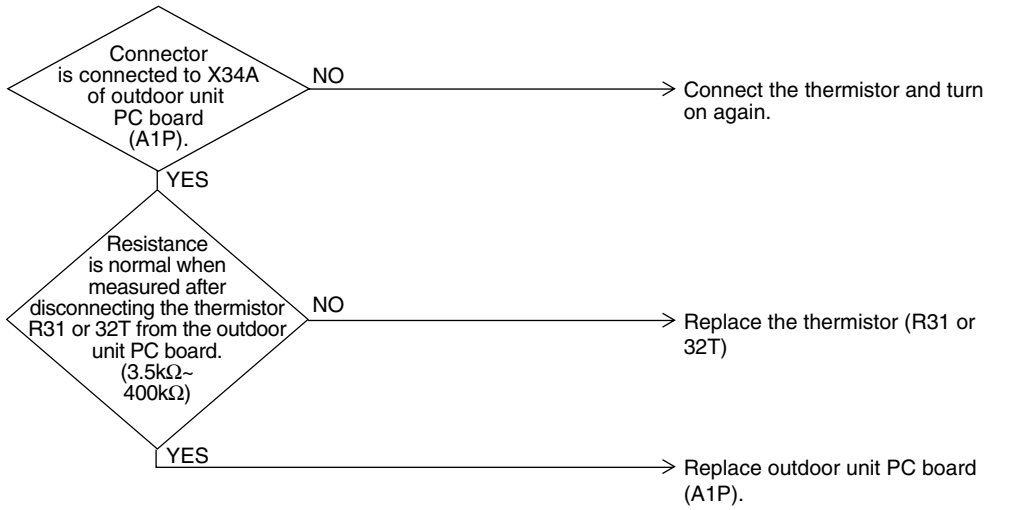
When a short circuit or an open circuit in the discharge pipe temperature thermistor is detected.

Supposed Causes

- Defect of thermistor (R31T or R32T) for outdoor unit discharge pipe
- Defect of outdoor unit PC board (A1P)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



The alarm indicator is displayed when the fan is being used also.

Note: 8, 10 HP class ··· R31T, R32T

2.26 "J5" Outdoor Unit: Malfunction of Thermistor (R2T) for Suction Pipe

Remote Controller Display

J5

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected from the temperature detected by the suction pipe temperature thermistor.

Malfunction Decision Conditions

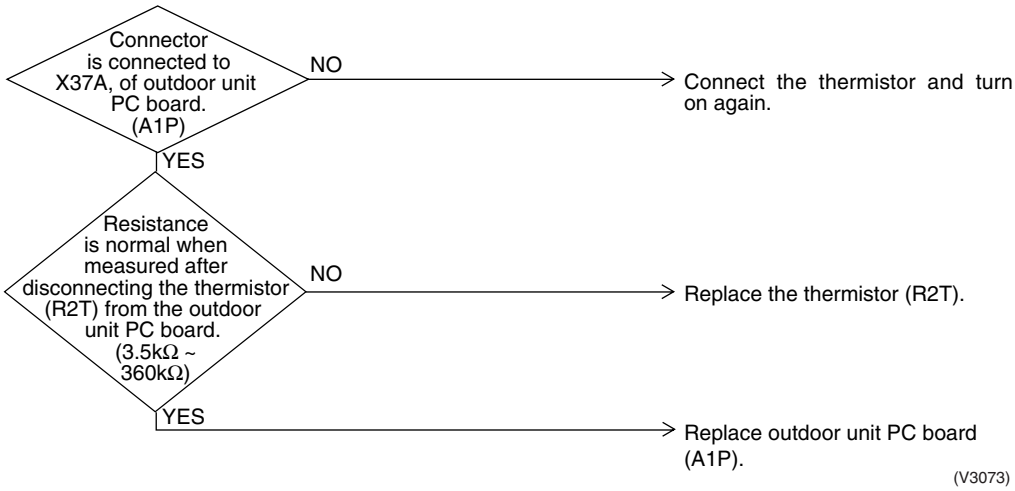
When a short circuit or an open circuit in the suction pipe temperature thermistor is detected.

Supposed Causes

- Defect of thermistor (R2T) for outdoor unit suction pipe
- Defect of outdoor unit PC board (A1P)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.27 "J6" Outdoor Unit: Malfunction of Thermistor (R4T) for Outdoor Unit Heat Exchanger

Remote Controller Display

J6

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected from the temperature detected by the heat exchanger thermistor.

Malfunction Decision Conditions

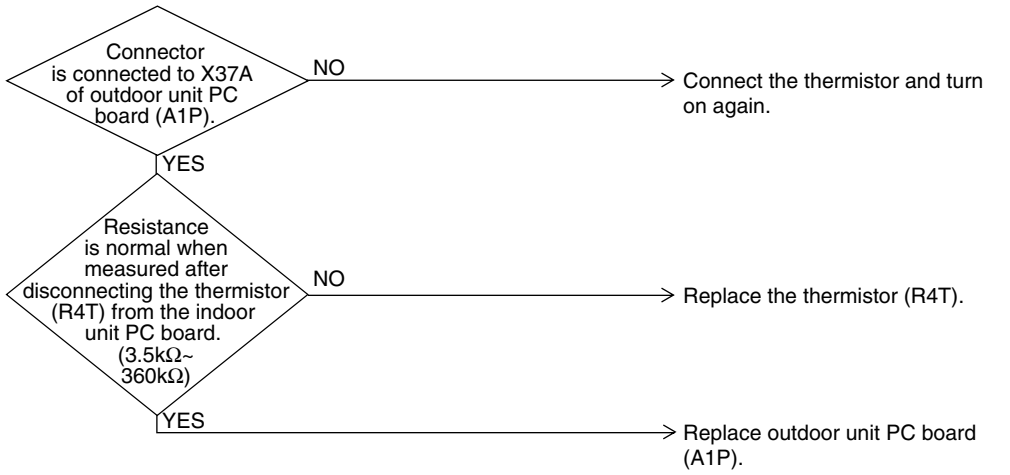
When a short circuit or an open circuit in the heat exchange thermistor is detected.

Supposed Causes

- Defect of thermistor (R4T) for outdoor unit coil
- Defect of outdoor unit PC board (A1P)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3074)

∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.28 "J9" Malfunction of Receiver Gas Pipe Thermistor (R5T)

Remote Controller Display

J9

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected according to the temperature detected by receiver gas pipe thermistor (= Subcooling heat exchanger gas pipe thermistor).

Malfunction Decision Conditions

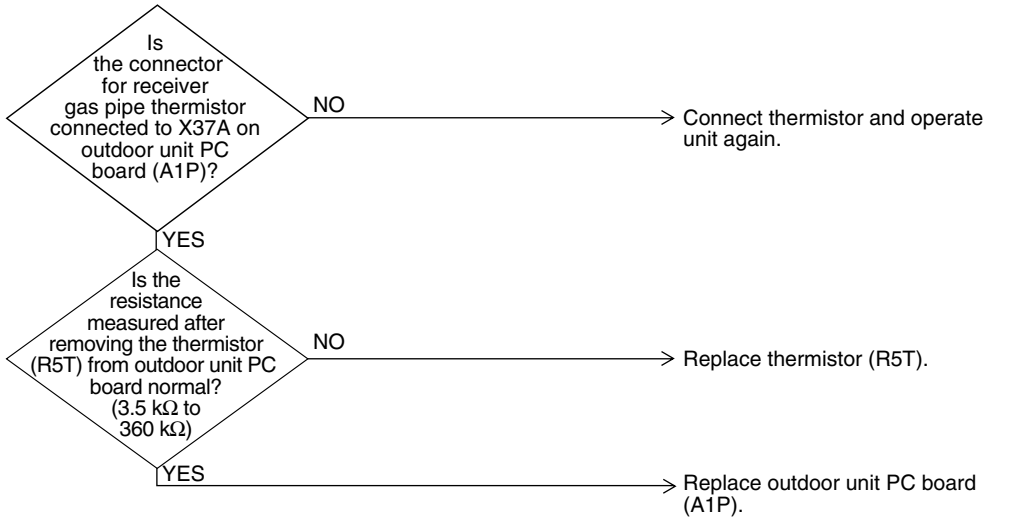
When the receiver gas pipe thermistor is short circuited or open.

Supposed Causes

- Faulty receiver gas pipe thermistor (R5T)
- Faulty outdoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V3075)

∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.29 "JA" Outdoor Unit: Malfunction of High Pressure Sensor

Remote Controller Display

JA

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected from the pressure detected by the high pressure sensor.

Malfunction Decision Conditions

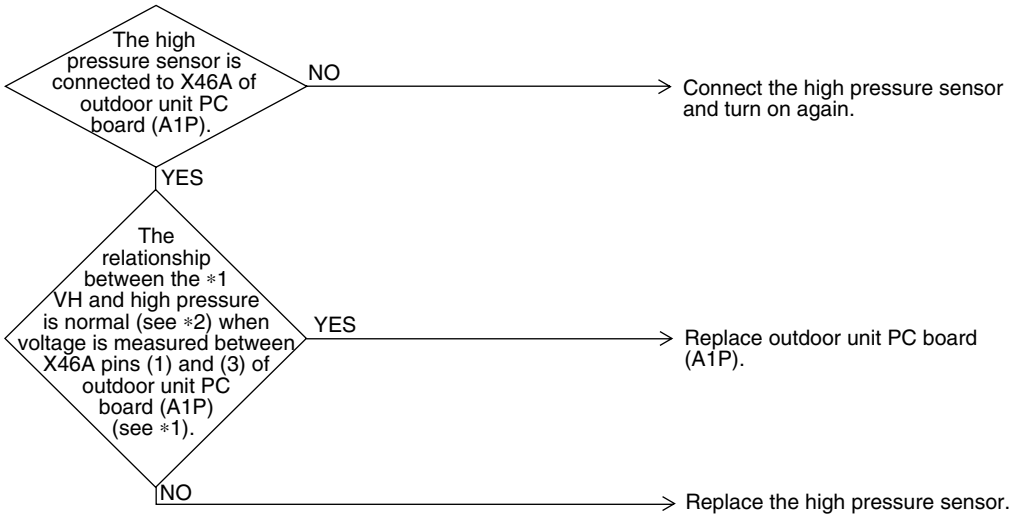
When the high pressure sensor is short circuit or open circuit.

Supposed Causes

- Defect of high pressure sensor system
- Connection of low pressure sensor with wrong connection.
- Defect of outdoor unit PC board.

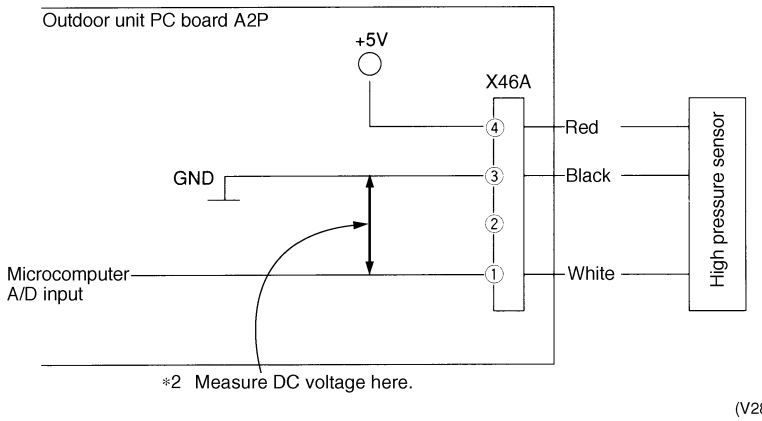
Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2806)

∗1: Voltage measurement point



(V2807)

∗2: Refer to pressure sensor, pressure / voltage characteristics table on P234.

2.30 "JC" Outdoor Unit: Malfunction of Low Pressure Sensor

Remote Controller Display

JC

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected from pressure detected by low pressure sensor.

Malfunction Decision Conditions

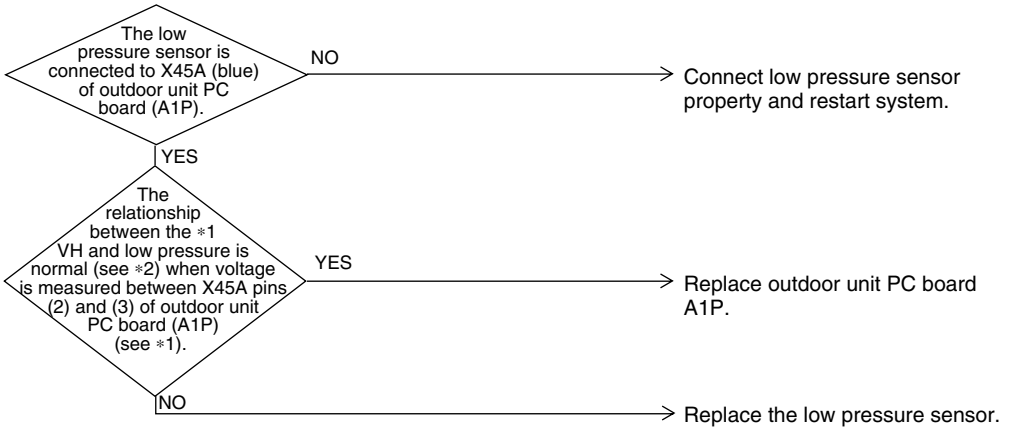
When the low pressure sensor is short circuit or open circuit.

Supposed Causes

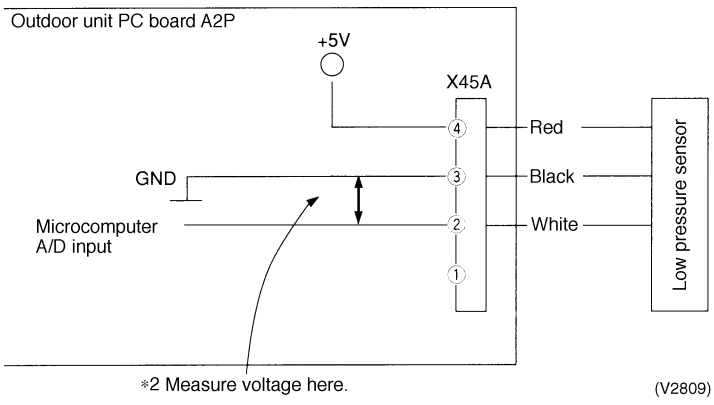
- Defect of low pressure sensor system
- Connection of high pressure sensor with wrong connection.
- Defect of outdoor unit PC board.

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



∗1: Voltage measurement point



∗2: Refer to pressure sensor, pressure/voltage characteristics table on P234.

2.31 "L4" Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise

Remote Controller Display

L4

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Fin temperature is detected by the thermistor of the radiation fin.

Malfunction Decision Conditions

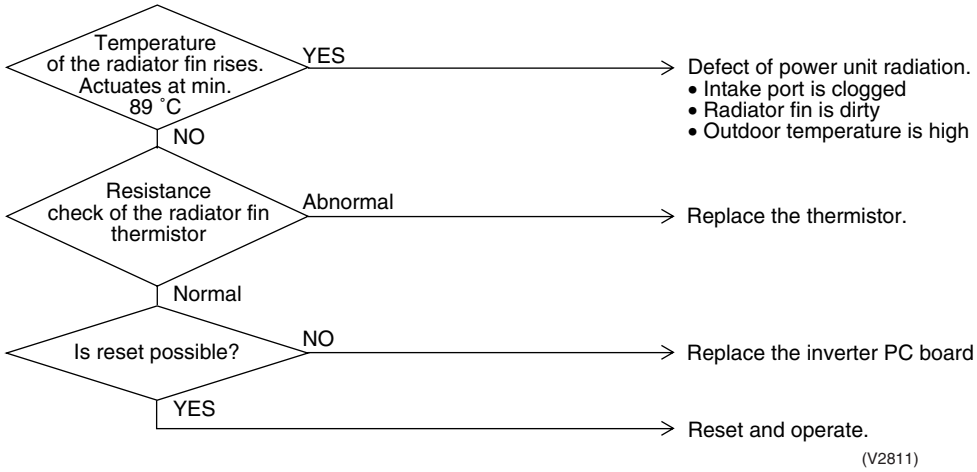
When the temperature of the inverter radiation fin increases above 89°C.

Supposed Causes

- Actuation of fin thermal (Actuates above 89°C)
- Defect of inverter PC board
- Defect of fin thermistor

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.32 "L5" Outdoor Unit: Inverter Compressor Abnormal

Remote Controller Display

L5

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected from current flowing in the power transistor.

Malfunction Decision Conditions

When an excessive current flows in the power transistor.
(Instantaneous overcurrent also causes activation.)

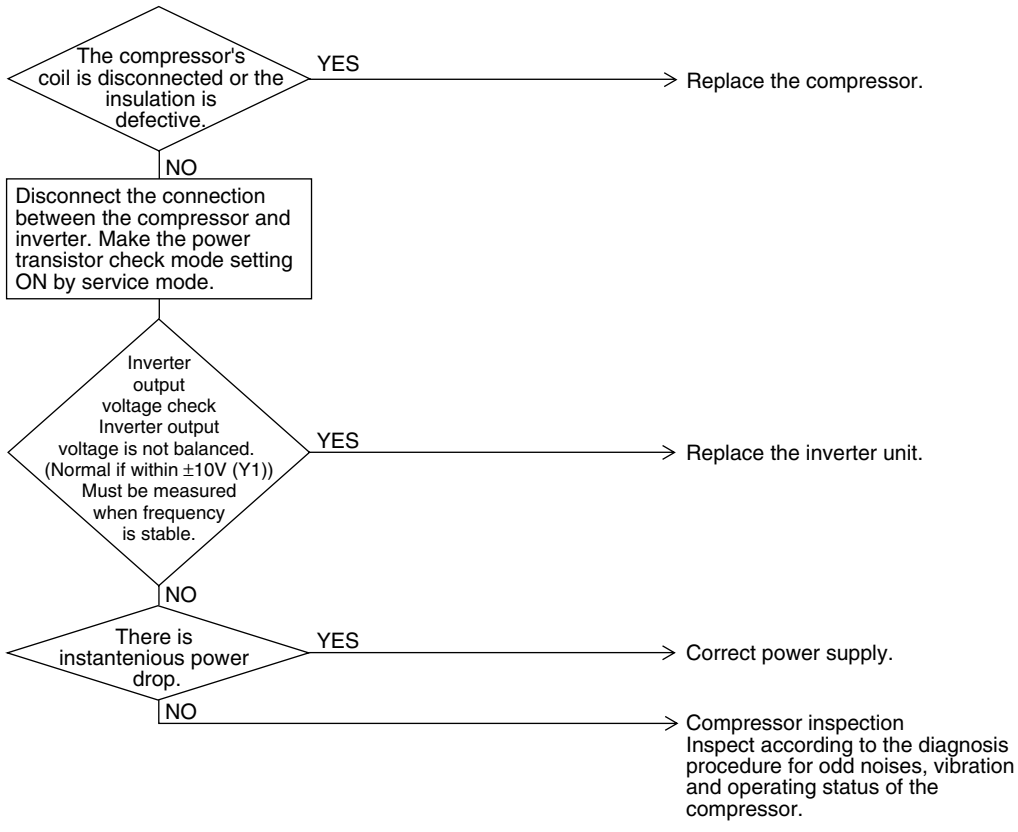
Supposed Causes

- Defect of compressor coil (disconnected, defective insulation)
- Compressor start-up malfunction (mechanical lock)
- Defect of inverter PC board

Troubleshooting

Compressor inspection

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2812)

Higher voltage than actual is displayed when the inverter output voltage is checked by tester.

2.33 "L8" Outdoor Unit: Inverter Current Abnormal

Remote Controller Display

L8

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected by current flowing in the power transistor.

Malfunction Decision Conditions

When overload in the compressor is detected.

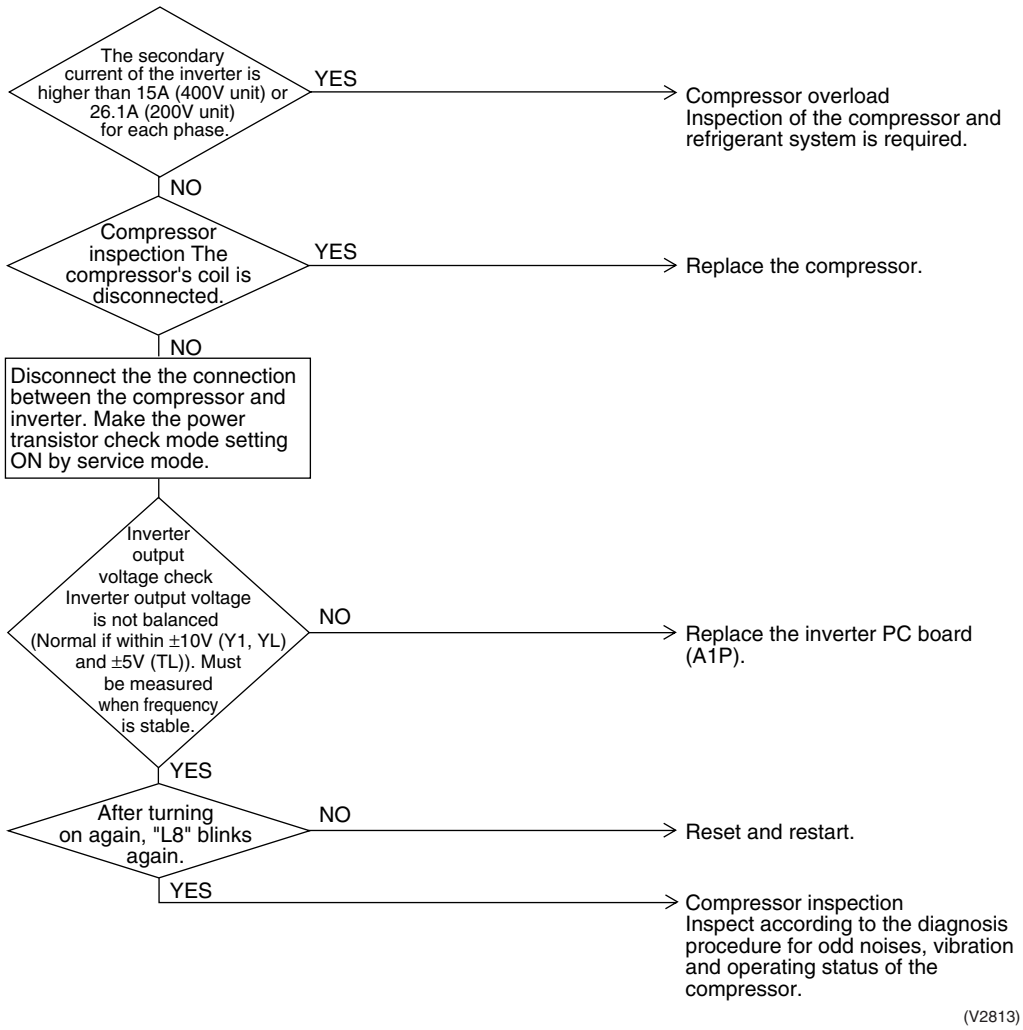
Supposed Causes

- Compressor overload
- Compressor coil disconnected
- Defect of inverter PC board (A1P)

Troubleshooting

Output current check

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2813)

2.34 "L9" Outdoor Unit: Inverter Start up Error

Remote Controller Display

L9

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Malfunction is detected from current flowing in the power transistor.

Malfunction Decision Conditions

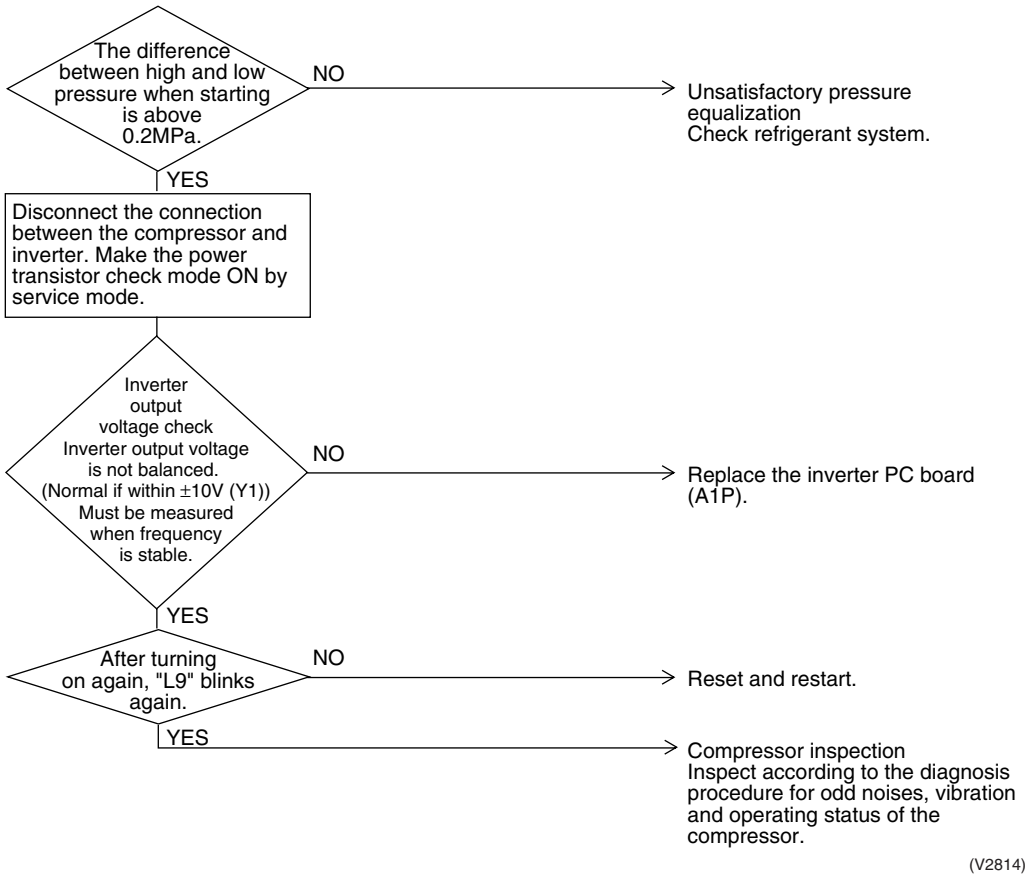
When overload in the compressor is detected during startup

Supposed Causes

- Defect of compressor
- Pressure differential start
- Defect of inverter PC board (A1P)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



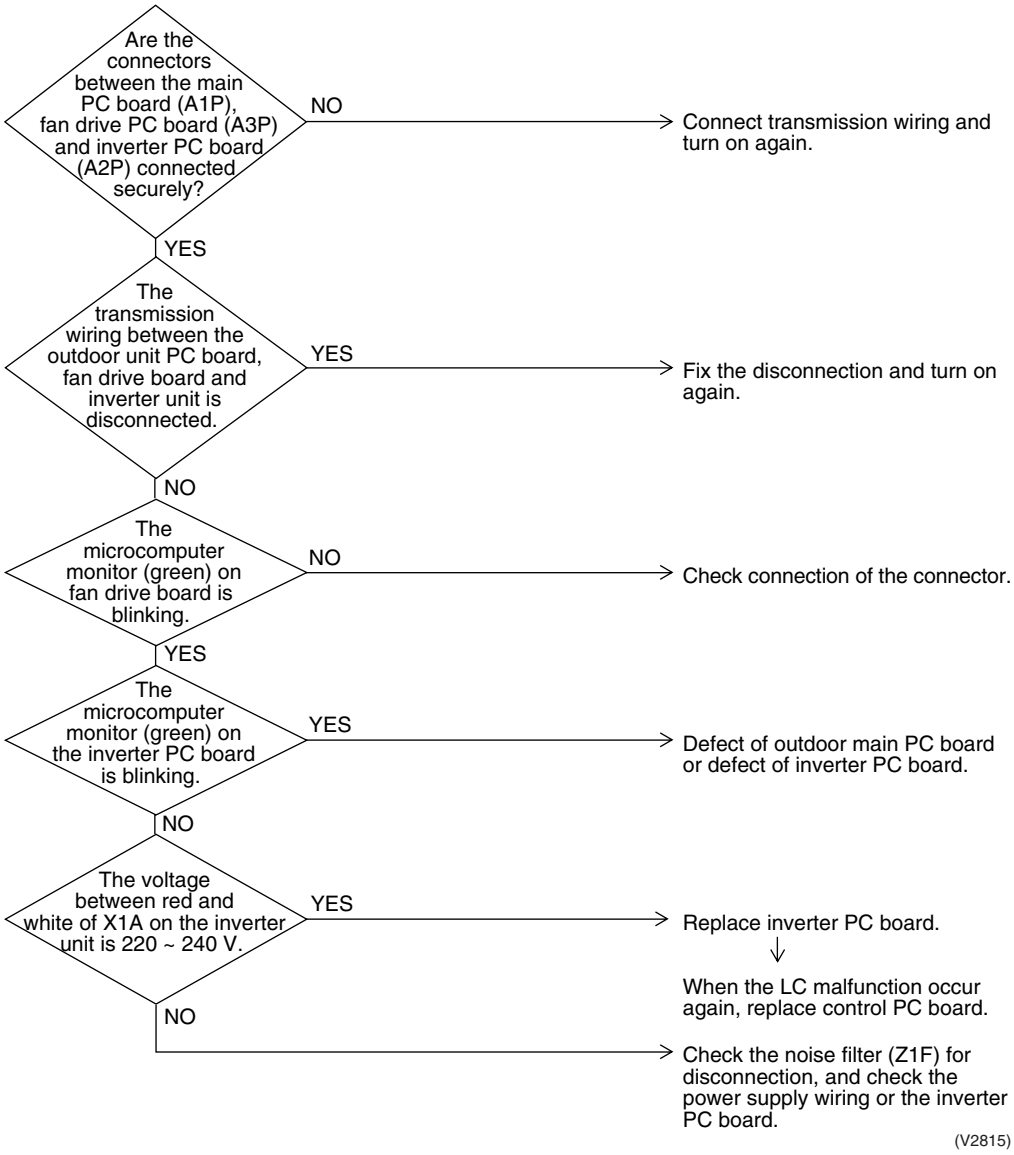
(V2814)

2.35 "LC" Outdoor Unit: Malfunction of Transmission between Inverter and Control PC Board

Remote Controller Display	LC
Applicable Models	RXM8, 10M
Method of Malfunction Detection	Check the communication state between inverter PC board and control PC board by micro-computer.
Malfunction Decision Conditions	When the correct communication is not conducted in certain period.
Supposed Causes	■ Malfunction of connection between the inverter PC board and outdoor control PC board ■ Defect of outdoor control PC board (transmission section) ■ Defect of inverter PC board ■ Defect of noise filter ■ External factor (Noise etc.)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



2.36 "P1" Outdoor Unit: Inverter Over-Ripple Protection

Remote Controller Display

P1

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Imbalance in supply voltage is detected in PC board.

Malfunction Decision Conditions

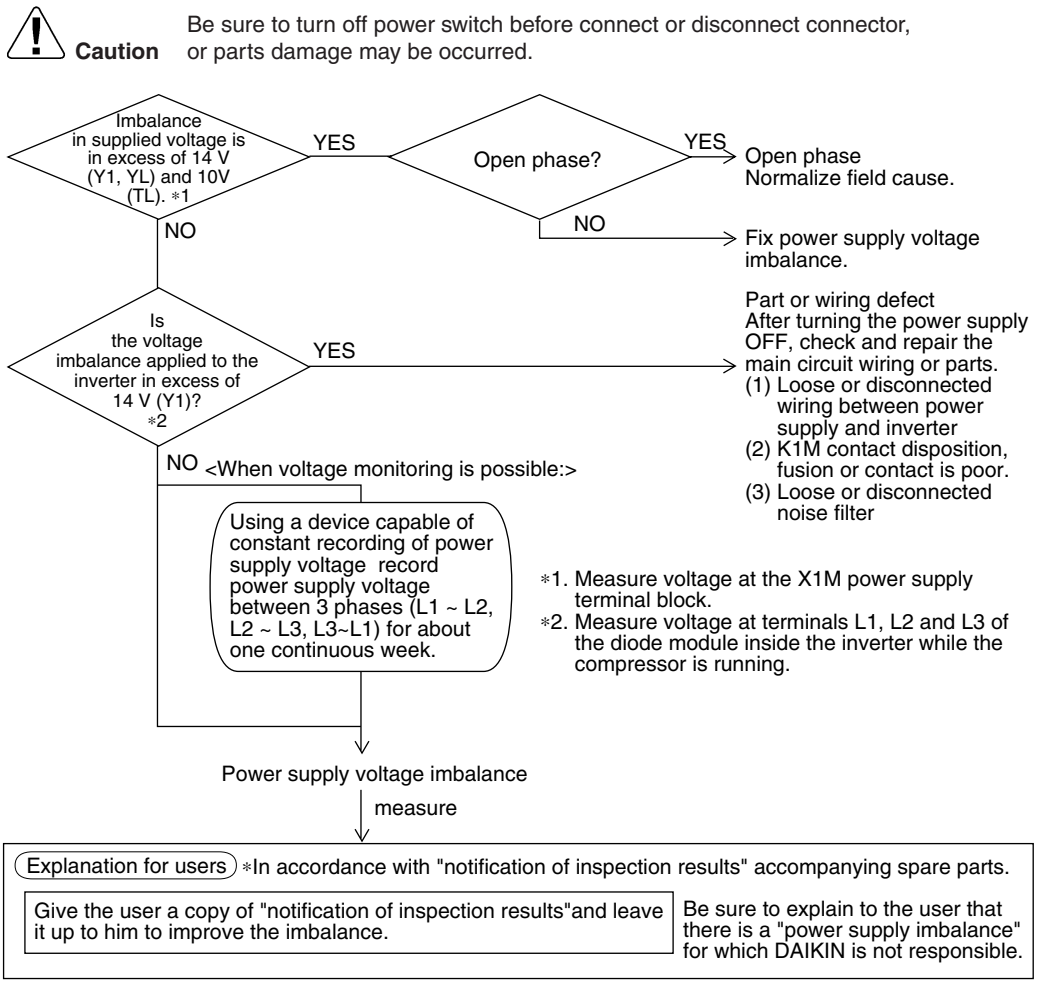
When the resistance value of thermistor becomes a value equivalent to open or short circuited status.

- Malfunction is not decided while the unit operation is continued.
  "P1" will be displayed by pressing the inspection button.

Supposed Causes

- Open phase
- Voltage imbalance between phases
- Defect of main circuit capacitor
- Defect of inverter PC board
- Defect of K1M
- Improper main circuit wiring

Troubleshooting



(V2816)

2.37 "P4" Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise Sensor

Remote Controller Display

P4

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Resistance of radiation fin thermistor is detected when the compressor is not operating.

Malfunction Decision Conditions

When the resistance value of thermistor becomes a value equivalent to open or short circuited status.

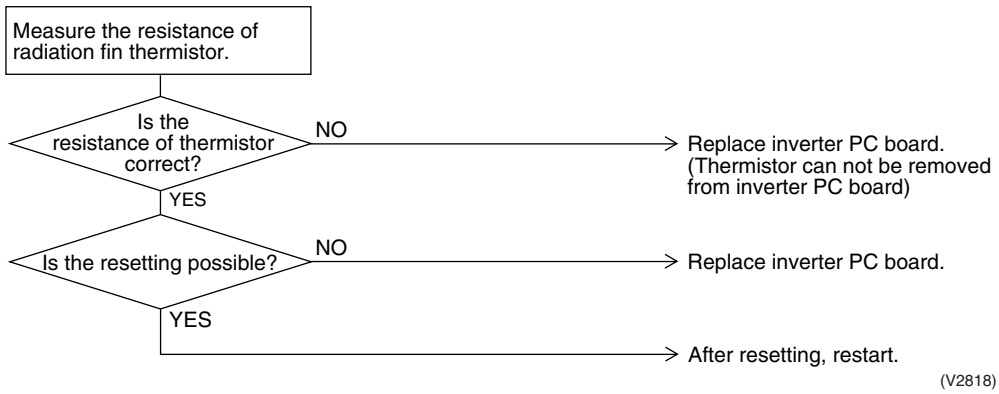
- Malfunction is not decided while the unit operation is continued.
  "P4" will be displayed by pressing the inspection button.

Supposed Causes

- Defect of radiator fin temperature sensor
- Defect of inverter PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



∗: Refer to thermistor resistance / temperature characteristics table on P232.

2.38 "PJ" Outdoor Unit: Faulty Field Setting after Replacing Main PC Board or Faulty Combination of PC Board

Remote Controller Display

PJ

Applicable Models

RXYQ5MA~48MA

Method of Malfunction Detection

The faulty (or no) field setting after replacing main PC board or faulty PC board combination is detected through communications with the inverter.

Malfunction Decision Conditions

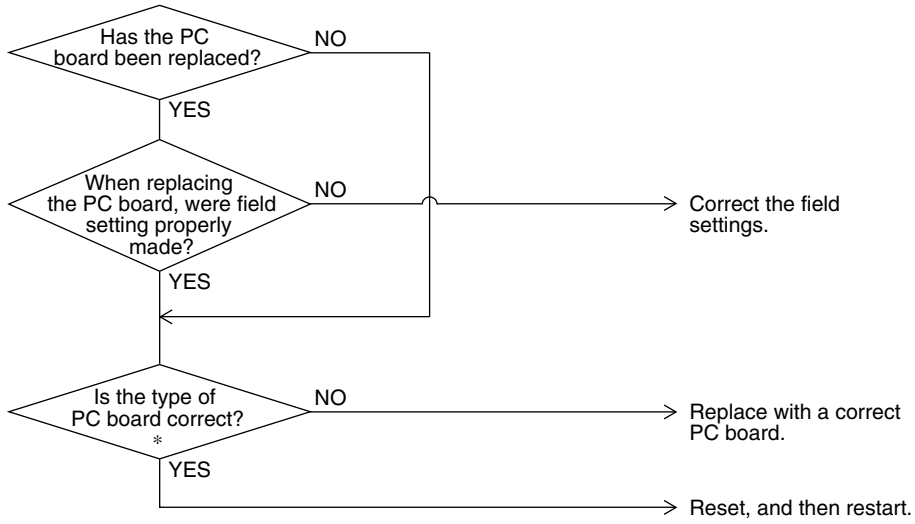
Whether or not the field setting or the type of the PC board is correct through the communication date is judged.

Supposed Causes

- Faulty (or no) field setting after replacing main PC board
- Mismatching of type of PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



*Note) Type of PC board mismatching includes;
Main PC board
Inverter PC board (for compressor)
Fan driver PC board

2.39 "U0" Low Pressure Drop Due to Refrigerant Shortage or Electronic Expansion Valve Failure

Remote Controller Display

U0

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Short of gas malfunction is detected by discharge pipe temperature thermistor.

Malfunction Decision Conditions

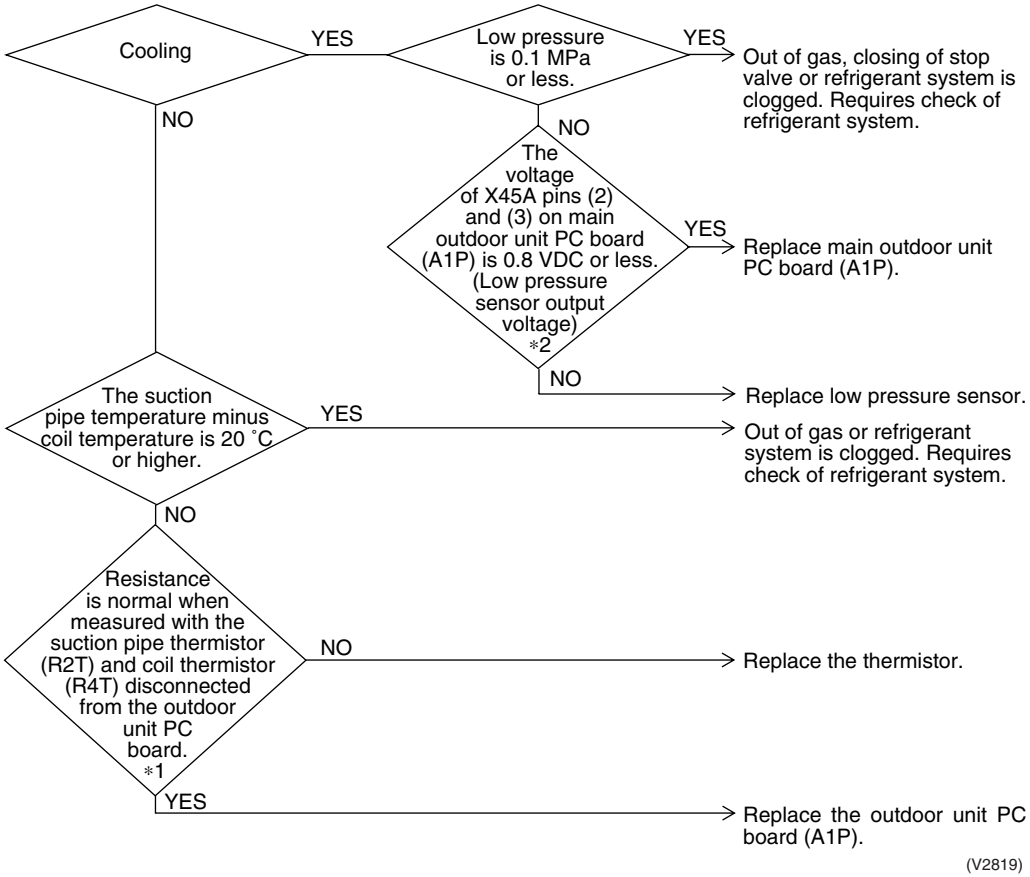
Microcomputer judge and detect if the system is short of refrigerant.
★Malfunction is not decided while the unit operation is continued.

Supposed Causes

- Out of gas or refrigerant system clogging (incorrect piping)
- Defect of pressure sensor
- Defect of outdoor unit PC board (A1P)
- Defect of thermistor R2T or R4T

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



*1: Refer to thermistor resistance / temperature characteristics table on P232.
*2: Refer to pressure sensor, pressure / voltage characteristics table on P234.

2.40 "U1" Reverse Phase, Open Phase

Remote Controller Display

U1

Applicable Models

RXM8, 10M

Method of Malfunction Detection

The phase of each phase are detected by reverse phase detection circuit and right phase or reverse phase are judged.

Malfunction Decision Conditions

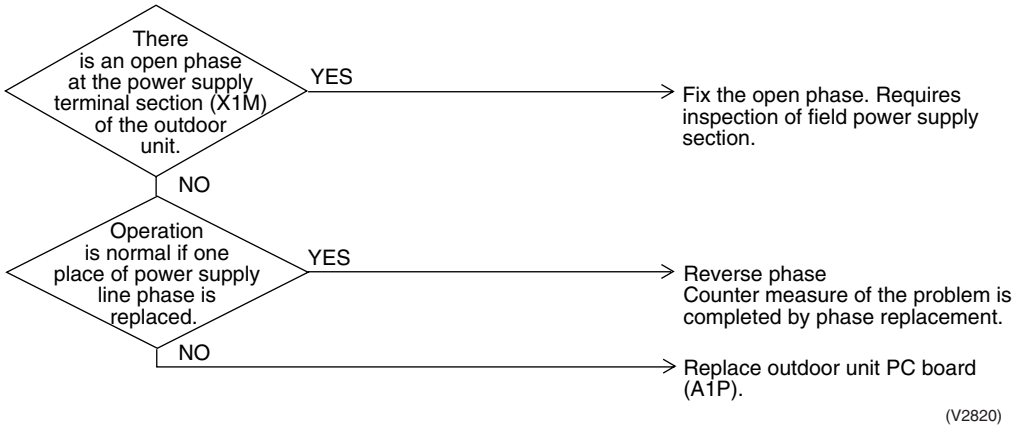
When a significant phase difference is made between phases.

Supposed Causes

- Power supply reverse phase
- Power supply open phase
- Defect of outdoor PC board A1P

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.

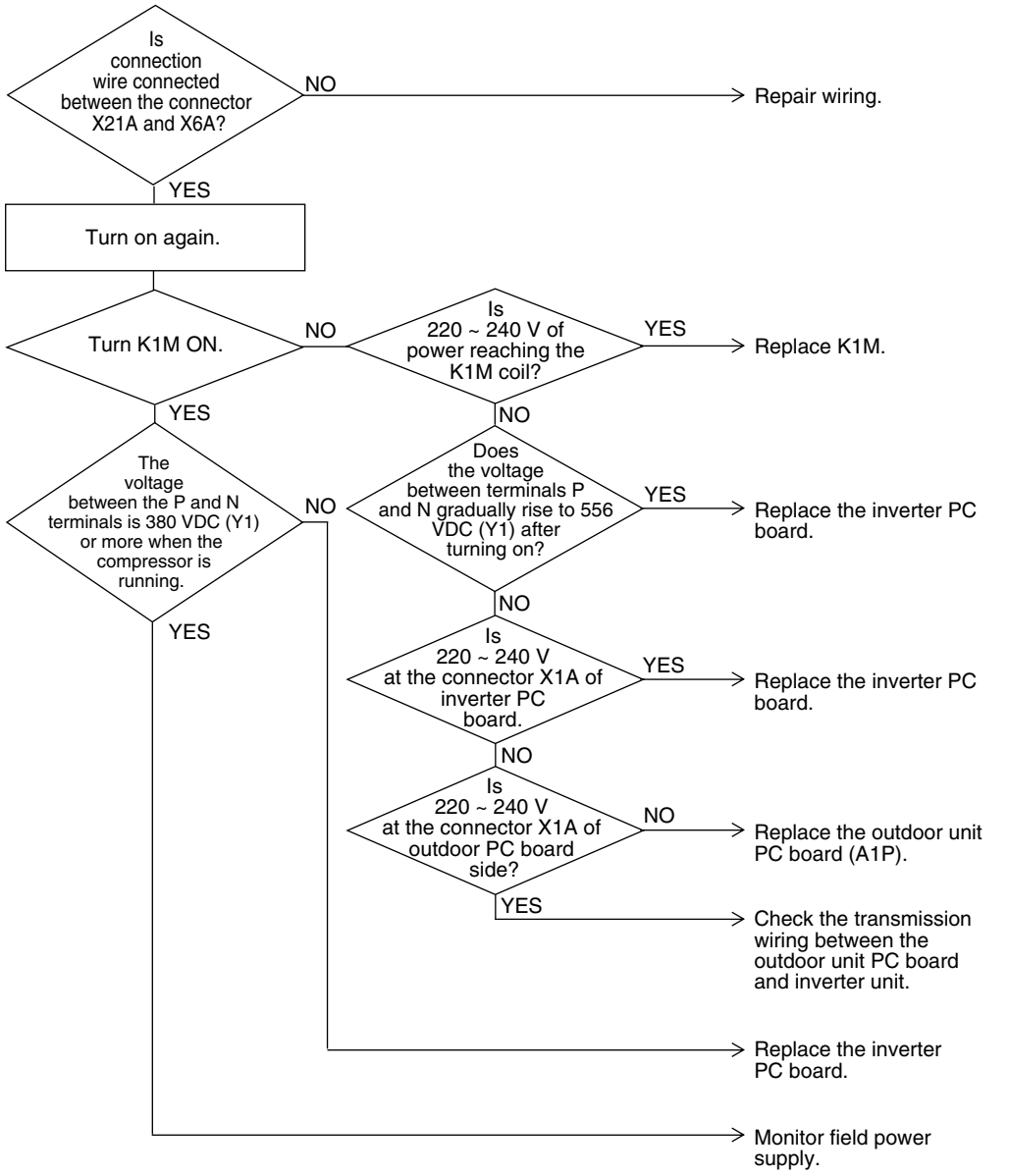


2.41 "U2" Power Supply Insufficient or Instantaneous Failure

Remote Controller Display	U2
Applicable Models	RXM8, 10M
Method of Malfunction Detection	Detection of voltage of main circuit capacitor built in the inverter and power supply voltage.
Malfunction Decision Conditions	When the capacitor above only has a voltage of 380 V or less.
Supposed Causes	■ Power supply insufficient ■ Instantaneous failure ■ Open phase ■ Defect of inverter PC board ■ Defect of outdoor control PC board ■ Defect of K1M. ■ Main circuit wiring defect

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2821)

2.42 "U3" Check Operation not Executed

Remote Controller Display

U3

Applicable Models

RXM8, 10M

Method of Malfunction Detection

Check operation is executed or not

Malfunction Decision Conditions

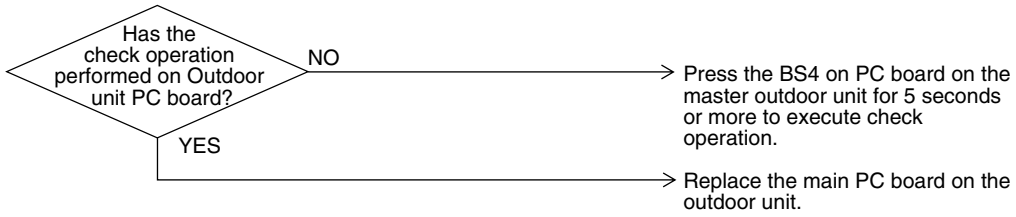
Malfunction is decided when the unit starts operation without check operation.

Supposed Causes

- Check operation is not executed.

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



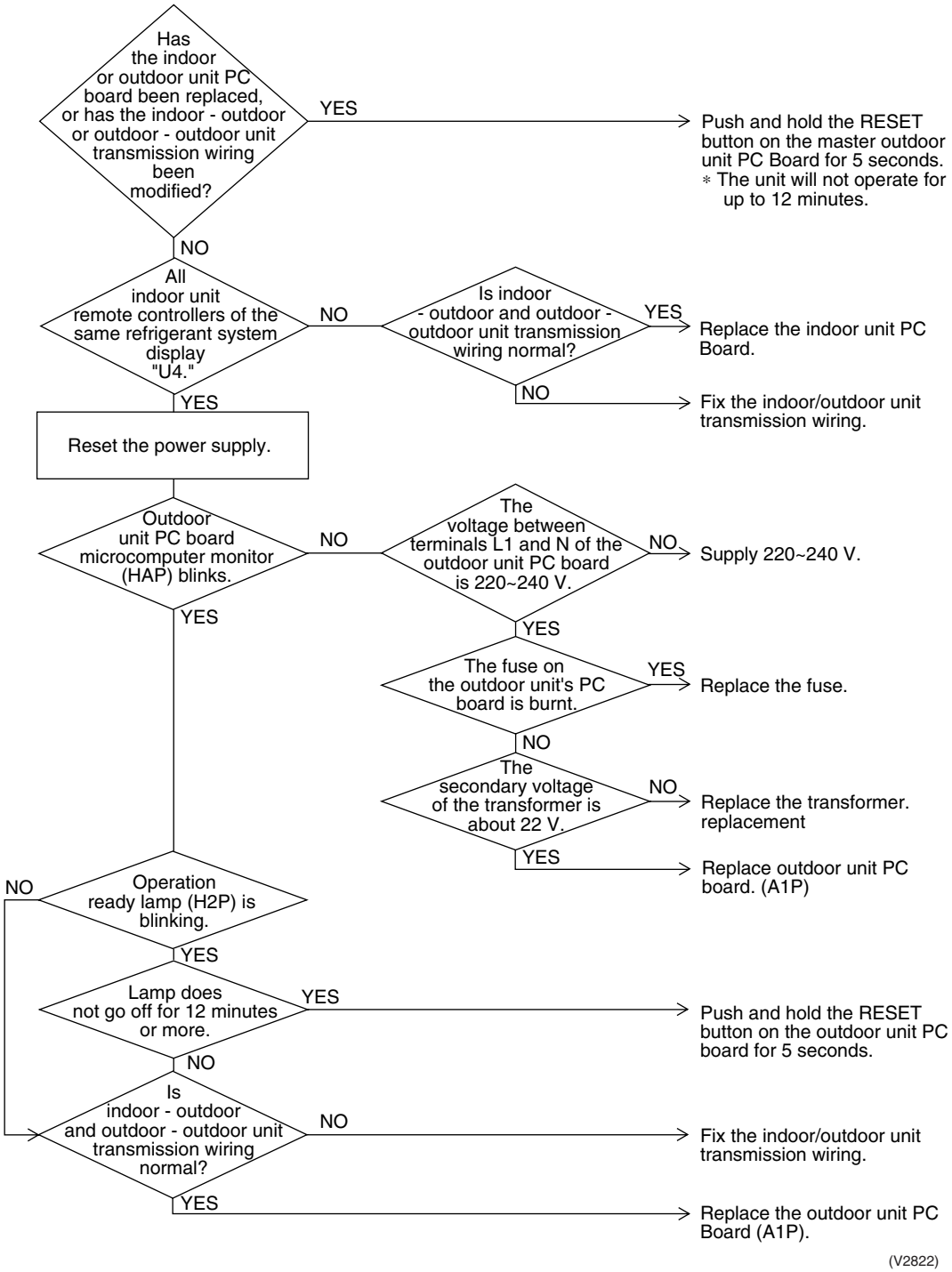
(V3052)

2.43 "U4" Malfunction of Transmission between Indoor Units

Remote Controller Display	U4
Applicable Models	All model of indoor unit RXM8, 10M
Method of Malfunction Detection	Microcomputer checks if transmission between indoor and outdoor units is normal.
Malfunction Decision Conditions	When transmission is not carried out normally for a certain amount of time
Supposed Causes	■ Indoor to outdoor,outdoor to outdoor transmission wiring F1, F2 disconnection, short circuit or wrong wiring ■ Outdoor unit power supply is OFF ■ System address doesn't match ■ Defect of indoor unit PC board ■ Defect of outdoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



2.44 "U5" Malfunction of Transmission between Remote Controller and Indoor Unit

Remote Controller Display

U5

Applicable Models

All models of indoor units

Method of Malfunction Detection

In case of controlling with 2-remote controller, check the system using microcomputer is signal transmission between indoor unit and remote controller (main and sub) is normal.

Malfunction Decision Conditions

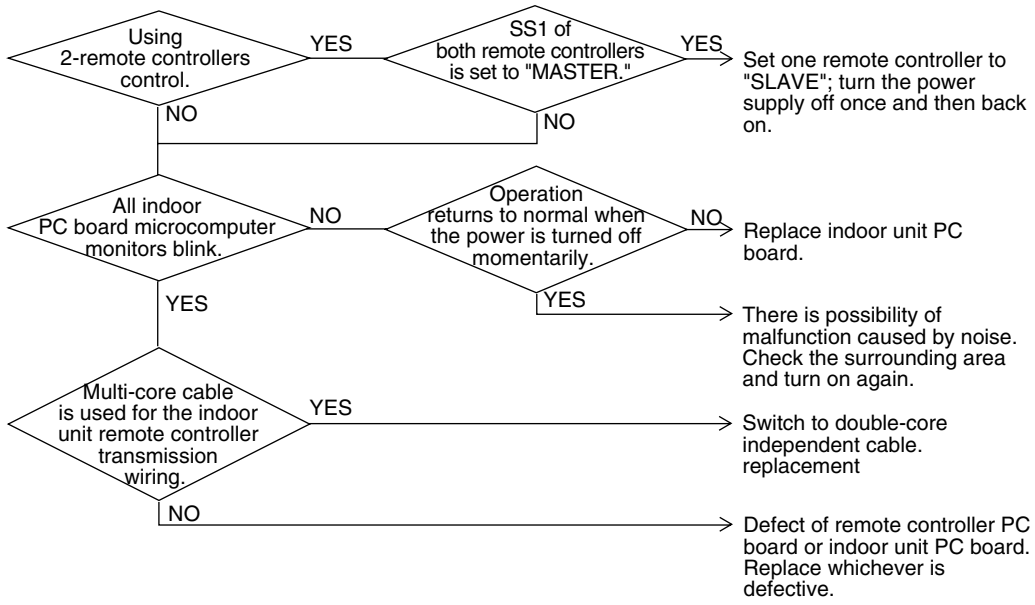
Normal transmission does not continue for specified period.

Supposed Causes

- Malfunction of indoor unit remote controller transmission
- Connection of two main remote controllers (when using 2 remote controllers)
- Defect of indoor unit PC board
- Defect of remote controller PC board
- Malfunction of transmission caused by noise

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2823)

2.45 "U7" Malfunction of Transmission between Outdoor Units

Remote Controller Display

U7

Applicable Models

All models of indoor units

Method of Malfunction Detection

Microcomputer checks if transmission between indoor unit and remote controller is normal.

Malfunction Decision Conditions

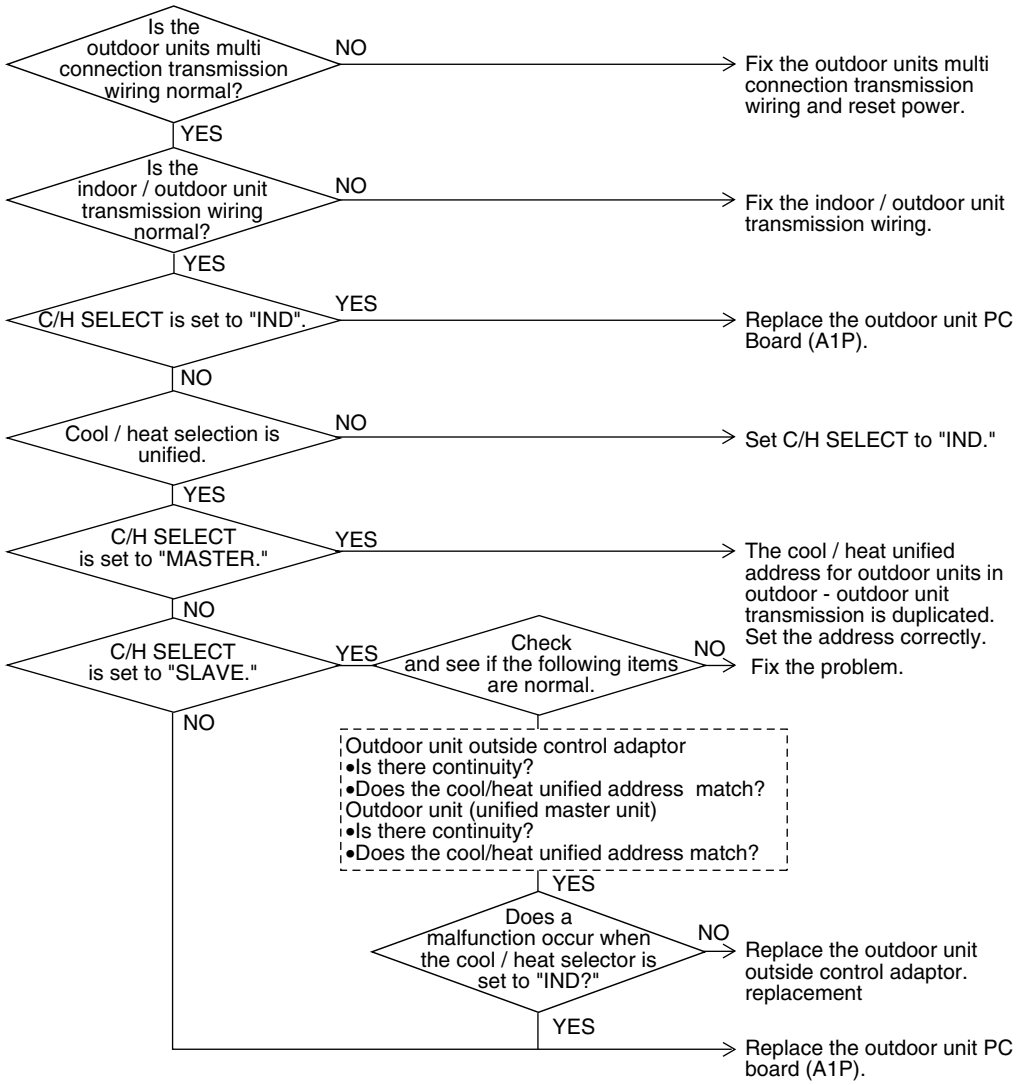
When transmission is not carried out normally for a certain amount of time

Supposed Causes

- Improper connection of transmission wiring between outdoor unit and outdoor unit outside control adaptor
- Improper cool/heat selection
- Improper cool/heat unified address (outdoor unit, external control adaptor for outdoor unit)
- Defect of outdoor unit PC board (A1P)
- Defect of outdoor unit outside control adaptor
- Improper connection of transmission wiring between outdoor units of multi outdoor unit connection.

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2824)

2.46 "U8" Malfunction of Transmission between MAIN and SUB Remote Controllers

Remote Controller Display

U8

Applicable Models

All models of indoor units

Method of Malfunction Detection

In case of controlling with 2-remote controller, check the system using microcomputer if signal transmission between indoor unit and remote controller (main and sub) is normal.

Malfunction Decision Conditions

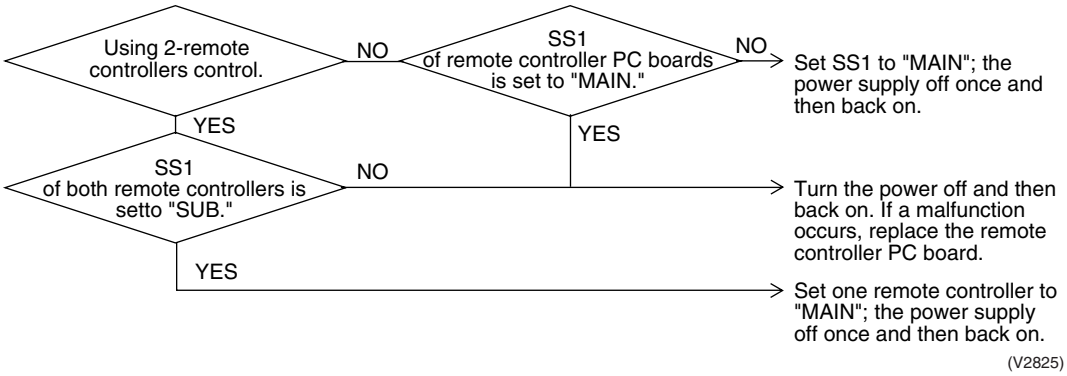
Normal transmission does not continue for specified period.

Supposed Causes

- Malfunction of transmission between main and sub remote controller
- Connection between sub remote controllers
- Defect of remote controller PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



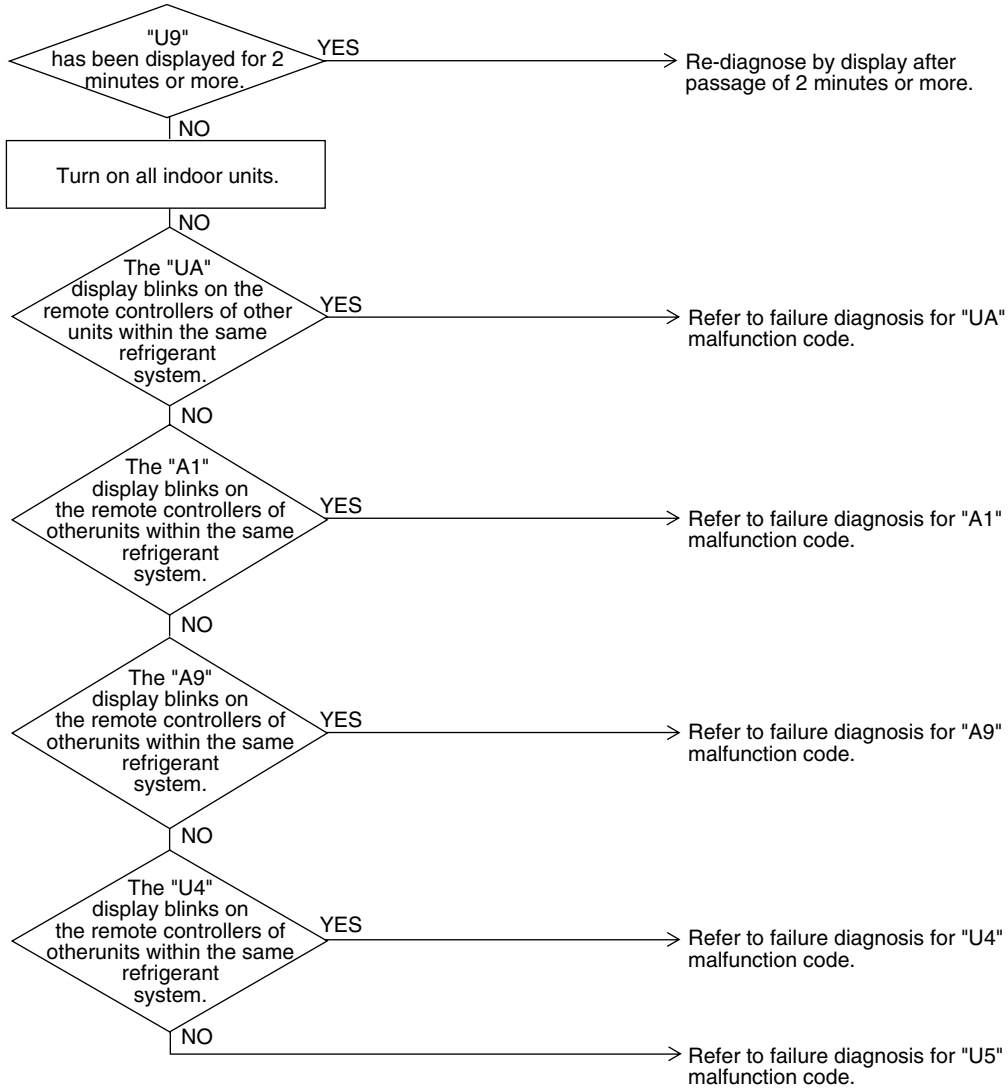
(V2825)

2.47 "U9" Malfunction of Transmission between Indoor and Outdoor Units in the Same System

Remote Controller Display	U9
Applicable Models	All models of indoor units
Method of Malfunction Detection	Detect the malfunction signal of any other indoor unit within the system concerned.
Malfunction Decision Conditions	When the malfunction decision is made on any other indoor unit within the system concerned.
Supposed Causes	■ Malfunction of transmission within or outside of other system ■ Malfunction of electronic expansion valve in indoor unit of other system ■ Defect of PC board of indoor unit in other system ■ Improper connection of transmission wiring between indoor and outdoor unit

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2826)

2.48 "UA" Excessive Number of Indoor Units

Remote Controller Display

UA

Applicable Models

All models of indoor unit
RXM8, 10M

Method of Malfunction Detection

A difference occurs in data by the type of refrigerant between indoor and outdoor units.
The number of indoor units is outside of the allowable range.

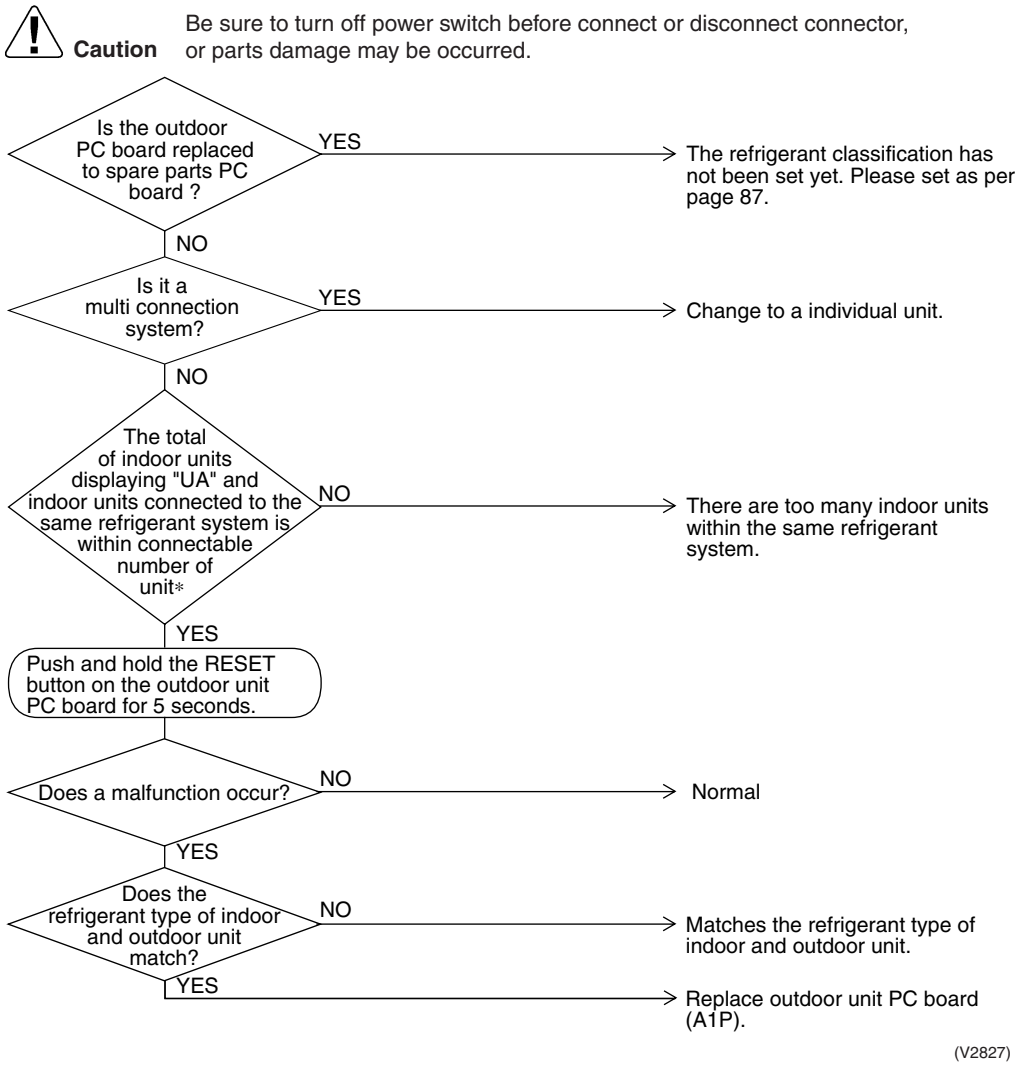
Malfunction Decision Conditions

The malfunction decision is made as soon as either of the abnormalities aforementioned is detected.

Supposed Causes

- Excess of connected indoor units
- Defect of outdoor unit PC board (A1P)
- Mismatching of the refrigerant type of indoor and outdoor unit.
- Setting of outdoor PC board was not conducted after replacing to spare parts PC board.

Troubleshooting



* The number of indoor units that can be connected to a single outdoor unit system depends on the type of outdoor unit.

2.49 "UC" Address Duplication of Centralized Remote Controller

Remote Controller Display

UC

Applicable Models

All models of indoor unit
Centralized controller

Method of Malfunction Detection

The principal indoor unit detects the same address as that of its own on any other indoor unit.

Malfunction Decision Conditions

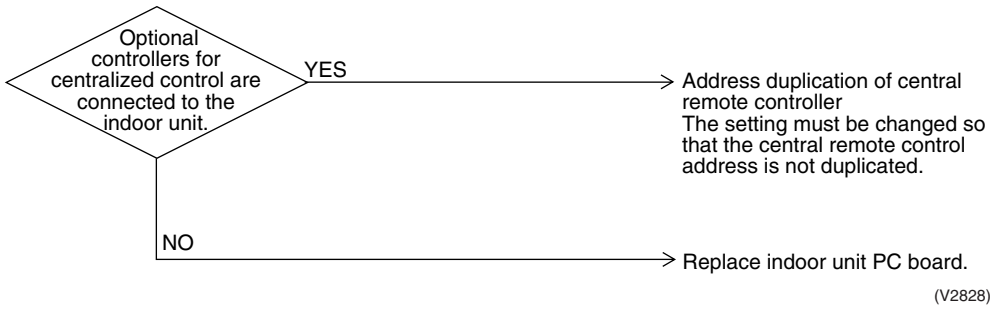
The malfunction decision is made as soon as the abnormality aforementioned is detected.

Supposed Causes

- Address duplication of centralized remote controller
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.

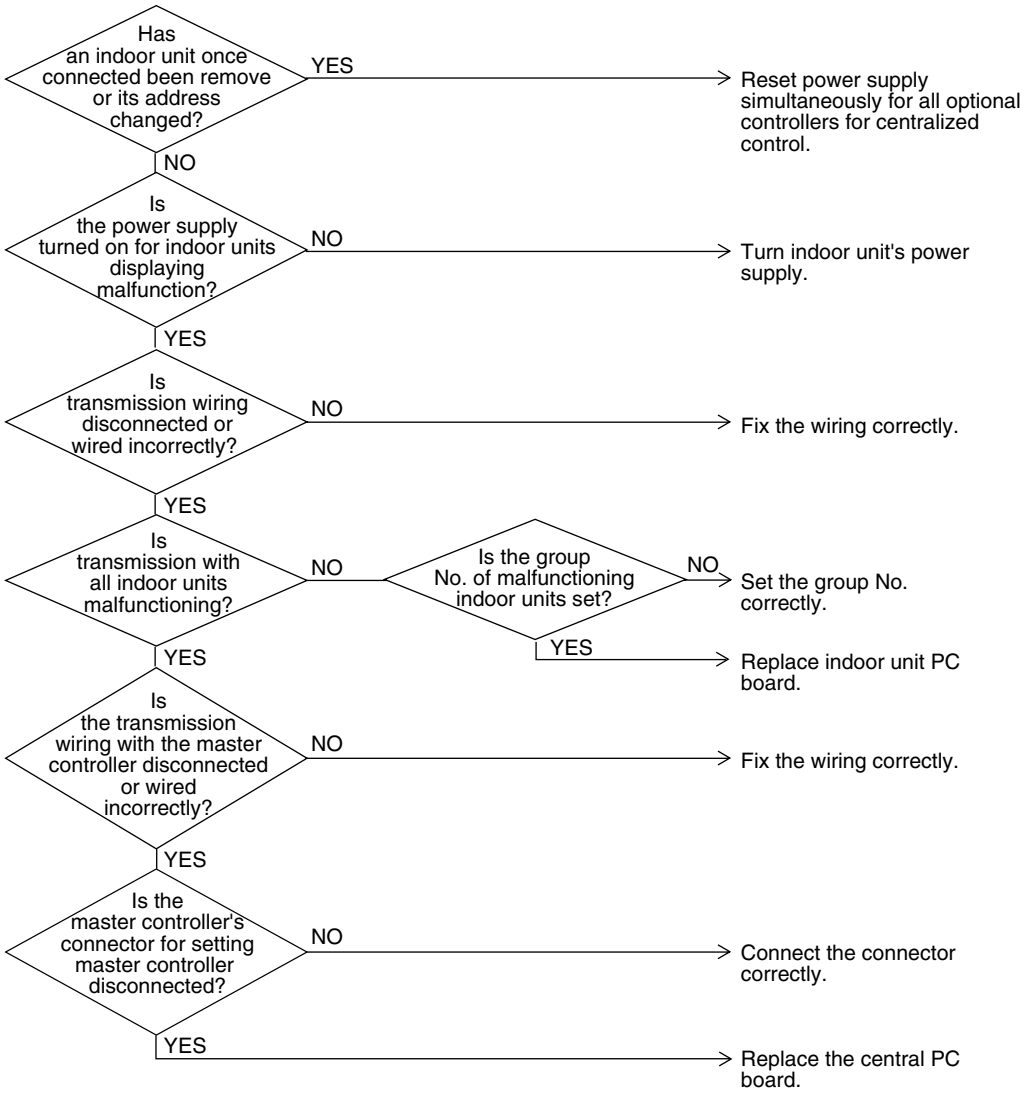


2.50 "UE" Malfunction of Transmission between Centralized Remote Controller and Indoor Unit

Remote Controller Display	UE
Applicable Models	All models of indoor units Centralized controller
Method of Malfunction Detection	Microcomputer checks if transmission between indoor unit and centralized remote controller is normal.
Malfunction Decision Conditions	When transmission is not carried out normally for a certain amount of time
Supposed Causes	■ Malfunction of transmission between optional controllers for centralized control and indoor unit ■ Connector for setting master controller is disconnected. ■ Failure of PC board for centralized remote controller ■ Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



2.51 "UF" Refrigerant System not Set, Incompatible Wiring/ Piping

Remote Controller Display

UF

Applicable Models

All models of indoor units
RXM8, 10M

Method of Malfunction Detection

On check operation, the number of indoor units in terms of transmission is not corresponding to that of indoor units that have made changes in temperature.

Malfunction Decision Conditions

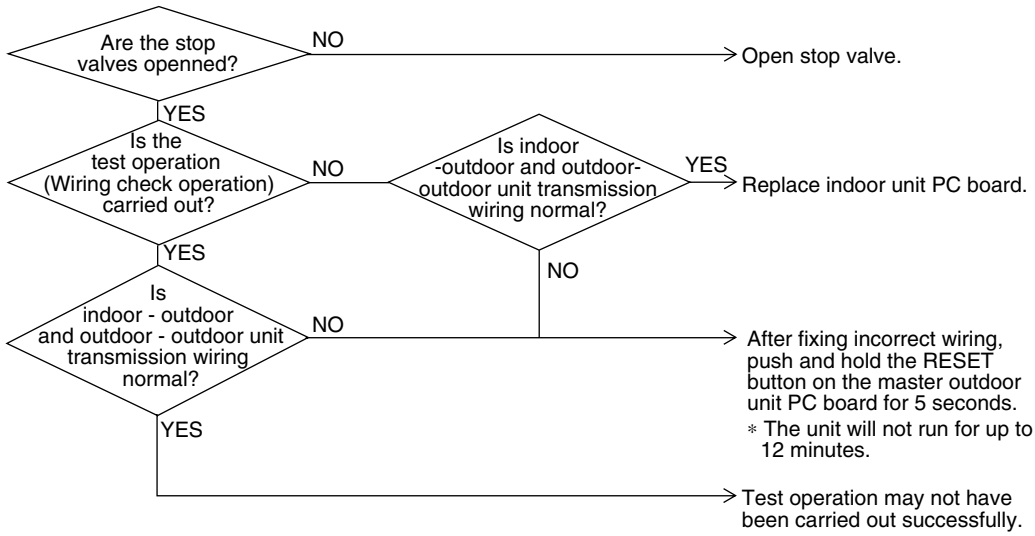
The malfunction is determined as soon as the abnormality aforementioned is detected through checking the system for any erroneous connection of units on the check operation.

Supposed Causes

- Improper connection of transmission wiring between outdoor unit and outdoor unit outside control adaptor
- Failure to execute wiring check operation
- Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2830)

Note: Test operation may not be successful if carried out after the outdoor unit has been off for more than 12 hours, or if it is not carried out after running all connected indoor units in the fan mode for at least an hour.

2.52 "UH" Malfunction of System, Refrigerant System Address Undefined

Remote Controller Display

UH

Applicable Models

All models of indoor units
RXM8, 10M

Method of Malfunction Detection

Detect an indoor unit with no address setting.

Malfunction Decision Conditions

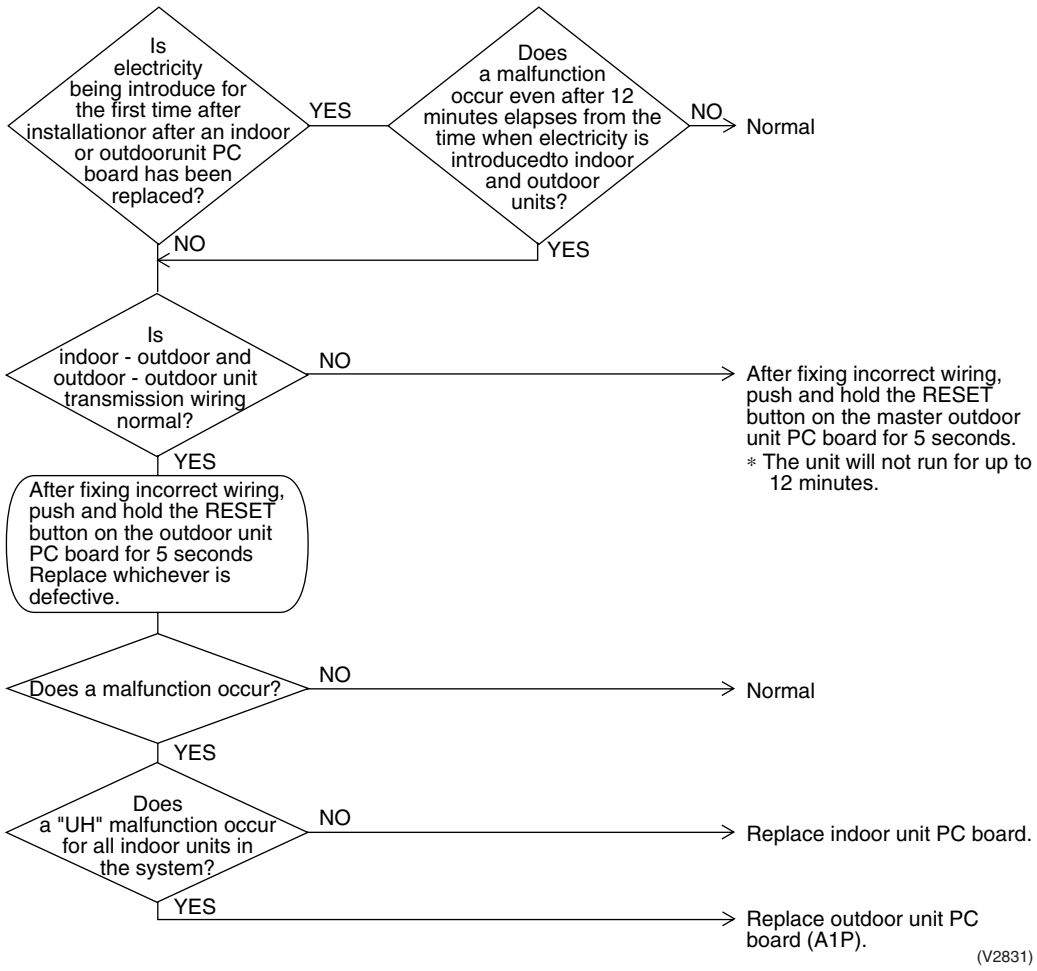
The malfunction decision is made as soon as the abnormality aforementioned is detected.

Supposed Causes

- Improper connection of transmission wiring between outdoor unit and outdoor unit outside control adaptor
- Defect of indoor unit PC board
- Defect of outdoor unit PC board (A1P)

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



3. Troubleshooting (OP: Central Remote Controller)

3.1 "M1" PC Board Defect

Remote Controller Display	M1
Applicable Models	Centralized remote controller
Method of Malfunction Detection	Detect an abnormality in the DIII-NET polarity circuit.
Malfunction Decision Conditions	When + polarity and - polarity are detected at the same time.
Supposed Causes	■ Defect of central remote controller PC board
Troubleshooting	Replace the central remote controller PC board.

3.2 "M8" Malfunction of Transmission between Optional Controllers for Centralized Control

Remote Controller Display

M8

Applicable Models

Centralized remote controller

Method of Malfunction Detection

Detect the malfunction according to DIII-NET transmission data. (The system will be automatically reset.)

Malfunction Decision Conditions

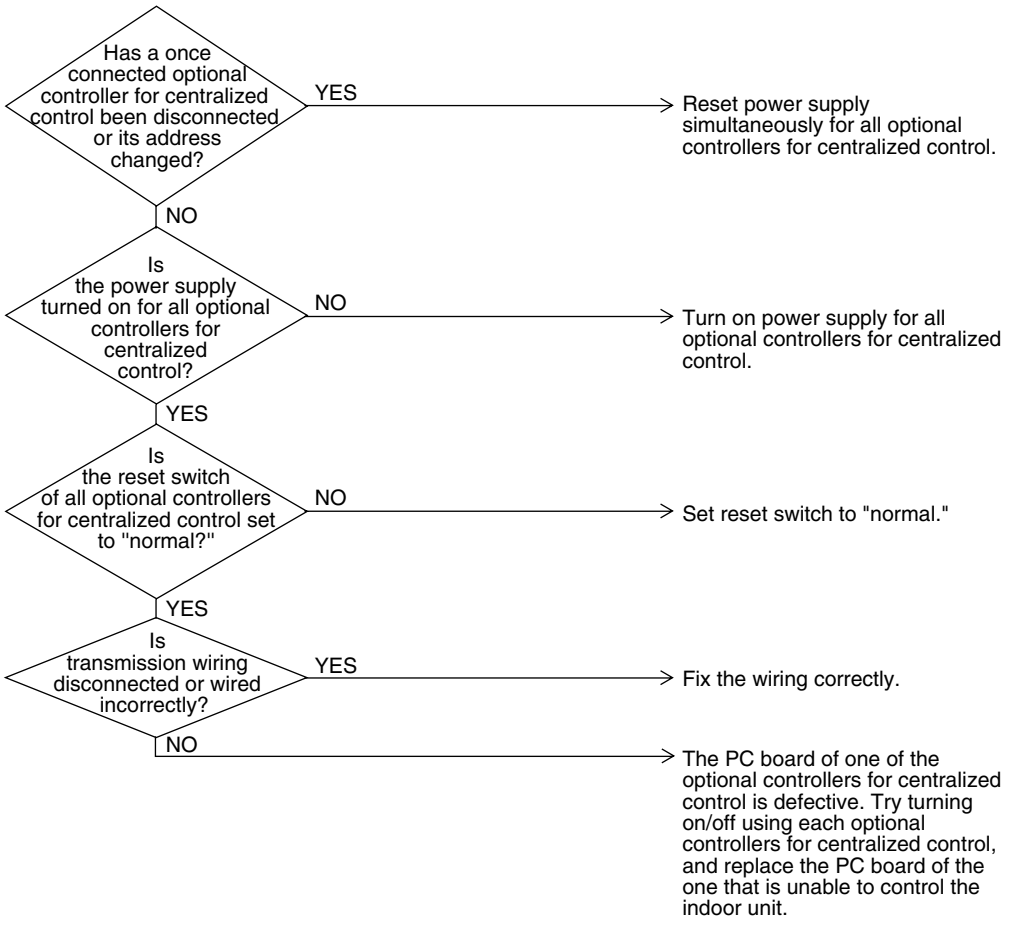
When no master controller is present at the time of the startup of slave controller.
When the centralized controller, which was connected once, shows no response.

Supposed Causes

- Malfunction of transmission between optional controllers for centralized control
- Defect of PC board of optional controllers for centralized control

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



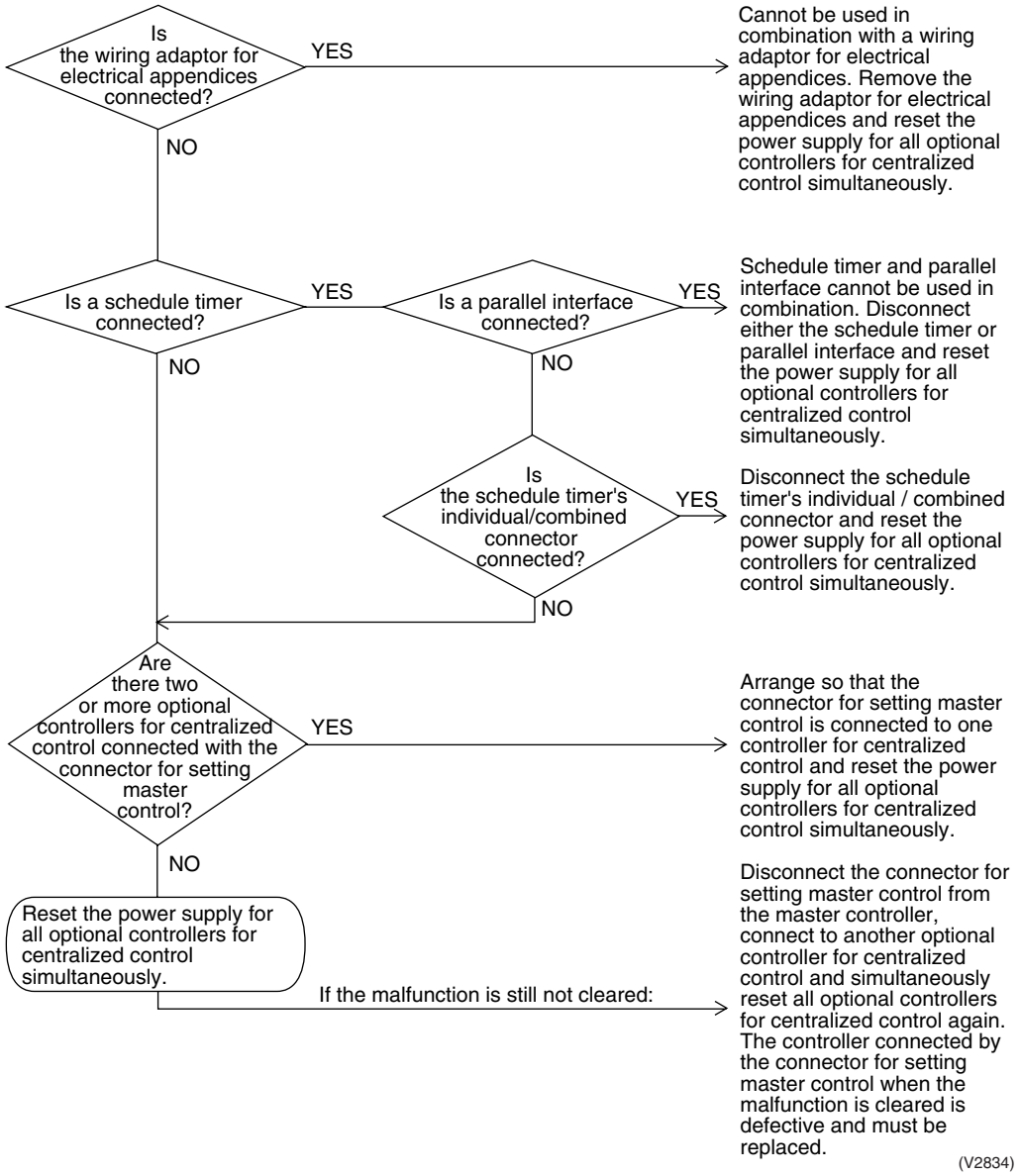
(V2833)

3.3 "MA" Improper Combination of Optional Controllers for Centralized Control

Remote Controller Display	MA
Applicable Models	Centralized remote controller
Method of Malfunction Detection	Detect the malfunction according to DIII-NET transmission data.
Malfunction Decision Conditions	When the schedule timer is set to individual use mode, other central component is present. When multiple master controller are present. When the remote control adapter is present.
Supposed Causes	■ Improper combination of optional controllers for centralized control ■ More than one master controller is connected ■ Defect of PC board of optional controller for centralized control

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



3.4 "MC" Address Duplication, Improper Setting

Remote Controller Display

MC

Applicable Models

Central remote controller

Method of Malfunction Detection

Detect the malfunction according to DIII-NET transmission data.

Malfunction Decision Conditions

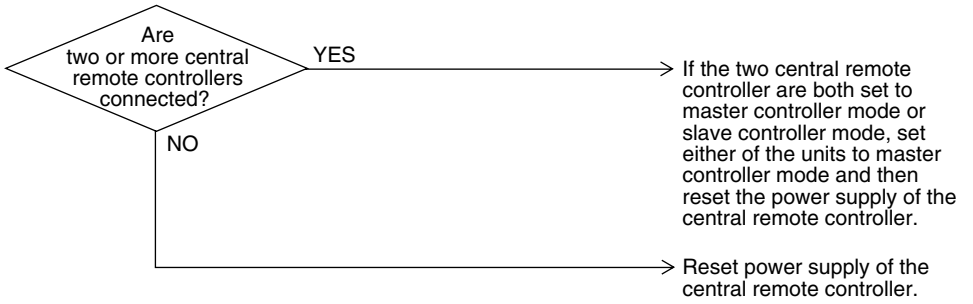
Two units are both set to master controller mode or slave controller mode.

Supposed Causes

- Address duplication of centralized controller

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2835)

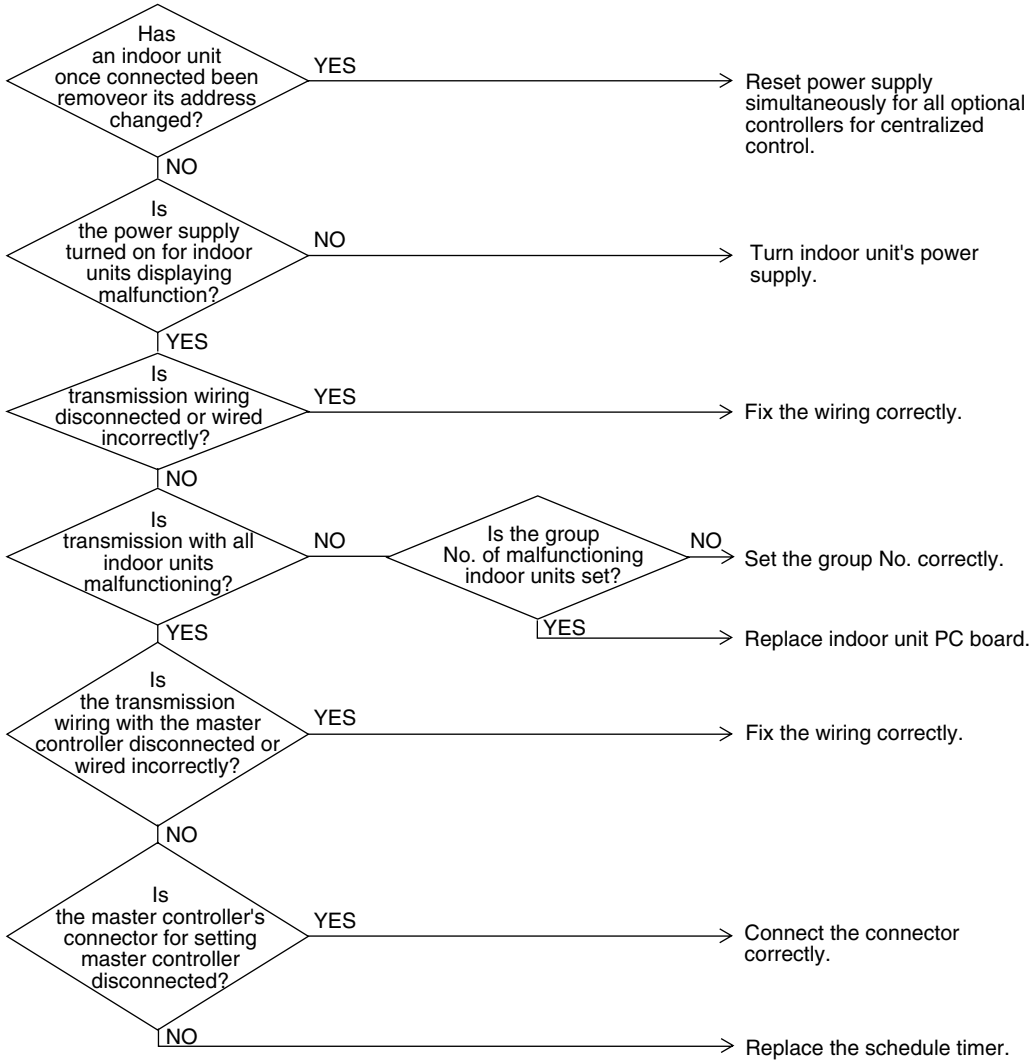
4. Troubleshooting (OP: Schedule Timer)

4.1 "UE" Malfunction of Transmission between Central Remote Controller and Indoor Unit

Remote Controller Display	UE
Applicable Models	Schedule timer All models of indoor units
Method of Malfunction Detection	Microcomputer checks if transmission between indoor unit and centralized remote controller is normal.
Malfunction Decision Conditions	When transmission is not carried out normally for a certain amount of time
Supposed Causes	■ Malfunction of transmission between central remote controller and indoor unit ■ Disconnection of connector for setting master controller (or individual/combined switching connector) ■ Defect of schedule timer PC board ■ Defect of indoor unit PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2836)

4.2 "M1" PC Board Defect

Remote Controller Display

M1

Applicable Models

Schedule timer

Method of Malfunction Detection

Detect an abnormality in the DIII-NET polarity circuit.

Malfunction Decision Conditions

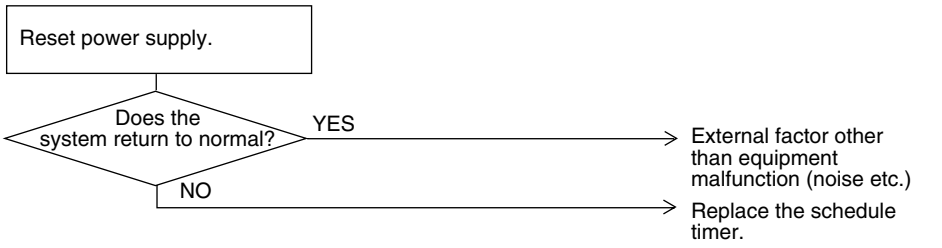
When + polarity and - polarity are detected at the same time.

Supposed Causes

- Defect of schedule timer PC board

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2837)

4.3 "M8" Malfunction of Transmission between Optional Controllers for Centralized Control

Remote Controller Display

M8

Applicable Models

Schedule timer

Method of Malfunction Detection

Detect the malfunction according to DIII-NET transmission data. (The system will be automatically reset.)

Malfunction Decision Conditions

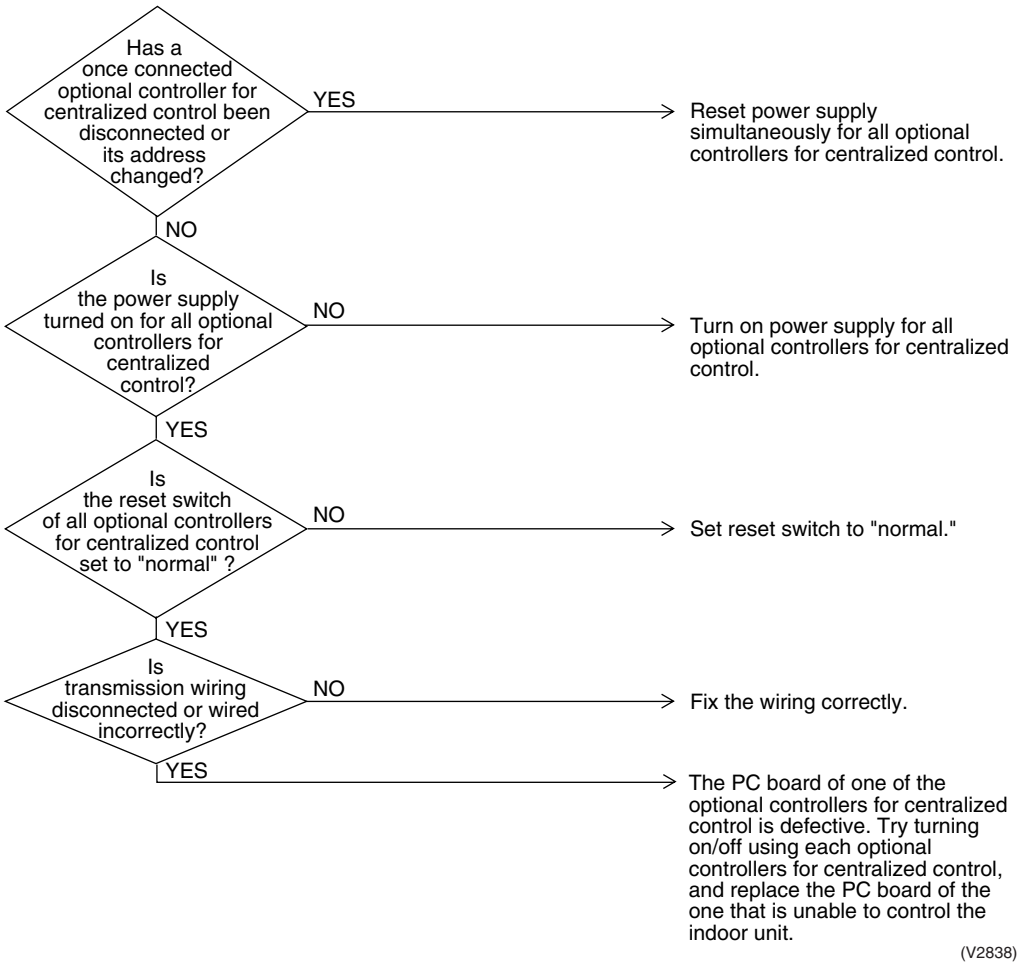
When no master controller is present at the time of the startup of slave controller.
When the optional controllers for centralized control which was connected once, shows no response.

Supposed Causes

- Malfunction of transmission between optional controllers for centralized control
- Defect of PC board of optional controllers for centralized control

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.

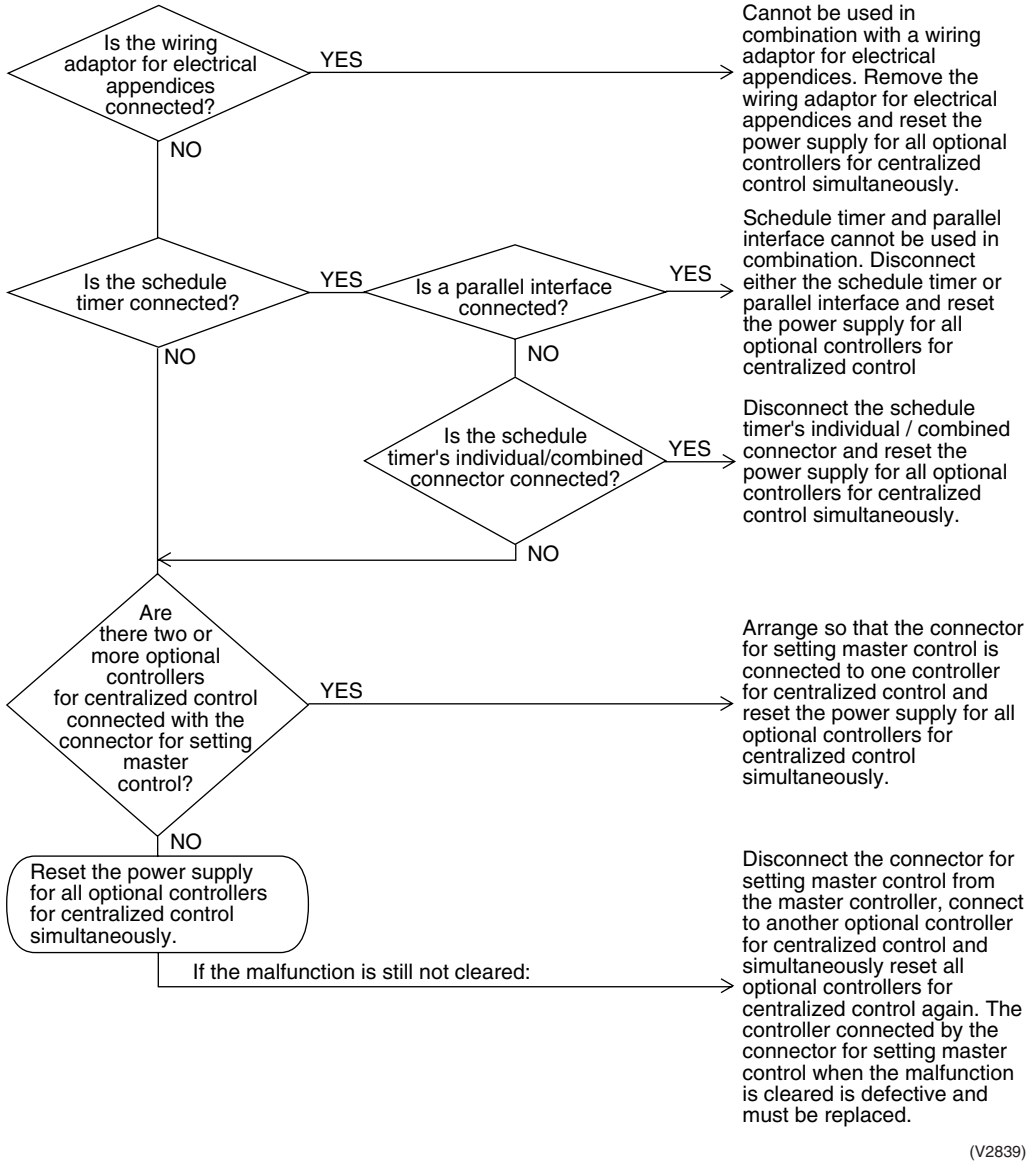


4.4 "MA" Improper Combination of Optional Controllers for Centralized Control

Remote Controller Display	MA
Applicable Models	Schedule timer
Method of Malfunction Detection	Detect the malfunction according to DIII-NET transmission data.
Malfunction Decision Conditions	When the schedule timer is set to individual use mode, other central component is present. When multiple master controller are present.
Supposed Causes	■ Improper combination of optional controllers for centralized control ■ More than one master controller is connected. ■ Defect of PC board of optional controller for centralized control

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



(V2839)

4.5 "MC" Address Duplication, Improper Setting

Remote Controller Display

MC

Applicable Models

Schedule timer

Method of Malfunction Detection

Detect the malfunction according to DIII-NET transmission data.

Malfunction Decision Conditions

When two or more schedule timers are connected.

Supposed Causes

- Address duplication of schedule timer

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.

(V2840)

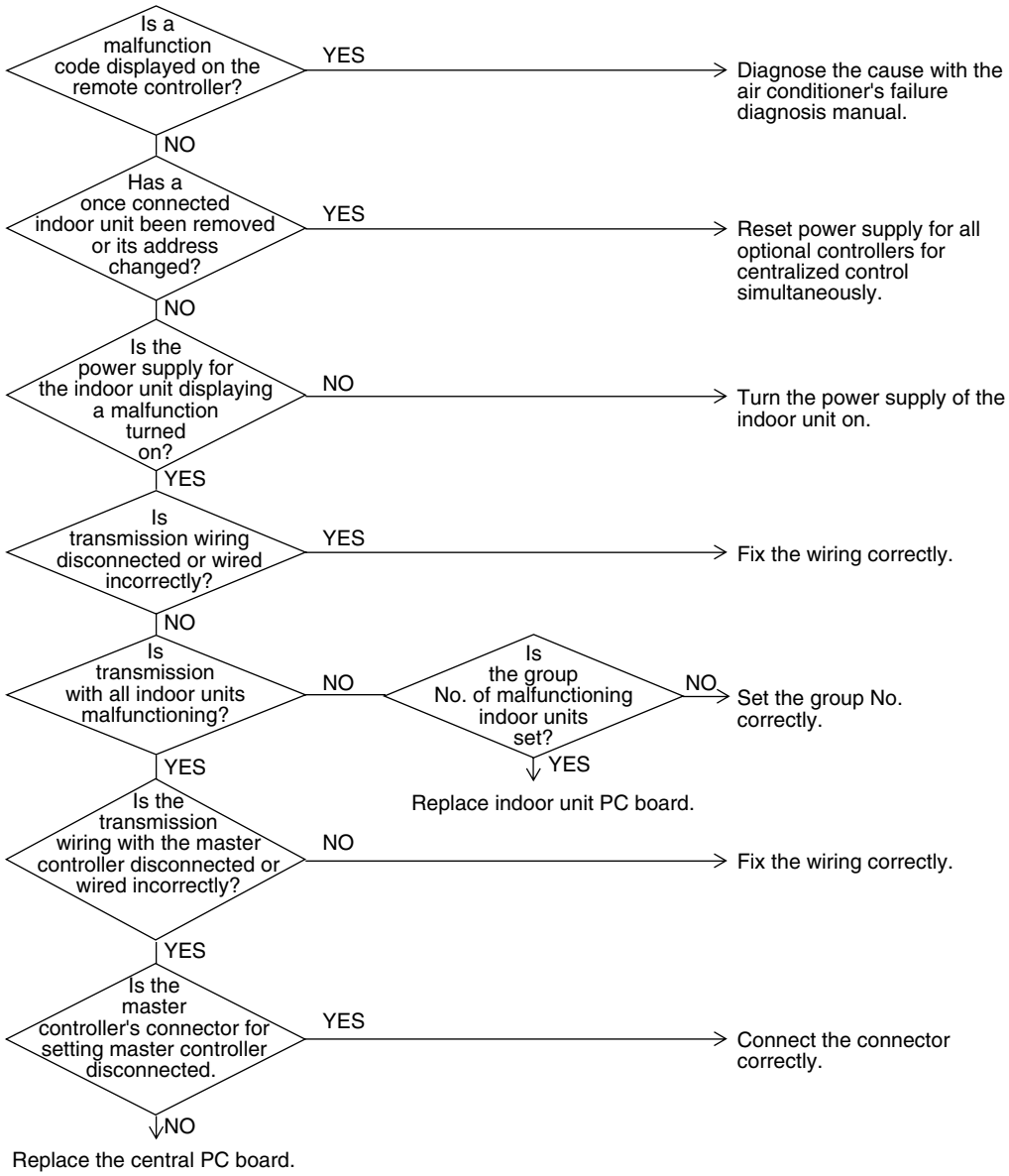
5. Troubleshooting (OP: Unified ON/OFF Controller)

5.1 Operation Lamp Blinks

Remote Controller Display	Operation lamp blinks
Applicable Models	All models of indoor units Unified ON/OFF controller
Method of Malfunction Detection	Detect the malfunction according to DIII-NET transmission data.
Malfunction Decision Conditions	
Supposed Causes	■ Malfunction of transmission between optional controller and indoor unit ■ Connector for setting master controller is disconnected ■ Defect of unified ON/OFF controller ■ Defect of indoor unit PC board ■ Malfunction of air conditioner

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



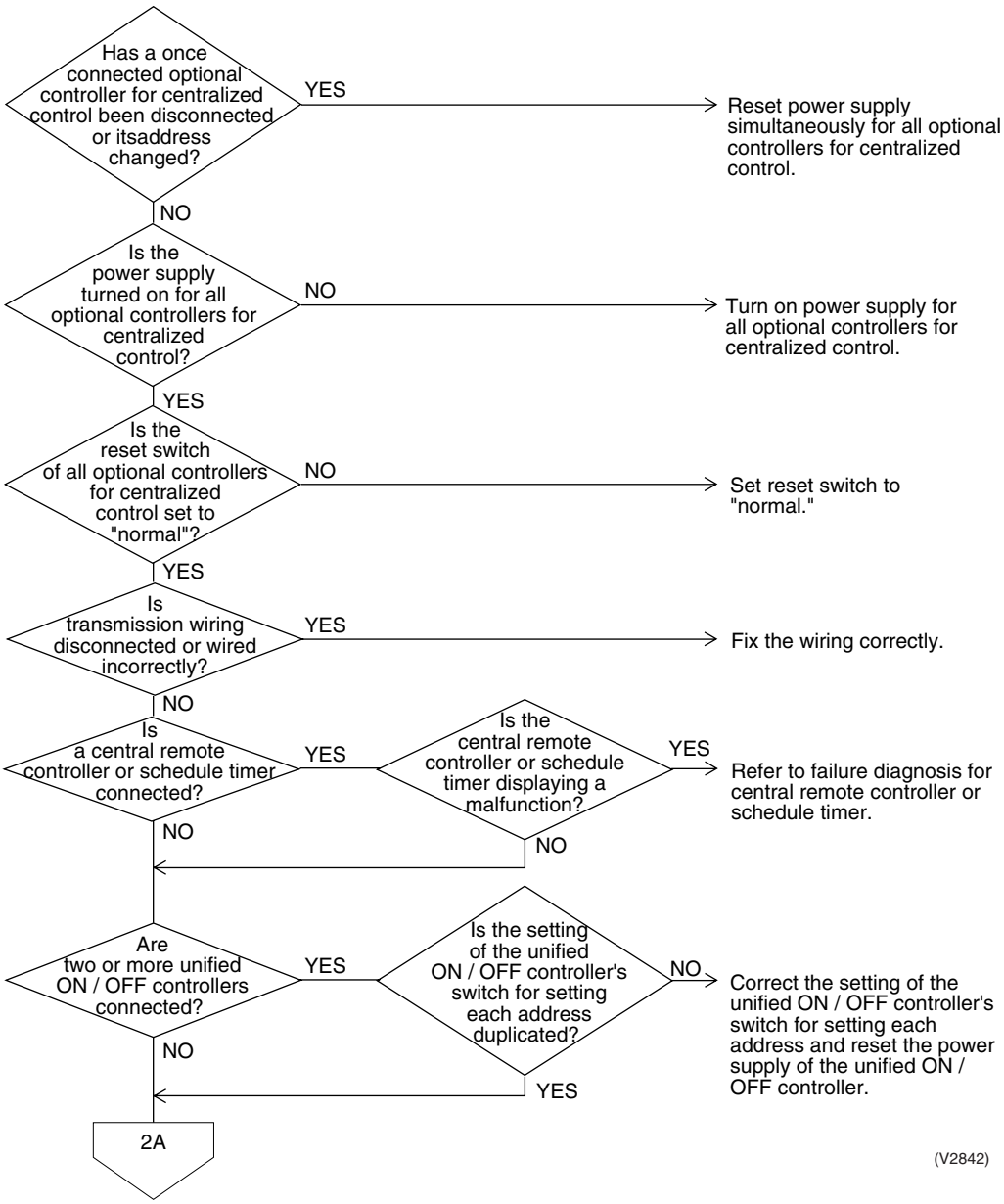
(V2841)

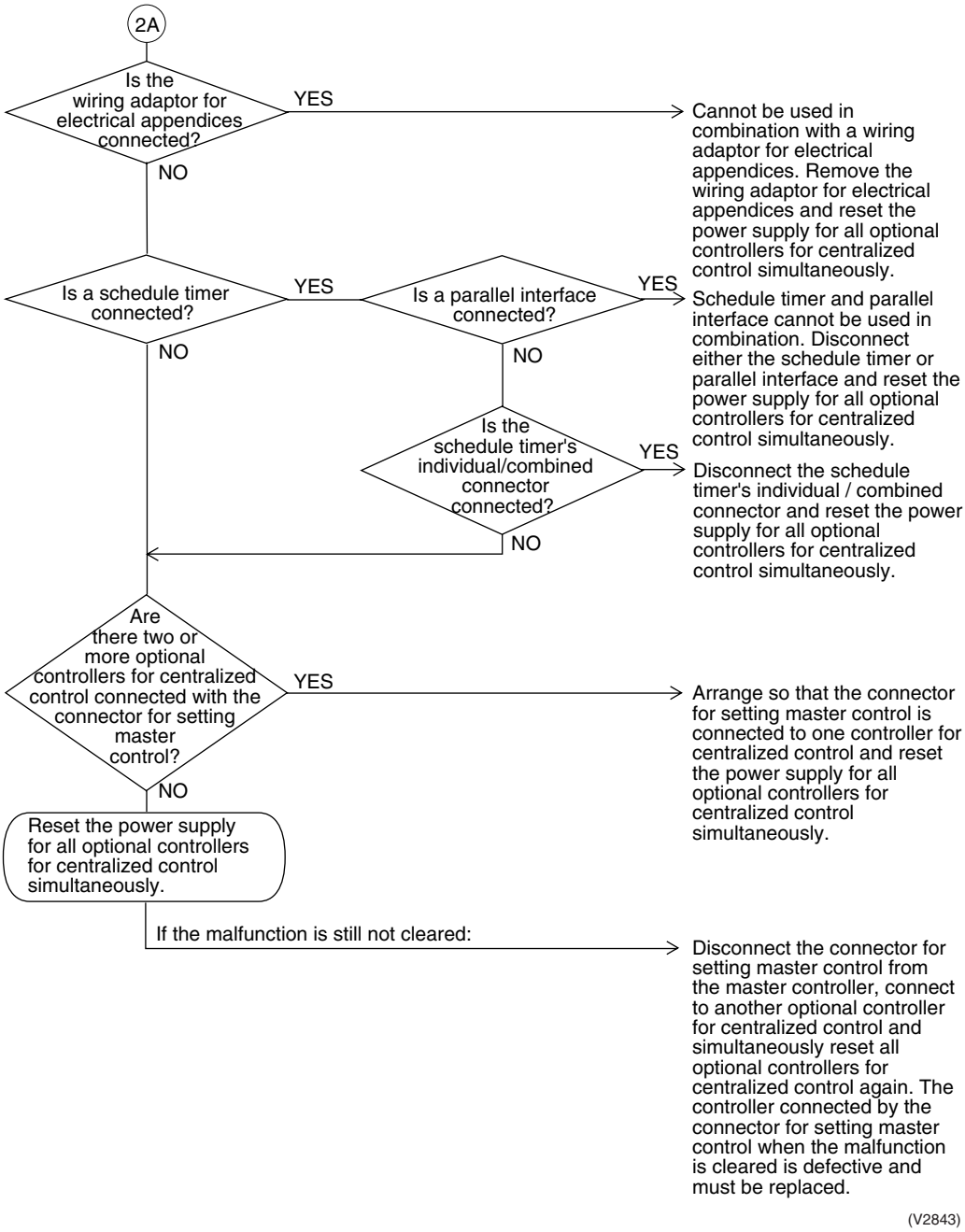
5.2 Display “Under Centralized Control” Blinks (Repeats Single Blink)

Remote Controller Display	“under centralized control” (Repeats single blink)
Applicable Models	Unified ON/OFF controller Central remote controller, Schedule timer
Method of Malfunction Detection	Detect the malfunction according to DIII-NET transmission data.
Malfunction Decision Conditions	When the centralized controller, which was connected once, shows no response. The control ranges are overlapped. When multiple master central controller are present. When the schedule timer is set to individual use mode, other central controller is present. When the wiring adaptor for electrical appendices is present.
Supposed Causes	■ Address duplication of central remote controller ■ Improper combination of optional controllers for centralized control ■ Connection of more than one master controller ■ Malfunction of transmission between optional controllers for centralized control ■ Defect of PC board of optional controllers for centralized control

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.




2A
Is the wiring adaptor for electrical appendices connected?
YES
Cannot be used in combination with a wiring adaptor for electrical appendices. Remove the wiring adaptor for electrical appendices and reset the power supply for all optional controllers for centralized control simultaneously.
NO
Is a schedule timer connected?
YES
Is a parallel interface connected?
YES
Schedule timer and parallel interface cannot be used in combination. Disconnect either the schedule timer or parallel interface and reset the power supply for all optional controllers for centralized control simultaneously.
NO
NO
Is the schedule timer's individual/combined connector connected?
YES
Disconnect the schedule timer's individual / combined connector and reset the power supply for all optional controllers for centralized control simultaneously.
NO
Are there two or more optional controllers for centralized control connected with the connector for setting master control?
YES
Arrange so that the connector for setting master control is connected to one controller for centralized control and reset the power supply for all optional controllers for centralized control simultaneously.
NO
Reset the power supply for all optional controllers for centralized control simultaneously.
If the malfunction is still not cleared:
Disconnect the connector for setting master control from the master controller, connect to another optional controller for centralized control and simultaneously reset all optional controllers for centralized control again. The controller connected by the connector for setting master control when the malfunction is cleared is defective and must be replaced.
(V2843)

5.3 Display “Under Centralized Control” Blinks (Repeats Double Blink)

Remote Controller Display

“under centralized control” (Repeats double blink)

Applicable Models

Unified ON/OFF controller

Method of Malfunction Detection

Detect the malfunction according to DIII-NET transmission data.

Malfunction Decision Conditions

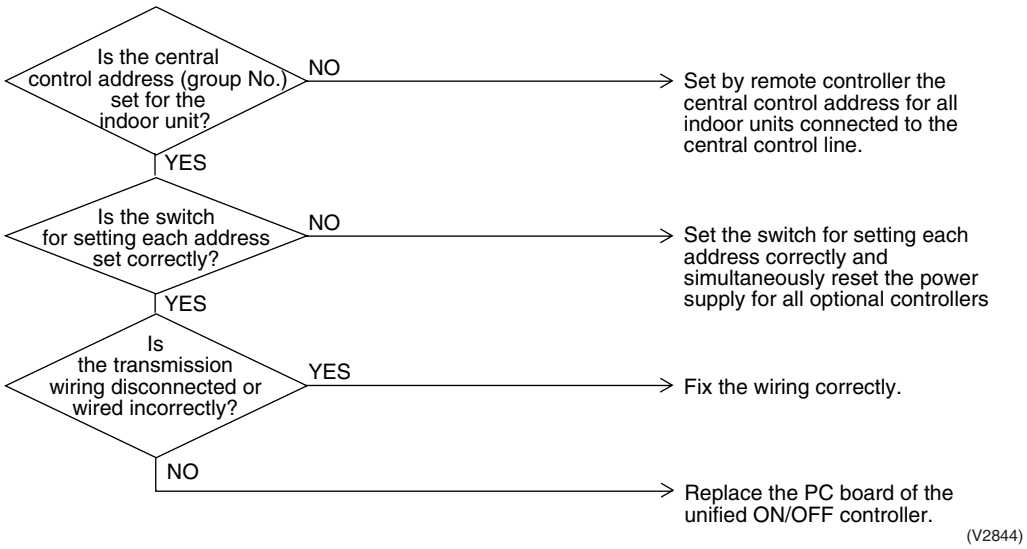
When no central control addresses are set to indoor units.
When no indoor units are connected within the control range.

Supposed Causes

- Central control address (group No.) is not set for indoor unit.
- Improper address setting
- Improper wiring of transmission wiring

Troubleshooting

Caution Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.

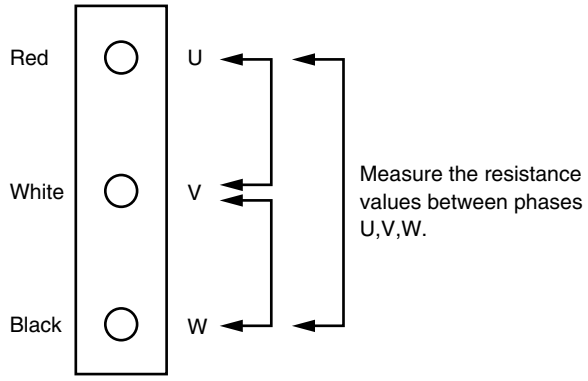


(V2844)

Check No. 8

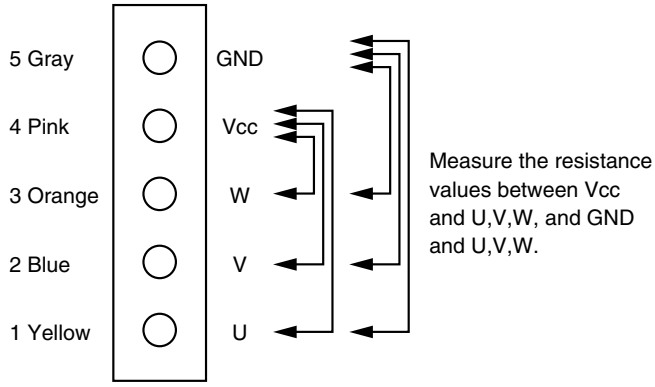
Check on connector of fan motor (Power supply cable)

(1) Turn off the power supply.
Measure the resistance between phases of U,V,W at the motor side connectors (three-core wire) to check that the values are balanced and there is no short circuiting, while connector or relay connector is disconnected.



Check No. 9

(1) Turn off the power supply.
(2) Measure the resistance between Vcc and each phase of U,V,W , and GND and each phase at the motor side connectors (five-core wire) to check that the values are balanced within the range of ± 20 %, while connector or relay connector is disconnected.

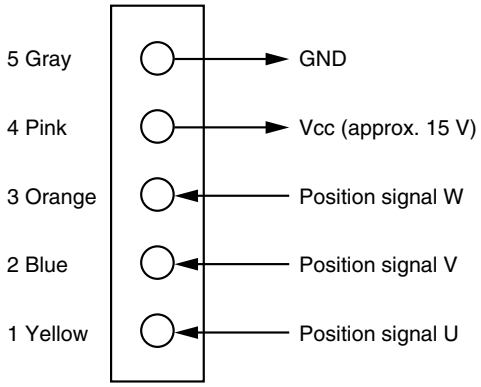


Check No. 12

Check on pulse input of position signal of fan inverter PC board

(1) Disconnect the connector X2A while power supply OFF and operation OFF.
(2) Is the voltage between pins No. 4 and 5 on X2A approx. 15 V after power supply is turned on?
(3) Connect the connector X2A while power supply OFF and operation OFF.
(4) Check below conditions when the fan motor is rotated one turn manually under the condition of operation OFF after power supply is turned ON.
Are the pulse (approx. 0 V and 5 V) generated 4 times between No. 1 and 5 on X2A?
Are the pulse (approx. 0 V and 5 V) generated 4 times between No. 2 and 5 on X2A?
Are the pulse (approx. 0 V and 5 V) generated 4 times between No. 3 and 5 on X2A?

The condition (2) dose not appear → Faulty PC board → Replacing the PC board The conditions (4) do not appear → Faulty hall IC → Replacing fan motor of outdoor unit



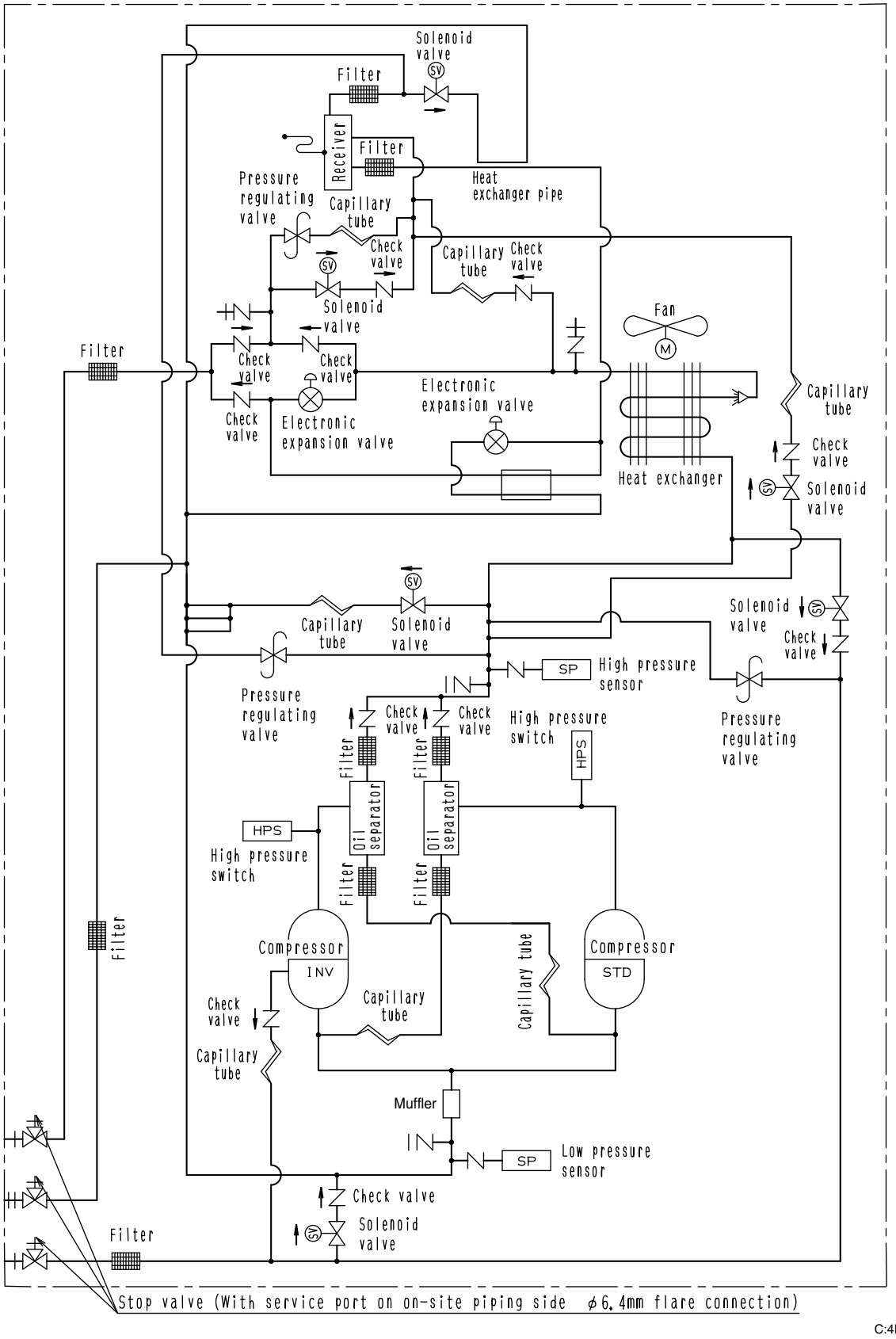
Part 7
Appendix

1. Piping Diagrams

1.1 Outdoor Unit

1.1.1 Cooling Only

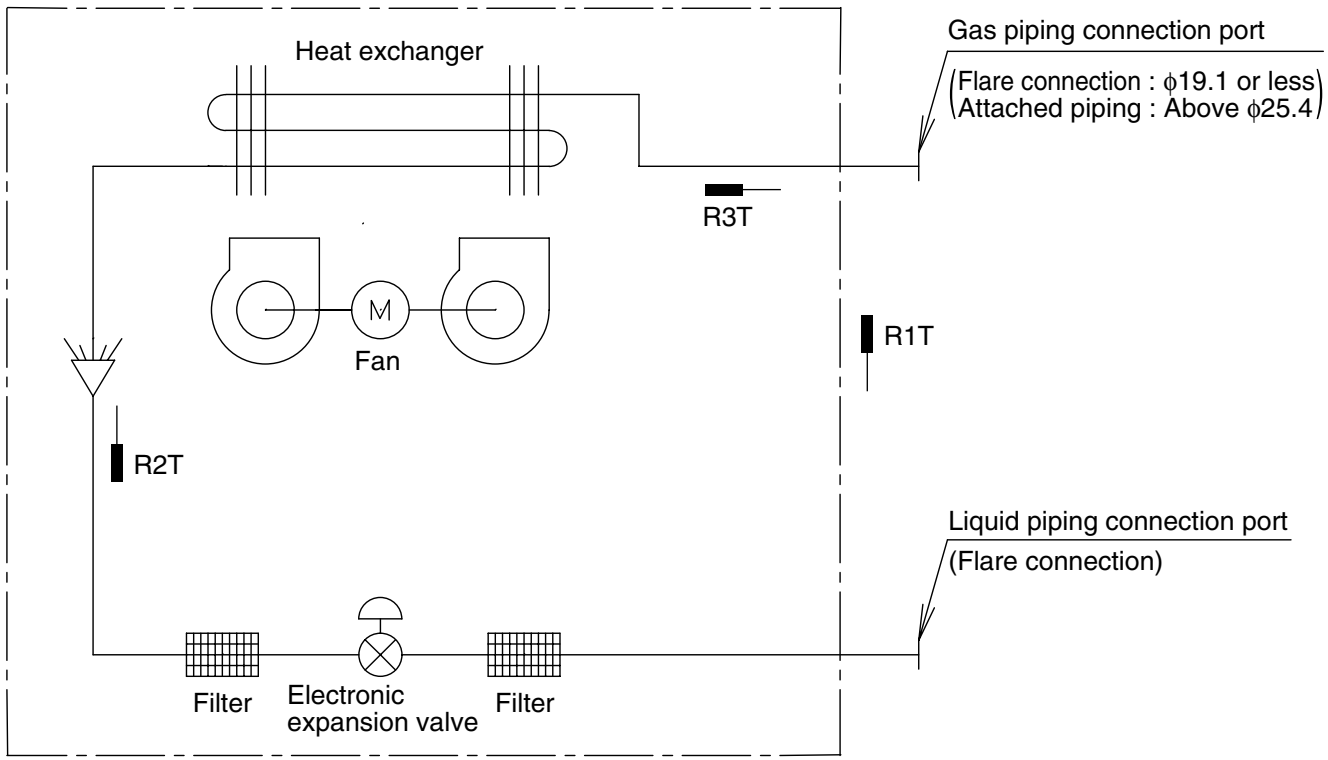
RXM8M / 10MY1



C:4D041809A

1.2 Indoor Unit

FXC, FXF, FXK, FXD, FXYD, FXS, FXYB, FXM, FXH, FXA, FXL, FXN



C : DU220-602D

R1T : Thermistor for suction air temperature
R2T : Thermistor for liquid line temperature
R3T : Thermistor for gas line temperature

(mm)

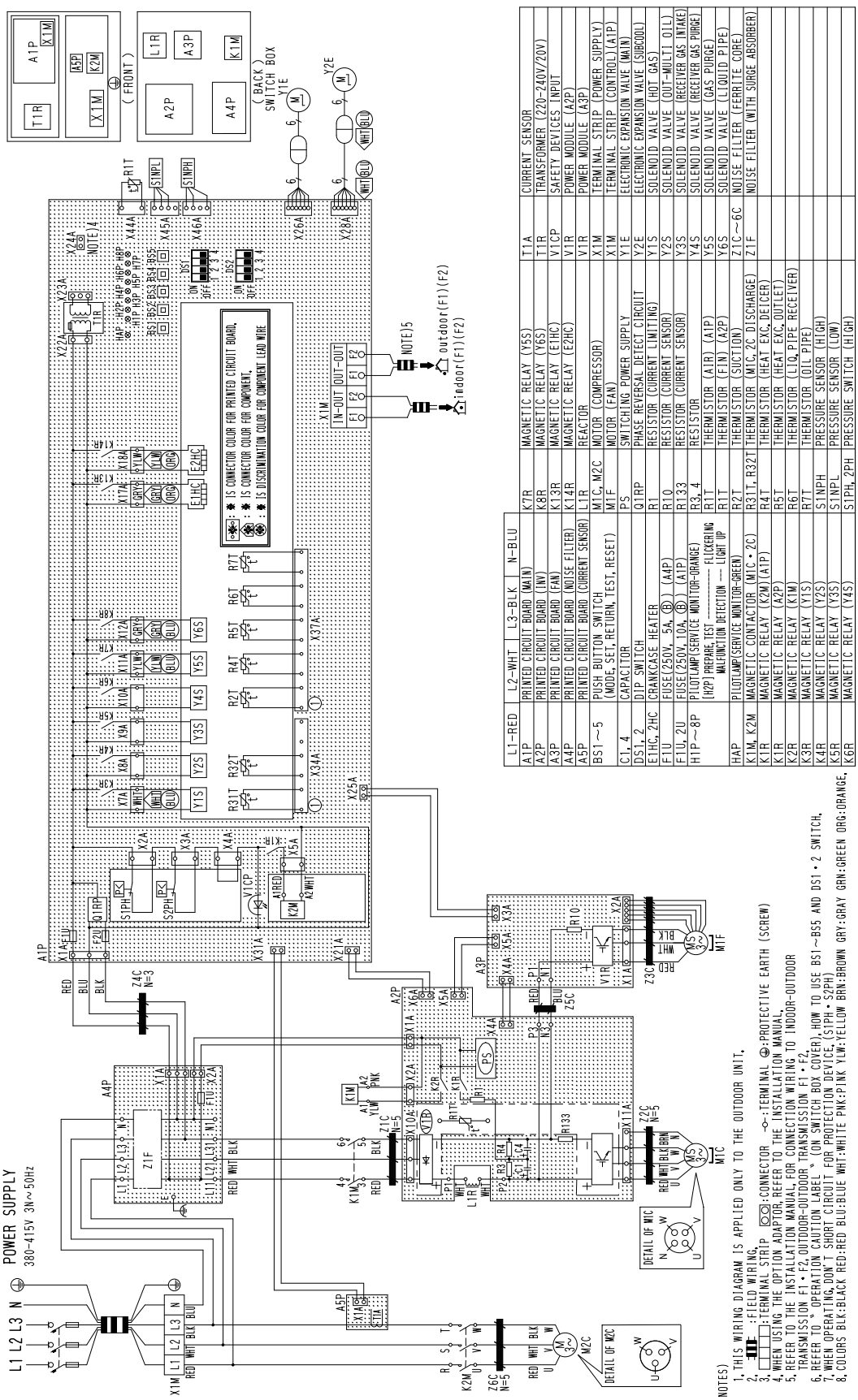
Capacity	GAS	Liquid
20 / 25 / 32 / 40 L	ϕ12.7	ϕ6.4
50 / 63 / 80 L	ϕ15.9	ϕ9.5
100 / 125 L	ϕ19.1	ϕ9.5
200 L	ϕ25.4	ϕ12.7
250 L	ϕ28.6	ϕ12.7

2. Wiring Diagrams

2.1 Outdoor unit

2.1.1 Cooling Only

RXM8M / 10MY1



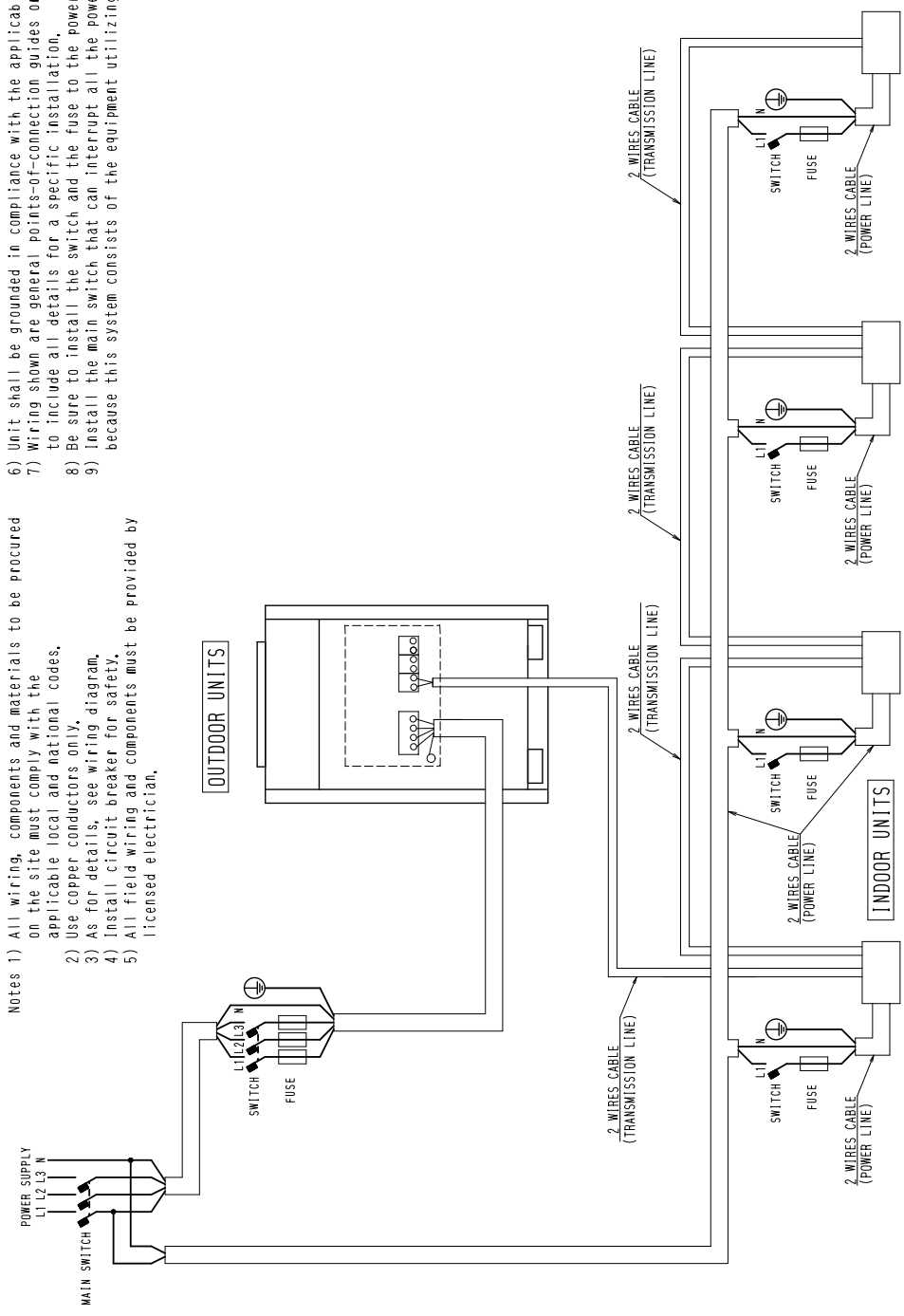
L1-RED	L2-WHT	L3-BLK	N-BLU			
A1P	PRINTED CIRCUIT BOARD (MAIN)	K7R	MAGNETIC RELAY (Y5S)	T1A	CURRENT SENSOR	
A2P	PRINTED CIRCUIT BOARD (INV)	K8R	MAGNETIC RELAY (Y6S)	T1R	TRANSFORMER (220~240V/20V)	
A3P	PRINTED CIRCUIT BOARD (FAN)	K13R	MAGNETIC RELAY (E1HC)	V1CP	SAFETY DEVICES INPUT	
A4P	PRINTED CIRCUIT BOARD (NOISE FILTER)	K14R	MAGNETIC RELAY (E2HC)	V1R	POWER MODULE (A2P)	
A5P	PRINTED CIRCUIT BOARD (CURRENT SENSOR)	L1R	REACTOR	Y1R	POWER MODULE (A3P)	
BS1~5	PUSH BUTTON SWITCH (MODE, SET, RETURN, TEST, RESET)	M1C, M2C	MOTOR (COMPRESSOR)	X1M	TERMINAL STRIP (POWER SUPPLY)	
C1, 4	CAPACITOR	M1F	MOTOR (FAN)	X1M	TERMINAL STRIP (CONTROL)(A1P)	
DS1, 2	DIP SWITCH	PS	SWITCHING POWER SUPPLY	Y1E	ELECTRONIC EXPANSION VALVE (MAIN)	
E1HC, 2HC	CRANKCASE HEATER	Q1RP	PHASE REVERSAL DETECT CIRCUIT	Y2E	ELECTRONIC EXPANSION VALVE (SUBCOOL)	
F1U	FUSE(250V, 5A, Ⓑ) (A4P)	R1	RESISTOR (CURRENT LIMITING)	Y1S	SOLENOID VALVE (HOT GAS)	
F1U, 2U	FUSE(250V, 10A, Ⓑ) (A1P)	R10	RESISTOR (CURRENT SENSOR)	Y2S	SOLENOID VALVE (OUT-MULTI OIL)	
H1P~8P	PILOTLAMP(SERVICE MONITOR-ORANGE)	R133	RESISTOR (CURRENT SENSOR)	Y3S	SOLENOID VALVE (RECEIVER GAS INTAKE)	
	(H2P PREPARE TEST ---------- FLICKERING MALFUNCTION DETECTION ---- LIGHT UP)	R3, 4	RESISTOR	Y4S	SOLENOID VALVE (RECEIVER GAS PURGE)	
		R1T	THERMISTOR (A1R) (A1P)	Y5S	SOLENOID VALVE (GAS PURGE)	
		R1T	THERMISTOR (F1N) (A2P)	Y6S	SOLENOID VALVE (LIQUID PIPE)	
HAP	PILOTLAMP(SERVICE MONITOR-GREEN)	R2T	THERMISTOR (SUCTION)	Z1C~6C	NOISE FILTER (FERRITE CORE)	
K1M, K2M	MAGNETIC CONTACTOR (M1C・2C)	R31T, R32T	THERMISTOR (M1C, 2C DISCHARGE)	Z1F	NOISE FILTER (WITH SURGE ABSORBER)	
K1R	MAGNETIC RELAY (K2M)(A1P)	R4T	THERMISTOR (HEAT EXC, DEICER)			
K1R	MAGNETIC RELAY (A2P)	R5T	THERMISTOR (HEAT EXC, OUTLET)			
K2R	MAGNETIC RELAY (K1M)	R6T	THERMISTOR (LIQ.PIPE RECEIVER)			
K3R	MAGNETIC RELAY (Y1S)	R7T	THERMISTOR (OIL PIPE)			
K4R	MAGNETIC RELAY (Y2S)	S1NPH	PRESSURE SENSOR (HIGH)			
K5R	MAGNETIC RELAY (Y3S)	S1NPL	PRESSURE SENSOR (LOW)			
K6R	MAGNETIC RELAY (Y4S)	S1PH, 2PH	PRESSURE SWITCH (HIGH)			

2.2 Field Wiring

2.2.1 50Hz

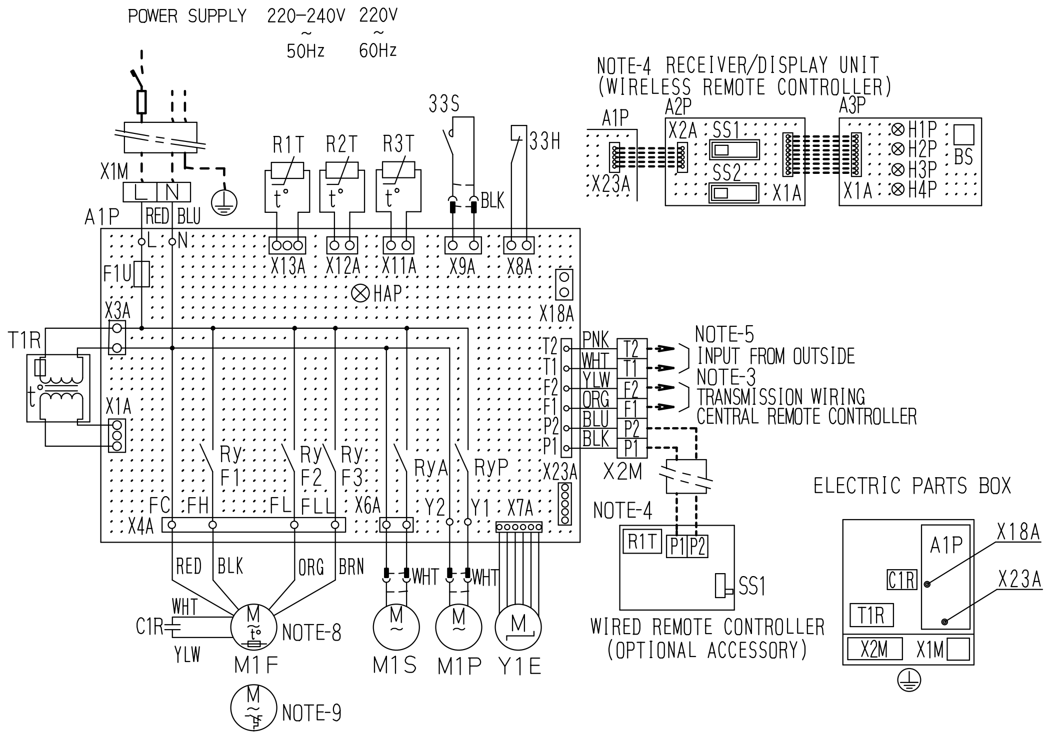
RXM8M / 10MY1

3D040746K



2.3 Indoor Unit

FXC20L / 25L / 32L / 63LVE

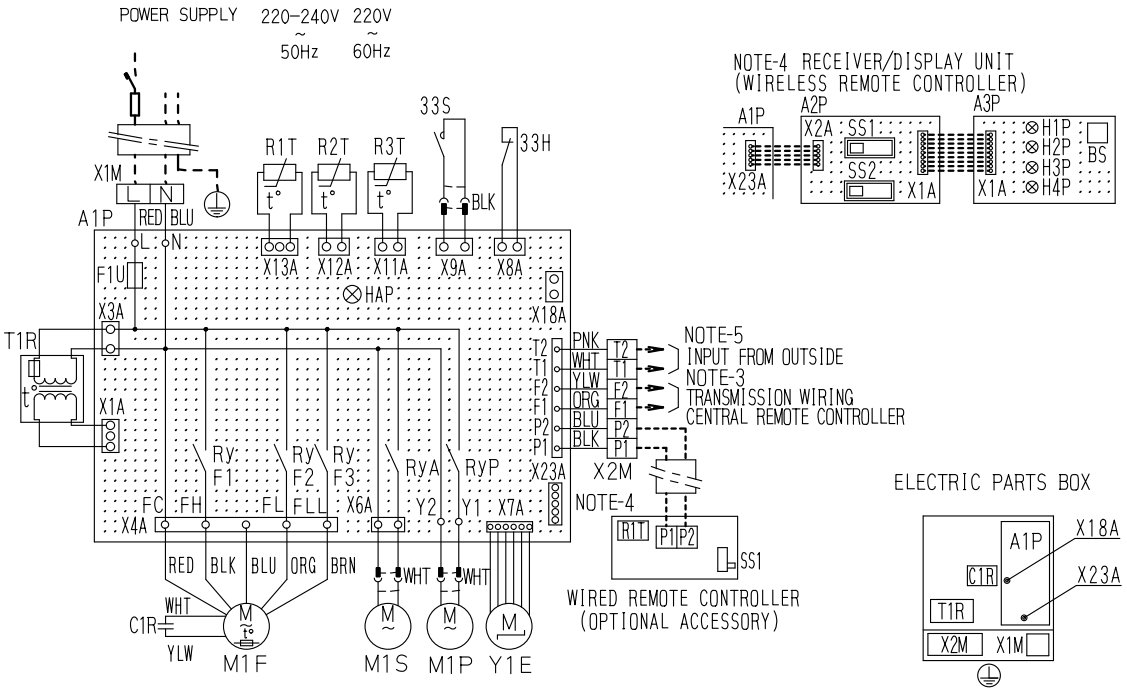


33H	FLOAT SWITCH	M1S	MOTOR (SWING FLAP)	WIRED REMOTE CONTROLLER		H3P	LIGHT EMISSION DIODE (FILTER SIGN-RED)
33S	LIMIT SWITCH (SWING FLAP)	M1P	MOTOR(DRAIN PUMP)	R1T	THERMISTOR(AIR)		
A1P	PRINTED CIRCUIT BOARD	Q1F	THERMO SWITCH(130℃) (M1F EMBEDDED)(NOTE-9)	SS1	SELECTOR SWITCH (MAIN/SUB)	H4P	LIGHT EMISSION DIODE (DEFROST-ORANGE)
C1R	CAPACITOR(M1F)	R1T	THERMISTOR(AIR)	RECEIVER/DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)		SS1	SELECTOR SWITCH (MAIN/SUB)
F1T	THERMAL FUSE(152℃) (M1F EMBEDDED)(NOTE-8)	R2T·3T	THERMISTOR(COIL)				
		RyA	MAGNETIC RELAY(M1S)	A2P	PRINTED CIRCUIT BOARD	SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
F1U	FUSE(250V,5A,Ⓑ) OR F10T 250V	RyF1-3	MAGNETIC RELAY(M1F)	A3P	PRINTED CIRCUIT BOARD		
		RyP	MAGNETIC RELAY(M1P)	BS	PUSH BUTTON(ON/OFF)	CONNECTOR FOR OPTIONAL PARTS	
		T1R	TRANSFOMER(220-240V/22V)	H1P	LIGHT EMISSION DIODE (ON-RED)	X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTORICAL APPENDICES)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	X1M	TERMINAL STRIP(POWER)				
		X2M	TERMINAL STRIP(CONTROL)	H2P	LIGHT EMISSION DIODE (TIMER-GREEN)	X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)
M1F	MOTOR(INDOOR FAN)	Y1E	ELECTRONIC EXPANSION VALVE				
L-RED	N-BLUE						

NOTES)
1. ▭▭▭▭ :TERMINAL ⦾⦾ , ⊐⊏ :CONNECTOR —○— :WIRE CLAMP
2. - - - - :FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. X23A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
5. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER.
   IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
6. SYMBOLS SHOWS AS FOLLOWS.
   (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRN:BROWN)
7. USE COPPER CONDUCTORS ONLY.
8. ONLY FXC63LVE.
9. ONLY FXC20·25·32LVE.

3D034120A

FXC40L / 50L / 80L / 125LVE

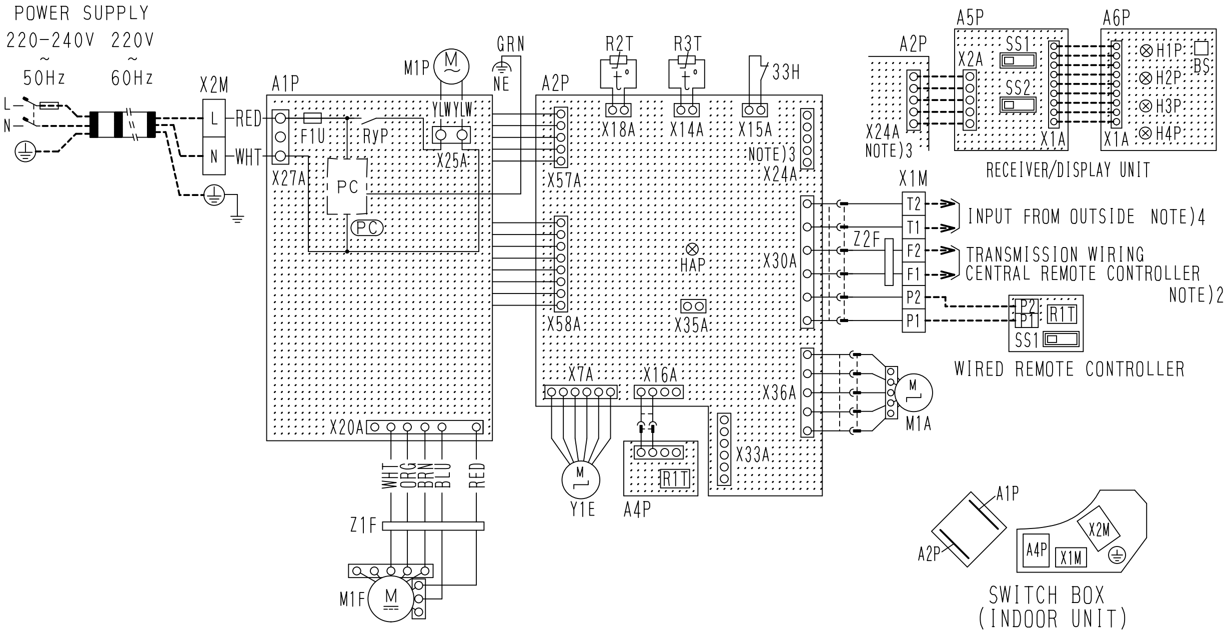


33H	FLOAT SWITCH	RyA	MAGNETIC RELAY(M1S)	H1P	LIGHT EMISSION DIODE (ON-RED)
33S	LIMIT SWITCH (SWING FLAP)	RyF1-3	MAGNETIC RELAY(M1F)		
		RyP	MAGNETIC RELAY(M1P)	H2P	LIGHT EMISSION DIODE (TIMER-GREEN)
A1P	PRINTED CIRCUIT BOARD	T1R	TRANSFOMER(220-240V/22V)		
C1R	CAPACITOR(M1F)	X1M	TERMINAL STRIP(POWER)	H3P	LIGHT EMISSION DIODE (FILTER SIGN-RED)
F1T	THERMAL FUSE(152℃) (M1F EMBEDDED)	X2M	TERMINAL STRIP(CONTROL)		
		Y1E	ELECTRONIC EXPANSION VALVE	H4P	LIGHT EMISSION DIODE (DEFROST-ORANGE)
F1U	FUSE(250V,5A,Ⓑ) OR F10T 250V	WIRED REMOTE CONTROLLER		SS1	SELECTOR SWITCH (MAIN/SUB)
		R1T	THERMISTOR(AIR)		
HAP	LIGHT EMISSION DIODE (SERVICE MONITOR-GREEN)	SS1	SELECTOR SWITCH (MAIN/SUB)	SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
M1F	MOTOR(INDOOR FAN)	RECEIVER/DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)		CONNECTOR FOR OPTIONAL PARTS	
M1S	MOTOR (SWING FLAP)			X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTORICAL APPENDICES)
M1P	MOTOR(DRAIN PUMP)	A2P	PRINTED CIRCUIT BOARD		
R1T	THERMISTOR(AIR)	A3P	PRINTED CIRCUIT BOARD	X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)
R2T·3T	THERMISTOR(COIL)	BS	PUSH BUTTON(ON/OFF)		
L-RED N-BLUE					

NOTES) 1. □□□□:TERMINAL ⊙⊙, :CONNECTOR —○— :WIRE CLAMP
2. - - - - :FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. X23A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
5. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
6. SYMBOLS SHOWS AS FOLLOWS.
(PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE
BLU:BLUE BLK:BLACK RED:RED BRN:BROWN)
7. USE COPPER CONDUCTORS ONLY.

3D034121

FXF25L / 32L / 40L / 50L / 63L / 80L / 100L / 125LVE



L−RED	N−WHITE

INDOOR UNIT	
33H	FLOAT SWITCH
A1P	PRINTED CIRCUIT BOARD (POWER SUPPLY)
A2P	PRINTED CIRCUIT BOARD (CONTROL)
A4P	PRINTED CIRCUIT BOARD (TEMPERATURE SENSOR UNIT)
F1U	FUSE(Ⓑ, 250V, 5A)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)
M1A	MOTOR(SWING FLAP)
M1F	MOTOR(INDOOR FAN)
M1P	MOTOR(DRAIN PUMP)
R1T	THERMISTOR(AIR)
R2T•R3T	THERMISTOR(COIL)
RyP	MAGNETIC RELAY(M1P)
X1M	TERMINAL STRIP
X2M	TERMINAL STRIP
Y1E	ELECTRONIC EXPANSION VALBE
Z1F	NOISE FILTER
Z2F	NOISE FILTER
(PC)	POWER CIRCUIT
WIRED REMOTE CONTROLLER	
R1T	THERMISTOR(AIR)
SS1	SELECTOR SWITCH(MAIN/SUB)

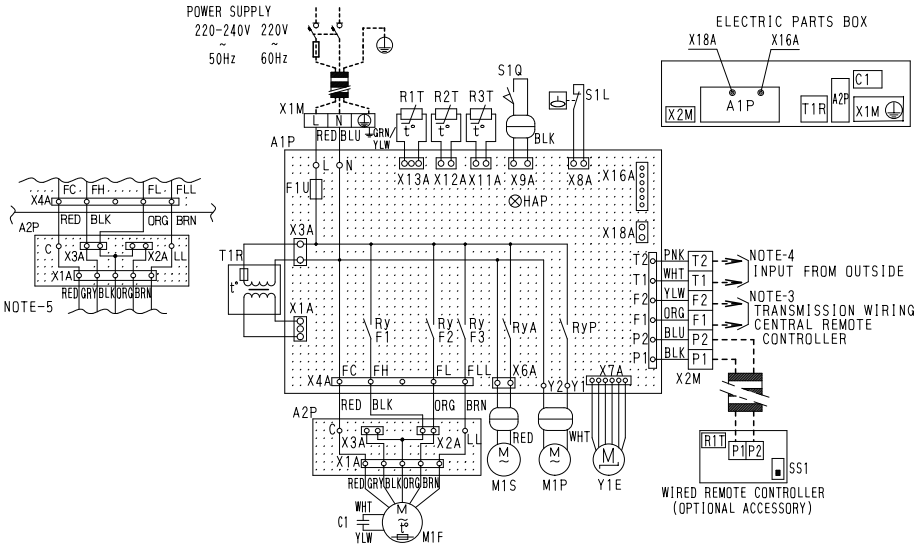
RECEIVER/DISPLAY UNIT(ATTACHED TO WIRELESS REMOTE CONTROLLER)	
A5P	PRINTED CIRCUIT BOARD
A6P	PRINTED CIRCUIT BOARD
BS	PUSH BUTTON(ON/OFF)
H1P	LIGHT EMITTING DIODE (ON-RED)
H2P	LIGHT EMITTING DIODE (TIMER-GREEN)
H3P	LIGHT EMITTING DIODE (FILTER SIGN-RED)
H4P	LIGHT EMITTING DIODE (DEFROST-ORANGE)
SS1	SELECTOR SWITCH (MAIN/SUB)
SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
CONNECTOR FOR OPTIONAL PARTS	
X33A	CONNECTOR (ADAPTOR FOR WIRING)
X35A	CONNECTOR(GROUP CONTROL ADAPTOR)

NOTES)

1. ▭▭▭ : TERMINAL ⦾⦾ , ⇉ : CONNECTOR
   ------- : FIELD WIRING
2. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTALLATION MANUAL.
3. X24A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATACHED THE UNIT.
5. REMOTE CONTROLLER MODEL VARIES ACCORDING TO THE COMBINATION SYSTEM, CONFIRM ENGINEERING DATA AND CATALOGS, ETC. BEFORE CONNECTING.
6. CONFIRM THE METHOD OF SETTING THE SELECTOR SWITCH(SS1, SS2) OF WIRED REMOTE CONTROLLER AND WIRELESS REMOTE CONTROLLER BY INSTALLATION MANUAL AND ENGINEERING DATA, ETC.
7. SYMBOLS SHOWS AS FOLLOWS:
   RED:RED BLK:BLACK WHT:WHITE YLW:YELLOW GRN:GREEN
   ORG:ORANGE BRN:BROWN PNK:PINK GRY:GRAY BLU:BLUE

3D033829A

FXK25L / 32L / 40L / 63LVE

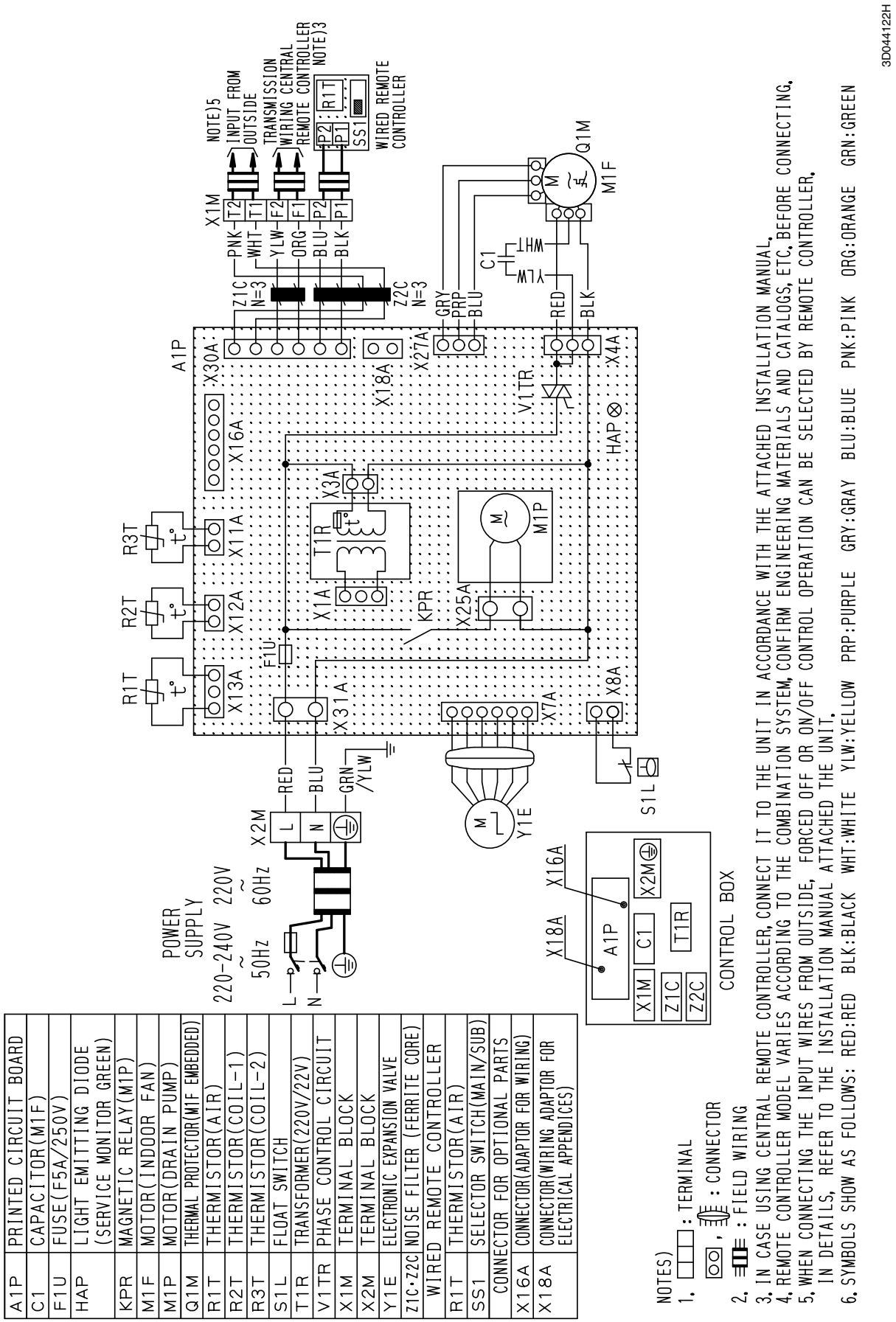


A1P	PRINTED CIRCUIT BOARD	RyA	MAGNETIC RELAY(M1S)
A2P	TERMINAL BOARD	RyF1-3	MAGNETIC RELAY(M1F)
C1	CAPACITOR (M1F)	RyP	MAGNETIC RELAY(M1P)
F1T	THERMAL FUSE(105℃)	S1L	FLOAT SWITCH
	(M1F EMBEDDED)	S1Q	LIMIT SWITCH(SWING FLAP)
F1U	FUSE(250V,5A,Ⓑ)	T1R	TRANSFOMER(220-240V/22V)
	OR	X1M	TERMINAL STRIP(POWER)
	F5T 250V	X2M	TERMINAL STRIP(CONTROL)
HAP	LIGHT EMITTING DIODE	Y1E	ELECTRONIC EXPANSION
	(SERVICE MONITOR-GREEN)		VALVE
M1F	MOTOR (INDOOR FAN)	WIRED REMOTE CONTROLLER	
M1P	MOTOR (DRAIN PUMP)	R1T	THERMISTOR(AIR)
M1S	MOTOR (SWING FLAP)	SS1	SELECTOR SWITCH (MAIN/SUB)
R1T	THERMISTOR(AIR)	CONNECTOR FOR OPTIONAL PARTS	
R2T・3T	THERMISTOR(COIL)	X16A	CONNECTOR(ADAPTOR FOR WIRING)
		X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTORICAL APPENDICES)

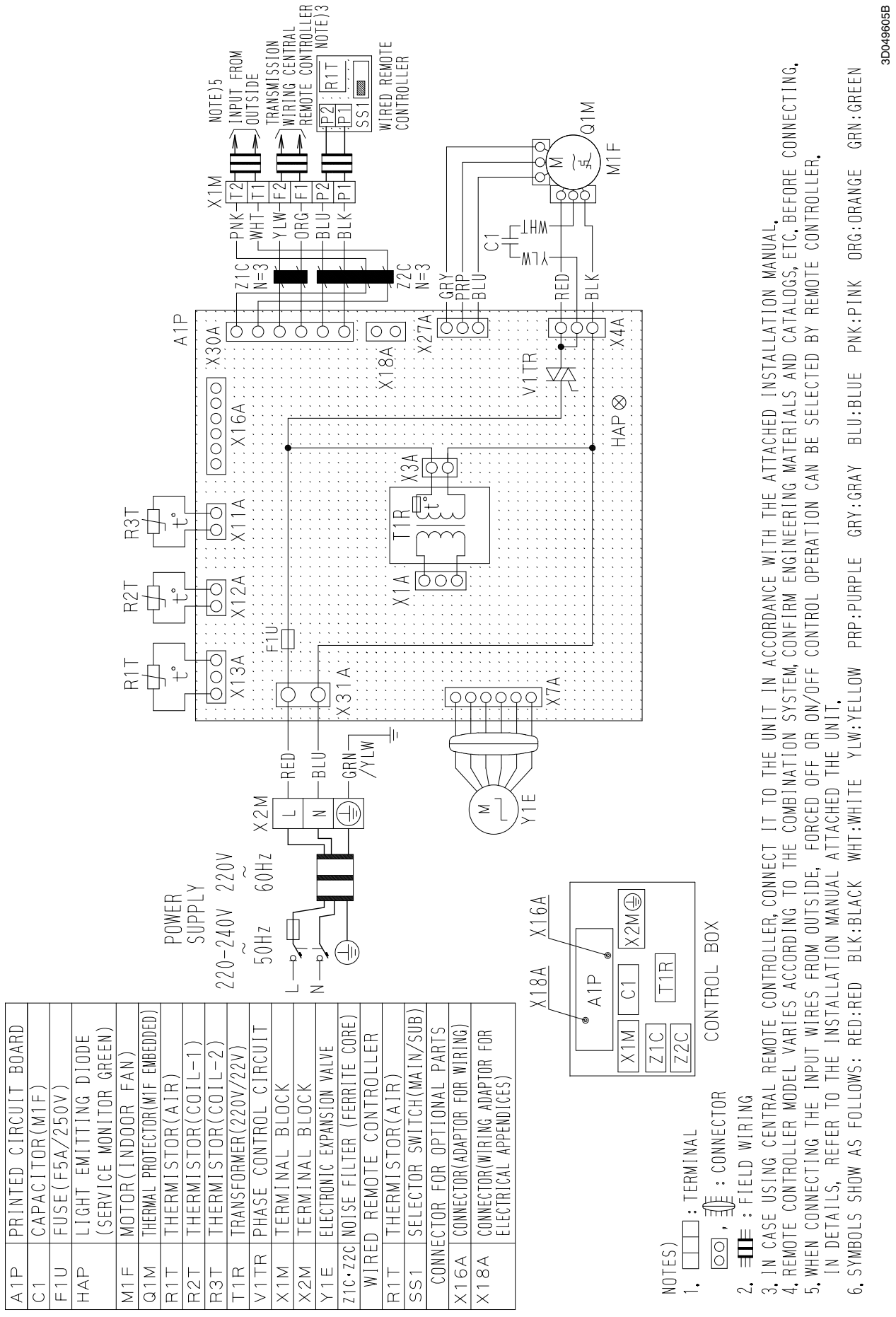
NOTES) 1. □□□ : TERMINAL BLOCK, ⊡⊡ , ⊐ :CONNECTOR, —○— : TERMINAL
2. ---- :FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
5. IN CASE HIGH E,S,P, OPERATION, CHANGE OVER THE WIRING CONNECTION FROM X2A TO X3A.
6. SYMBOLS SHOW AS FOLLOWS.(PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRN:BROWN GRY:GRAY)
7. USE COPPER CONDUCTORS ONLY.

3D035466A

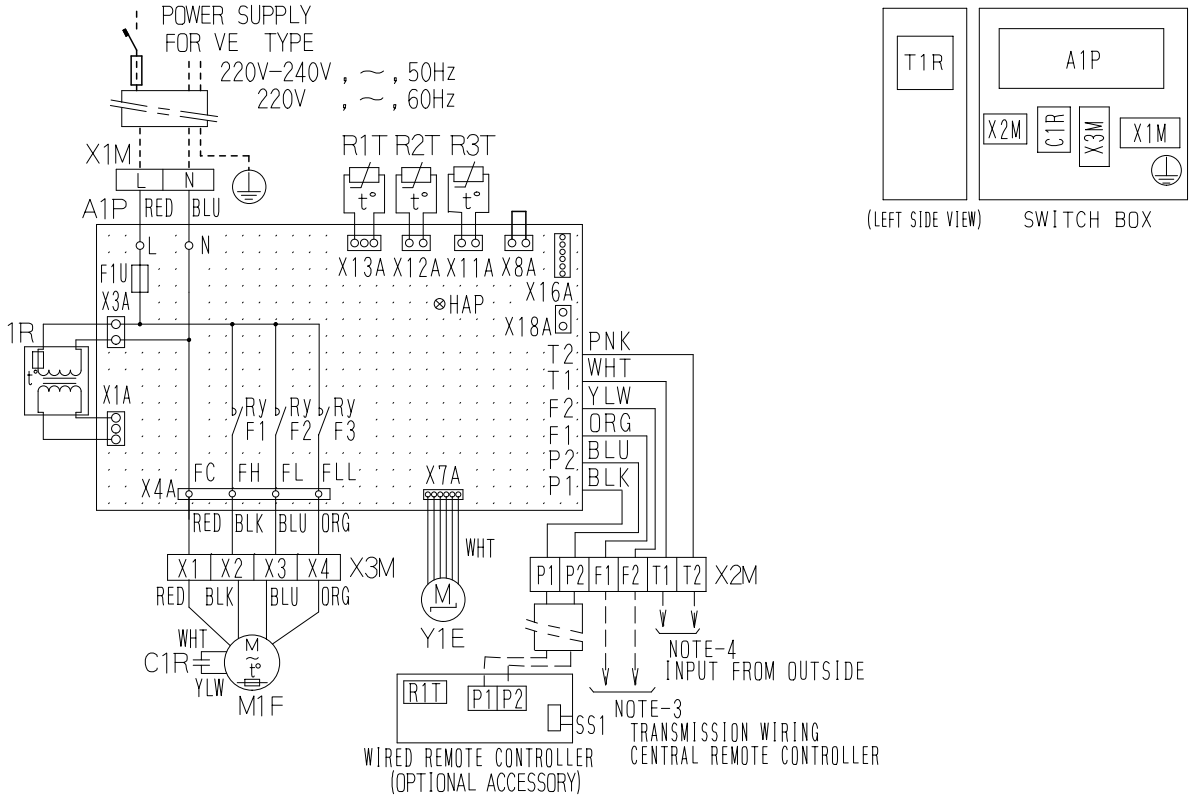
FXD20P / 25P / 32PVE (with Drain Pump)
FXD20M / 25M / 32M / 40M / 50M / 63MVE (with Drain Pump)



FXD20P / 25P / 32P (without Drain Pump)
FXD20M / 25M / 32M / 40M / 50M / 63MVET (without Drain Pump)



FXYD20KA / 25KA / 32KA / 40KA / 50KA / 63KAVE



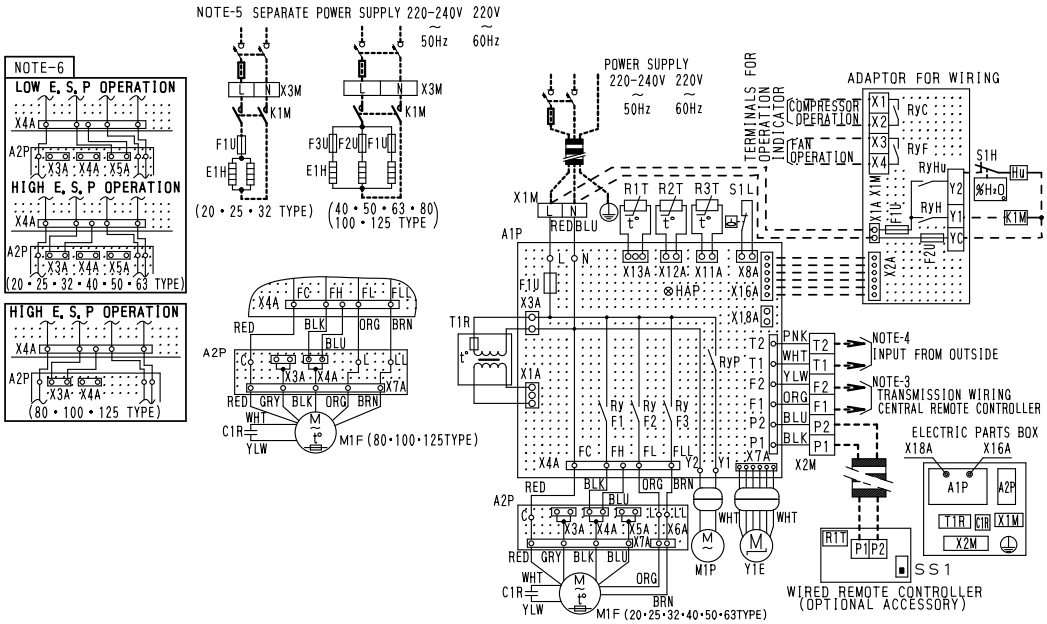
A1P	PRINTED CIRCUIT BOARD
C1R	CAPACITOR (M1F)
F1T	THERMAL FUSE (M1F EMBEDDED) (135±5℃:OFF、95±15℃:ON)
F1U	FUSE (250V,10A)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)
M1F	MOTOR (INDOOR FAN)
R1T	THERMISTOR(AIR)
R2T･3T	THERMISTOR(COIL)
RyF1-3	MAGNETIC RELAY(M1F)
T1R	TRANSFOMER(220-240V/22V)
X1M	TERMINAL STRIP(POWER)
X2M	TERMINAL STRIP(CONTROL)
X3M	TERMINAL STRIP
Y1E	ELECTRONIC EXPANSION VALVE
CONNECTOR FOR OPTIONAL PARTS	
X16A	CONNECTOR(ADAPTOR FOR WIRING)
X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTRICAL APPENDICES)
WIRED REMOTE CONTROLLER	
R1T	THERMISTOR(AIR)
SS1	SELECTOR SWITCH(MAIN/SUB)
L-RED	N-BLUE

NOTES)

1. ▭▭▭ : TERMINAL —○— : WIRE CLAMP
   ▭○○▭ : CONNECTOR ▭○▭ : JUMPER CONNECTOR
2. ---- : FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER, IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
5. SYMBOLS SHOW AS FOLLOWS. (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRN:BROWN)
6. USE COPPER CONDUCTORS ONLY.

3D024108A

FXS20L / 25L / 32L / 40L / 50L / 63L / 80L / 100L / 125LVE

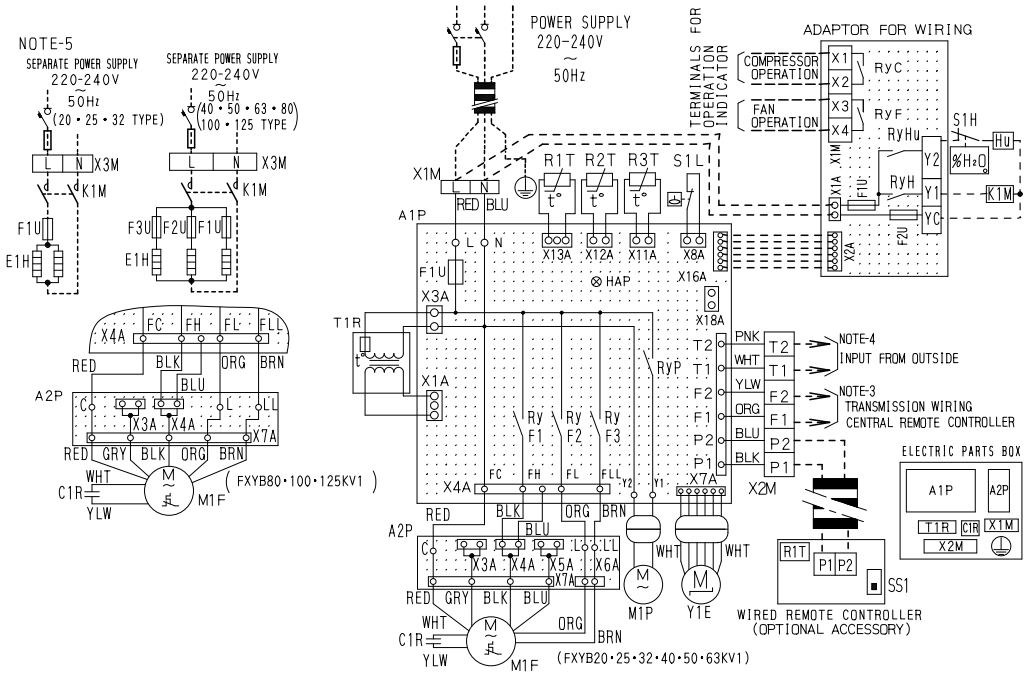


NOTES)
1. □□□:TERMINAL BLOCK, ⊙⊙, ⊃⊢ :CONNECTOR, —○— : TERMINAL
2. ----:FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
5. IN CASE INSTALLING THE ELECTRIC HEATER, EXECUTE THE ADDITIONAL WIRING FOR HEATER CIRCUIT(K1M, E1H). IN THIS CASE, THE MAIN POWER SUPPLY HAS TO BE SUPPLIED INDEPENDENTLY.
6. IN CASE HIGH OR LOW E.S.P. OPERATION, CHANGE OVER THE WIRING CONNECTION FROM X4A(OF A2P) TO X3A OR X5A.
7. SYMBOLS SHOW AS FOLLOWS, (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRW:BROWN)
8. **USE COPPER CONDUCTORS ONLY.**

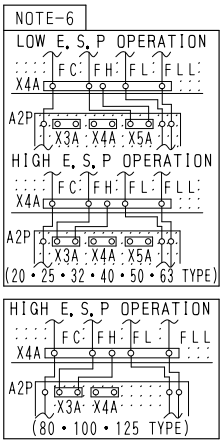
A1P	PRINTED CIRCUIT BOARD	Y1E	ELECTRONIC EXPANSION VALVE
A2P	TERMINAL BOARD	OPTIONAL PARTS	
C1R	CAPACITOR(M1F)	F1U-3U	FUSE(250V, 15A, Ⓑ)
F1T	THERMAL FUSE(152℃) (M1F EMBEDDED)	Hu	HUMIDIFIER
		E1H	ELECTRIC HEATER
F1U	FUSE(250V,10A, Ⓑ) OR F10T 250V	K1M	MAGNETIC RELAY(E1H)
		S1H	HUMIDISTAT
		X3M	TERMINAL STRIP(E1H)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)	WIRED REMOTE CONTROLLER	
		R1T	THERMISTOR(AIR)
M1F	MOTOR(INDOOR FAN)	SS1	SELECTOR SWITCH(MAIN/SUB)
M1P	MOTOR(DRAIN PUMP)	ADAPTOR FOR WIRING	
R1T	THERMISTOR(AIR)	F1U・2U	FUSE (250V, 5A, Ⓑ)
R2T・3T	THERMISTOR(COIL)	RyC	MAGNETIC RELAY
RyF1-3	MAGNETIC RELAY(M1F)	RyF	MAGNETIC RELAY
RyP	MAGNETIC RELAY(M1P)	RyH	MAGNETIC RELAY(E1H)
S1L	FLOAT SWITCH	RyHu	MAGNETIC RELAY(Hu)
T1R	TRANSFORMER(220-240V/22V)	CONNECTOR FOR OPTIONAL PARTS	
X1M	TERMINAL STRIP(POWER)	X16A	CONNECTOR(ADAPTOR FOR WIRING)
X2M	TERMINAL STRIP(CONTROL)	X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTORICAL APPENDICES)

3D035467

FXYB20K / 25K / 32K / 40K / 50K / 63K / 80K / 100K / 125KV1



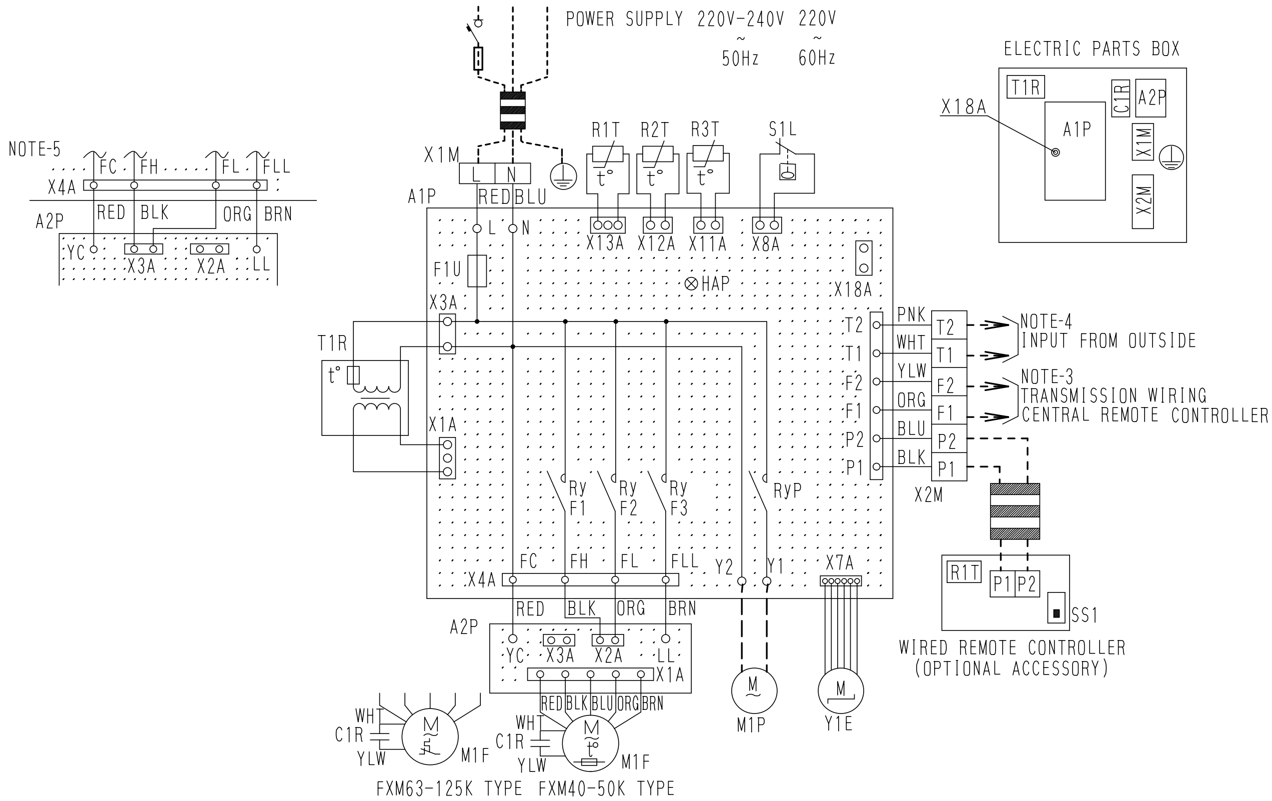
A1P	PRINTED CIRCUIT BOARD	Y1E	ELECTRONIC EXPANSION VALVE
A2P	TERMINAL BOARD	OPTIONAL PARTS	
C1R	CAPACITOR(M1F)	E1H	ELECTRIC HEATER
F1T	THERMO SWITCH(135℃) OR(145℃ NOTES 9) (M1F EMBEDDED)	F1U-3U	FUSE(250V, 15A,Ⓑ)
		Hu	HUMIDIFIER
		K1M	MAGNETIC RELAY(E1H)
F1U	FUSE(250V, 5A,Ⓑ) OR F10T 250V	S1H	HUMIDISTAT
		X1M	TERMINAL STRIP(E1H)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)	WIRED REMOTE CONTROLLER	
		R1T	THERMISTOR(AIR)
M1F	MOTOR(INDOOR FAN)	SS1	SELECTOR SWITCH(MAIN/SUB)
M1P	MOTOR(DRAIN PUMP)	ADAPTOR FOR WIRING	
R1T	THERMISTOR(AIR)	F1U・2U	FUSE (250V, 5A,Ⓑ)
R2T・3T	THERMISTOR(COIL)	RyC	MAGNETIC RELAY
RyF1-3	MAGNETIC RELAY(M1F)	RyF	MAGNETIC RELAY
RyP	MAGNETIC RELAY(M1P)	RyH	MAGNETIC RELAY(E1H)
S1L	FLOAT SWITCH	RyHu	MAGNETIC RELAY(Hu)
T1R	TRANSFORMER(220-240V/22V)	CONNECTOR FOR OPTIONAL PARTS	
X1M	TERMINAL STRIP(POWER)	X16A	CONNECTOR(ADAPTOR FOR WIRING)
X2M	TERMINAL STRIP(CONTROL)	X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTORICAL APPENDICES)



NOTES)
1. □□□:TERMINAL BLOCK, ⊙⊙, ⊃— :CONNECTOR, —○— : TERMINAL
2. ----:FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
5. IN CASE INSTALLING THE ELECTRIC HEATER, EXECUTE THE ADDITIONAL WIRING FOR HEATER CIRCUIT(K1M, E1H). IN THIS CASE, THE MAIN POWER SUPPLY HAS TO BE SUPPLIED INDEPENDENTLY.
6. IN CASE HIGH OR LOW E.S.P. OPERATION, CHANGE OVER THE WIRING CONNECTION FROM X4A(OF A2P) TO X3A OR X5A.
7. SYMBOLS SHOW AS FOLLOWS. (PNK:PINK WHT:WHITE YLW:YELLOW GRY:GRAY ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRN:BROWN)
8. USE COPPER CONDUCTORS ONLY. 9. ONLY FXYB80, 100, 125KV1.

3D037591C

FXM40L / 50L / 63L / 80L / 100L / 125LVE



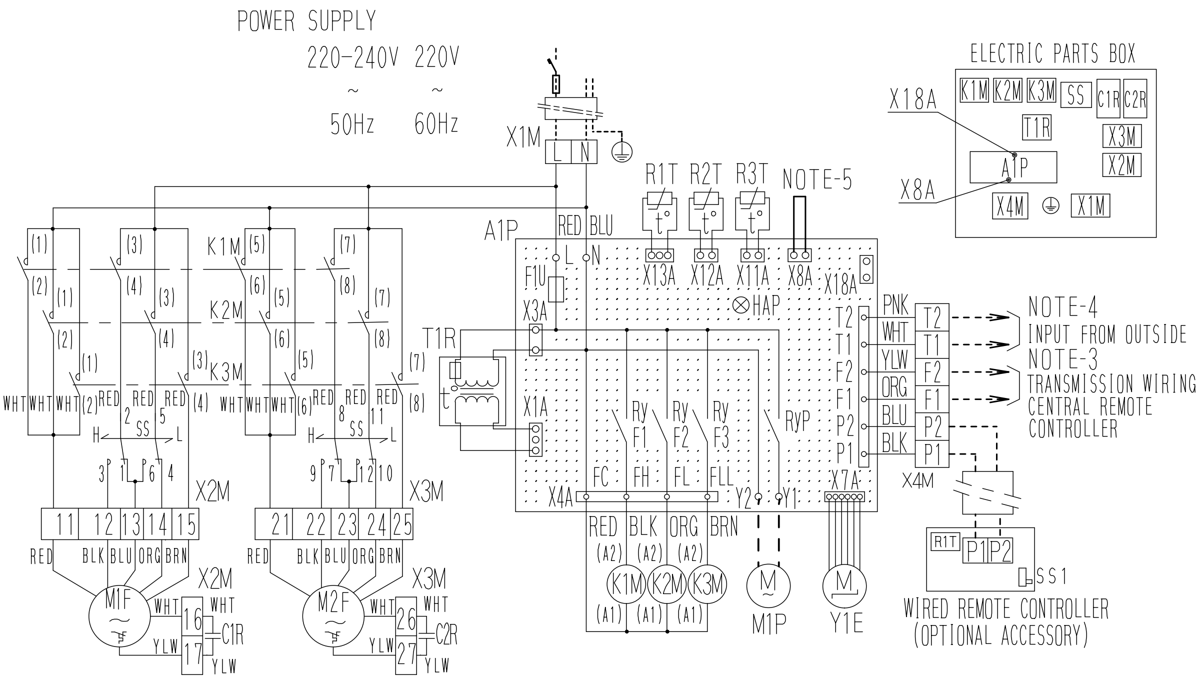
A1P	PRINTED CIRCUIT BOARD	R2T·3T	THERMISTOR(COIL)	CONNECTOR FOR OPTIONAL PARTS	
A2P	TERMINAL BOARD	RyF1-3	MAGNETIC RELAY(M1F)	X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTORICAL APPENDICES)
C1R	CAPACITOR(M1F)	RyP	MAGNETIC RELAY(M1P)		
F1T	THERMAL FUSE(153℃) (M1F BUILT-IN ONLY40·50TYPE))	S1L	FLOAT SWITCH		
		T1R	TRANSFORMER(220-240V/22V)		
		X1M	TERMINAL STRIP(POWER)		
F1U	FUSE(250V, 10A, Ⓑ) OR F10T 250V	X2M	TERMINAL STRIP(CONTROL)		
		Y1E	ELECTRONIC EXPANSION VALVE		
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	OPTIONAL PARTS			
		M1P	MOTOR (DRAIN PUMP)		
M1F	MOTOR(INDOOR FAN)	WIRED REMOTE CONTROLLER			
Q1F	THERMO SWITCH (M1F BUILT-IN ONLY63-125TYPE)	SS1	SELECTOR SWITCH (MAIN/SUB)		
		R1T	THERMISTOR(AIR)		
R1T	THERMISTOR(AIR)				

NOTES)

1. ▭▭▭ :TERMINAL, ◻◻ , connector symbol :CONNECTOR, —○— :WIRE CLAMP
2. ---- :FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER.
   IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
5. IN CASE HIGH E.S.P. OPERATION, CHANGE THE WIRING CONNECTION OF X2A AS SHOWN UPPER FIGURE.
6. SYMBOLS SHOW AS FOLLOWS. (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRN:BROWN)
7. USE COPPER CONDUCTORS ONLY.

3D034209A

FXM200L / 250LVE



NOTES)

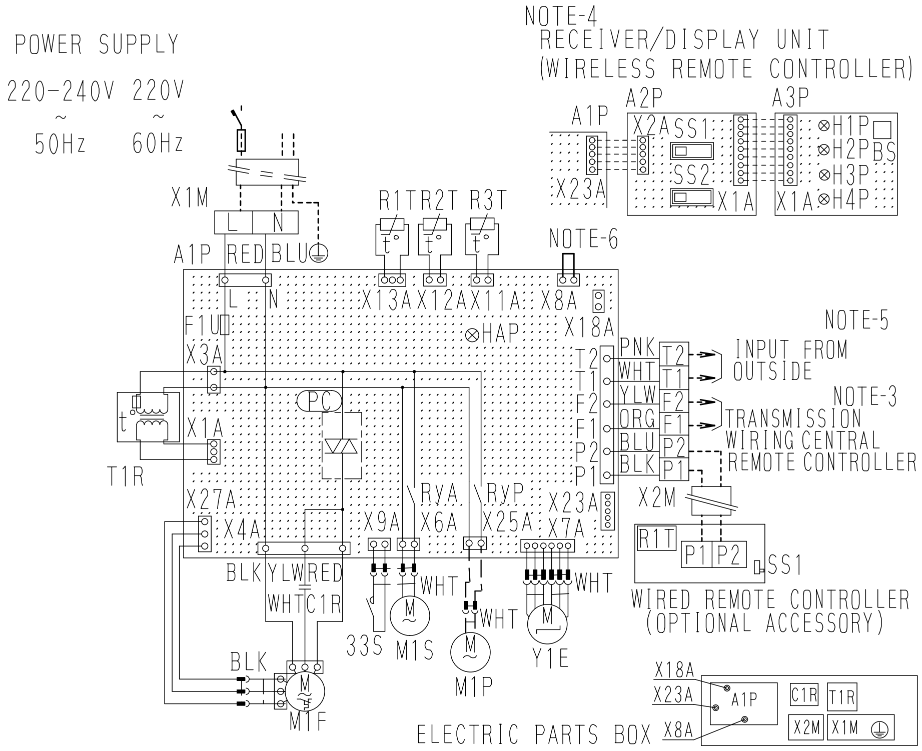
1. ▭▭▭, —●— : TERMINAL ▭, : CONNECTOR —○— : WIRE CLAMP ▭ : JUMPER CONNECTOR
2. ---- :FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
5. IN CASE INSTALLING THE DRAIN PUMP, REMOVE THE JUMPER AND EXECUTE THE ADDITIONAL WIRING FOR FLOAT SWITCH(33H). X8A 33H
6. SYMBOLS SHOW AS FOLLOWS. (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRN:BROWN)
7. USE COPPER CONDUCTORS ONLY.
8. IN CASE HIGH E.S.P. OPERATION , CHANGE THE SWITCH(SS) FOR "H".

A1P	PRINTED CIRCUIT BOARD
C1R·2R	CAPACITOR (M1F·2F)
F1U	FUSE(250V, 10A, (B)) OR F10T 250V
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)
K1M	MAGNETIC CONTACTOR(M1F·2F)
K2M	MAGNETIC CONTACTOR(M1F·2F)
K3M	MAGNETIC CONTACTOR(M1F·2F)
M1F·2F	MOTOR (INDOOR FAN)
Q1F	THERMO SWITCH (M1F·2F EMBEDDED)
R1T	THERMISTOR(AIR)
R2T·3T	THERMISTOR(COIL)
L-RED	N-BLUE

RyF1-F3	MAGNETIC RELAY(M1F·2F)
RyP	MAGNETIC RELAY(M1P)
SS	SELECTOR SWITCH (STATIC PRESSURE)
T1R	TRANSFOMER(220-240V/22V)
X1M	TERMINAL STRIP(POWER)
X2M-4M	TERMINAL STRIP(CONTROL)
Y1E	ELECTRONIC EXPANSION VALVE
OPTIONAL PARTS	
M1P	MOTOR (DRAIN PUMP)
WIRED REMOTE CONTROLLER	
R1T	THERMISTOR(AIR)
SS1	SELECTOR SWITCH (MAIN/SUB)
CONNECTOR FOR OPTIONAL PARTS	
X8A	CONNECTOR(FLOAT SWITCH)
X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTORICAL APPENDICES)

3D034363

FXH32L / 63L / 100LVE



33S	LIMIT SWITCH (SWING FLAP)
A1P	PRINTED CIRCUIT BOARD
C1R	CAPACITOR (M1F)
F1U	FUSE(250V, 5A Ⓑ)OR F10T 250V
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)
M1F	MOTOR (INDOOR FAN)
M1S	MOTOR (SWING FLAP)
Q1F	THERMO SWITCH (M1F EMBEDDED)
R1T	THERMISTOR (AIR)
R2T	THERMISTOR (COIL LIQUID)
R3T	THERMISTOR (COIL GAS)
RyA	MAGNETIC RELAY (M1S)
RyP	MAGNETIC RELAY (M1P)
T1R	TRANSFOMER (220-240V/22V)
X1M	TERMINAL STRIP (POWER)
X2M	TERMINAL STRIP (CONTROL)
Y1E	ELECTRONIC EXPANSION VALVE
(PC)	PHASE CONTROL CIRCUIT
OPTIONAL PARTS	
M1P	MOTOR (DRAIN PUMP)
WIRED REMOTE CONTROLLER	
R1T	THERMISTOR (AIR)
SS1	SELECTOR SWITCH (MAIN/SUB)
RECEIVER/DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)	
A2P	PRINTED CIRCUIT BOARD
A3P	PRINTED CIRCUIT BOARD
BS	PUSH BUTTON (ON/OFF)
H1P	LIGHT EMITTING DIODE (ON-RED)
H2P	LIGHT EMITTING DIODE (TIMER-GREEN)

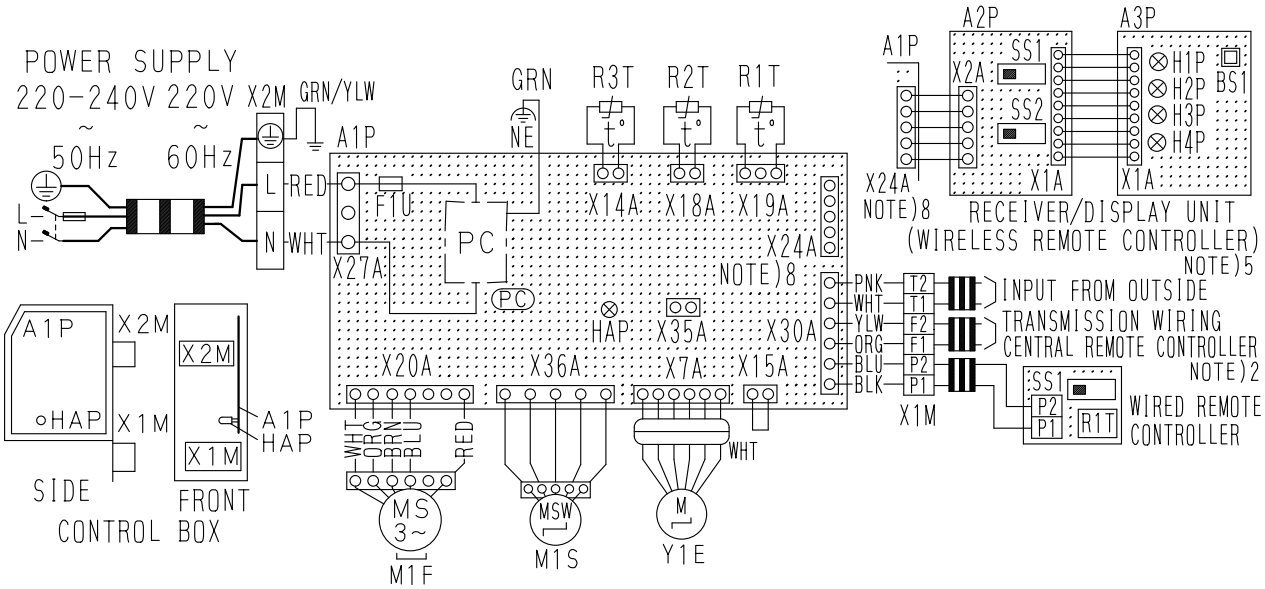
H3P	LIGHT EMITTING DIODE (FILTER SIGN-RED)
H4P	LIGHT EMITTING DIODE (DEFROST-ORANGE)
SS1	SELECTOR SWITCH (MAIN/SUB)
SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
CONNECTOR FOR OPTIONAL PARTS	
X8A	CONNECTOR (FLOAT SWITCH)
X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTRICAL APPENDICES)
X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)

NOTES)

1. ▭▭▭ : TERMINAL ◎◎, ⇉ : CONNECTOR ⊡ : CONNECTOR
   —○— : WIRE CLAMP
2. ---- : FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. X23A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
5. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
6. IN CASE INSTALLING THE DRAIN PUMP, REMOVE THE JUMPER CONNECTOR OF X8A AND EXECUTE THE ADDITIONAL WIRING FOR FLOAT SWITCH AND DRAIN PUMP.
7. SYMBOLS SHOW AS FOLLOWS.
   (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE
   BLU:BLUE BLK:BLACK RED:RED)
8. USE COPPER CONDUCTORS ONLY.

3D034052A

FXA20L / 25L / 32L / 40L / 50L / 63LVE



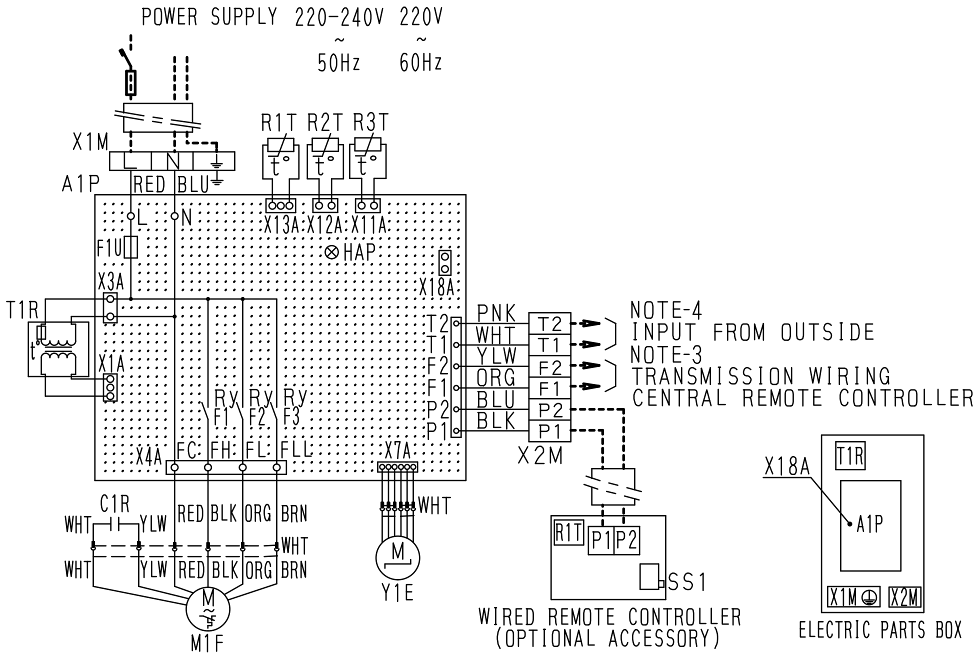
INDOOR UNIT	
A1P	PRINTED CIRCUIT BOARD
F1U	FUSE(Ⓑ, 3A, 250V)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)
M1F	MOTOR(INDOOR FAN)
M1S	MOTOR(SWING FLAP)
R1T	THERMISTOR(AIR)
R2T	THERMISTOR(COIL LIQUID PIPE)
R3T	THERMISTOR(COIL GAS PIPE)
X1M	TERMINAL BLOCK(CONTROL)
X2M	TERMINAL BLOCK(POWER)
Y1E	ELECTRONIC EXPANSION VALVE
(PC)	POWER CIRCUIT
RECEIVER/DISPLAY UNIT(ATTACHED TO WIRELESS REMOTE CONTROLLER)	
A2P	PRINTED CIRCUIT BOARD
A3P	PRINTED CIRCUIT BOARD
BS1	PUSH BUTTON(ON/OFF)
H1P	LIGHT EMITTING DIODE(ON-RED)
H2P	LIGHT EMITTING DIODE (TIMER-GREEN)
H3P	LIGHT EMITTING DIODE (FILTER SIGN-RED)
H4P	LIGHT EMITTING DIODE (DEFROST-ORENGE)
SS1	SELECTOR SWITCH(MAIN/SUB)
SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
WIRED REMOTE CONTROLLER	
R1T	THERMISTOR(AIR)
SS1	SELECTOR SWITCH(MAIN/SUB)
CONNECTOR FOR OPTIONAL PARTS	
X15A	CONNECTOR(FLOAT SWITCH)
X35A	CONNECTOR(GROUP CONTROL ADAPTOR)

NOTES) (INDOOR UNIT)

1. ▭▭▭ : TERMINAL ⊙⊙ : CONNECTOR
   ⫼ : FIELD WIRING ⊃— : CONNECTOR
2. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCEWITH THE ATTACHED INSTALLATION MANUAL.
3. SYMBOLS SHOWS AS FOLLOWS: RED:RED WHT:WHITE GRN:GREEN PNK:PINK YLW:YELLOW BLK:BLACK ORG:ORANGE BRN:BROWN BLU:BLUE
4. ⊙⊙ SHOWS SHORT CIRCUIT CONNECTOR.
5. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
6. REMOTE CONTROLLER MODEL VARIES ACCORDING TO THE COMBINATION SYSTEM, CONFIRM ENGINEERING DATA AND CATALOGS, ETC. BEFORE CONNECTING.
7. CONFIRM THE METHOD OF SETTING THE SELECTOR SWITCH(SS1, SS2) OF WIRED REMOTE CONTROLLER AND WIRELESS REMOTE CONTROLLER BY INSTALLATION MANUAL AND ENGINEERING DATA, ETC.
8. X24A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.

3D034206D

FXL20L / 25L / 32L / 40L / 50L / 63LVE
FXN20L / 25L / 32L / 40L / 50L / 63LVE



NOTES)

1. ▭▭▭ :TERMINAL, ◎◎ , ⇉ :CONNECTOR, —○—:WIRE CLAMP
2. - - - - :FIELD WIRING
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTIO MANUAL.
4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
5. SYMBOLS SHOW AS FOLLOWS. (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED BRN:BROWN)
6. USE COPPER CONDUCTORS ONLY.

A1P	PRINTED CIRCUIT BOARD	X2M	TERMINAL STRIP(CONTROL)
C1R	CAPACITOR (M1F)	Y1E	ELECTRONIC EXPANSION VALVE
F1U	FUSE(250V,10A,Ⓑ) OR F10T 250V	WIRED REMOTE CONTROLLER	
		R1T	THERMISTOR(AIR)
		SS1	SELECTOR SWITCH(MAIN/SUB)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	CONNECTOR FOR OPTIONAL PARTS	
		X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTORICAL APPENDICES)
M1F	MOTOR (INDOOR FAN)		
Q1F	THERMO SWITCH (M1F EMBEDDED)		
R1T	THERMISTOR(AIR)		
R2T·3T	THERMISTOR(COIL)		
RyF1-3	MAGNETIC RELAY(M1F)		
T1R	TRANSFOMER(220-240V/22V)		
X1M	TERMINAL STRIP(POWER)		
L-RED	N-BLUE		

3D034183A

3. List of Electrical and Functional Parts

3.1 Outdoor Unit

3.1.1 RXM8, 10MY1

Item	Name		Symbol	Model	
				RXM8MY1	RXM10MY1
Compressor	Inverter	Type	M1C	JT1FBVDKTYR	JT1FBVDKTYR
		Output		1.2kW	4.2kW
	STD.1	Type	M2C	JT170FBKYE	JT170FBKYE
		Output		4.5kW	4.5kW
	Crankcase heater (INV)		E1HC	240V 33W	
	Crankcase heater (STD.1)		E2HC	240V 33W	
	OC protection device for STD compressor		—	13A	
Fan motor	Motor		M1F	0.75kw	
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	0pls	
	Electronic expansion valve (Subcool)	Cooling	Y2E	PI control	
	Solenoid valve (Hot gas)		Y1S	VPV-603D	
	Solenoid valve (External multi oil)		Y2S	TEV1620DQ2	
	Solenoid valve (Receiver gas charge)		Y3S	TEV1620DQ2	
	Solenoid valve (Receiver gas discharge)		Y4S	VPV-603D	
	Solenoid valve (Non-operating unit gas discharge)		Y5S	TEV1620DQ2	
	Solenoid valve (Non-operating unit liquid pipe close)		Y6S	VPV-803DQ50	
Pressure-related parts	Pressure switch (INV)		S1PH	PS80 ON : 2.7+0/-0.1MPa OFF : 1.9±0.15MPa	
	Pressure switch (STD1)		S2PH	PS80 ON : 2.7+0/-0.1MPa OFF : 1.9±0.15MPa	
	Fusible plug		—	FPGH-3D 70 to 75°C	
	Pressure sensor (HP)		S1NPH	PS8050A 0 to 3.33MPa	
	Pressure sensor (LP)		S1NPL	PS8050A -0.05 to 0.98MPa	
Thermistor	INV PC board	For fin	R1T	3.5 to 360Ω	
	Main PC board	For outdoor air	R1T	3.5 to 360Ω	
		For suction pipe	R2T	3.5 to 360Ω	
		For discharge pipe (INV)	R31T	3.5 to 400Ω	
		For discharge pipe (STD.1)	R32T	3.5 to 400Ω	
		For heat exchanger	R4T	3.5 to 360Ω	
		For subcooling heat exchanger	R5T	3.5 to 360Ω	
		For receiver liquid pipe	R6T	3.5 to 360Ω	
		For equalizing pipe	R7T	3.5 to 360Ω	
Others	Fuse (A1P)		F1, 2U	250VAC 10A	
	Fuse (A4P)		F1U	250VAC 5A	

3.2 Indoor Unit

Parts Name		Symbol	Model								Remark
			FXF25 LVE	FXF32 LVE	FXF40 LVE	FXF50 LVE	FXF63 LVE	FXF80 LVE	FXF100 LVE	FXF125 LVE	
Remote Controller	Wired Remote Controller		BRC1C62								Option
	Wireless Remote Controller		C/O BRC7E65								Option
Motors	Fan Motor	M1F	DC380V 30W 8P						DC 380V 120W 8P		
	Drain Pump	M1P	AC220-240V (50Hz) AC220V (60Hz) PLD-12230DM Thermal Fuse 145°C								
	Swing Motor	M1S	MP35HCA[3P007482-1] Stepping Motor DC16V								
Thermistors	Thermistor (Suction Air)	R1T	In PC board A4P or wired remote controller								
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-5 ϕ8 L1000 20kΩ (25°C)								
	Thermistor (Heat Exchanger)	R2T	ST8602A-5 ϕ6 L1000 20kΩ (25°C)								
Others	Float Switch	S1L	FS-0211B								
	Fuse	F1U	250V 5A ϕ5.2								
	Thermal Fuse	TFu	—								
	Transformer	T1R	—								

Parts Name		Symbol	Model								Remark
			FXC 20LVE	FXC 25LVE	FXC 32LVE	FXC 40LVE	FXC 50LVE	FXC 63LVE	FXC 80LVE	FXC 125LVE	
Remote Controller	Wired Remote Controller		BRC1C62								Option
	Wireless Remote Controller		C/O BRC7C67								Option
Motors	Fan Motor	M1F	AC 220~240V 50Hz								
			1ϕ10W	1ϕ15W		1ϕ25W		1ϕ30W	1ϕ50W	1ϕ85W	
			Thermal Fuse 152°C Thermal protector 130°C			—		Thermal protector 135°C : OFF 87°C : ON			
	Drain Pump	M1P	AC220-240V (50Hz) AC220V (60Hz) PJV-1403 Thermal Fuse 169°C								
	Swing Motor	M1S	MT8-L[3PA07509-1] AC200~240V								
Thermistors	Thermistor (Suction Air)	R1T	ST8601-6 ϕ4 L1250 20kΩ (25°C)								
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-6 ϕ8 L1250 20kΩ (25°C)								
	Thermistor (Heat Exchanger)	R2T	ST8602A-5 ϕ6 L1000 20kΩ (25°C)								
Others	Float Switch	S1L	FS-0211B								
	Fuse	F1U	250V 5A ϕ5.2								
	Transformer	T1R	TR22H21R8								

Parts Name		Symbol	Model				Remark
			FXK 25LVE	FXK 32LVE	FXK 40LVE	FXK 63LVE	
Remote Controller	Wired Remote Controller		BRC1C62				Option
	Wireless Remote Controller		C/O BRC4C63				
Motors	Fan Motor	M1F	AC 220~240V 50Hz				
			1φ15W 4P		1φ20W 4P	1φ45W 4P	
			Thermal Fuse 146°C		Thermal protector 120°C : OFF 105°C : ON		
	Drain Pump	M1P	AC 220-240V (50Hz) PLD-12200DM Thermal Fuse 145°C				
	Swing Motor	M1S	MP8-L [3PA07312-1] AC200~240V				
Thermistors	Thermistor (Suction Air)	R1T	ST8601-13 φ4 L630 20kΩ (25°C)				
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-7 φ8 L1600 20kΩ (25°C)				
	Thermistor (Heat Exchanger)	R2T	ST8602A-7 φ6 L1600 20kΩ (25°C)				
Others	Float Switch	S1L	FS-0211B				
	Fuse	F1U	250V 5A φ5.2				
	Transformer	T1R	TR22H21R8				

Parts Name		Symbol	Model						Remark
			FXD 20MVE(T), PVE(T)	FXD 25MVE(T), PVE(T)	FXD 32MVE(T), PVE(T)	FXD 40MVE(T)	FXD 50MVE(T)	FXD 63MVE(T)	
Remote Controller	Wired Remote Controller		BRC1C62						Option
	Wireless Remote Controller		BRC4C62						
Motors	Fan Motor	M1F	AC 220~240V 50Hz						
			1φ62W				1φ130W		
			Thermal protector 130°C: OFF, 83°C: ON						
	Drain Pump	M1P	AC220-240V (50Hz) PLD-12230DM Thermal Fuse 145°C						*
Thermistors	Thermistor (Suction Air)	R1T	ST8601-1 φ4 L=250 20kΩ (25°C)						
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-4 φ8 L=800 20kΩ (25°C)						
	Thermistor (Heat Exchanger)	R2T	ST8602A-4 φ6 L=800 20kΩ (25°C)						
Others	Float Switch	S1L	FS-0211E						*
	Fuse	F1U	250V 5A φ5.2						
	Transformer	T1R	TR22H21R8						

*only for FXD20~63MVE, FXD20~32PVE (with Drain Pump Type)

Parts Name		Symbol	Model						Remark
			FXYD20 KAVE	FXYD25 KAVE	FXYD32 KAVE	FXYD40 KAVE	FXYD50 KAVE	FXYD63 KAVE	
Remote Controller	Wired Remote Controller		BRC1C62						Option
	Wireless Remote Controller		C/O BRC4C64						Option
Motors	Fan Motor	M1F	AC 220~240V/220V 50/60Hz						
			1ϕ45W				1ϕ65W		
			Thermal Protector 135°C						
Thermistors	Thermistor (Suction Air)	R1T	ST8601-2 ϕ4 L400 20kΩ (25°C)						
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-2 ϕ8 L400 20kΩ (25°C)						
	Thermistor (Heat Exchanger)	R2T	ST8602-2 ϕ6 L400 20kΩ (25°C)						
Others	Float Switch	33H	FS-0211						
	Fuse	F1U	250V 10A ϕ5.2						
	Transformer	T1R	TR22M21R8						

Parts Name		Symbol	Model									Remark
			FXS 20LVE	FXS 25LVE	FXS 32LVE	FXS 40LVE	FXS 50LVE	FXS 63LVE	FXS 80LVE	FXS 100LVE	FXS 125LVE	
Remote Controller	Wired Remote Controller		BRC1C62									Option
	Wireless Remote Controller		C/O BRC4C64									
Motors	Fan Motor	M1F	AC 220~240V 50Hz									
			1φ50W			1φ65W	1φ85W	1φ125W	1φ225W			
			Thermal Fuse 152°C						Thermal protector 135°C : OFF 87°C : ON			
	Drain Pump	M1P	AC220-240V (50Hz) PJV-1403 Thermal Fuse 169°C									
Thermistors	Thermistor (Suction Air)	R1T	ST8601-4 φ4 L800 20kΩ (25°C)									
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-7 φ8 L1600 20kΩ (25°C)									
	Thermistor (Heat Exchanger)	R2T	ST8602A-6 φ6 L1250 20kΩ (25°C)									
Others	Float Switch	S1L	FS-0211B									
	Fuse	F1U	250V 5A φ5.2									
	Transformer	T1R	TR22H21R8									

Parts Name		Symbol	Model									Remark
			FXYB 20KV1	FXYB 25KV1	FXYB 32KV1	FXYB 40KV1	FXYB 50KV1	FXYB 63KV1	FXYB 80KV1	FXYB 100KV1	FXYB 125KV1	
Remote Controller	Wired Remote Controller		BRC1C62									Option
	Wireless Remote Controller		C/O BRC4C64									Option
Motors	Fan Motor	M1F	AC 220~240V 50Hz									
			1φ50W			1φ65W	1φ85W	1φ125W	1φ135W		1φ225W	
			Thermal Fuse 152°C									
	Motor for Drain Pump	M1P	AC220-240V Thermal Fuse 169°C									
Thermistors	Thermistor (Suction Air)	R1T	ST8601-4 φ4 L800 20kΩ (25°C)									
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-7 φ8 L1600 20kΩ (25°C)									
	Thermistor (Heat Exchanger)	R2T	ST8602-6 φ6 L1250 20kΩ (25°C)									
Others	Float Switch	33H	FS-0211									
	Fuse	F1U	250V 10A φ5.2									
	Transformer	T1R	TR22M21R8									

Parts Name		Symbol	Model								Remark
			FXM 40LVE	FXM 50LVE	FXM 63LVE	FXM 80LVE	FXM 100LVE	FXM 125LVE	FXM 200LVE	FXM 250LVE	
Remote Controller	Wired Remote Controller		BRC1C62								Option
	Wireless Remote Controller		C/O BRC4C64								
Motors	Fan Motor	M1F	AC 220~240V 50Hz								
			1φ100W			1φ160W	1φ270W	1φ430W	1φ380W×2		
			Thermal protector 135°C : OFF 87°C : ON								
	Capacitor for Fan Motor	C1R	5μF-400V			7μF 400V	10μF 400V	8μF 400V	10+12μF 400V	12+12μF 400V	
Thermistors	Thermistor (Suction Air)	R1T	ST8601A-5 φ4 L1000 20kΩ (25°C)						ST8601A-13 φ4 L630		
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605A-4 φ8 L800 20kΩ (25°C)						ST8605A-5 φ8 L1000		
	Thermistor (Heat Exchanger)	R2T	ST8602A-4 φ6 L800 20kΩ (25°C)						ST8602A-6 φ6 L1250		
Others	Float switch	S1L	OPT10N								
	Fuse	F1U	250V 10A φ5.2								
	Transformer	T1R	TR22H21R8								

Parts Name		Symbol	Model			Remark
			FXH 32LVE	FXH 63LVE	FXH 100LVE	
Remote Controller	Wired Remote Controller		BRC1C62			Option
	Wireless Controller		C/O BRC7E66			
Motors	Fan Motor	M1F	AC 220~240V/220V 50Hz/60Hz			
			1φ63W		1φ130W	
			Thermal protector 130°C : OFF 80°C : ON			
	Capacitor for Fan Motor	C1R	3.0μF-400V		9.0μF-400V	
	Swing Motor	M1S	MT8-L[3P058751-1] AC200~240V			
Thermistors	Thermistor (Suction Air)	R1T	ST8601A-1 φ4 L250 20kΩ (25°C)			
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-6 φ8 L = 1250 20kΩ (25°C)			
	Thermistor (Heat Exchanger)	R2T	ST8602A-6 φ6 L = 1250 20kΩ (25°C)			
Others	Fuse	F1U	250V 5A φ5.2			
	Transformer	T1R	TR22H21R8			

Parts Name		Symbol	Model						Remark
			FXA 20LVE	FXA 25LVE	FXA 32LVE	FXA 40LVE	FXA 50LVE	FXA 63LVE	
Remote Controller	Wired Remote Controller		BRC1C62						Option
	Wireless Remote Controller		C/O BRC7E619						Option
Motors	Fan Motor	M1F	AC 220~240V 50Hz						
			1φ40W			1φ43W			
			—						
	Swing Motor	M1S	MP24[3SB40333-1] AC200~240V			MSFBC20C21 [3SB40550-1] AC200~240V			
Thermistors	Thermistor (Suction Air)	R1T	ST8601-2 φ4 L400 20kΩ (25°C)						
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-2 φ8 L400 20kΩ (25°C)						
	Thermistor (for Heat Exchanger)	R2T	ST8602-2 φ6 L400 20kΩ (25°C)						
Others	Float Switch	S1L	OPTION						
	Fuse	F1U	250V 5A φ5.2						

Parts Name		Symbol	Model						Remark
			FXL 20LVE	FXL 25LVE	FXL 32LVE	FXL 40LVE	FXL 50LVE	FXL 63LVE	
Remote Controller	Wired Remote Controller		BRC1C62						Option
	Wireless Remote Controller		C/O BRC4C64						
Motors	Fan Motor	M1F	AC 220~240V 50Hz						
			1φ15W		1φ25W		1φ35W		
			Thermal protector 135°C : OFF 120°C : ON						
	Capacitor for Fan Motor	C1R	1.0μF-400V		0.5μF-400V	1.0μF-400V	1.5μF-400V	2.0μF-400V	
Thermistors	Thermistor (Suction Air)	R1T	ST8601-6 φ4 L1250 20kΩ (25°C)						
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-9 φ8 L2500 20kΩ (25°C)						
	Thermistor (for Heat Exchanger)	R2T	ST8602A-9 φ6 L2500 20kΩ (25°C)						
Others	Fuse	F1U	AC250V 10A						
	Transformer	T1R	TR22H21R8						

Parts Name		Symbol	Model						Remark
			FXN 20LVE	FXN 25LVE	FXN 32LVE	FXN 40LVE	FXN 50LVE	FXN 63LVE	
Remote Controller	Wired Remote Controller		BRC1C62						Option
	Wireless Remote Controller		C/O BRC4C64						
Motors	Fan Motor	M1F	AC 220~240V 50Hz						
			1φ15W		1φ25W		1φ35W		
			Thermal protector 135°C : OFF 120°C : ON						
	Capacitor for Fan Motor	C1R	1.0μF-400V		0.5μF-400V	1.0μF-400V	1.5μF-400V	2.0μF-400V	
Thermistors	Thermistor (Suction Air)	R1T	ST8601-6 φ4 L1250 20kΩ (25°C)						
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-9 φ8 L2500 20kΩ (25°C)						
	Thermistor (for Heat Exchanger)	R2T	ST8602A-9 φ6 L2500 20kΩ (25°C)						
Others	Fuse	F1U	AC250V 10A						
	Transformer	T1R	TR22H21R8						

4. Option List

4.1 Option List of Controllers

Operation Control System Optional Accessories

No.	Item \ Type			FXC-L	FXF-L	FXK-L	FXD-P FXD-M	FXYD-KA	FXS-L	FXYB-K	FXM-L	FXH-L	FXA-L	FXL-L FXN-L
1	Remote controller	Wireless	C/O	BRC7C67	BRC7E65	BRC4C63	BRC4C64					BRC7E66	BRC7E619	BRC4C64
		Wired		BRC1C62										
2	Wired remote controller with weekly schedule timer			BRC1D61										
3	Simplified remote controller			—			Note 7 BRC2C51					—		Note 7 BRC2C51
4	Remote controller for hotel use			—			BRC3A61					—		BRC3A61
5	Adaptor for wiring			★KRP1B61	★KRP1B59	KRP1B61	★KRP1B56	KRP1B61				KRP1C3	—	KRP1B61
6-1	Wiring adaptor for electrical appendices (1)			★KRP2A61	★KRP2A62	KRP2A61	★KRP2A53	KRP2A61				★KRP2A62	★KRP2A61	KRP2A61
6-2	Wiring adaptor for electrical appendices (2)			★KRP4A51	★KRP4A53	KRP4A51	★KRP4A54	KRP4A51				★KRP4A52	★KRP4A51	KRP4A51
7	Remote sensor			KRCS01-1	—	KRCS01-1								
8	Installation box for adaptor PC board			Note 2, 3 KRP1B96	Note 2, 3 KRP1D98	—	Note 5, 6 KRP1B101	Note 4 KRP1B100	Note 4 KRP4A91	—		Note 3 KRP1C93	Note 2, 3 KRP4A93	—
9	Central remote controller			DCS302C61										
9-1	Electrical box with earth terminal (3 blocks)			KJB311A										
10	Unified on/off controller			DCS301B61										
10-1	Electrical box with earth terminal (2 blocks)			KJB212A										
10-2	Noise filter (for electromagnetic interface use only)			KEK26-1										
11	Schedule timer			DST301B61										
12	External control adaptor for outdoor unit (Must be installed on indoor units)			★ DTA104A61	★ DTA104A62	DTA104A61	★ DTA104A53	DTA104A61				★ DTA104A62	★ DTA104A61	DTA104A61

Note

1. Installation box (No.8) is necessary for each adaptor marked ★.
2. Up to 2 adaptors can be fixed for each installation box.
3. Only one installation box can be installed for each indoor unit.
4. Installation box (No. 8) is necessary for second adaptor.
5. Up to 2 installation boxes can be installed for each indoor unit.
6. Installation box ★ is necessary for each adaptor.
7. BRC2A51 is also available.

Various PC Boards

No.	Part name	Model No.	Function
1	Adaptor for wiring	KRP1B56 KRP1B57 KRP1B59 KRP1B61 KRP1C3	■ PC board when equipped with auxiliary electric heater in the indoor unit.
2	DIII-NET Expander Adaptor	DTA109A51	■ Up to 1,024 units can be centrally controlled in 64 different groups. ■ Wiring restrictions (max. length: 1,000 m, total wiring length: 2,000 m, max. number of branches: 16) apply to each adaptor.

System Configuration

No.	Part name	Model No.	Function
1	Central remote controller	DCS302CA61	■ Up to 64 groups of indoor units (128 units) can be connected, and ON/OFF, temperature setting and monitoring can be accomplished individually or simultaneously. Connectable up to "2" controllers in one system.
2	Unified ON/OFF controller	DCS301BA61	■ Up to 16 groups of indoor units (128 units) can be turned, ON/OFF individually or simultaneously, and operation and malfunction can be displayed. Can be used in combination with up to 8 controllers.
3	Schedule timer	DST301BA61	■ Programmed time weekly schedule can be controlled by unified control for up to 64 groups of indoor units (128 units). Can turn units ON/OFF twice per day.
4	Unification adaptor for computerized control	*DCS302A52	■ Interface between the central monitoring board and central control units
5	Interface adaptor for SkyAir-series	*DTA102A52	■ Adaptors required to connect products other than those of the VRV System to the high-speed DIII-NET communication system adopted for the VRV System. ■ To use any of the above optional controllers, an appropriate adaptor must be installed on the product unit to be controlled.
6	Central control adaptor kit	*DTA107A55	
7	Wiring adaptor for other air-conditioner	*DTA103A51	
8	DIII-NET Expander adaptor	DTA109A51	■ Up to 1,024 units can be centrally controlled in 64 different groups. ■ Wiring restrictions (max. length : 1,000m, total wiring length : 2,000m, max. number of branches : 16) apply to each adaptor.
9	Mounting plate	KRP4A92	■ Fixing plate for DTA109A51

Note:

Installation box for * adaptor must be procured on site.

Building Management System

No.	Part name				Model No.	Function
1	intelligent Touch Controller	basic	Hardware	intelligent Touch Controller	DCS601C51	• Air-Conditioning management system that can be controlled by a compact all-in-one unit.
1-1		Option	Hardware	DIII-NET plus adaptor	DCS601A52	• Additional 64 groups (10 outdoor units) is possible.
1-2			Software	P.P.D.	DCS002C51	• P.P.D.: Power Proportional Distribution function
1-3				Web	DCS004A51	• Monitors and controls the air conditioning system using the Internet and Web browser application on a PC.
1-4	Electrical box with earth terminal (4blocks)				KJB411A	• Wall embedded switch box.
2	intelligent Manager III	Number of units to be connected		128 units	DAM602B52	Air conditioner management system (featuring minimized engineering) that can be controlled by personal computers.
				256 units	DAM602B51	
				512 units	DAM602B51x2	
				768 units	DAM602B51x3	
				1024 units	DAM602B51x4	
2-1		Option	Software	P.P.D.	DAM002A51	• P.P.D.: Power Proportional Distribution function.
				ECO.	DAM003A51	Software for energy-saving control.
2-2	Communication Line	Optional DIII Ai unit			DAM101A51	Analog input for "sliding temperature" function (to reduce cold shock) for intelligent Manager III.
3		*2 Interface for use in BACnet®			DMS502A51	Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through BACnet® communications.
3-1		Optional DIII board			DAM411A1	Expansion kit, installed on DMS502A51, to provide 3 more DIII-NET communication ports. Not usable independently.
3-2		Optional Di board			DAM412A1	Expansion kit, installed on DMS502A51, to provide 16 more wattmeter pulse input points. Not usable independently.
4		*3 Interface for use in LonWorks®			DMS504B51	Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through LONWORKS® communication.
5	Contact/Analog signal	Parallel interface	Basic unit		DPF201A51	Enables ON/OFF command, operation and display of malfunction; can be used in combination with up to 4 units.
6			Temperature measurement units		DPF201A52	Enables temperature measurement output for 4 groups; 0-5VDC.
7			Temperature setting units		DPF201A53	Enables temperature setting input for 16 groups; 0-5VDC.
8		Unification adaptor for computerized control			DCS302A52	Interface between the central monitoring board and central control units
9-1		Wiring adaptor for electrical appendices (1)			KRP2A53, 61, 62	Simultaneously controls air-conditioning control computer and up to 64 groups of indoor units.
9-2		Wiring adaptor for electrical appendices (2)			KRP4A51-54	To control the group of indoor units collectively, which are connected by the transmission wiring of remote controller.
13		External control adaptor for outdoor unit (Must be installed on indoor units.)			DTA104A53, 61, 62	Cooling/Heating mode change over. Demand control and Low noise control are available between the plural outdoor units.

Note:

*1. PPD does not support Connection Unit Series.

*2. BACnet® is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

*3. LONWORKS® is a registered trade mark of Echelon Corporation.

4.2 Option Lists (Outdoor Unit)

RXM8, 10MY1

Optional accessories		RXM8MY1 RXM10MY1
Fixing box		KJB111A
Distributive Piping	Refnet header	KHRJ26K11H, KHRJ26K17H (MAX. 4 branch) (MAX. 8 branch) KHRJ26K18H, KHRJ26K37H (MAX. 6 branch) (MAX. 8 branch)
	Refnet joint	KHRJ26K11T, KHRJ26K17T KHRJ26K18T, KHRJ26K37T
Central drain pan kit		KWC26B280

C : 3D041582A

5. Selection of Pipe Size, Joints and Header

5.1 RXM8M, 10M

5.1.1 How to select the REFNET Joint

How to select the REFNET Joint

When using REFNET Joints at the first branch counted from the outdoor unit side. Choose from the following table in accordance with the capacity of the outdoor unit.

(Ex. : REFNET Joint A)

Outdoor Unit	REFNET Joints (Kit Name)
RXM8, 10 type	KHRJ26K37T

For REFNET Joints other than the first branch, select the proper ones based on the total capacity index of the indoor units installed after the first branch using the following table :

Total capacity index of indoor units	REFNET Joints (Kit Name)
<100	KHRJ26K11T
100≤x<160	KHRJ26K18T
160≤x<330	KHRJ26K37T

5.1.2 How to select pipe size

Between outdoor unit and uppermost stream REFNET Joint.

Pipe size connected to outdoor unit.

Outdoor Unit	Gas	Liquid
RXM8, 10MY1	ϕ28.6×1.2	ϕ12.7×0.8

5.1.3 How to select the REFNET header

Select the proper REFNET Header using the following table based on the total capacity index of indoor units installed after the header.

Total capacity index of indoor units	REFNET Header (Kit Name)
<100	KHRJ26K11H
100≤x<160	KHRJ26K18H
160≤x<330	KHRJ26K37H

5.1.4 Piping between the REFNET Joints

Select the proper pipe size using the following table based on the total capacity index of indoor units connected downstream.
Connection piping size should not exceed the refrigerant piping size selected by "the model with combination units".

Total capacity index	Liquid	Gas
<100	ϕ9.5	ϕ15.9
100≤x<160	ϕ9.5	ϕ19.1
160≤x<330	ϕ12.7	ϕ25.4

5.1.5 Piping between the REFNET Joints and indoor unit

Pipe size for direct connection to indoor unit must be the same as the connection size of indoor unit.
Connection pipe size of indoor unit.

Total capacity index	Liquid	Gas
20, 25, 32, 40	ϕ6.4	ϕ12.7
50, 63, 80	ϕ9.5	ϕ15.9
100, 125	ϕ9.5	ϕ19.1
200	ϕ12.7	ϕ25.4
250	ϕ12.7	ϕ28.6

5.1.6 The piping minimum thickness

* Select the wall thickness in accordance with revelant local and national regulations.

	R-22	
Size	Material	Minimum thickness t (mm)
ϕ6.4	O	0.80
ϕ9.5	O	0.80
ϕ12.7	O	0.80
ϕ15.9	O	0.99
ϕ19.1	O	0.80
ϕ22.2	1/2H	0.80
ϕ25.4	1/2H	0.88
ϕ28.6	1/2H	0.99
ϕ31.8	1/2H	1.10
ϕ34.9	1/2H	1.21
ϕ38.1	1/2H	1.32
ϕ41.3	1/2H	1.43

6. Thermistor Resistance / Temperature Characteristics

Indoor unit	For air suction	R1T
	For liquid pipe	R2T
	For gas pipe	R3T
Outdoor unit	For outdoor air	R1T
	For coil	R2T
	For suction pipe	R4T
	For Receiver gas pipe	R5T
	For oil	R7T

(kΩ)

T°C	0.0	0.5	T°C	0.0	0.5
-20	197.81	192.08	30	16.10	15.76
-19	186.53	181.16	31	15.43	15.10
-18	175.97	170.94	32	14.79	14.48
-17	166.07	161.36	33	14.18	13.88
-16	156.80	152.38	34	13.59	13.31
-15	148.10	143.96	35	13.04	12.77
-14	139.94	136.05	36	12.51	12.25
-13	132.28	128.63	37	12.01	11.76
-12	125.09	121.66	38	11.52	11.29
-11	118.34	115.12	39	11.06	10.84
-10	111.99	108.96	40	10.63	10.41
-9	106.03	103.18	41	10.21	10.00
-8	100.41	97.73	42	9.81	9.61
-7	95.14	92.61	43	9.42	9.24
-6	90.17	87.79	44	9.06	8.88
-5	85.49	83.25	45	8.71	8.54
-4	81.08	78.97	46	8.37	8.21
-3	76.93	74.94	47	8.05	7.90
-2	73.01	71.14	48	7.75	7.60
-1	69.32	67.56	49	7.46	7.31
0	65.84	64.17	50	7.18	7.04
1	62.54	60.96	51	6.91	6.78
2	59.43	57.94	52	6.65	6.53
3	56.49	55.08	53	6.41	6.53
4	53.71	52.38	54	6.65	6.53
5	51.09	49.83	55	6.41	6.53
6	48.61	47.42	56	6.18	6.06
7	46.26	45.14	57	5.95	5.84
8	44.05	42.98	58	5.74	5.43
9	41.95	40.94	59	5.14	5.05
10	39.96	39.01	60	4.96	4.87
11	38.08	37.18	61	4.79	4.70
12	36.30	35.45	62	4.62	4.54
13	34.62	33.81	63	4.46	4.38
14	33.02	32.25	64	4.30	4.23
15	31.50	30.77	65	4.16	4.08
16	30.06	29.37	66	4.01	3.94
17	28.70	28.05	67	3.88	3.81
18	27.41	26.78	68	3.75	3.68
19	26.18	25.59	69	3.62	3.56
20	25.01	24.45	70	3.50	3.44
21	23.91	23.37	71	3.38	3.32
22	22.85	22.35	72	3.27	3.21
23	21.85	21.37	73	3.16	3.11
24	20.90	20.45	74	3.06	3.01
25	20.00	19.56	75	2.96	2.91
26	19.14	18.73	76	2.86	2.82
27	18.32	17.93	77	2.77	2.72
28	17.54	17.17	78	2.68	2.64
29	16.80	16.45	79	2.60	2.55
30	16.10	15.76	80	2.51	2.47

Outdoor Unit Thermistors for Discharge Pipe (R3T)

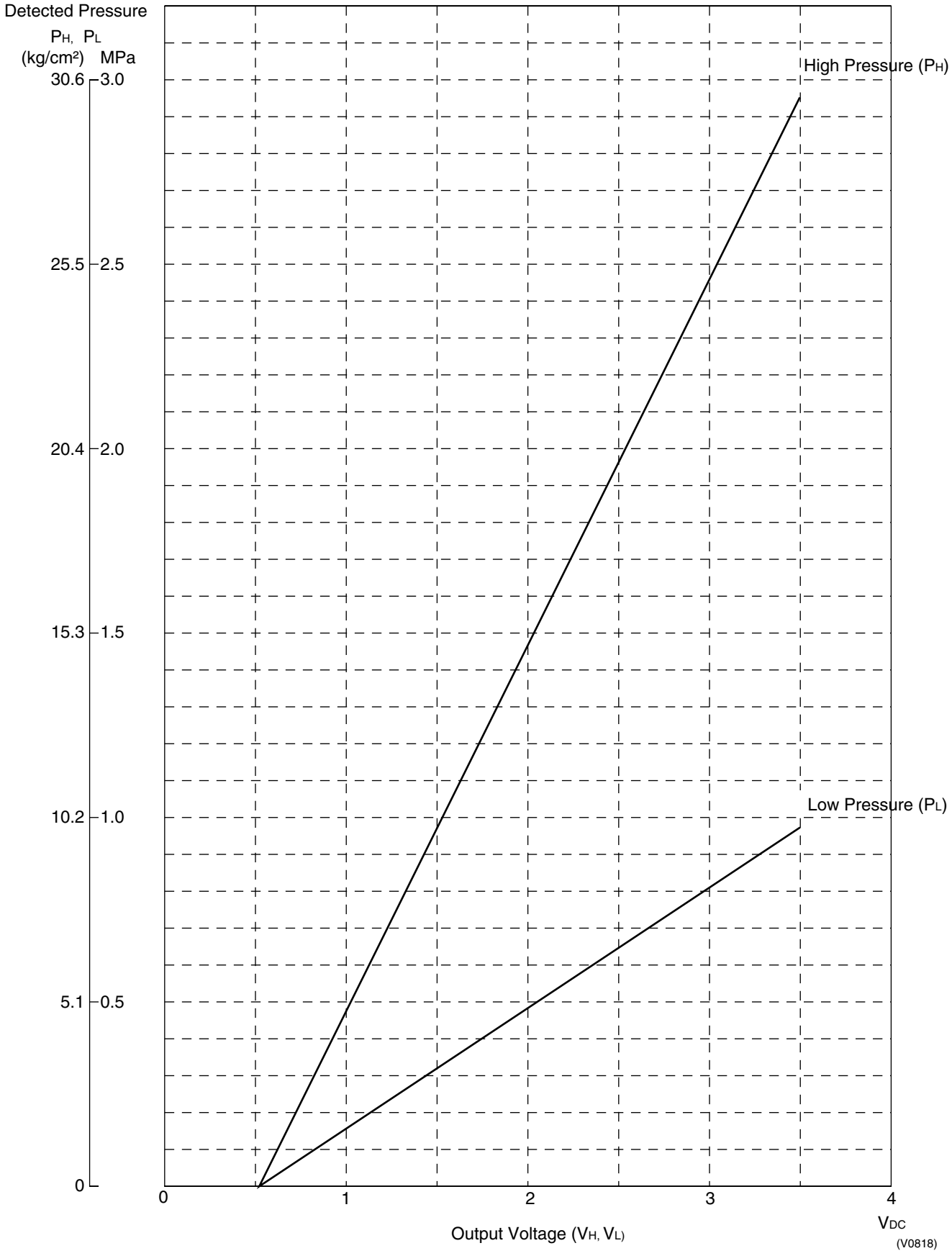
(kΩ))

T°C	0.0	0.5	T°C	0.0	0.5	T°C	0.0	0.5
0	640.44	624.65	50	72.32	70.96	100	13.35	13.15
1	609.31	594.43	51	69.64	68.34	101	12.95	12.76
2	579.96	565.78	52	67.06	65.82	102	12.57	12.38
3	552.00	538.63	53	64.60	63.41	103	12.20	12.01
4	525.63	512.97	54	62.24	61.09	104	11.84	11.66
5	500.66	488.67	55	59.97	58.87	105	11.49	11.32
6	477.01	465.65	56	57.80	56.75	106	11.15	10.99
7	454.60	443.84	57	55.72	54.70	107	10.83	10.67
8	433.37	423.17	58	53.72	52.84	108	10.52	10.36
9	413.24	403.57	59	51.98	50.96	109	10.21	10.06
10	394.16	384.98	60	49.96	49.06	110	9.92	9.78
11	376.05	367.35	61	48.19	47.33	111	9.64	9.50
12	358.88	350.62	62	46.49	45.67	112	9.36	9.23
13	342.58	334.74	63	44.86	44.07	113	9.10	8.97
14	327.10	319.66	64	43.30	42.54	114	8.84	8.71
15	312.41	305.33	65	41.79	41.06	115	8.59	8.47
16	298.45	291.73	66	40.35	39.65	116	8.35	8.23
17	285.18	278.80	67	38.96	38.29	117	8.12	8.01
18	272.58	266.51	68	37.63	36.98	118	7.89	7.78
19	260.60	254.72	69	36.34	35.72	119	7.68	7.57
20	249.00	243.61	70	35.11	34.51	120	7.47	7.36
21	238.36	233.14	71	33.92	33.35	121	7.26	7.16
22	228.05	223.08	72	32.78	32.23	122	7.06	6.97
23	218.24	213.51	73	31.69	31.15	123	6.87	6.78
24	208.90	204.39	74	30.63	30.12	124	6.69	6.59
25	200.00	195.71	75	29.61	29.12	125	6.51	6.42
26	191.53	187.44	76	28.64	28.16	126	6.33	6.25
27	183.46	179.57	77	27.69	27.24	127	6.16	6.08
28	175.77	172.06	78	26.79	26.35	128	6.00	5.92
29	168.44	164.90	79	25.91	25.49	129	5.84	5.76
30	161.45	158.08	80	25.07	24.66	130	5.69	5.61
31	154.79	151.57	81	24.26	23.87	131	5.54	5.46
32	148.43	145.37	82	23.48	23.10	132	5.39	5.32
33	142.37	139.44	83	22.73	22.36	133	5.25	5.18
34	136.59	133.79	84	22.01	21.65	134	5.12	5.05
35	131.06	128.39	85	21.31	20.97	135	4.98	4.92
36	125.79	123.24	86	20.63	20.31	136	4.86	4.79
37	120.76	118.32	87	19.98	19.67	137	4.73	4.67
38	115.95	113.62	88	19.36	19.05	138	4.61	4.55
39	111.35	109.13	89	18.75	18.46	139	4.49	4.44
40	106.96	104.84	90	18.17	17.89	140	4.38	4.32
41	102.76	100.73	91	17.61	17.34	141	4.27	4.22
42	98.75	96.81	92	17.07	16.80	142	4.16	4.11
43	94.92	93.06	93	16.54	16.29	143	4.06	4.01
44	91.25	89.47	94	16.04	15.79	144	3.96	3.91
45	87.74	86.04	95	15.55	15.31	145	3.86	3.81
46	84.38	82.75	96	15.08	14.85	146	3.76	3.72
47	81.16	79.61	97	14.62	14.40	147	3.67	3.62
48	78.09	76.60	98	14.18	13.97	148	3.58	3.54
49	75.14	73.71	99	13.76	13.55	149	3.49	3.45
50	72.32	70.96	100	13.35	13.15	150	3.41	3.37

7. Pressure Sensor

High Pressure $P_H=(V_H-0.5)\times 0.98$
Low Pressure $P_L=(V_L-0.5)\times \frac{0.98}{3}$

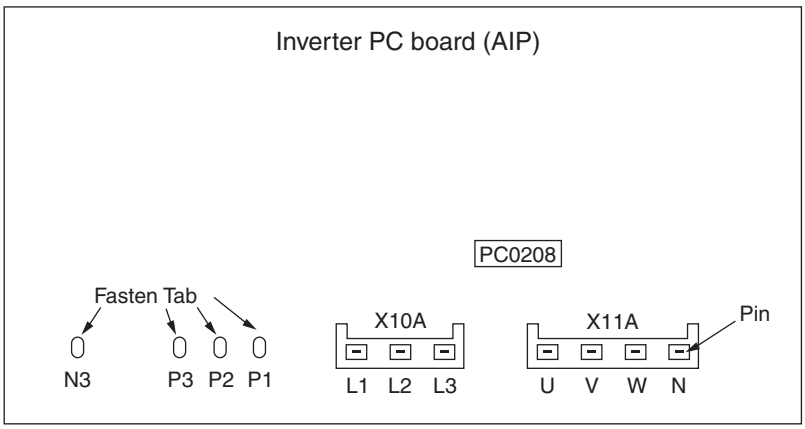
P_H : Detected Pressure [High Side] MPa
P_L : Detected Pressure [Low Side] MPa
V_H : Output Voltage [High Side] V_{DC}
V_L : Output Voltage [Low Side] V_{DC}



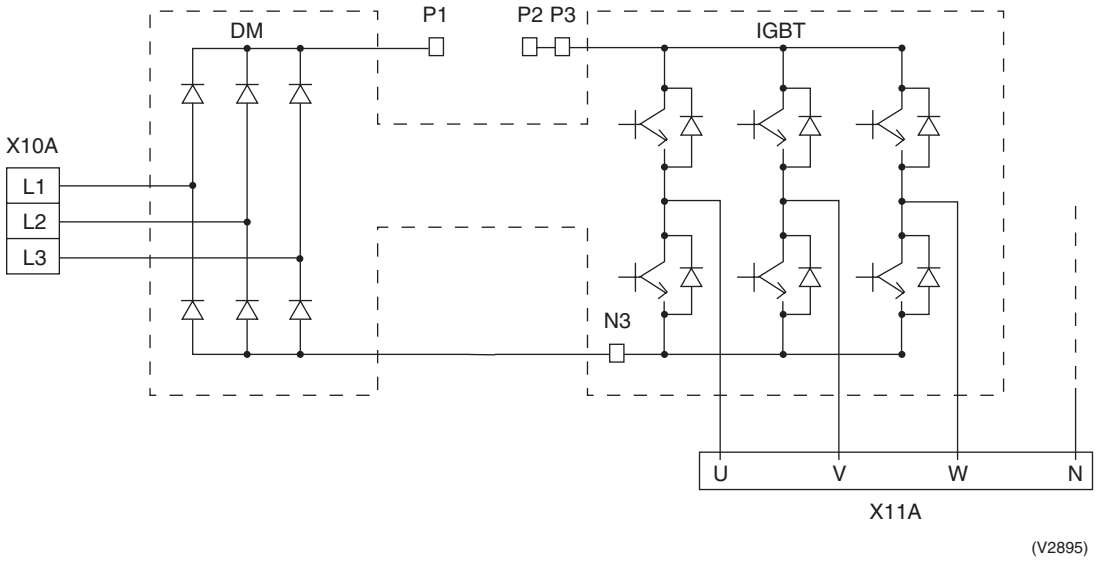
8. Method of Replacing the Inverter's Power Transistors and Diode Modules

8.1 Method of Replacing the Inverter's Power Transistors and Diode Modules

Inverter PC board



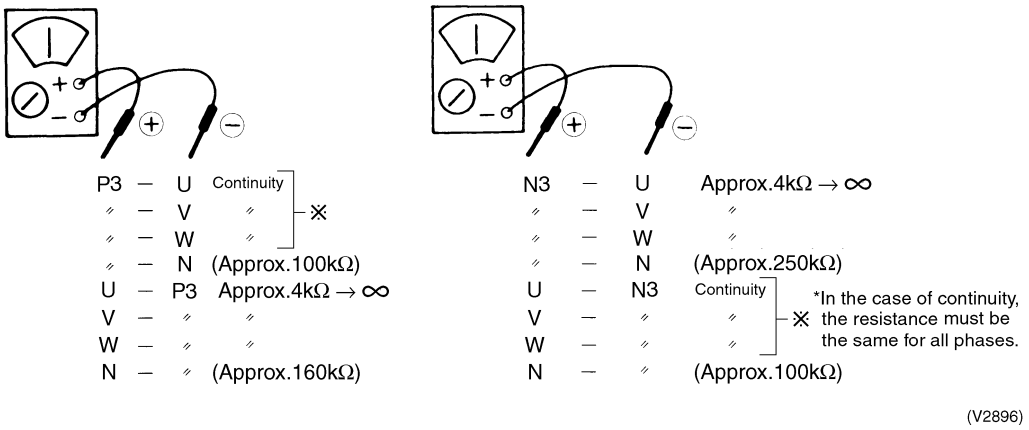
Electronic circuit



[Decision according to continuity check by analog tester]

■ Before checking, disconnect the electric wiring connected to the power transistor and diode module.

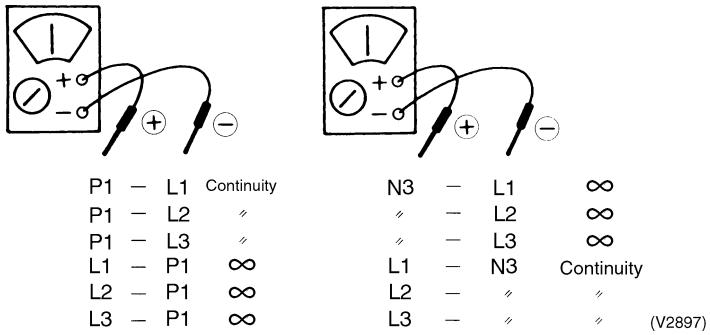
Power Transistor IGBT (On Inverter PC board)



(Decision)
If other than given above, the power unit is defective and must be replaced.

Note: If using a digital tester, ∞ and continuity may be reversed.

Diode Module



(Decision)
If other than given above, the diode module is defective and must be replaced.

Note: If using a digital tester, ∞ and continuity may be reversed.

Index

M

O

P

R

S

T

U

Drawings & Flow Charts

O

P

R

S

T

U

W

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

DAIKIN INDUSTRIES, LTD.
Head Office:
Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo Office:
JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan

http://www.daikin.com/global_ac/

• Specifications, designs and other content appearing in this brochure are current as of January 2007 but subject to change without notice.

This book is made of recycled paper.

Printed in Singapore 01/2007 COS