



Si38-304

# Service Manual



## R22 Heat Pump / Cooling Only



Большая библиотека технической документации

<https://splitsystema48.ru/instrukcii-po-ekspluatácii-kondicionerov.html>

каталоги, инструкции, сервисные мануалы, схемы.

# VRV II R22 Heat Pump / Cooling Only

<b>R22 Heat Pump / Cooling Only .....</b>	<b>i</b>
1. Introduction .....	vi
1.1 Safety Cautions .....	vi
1.2 PREFACE .....	x
<b>Part 1 General Information .....</b>	<b>1</b>
1. Model Names of Indoor/Outdoor Units.....	2
2. External Appearance.....	3
2.1 Indoor Units .....	3
2.2 Outdoor Units .....	4
3. Combination of Outdoor Units.....	5
4. Capacity Range.....	6
<b>Part 2 Specifications .....</b>	<b>7</b>
1. Specifications .....	8
1.1 Outdoor Units .....	8
1.2 Indoor Units .....	41
<b>Part 3 Refrigerant Circuit .....</b>	<b>63</b>
1. Refrigerant Circuit .....	64
1.1 RXY5M.....	64
1.2 RXY8, 10, 12M.....	66
1.3 RXY14, 16M.....	68
2. Functional Parts Layout .....	70
2.1 RXY5M.....	70
2.2 RXY8, 10, 12M.....	71
2.3 RXY14, 16M.....	72
3. Refrigerant Flow for Each Operation Mode.....	73
<b>Part 4 Function.....</b>	<b>85</b>
1. Operation Mode .....	86
2. Basic Control.....	87
2.1 Normal Operation .....	87
2.2 Compressor PI Control.....	88
2.3 Electronic Expansion Valve PI Control.....	94
2.4 Cooling Operation Fan Control.....	95
3. Special Control .....	96
3.1 Startup Control .....	96
3.2 Oil Return Operation .....	97

3.3	Defrosting Operation .....	99
3.4	Pump-down Residual Operation .....	100
3.5	Restart Standby.....	101
3.6	Stopping Operation .....	102
3.7	Pressure Equalization prior to Startup.....	104
4.	Protection Control .....	105
4.1	High Pressure Protection Control.....	105
4.2	Low Pressure Protection Control.....	106
4.3	Discharge Pipe Protection Control .....	107
4.4	Inverter Protection Control .....	108
4.5	STD Compressor Overload Protection.....	109
4.6	Crankcase Heater Control.....	109
5.	Other Control.....	110
5.1	Outdoor Unit Rotation.....	110
5.2	Emergency Operation .....	111
5.3	Demand Operation .....	113
5.4	Heating operation prohibition .....	113
6.	Outline of Control (Indoor Unit) .....	114
6.1	Drain Pump Control.....	114
6.2	Louver Control for Preventing Ceiling Dirt.....	116
6.3	Thermostat Sensor in Remote Controller.....	117
6.4	Freeze Prevention .....	119

## **Part 5 Test Operation ..... 121**

1.	Test Operation .....	122
1.1	Procedure and Outline .....	122
1.2	Operation When Power is Turned On .....	125
2.	Outdoor Unit PC Board Layout .....	126
3.	Field Setting .....	127
3.1	Field Setting from Remote Controller .....	127
3.2	Field Setting from Outdoor Unit.....	139

## **Part 6 Troubleshooting ..... 163**

1.	Troubleshooting by Remote Controller .....	165
1.1	The INSPECTION / TEST Button.....	165
1.2	Self-diagnosis by Wired Remote Controller .....	166
1.3	Self-diagnosis by Wireless Remote Controller .....	167
1.4	Operation of The Remote Controller's Inspection / Test Operation Button .....	170
1.5	Remote Controller Service Mode .....	171
1.6	Remote Controller Self-Diagnosis Function .....	173
2.	Troubleshooting by Indication on the Remote Controller .....	178
2.1	"R0" Indoor Unit: Error of External Protection Device .....	178
2.2	"R1" Indoor Unit: PC Board Defect.....	179
2.3	"R3" Indoor Unit: Malfunction of Drain Level Control System (33H).....	180
2.4	"R5" Indoor Unit: Fan Motor (M1F) Lock, Overload.....	182
2.5	"R7" Indoor Unit: Malfunction of Swing Flap Motor (MA) .....	183
2.6	"R9" Indoor Unit: Malfunction of Moving Part of Electronic Expansion Valve (20E) .....	185
2.7	"RF" Indoor Unit: Drain Level above Limit.....	187

2.8	"R <sub>1</sub> " Indoor Unit: Malfunction of Capacity Determination Device .....	188
2.9	"C <sub>1</sub> " Indoor Unit: Malfunction of Thermistor (R2T) for Heat Exchanger .....	189
2.10	"C <sub>5</sub> " Indoor Unit: Malfunction of Thermistor (R3T) for Gas Pipes.....	190
2.11	"C <sub>9</sub> " Indoor Unit: Malfunction of Thermistor (R1T) for Suction Air.....	191
2.12	"C <sub>1</sub> " Indoor Unit: Malfunction of Thermostat Sensor in Remote Controller .....	192
2.13	"E <sub>1</sub> " Outdoor Unit: PC Board Defect .....	193
2.14	"E <sub>3</sub> " Outdoor Unit: Actuation of High Pressure Switch .....	194
2.15	"E <sub>4</sub> " Outdoor Unit: Actuation of Low Pressure Sensor .....	195
2.16	"E <sub>5</sub> " Compressor Motor Lock .....	196
2.17	"E <sub>6</sub> " Standard Compressor Motor Overcurrent/Lock.....	197
2.18	"E <sub>7</sub> " Malfunction of Outdoor Unit Fan Motor.....	198
2.19	"E <sub>9</sub> " Outdoor Unit: Malfunction of Moving Part of Electronic Expansion Valve (Y1E, Y2E).....	200
2.20	"F <sub>3</sub> " Outdoor Unit: Abnormal Discharge Pipe Temperature .....	202
2.21	"F <sub>6</sub> " Refrigerant Overcharged .....	203
2.22	"H <sub>1</sub> " Abnormal Outdoor Fan Motor Signal .....	204
2.23	"H <sub>9</sub> " Outdoor Unit: Malfunction of Thermistor for Outdoor Air (R1T).....	205
2.24	"J <sub>2</sub> " Current Sensor Malfunction.....	206
2.25	"J <sub>3</sub> " Outdoor Unit: Malfunction of Discharge Pipe Thermistor (R31~33T) .....	207
2.26	"J <sub>5</sub> " Outdoor Unit: Malfunction of Thermistor (R2T) for Suction Pipe ...	208
2.27	"J <sub>6</sub> " Outdoor Unit: Malfunction of Thermistor (R4T) for Outdoor Unit Heat Exchanger .....	209
2.28	"J <sub>9</sub> " Malfunction of Receiver Gas Pipe Thermistor (R5T).....	210
2.29	"J <sub>R</sub> " Outdoor Unit: Malfunction of High Pressure Sensor.....	211
2.30	"J <sub>L</sub> " Outdoor Unit: Malfunction of Low Pressure Sensor.....	212
2.31	"L <sub>1</sub> " Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise.....	213
2.32	"L <sub>5</sub> " Outdoor Unit: Inverter Compressor Abnormal .....	214
2.33	"L <sub>8</sub> " Outdoor Unit: Inverter Current Abnormal.....	215
2.34	"L <sub>9</sub> " Outdoor Unit: Inverter Start up Error.....	216
2.35	"L <sub>L</sub> " Outdoor Unit: Malfunction of Transmission Between Inverter and Control PC Board .....	217
2.36	"P <sub>1</sub> " Outdoor Unit: Inverter Over-Ripple Protection .....	219
2.37	"P <sub>4</sub> " Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise Sensor .....	220
2.38	"U <sub>0</sub> " Low Pressure Drop Due to Refrigerant Shortage or Electronic Expansion Valve Failure.....	221
2.39	"U <sub>1</sub> " Reverse Phase, Open Phase.....	222
2.40	"U <sub>2</sub> " Power Supply Insufficient or Instantaneous Failure .....	223
2.41	"U <sub>3</sub> " Check Operation not executed .....	225
2.42	"U <sub>4</sub> " Malfunction of Transmission Between Indoor Units .....	226
2.43	"U <sub>5</sub> " Malfunction of Transmission Between Remote Controller and Indoor Unit.....	228
2.44	"U <sub>7</sub> " Malfunction of Transmission Between Outdoor Units.....	229
2.45	"U <sub>8</sub> " Malfunction of Transmission Between Master and Slave Remote Controllers .....	231
2.46	"U <sub>9</sub> " Malfunction of Transmission Between Indoor and Outdoor Units in the Same System .....	232
2.47	"U <sub>R</sub> " Excessive Number of Indoor Units .....	234

2.48	“UC” Address Duplication of Central Remote Controller .....	235
2.49	“UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit.....	236
2.50	“UF” Refrigerant System not Set, Incompatible Wiring/Piping .....	238
2.51	“UH” Malfunction of System, Refrigerant System Address Undefined... ..	239
3.	Troubleshooting (OP: Central Remote Controller) .....	240
3.1	“UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit.....	240
3.2	“U1” PC Board Defect .....	241
3.3	“UB” Malfunction of Transmission Between Optional Controllers for Centralized Control .....	242
3.4	“UR” Improper Combination of Optional Controllers for Centralized Control.....	243
3.5	“UC” Address Duplication, Improper Setting .....	245
4.	Troubleshooting (OP: Schedule Timer).....	246
4.1	“UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit.....	246
4.2	“U1” PC Board Defect .....	248
4.3	“UB” Malfunction of Transmission Between Optional Controllers for Centralized Control.....	249
4.4	“UR” Improper Combination of Optional Controllers for Centralized Control.....	250
4.5	“UC” Address Duplication, Improper Setting .....	252
5.	Troubleshooting (OP: Unified ON/OFF Controller) .....	253
5.1	Operation Lamp Blinks .....	253
5.2	Display “Under Host Computer Integrate Control” Blinks (Repeats Single Blink) .....	255
5.3	Display “Under Host Computer Integrate Control” Blinks (Repeats Double Blink) .....	258

## **Part 7 Replacement procedure for INV compressor, VRV II RX(Y)5M to 48M ..... 261**

1.	Replacement procedure for INV compressor, VRV II RX(Y)5M-48M.....	262
1.1	Replacement procedure .....	262

## **Part 8 Appendix..... 263**

1.	Piping Diagrams.....	264
1.1	Outdoor Unit.....	264
1.2	Indoor Unit.....	270
2.	Wiring Diagrams for Reference .....	271
2.1	Outdoor Unit.....	271
2.2	Field Wiring .....	280
2.3	Indoor Unit.....	286
3.	List of Electrical and Functional Parts .....	298
3.1	Outdoor Unit.....	298
3.2	Indoor Side.....	306
4.	Option List .....	311
4.1	Option List of Controllers.....	311

4.2	Option Lists (Outdoor Unit).....	313
5.	Piping Installation Point.....	314
5.1	Piping Installation Point.....	314
5.2	The Example of A Wrong Pattern.....	315
6.	Selection of Pipe Size, Joints and Header.....	316
6.1	RXY5MY1, RXY8MY1, RXY10MY1, RXY12MY1, RXY14MY1, RXY16MY1.....	316
6.2	RXY18MY1, RXY20MY1, RXY22MY1, RXY24MY1, RXY26MY1, RXY28MY1, RXY30MY1, RXY32MY1, RXY34MY1, RXY36MY1, RXY38MY1, RXY40MY1, RXY42MY1, RXY44MY1, RXY46MY1, RXY48MY1.....	318
7.	Thermistor Resistance / Temperature Characteristics.....	321
8.	Pressure Sensor .....	323
9.	Method of Replacing The Inverter's Power Transistors and Diode Modules .....	324





**Index** ..... **i**

**Drawings & Flow Charts** ..... **v**







# 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




 <b>Warning</b>	
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 shock. 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.	



 <b>Caution</b>	
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





 <b>Warning</b>	
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.	





 <b>Warning</b>	
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.	

 <b>Caution</b>	
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





 <b>Warning</b>	
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.	

 <b>Caution</b>	
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, lose 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 2003 VRVII series Heat Pump / 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 series Heat Pump / Cooling Only System.

July, 2003

After Sales Service Division

# Part 1

## General Information

1. Model Names of Indoor/Outdoor Units.....	2
2. External Appearance.....	3
2.1 Indoor Units.....	3
2.2 Outdoor Units.....	4
3. Combination of Outdoor Units.....	5
4. Capacity Range.....	6

# 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	—	—	—	—	—	
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	—	—	—	—	—	

VE: 1φ, 220V~240V, 50Hz  
 1φ, 220V, 60Hz  
 V1: 1φ, 220V~240V, 50Hz

## Outdoor Units (Inverter Series)

Series	Model Name												Power Supply
Heat Pump	RXY	5M	8M	10M	12M	14M	16M	18M	20M	22M	24M	26M	Y1 (E) TL (E) YL (E)
Cooling Only	RX	5M	8M	10M	12M	14M	16M	18M	20M	22M	24M	26M	Y1 (E)

Series	Model Name												Power Supply
Heat Pump	RXY	28M	30M	32M	34M	36M	38M	40M	42M	44M	46M	48M	Y1 (E) TL (E) YL (E)
Cooling Only	RX	28M	30M	32M	34M	36M	38M	40M	42M	44M	46M	48M	Y1 (E)






Y1: 3φ, 380~415V, 50Hz  
 TL: 3φ, 220V, 60Hz  
 YL: 3φ, 380V, 60Hz  
 E: The unit with anti corrosion treatment

## 2. External Appearance

### 2.1 Indoor Units

<p>Ceiling mounted cassette type (Double flow)</p> <p>FXC20L FXC25L FXC32L FXC40L FXC50L FXC63L FXC80L FXC125L</p> 	<p>Ceiling mounted duct type</p> <p>FXM40L FXM50L FXM63L FXM80L FXM100L FXM125L FXM200L FXM250L</p>  <p>FXM40~125L</p>  <p>FXM200 · 250L</p>
<p>Ceiling mounted cassette type (Multi flow)</p> <p>FXF25L FXF32L FXF40L FXF50L FXF63L FXF80L FXF100L FXF125L</p> 	<p>Ceiling suspended type</p> <p>FXH32L FXH63L FXH100L</p> 
<p>Ceiling mounted cassette corner type</p> <p>FXK25L FXK32L FXK40L FXK63L</p> 	<p>Wall mounted type</p> <p>FXA20L FXA25L FXA32L FXA40L FXA50L FXA63L</p> 
<p>Ceiling mounted low silhouette duct type</p> <p>FXD20KA FXD25KA FXD32KA FXD40KA FXD50KA FXD63KA</p> 	<p>Floor standing type</p> <p>FXL20L FXL25L FXL32L FXL40L FXL50L FXL63L</p> 
<p>Ceiling mounted built-in type</p> <p>FXS20L FXS25L FXS32L FXS40L FXS50L FXS63L FXS80L FXS100L FXS125L</p> 	<p>Concealed floor standing type</p> <p>FXN20L FXN25L FXN32L FXN40L FXN50L FXN63L</p> 
<p>Ceiling mounted built-in type -rear suction type -</p> <p>FXB20K FXB25K FXB32K FXB40K FXB50K FXB63K FXB80K FXB100K FXB125K</p> 	

## 2.2 Outdoor Units

<p style="text-align: center;"><b>RX (Y) 5M</b></p>  <p style="text-align: center;">5HP</p>	<p style="text-align: center;"><b>RX (Y) 8M,10M</b></p>  <p style="text-align: center;">8,10HP</p>	<p style="text-align: center;"><b>RX (Y) 12M,14M,16M</b></p>  <p style="text-align: center;">12,14,16HP</p>
<p style="text-align: center;"><b>RX (Y) 18M, 20M</b></p>  <p style="text-align: center;">18, 20HP</p>	<p style="text-align: center;"><b>RX (Y) 22M, 24M, 26M</b></p>  <p style="text-align: center;">22, 24, 26HP</p>	
<p style="text-align: center;"><b>RX (Y) 28M, 30M, 32M</b></p>  <p style="text-align: center;">28, 30, 32HP</p>	<p style="text-align: center;"><b>RX (Y) 34M, 36M</b></p>  <p style="text-align: center;">34, 36HP</p>	
<p style="text-align: center;"><b>RX (Y) 38M, 40M, 42M</b></p>  <p style="text-align: center;">38, 40, 42HP</p>	<p style="text-align: center;"><b>RX (Y) 44M, 46M, 48M</b></p>  <p style="text-align: center;">44, 46, 48HP</p>	

### 3. Combination of Outdoor Units

System Capacity	Number of units	Module					
		5	8	10	12	14	16
5HP	1	●					
8HP	1		●				
10HP	1			●			
12HP	1				●		
14HP	1					●	
16HP	1						●
18HP	2		●	●			
20HP	2			●●			
22HP	2			●	●		
24HP	2			●		●	
26HP	2			●			●
28HP	2				●		●
30HP	2					●	●
32HP	2						●●
34HP	3			●●		●	
36HP	3			●●			●
38HP	3			●	●		●
40HP	3			●		●	●
42HP	3			●			●●
44HP	3				●		●●
46HP	3					●	●●
48HP	3						●●●

\* Up to a maximum 48HP are realized by combining 8, 10, 12, 14 and 16HP.



## 4. Capacity Range

### Outdoor Units

Capacity Range	5HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP
RX (Y)	5M	8M	10M	12M	14M	16M	18M	20M	22M	24M	26M
No of Indoor Units to be Connected	8	13	16	20				22	32		
Total Capacity Index of Indoor Units to be Connected	62.5 ~ 162.5	100 ~ 260	125 ~ 325	150 ~ 390	175 ~ 455	200 ~ 520	225 ~ 585	250 ~ 650	275 ~ 715	300 ~ 780	325 ~ 845

Capacity Range	28HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP	44HP	46HP	48HP
RX (Y)	28M	30M	32M	34M	36M	38M	40M	42M	44M	46M	48M
No of Indoor Units to be Connected	32			34	36	38	40				
Total Capacity Index of Indoor Units to be Connected	350 ~ 910	375 ~ 975	400 ~ 1040	425 ~ 1105	450 ~ 1170	475 ~ 1235	500 ~ 1300	525 ~ 1365	550 ~ 1430	575 ~ 1495	600 ~ 1560

### Indoor Units

Capacity Range	0.8 HP	1 HP	1.25 HP	1.6 HP	2 HP	2.5 HP	3 HP	3.2 HP	4 HP	5 HP	8 HP	10 HP	
Capacity Index	20	25	31.25	40	50	62.5	71	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	—	—	—	—	—	—
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 .....	8
1.1 Outdoor Units .....	8
1.2 Indoor Units .....	41

# 1. Specifications

## 1.1 Outdoor Units

### 1.1.1 Heat Pump 50Hz <RXY-M>

Model Name			RXY5MY1(E)	RXY8MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		12,500	22,400
	Btu / h		49,200	88,800
	kW		14.4	26.0
★2 Cooling Capacity (19.0°CWB)	kW		14.0	25.2
★3 Heating Capacity	kcal / h		13,800	21,500
	Btu / h		54,600	85,400
	kW		16.0	25.0
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm		1600×635×765	1600×930×765
Heat Exchanger			Cross Fin Coil	Cross Fin Coil
Comp.	Type		Hermetically Sealed Scroll Type	
	Piston Displacement	m³/h	19.36	19.36+14.68
	Number of Revolutions	r.p.m	6480	6480, 2900
	Motor Output×Number of Units	kW	3.5×1	(1.2+4.5)×1
	Starting Method		Direct on Line	
Fan	Type		Propeller Fan	
	Motor Output	kW	0.35×1	0.75×1
	Air Flow Rate	m³/min	75	175
	Drive		Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ9.5 (Flare Connection)	φ12.7 (Brazing Connection)
	Gas Pipe	mm	φ19.1 (Brazing Connection)	φ28.6 (Brazing Connection)
	Oil Equalizing Pipe	mm	—	—
Machine Weight	kg		160	235
Safety Devices			High Pressure Switch, Fan Driver Overload Protector, Inverter Overload Protector, Fusible Plugs	High Pressure Switch, Fan Driver Overload Protector, Over Current Relay, Inverter Overload Protector, Fusible Plugs
Defrost Method			Deicer	Deicer
Capacity Control	%		24~100	14~100
Refrigerant	Refrigerant Name		R22	
	Charge	kg	8.5	13.1
	Control		Electronic Expansion Valve	
Refrigerator Oil			SUNISO 4GSDID-K	
	Charge Volume	L	1.2	1.9+1.6
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D038970	4D038971A

- 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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name		RXY10MY1(E)	RXY12MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	25,000	30,000
	Btu / h	98,700	118,000
	kW	28.9	34.5
★2 Cooling Capacity (19.0°CWB)	kW	28.0	33.5
★3 Heating Capacity	kcal / h	27,000	30,000
	Btu / h	108,000	118,000
	kW	31.5	34.7
Casing Color	Y1	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
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	
	Piston Displacement	m <sup>3</sup> /h	19.36+14.68
	Number of Revolutions	r.p.m	6480, 2900
	Motor Output×Number of Units	kW	(2.75+4.5)×1
	Starting Method		Direct on Line
Fan	Type	Propeller Fan	
	Motor Output	kW	0.75×1
	Air Flow Rate	m <sup>3</sup> /min	180
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ12.7 (Brazing Connection)
	Gas Pipe	mm	φ28.6 (Brazing Connection)
	Oil Equalizing Pipe	mm	—
Machine Weight	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
Defrost Method		Deicer	Deicer
Capacity Control	%	14~100	14~100
Refrigerant	Refrigerant Name	R22	
	Charge	kg	13.9
	Control		Electronic Expansion Valve
Refrigerator Oil		SUNISO 4GSDID-K	
	Charge Volume	L	1.9+1.6
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.		4D038972A	4D038973A

- 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.

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

Model Name			RXY14MY1(E)	RXY16MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		35,500	40,000
	Btu / h		141,000	158,000
	kW		41.2	46.4
★2 Cooling Capacity (19.0°CWB)	kW		40.0	45.0
★3 Heating Capacity	kcal / h		35,500	40,000
	Btu / h		142,000	154,000
	kW		41.5	45.0
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm		1600×1240×765	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+14.68	19.36+14.68+14.68
	Number of Revolutions	r.p.m	6480, 2900×2	6480, 2900×2
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)×1	(3.0+4.5+4.5)×1
	Starting Method		Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×1	0.75×1
	Air Flow Rate	m³/min	210	210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ15.9 (Brazing Connection)	φ15.9 (Brazing Connection)
	Gas Pipe	mm	φ34.9 (Brazing Connection)	φ34.9 (Brazing Connection)
	Oil Equalizing Pipe	mm	—	—
Machine Weight	kg		331	333
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
Defrost Method			Deicer	Deicer
Capacity Control	%		10~100	10~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	17.1	18.6
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K	SUNISO 4GSDID-K
	Charge Volume	L	1.9+1.6+1.6	1.9+1.6+1.6
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D038974A	4D038975A

- 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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)			RXY18MY1(E)	RXY20MY1(E)
Model Name (Independent Unit)			RXY8MY1(E)+RXY10MY1(E)	RXY10MY1(E)+RXY10MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		47,400	50,000
	Btu / h		188,000	197,000
	kW		54.8	57.7
★2 Cooling Capacity (19.0°CWB)	kW		53.2	56.0
★3 Heating Capacity	kcal / h		48,500	54,000
	Btu / h		193,000	216,000
	kW		56.5	63.0
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		(1600x930x765)+(1600x930x765)	(1600x930x765)+(1600x930x765)
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)×2	(19.36+14.68)×2
	Number of Revolutions	r.p.m	(6480, 2900)×2	(6480, 2900)×2
	Motor Output×Number of Units	kW	(1.2+4.5)+(2.75+4.5)	(2.75+4.5)×2
	Starting Method		Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×2	0.75×2
	Air Flow Rate	m³/min	175+180	180+180
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ19.1 (Brazing Connection)	φ19.1 (Brazing Connection)
	Gas Pipe	mm	φ34.9 (Brazing Connection)	φ34.9 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
Machine Weight	kg		235+235	235+235
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
Defrost Method			Deicer	Deicer
Capacity Control	%		7~100	7~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	13.1+13.9	13.9+13.9
	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)	(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.			4D038971A, 4D038972A	4D038972A

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)			RXY22MY1(E)	RXY24MY1(E)
Model Name (Independent Unit)			RXY10MY1(E)+RXY12MY1(E)	RXY10MY1(E)+RXY14MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		55,000	60,500
	Btu / h		217,000	240,000
	kW		63.4	70.1
★2 Cooling Capacity (19.0°CWB)	kW		61.5	68.0
★3 Heating Capacity	kcal / h		57,000	62,500
	Btu / h		226,000	250,000
	kW		66.2	73.0
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		(1600x930x765)+(1600x1240x765)	(1600x930x765)+(1600x1240x765)
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)×2	(19.36+14.68)+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)×2	(6480, 2900)+(6480, 2900×2)
	Motor Output×Number of Units	kW	(2.75+4.5)+(4.2+4.5)	(2.75+4.5)+(2.0+4.5+4.5)
	Starting Method		Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×2	0.75×2
	Air Flow Rate	m³/min	180+210	180+210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ19.1 (Brazing Connection)	φ19.1 (Brazing Connection)
	Gas Pipe	mm	φ34.9 (Brazing Connection)	φ41.3 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
Machine Weight	kg		235+290	235+331
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
Defrost Method			Deicer	Deicer
Capacity Control	%		7~100	6~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	13.9+15.6	13.9+17.1
	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)	(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D038972A, 4D038973A	4D038972A, 4D038974A

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)			RXY26MY1(E)	RXY28MY1(E)
Model Name (Independent Unit)			RXY10MY1(E)+RXY16MY1(E)	RXY12MY1(E)+RXY16MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		65,000	70,000
	Btu / h		257,000	276,000
	kW		75.3	80.9
★2 Cooling Capacity (19.0°CWB)	kW		73.0	78.5
★3 Heating Capacity	kcal / h		67,000	70,000
	Btu / h		262,000	272,000
	kW		76.5	79.7
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		(1600x930x765)+(1600x1240x765)	(1600x1240x765)+(1600x1240x765)
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+14.68)	(19.36+14.68)+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)+(6480, 2900x2)	(6480, 2900)+(6480, 2900x2)
	Motor OutputxNumber of Units	kW	(2.75+4.5)+(3.0+4.5+4.5)	(4.2+4.5)+(3.0+4.5+4.5)
	Starting Method		Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75x2	0.75x2
	Air Flow Rate	m³/min	180+210	210+210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)	φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ41.3 (Brazing Connection)	φ41.3 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
Machine Weight	kg		235+333	290+333
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
Defrost Method			Deicer	Deicer
Capacity Control	%		6~100	6~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	13.9+18.6	15.6+18.6
	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+1.6)	(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D038972A, 4D038975A	4D038973A, 4D038975A

**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.

Conversion Formulae
kcal/h=kWx860
Btu/h=kWx3414
cfm=m³/minx35.3



Model Name (Combination Unit)		RXY30MY1(E)		RXY32MY1(E)		
Model Name (Independent Unit)		RXY14MY1(E)+RXY16MY1(E)		RXY16MY1(E)+RXY16MY1(E)		
★1 Cooling Capacity (19.5°CWB)	kcal / h	75,500		80,000		
	Btu / h	299,000		316,000		
	kW	87.6		92.8		
★2 Cooling Capacity (19.0°CWB)	kW	85.0		90.0		
★3 Heating Capacity	kcal / h	75,500		80,000		
	Btu / h	296,000		308,000		
	kW	86.5		90.0		
Casing Color	Y1	Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)		
	Y1E	Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)		
Dimensions: (HxWxD)	mm	(1600x1240x765)+(1600x1240x765)		(1600x1240x765)+(1600x1240x765)		
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+14.68)×2		(19.36+14.68+14.68)×2	
	Number of Revolutions	r.p.m	(6480, 2900×2)×2		(6480, 2900×2)×2	
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)+(3.0+4.5+4.5)		(3.0+4.5+4.5)+(3.0+4.5+4.5)	
	Starting Method		Direct on Line		Direct on Line	
Fan	Type		Propeller Fan		Propeller Fan	
	Motor Output	kW	0.75×2		0.75×2	
	Air Flow Rate	m³/min	210×2		210×2	
	Drive		Direct Drive		Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)		φ22.2 (Brazing Connection)	
	Gas Pipe	mm	φ41.3 (Brazing Connection)		φ41.3 (Brazing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight	kg	331+333		333+333		
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		
Defrost Method		Deicer		Deicer		
Capacity Control	%	5~100		5~100		
Refrigerant	Refrigerant Name		R22		R22	
	Charge	kg	17.1+18.6		18.6+18.6	
	Control		Electronic Expansion Valve		Electronic Expansion Valve	
Refrigerator Oil			SUNISO 4GSDID-K		SUNISO 4GSDID-K	
	Charge Volume	L	(1.9+1.6+1.6)+(1.9+1.6+1.6)		(1.9+1.6+1.6)+(1.9+1.6+1.6)	
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps		
Drawing No.		4D038974A, 4D038975A		4D038975A		

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY34MY1(E)		RXY36MY1(E)	
Model Name (Independent Unit)		RXY10MY1(E)+RXY10MY1(E)+RXY14MY1(E)		RXY10MY1(E)+RXY10MY1(E)+RXY16MY1(E)	
★1 Cooling Capacity (19.5°CWB)	kcal / h	85,500		90,000	
	Btu / h	338,000		355,000	
	kW	99.0		104	
★2 Cooling Capacity (19.0°CWB)	kW	96.0		101	
★3 Heating Capacity	kcal / h	89,500		94,000	
	Btu / h	358,000		370,000	
	kW	105		108	
Casing Color		Y1	Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)
		Y1E	Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)		mm	(1600x930x765)+(1600x930x765)+(1600x1240x765)		(1600x930x765)+(1600x930x765)+(1600x1240x765)
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)×2+(19.36+14.68+14.68)		(19.36+14.68)×2+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)×2+(6480, 2900×2)		(6480, 2900)×2+(6480, 2900×2)
	Motor Output×Number of Units	kW	(2.75+4.5)+(2.75+4.5)+(2.0+4.5+4.5)		(2.75+4.5)+(2.75+4.5)+(3.0+4.5+4.5)
	Starting Method		Direct on Line		Direct on Line
Fan	Type		Propeller Fan		Propeller Fan
	Motor Output	kW	0.75×3		0.75×3
	Air Flow Rate	m³/min	180+180+210		180+180+210
	Drive		Direct Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)		φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ41.3 (Brazing Connection)		φ54.1 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)
Machine Weight	kg	235+235+331		235+235+333	
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	
Defrost Method		Deicer		Deicer	
Capacity Control	%	4~100		4~100	
Refrigerant	Refrigerant Name		R22		R22
	Charge	kg	13.9+13.9+17.1		13.9+13.9+18.6
	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)+(1.9+1.6+1.6)		(1.9+1.6)+(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps	
Drawing No.		4D038972A, 4D038974A		4D038972A, 4D038975A	

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY38MY1(E)		RXY40MY1(E)		
Model Name (Independent Unit)		RXY10MY1(E)+RXY12MY1(E)+RXY16MY1(E)		RXY10MY1(E)+RXY14MY1(E)+RXY16MY1(E)		
★1 Cooling Capacity (19.5°CWB)	kcal / h	95,000		101,000		
	Btu / h	375,000		398,000		
	kW	110		116		
★2 Cooling Capacity (19.0°CWB)	kW	107		113		
★3 Heating Capacity	kcal / h	97,000		103,000		
	Btu / h	380,000		404,000		
	kW	111		118		
Casing Color	Y1	Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)		
	Y1E	Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)		
Dimensions: (HxWxD)	mm	(1600x930x765)+(1600x1240x765)+(1600x1240x765)		(1600x930x765)+(1600x1240x765)+(1600x1240x765)		
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)×2+(19.36+14.68+14.68)		(19.36+14.68)+(19.36+14.68+14.68)×2	
	Number of Revolutions	r.p.m	(6480, 2900)×2+(6480, 2900×2)		(6480, 2900)+(6480, 2900×2)×2	
	Motor Output×Number of Units	kW	(2.75+4.5)+(4.2+4.5)+(3.0+4.5+4.5)		(2.75+4.5)+(2.0+4.5+4.5)+(3.0+4.5+4.5)	
	Starting Method	Direct on Line		Direct on Line		
Fan	Type	Propeller Fan		Propeller Fan		
	Motor Output	kW	0.75×3		0.75×3	
	Air Flow Rate	m³/min	180+210+210		180+210+210	
	Drive	Direct Drive		Direct Drive		
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)		φ22.2 (Brazing Connection)	
	Gas Pipe	mm	φ54.1 (Brazing Connection)		φ54.1 (Brazing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight	kg	235+290+333		235+331+333		
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		
Defrost Method		Deicer		Deicer		
Capacity Control	%	4~100		4~100		
Refrigerant	Refrigerant Name	R22		R22		
	Charge	kg	13.9+15.6+18.6		13.9+17.1+18.6	
	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)+(1.9+1.6+1.6)		(1.9+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)	
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps		
Drawing No.		4D038972A, 4D038973A, 4D038975A		4D038972A, 4D038974A, 4D038975A		

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY42MY1(E)		RXY44MY1(E)		
Model Name (Independent Unit)		RXY10MY1(E)+RXY16MY1(E)+RXY16MY1(E)		RXY12MY1(E)+RXY16MY1(E)+RXY16MY1(E)		
★1 Cooling Capacity (19.5°CWB)	kcal / h	105,000		110,000		
	Btu / h	415,000		434,000		
	kW	122		127		
★2 Cooling Capacity (19.0°CWB)	kW	118		124		
★3 Heating Capacity	kcal / h	107,000		110,000		
	Btu / h	416,000		426,000		
	kW	122		125		
Casing Color	Y1	Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)		
	Y1E	Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)		
Dimensions: (HxWxD)	mm	(1600x930x765)+(1600x1240x765)+(1600x1240x765)		(1600x1240x765)+(1600x1240x765)+(1600x1240x765)		
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+14.68)×2		(19.36+14.68)+(19.36+14.68+14.68)×2	
	Number of Revolutions	r.p.m	(6480, 2900)+(6480, 2900×2)×2		(6480, 2900)+(6480, 2900×2)×2	
	Motor Output×Number of Units	kW	(2.75+4.5)+(3.0+4.5+4.5)×2		(4.2+4.5)+(3.0+4.5+4.5)×2	
	Starting Method		Direct on Line		Direct on Line	
Fan	Type	Propeller Fan		Propeller Fan		
	Motor Output	kW	0.75×3		0.75×3	
	Air Flow Rate	m³/min	180+210+210		210+210+210	
	Drive		Direct Drive		Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)		φ22.2 (Brazing Connection)	
	Gas Pipe	mm	φ54.1 (Brazing Connection)		φ54.1 (Brazing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight	kg	235+333+333		290+333+333		
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		
Defrost Method		Deicer		Deicer		
Capacity Control	%	4~100		4~100		
Refrigerant	Refrigerant Name	R22		R22		
	Charge	kg	13.9+18.6+18.6		15.6+18.6+18.6	
	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+1.6)+(1.9+1.6+1.6)		(1.9+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)	
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps		
Drawing No.		4D038972A, 4D038975A		4D038973A, 4D038975A		

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY46MY1(E)		RXY48MY1(E)		
Model Name (Independent Unit)		RXY14MY1(E)+RXY16MY1(E)+RXY16MY1(E)		RXY16MY1(E)+RXY16MY1(E)+RXY16MY1(E)		
★1 Cooling Capacity (19.5°CWB)	kcal / h	116,000		120,000		
	Btu / h	457,000		474,000		
	kW	134		139		
★2 Cooling Capacity (19.0°CWB)	kW	130		135		
★3 Heating Capacity	kcal / h	116,000		120,000		
	Btu / h	450,000		462,000		
	kW	132		135		
Casing Color	Y1	Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)		
	Y1E	Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)		
Dimensions: (HxWxD)	mm	(1600×1240×765)+(1600×1240×765)+(1600×1240×765)		(1600×1240×765)+(1600×1240×765)+(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+14.68)×3		(19.36+14.68+14.68)×3	
	Number of Revolutions	r.p.m	(6480, 2900×2)×3		(6480, 2900×2)×3	
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)+(3.0+4.5+4.5)×2		(3.0+4.5+4.5)×3	
	Starting Method	Direct on Line		Direct on Line		
Fan	Type	Propeller Fan		Propeller Fan		
	Motor Output	kW	0.75×3		0.75×3	
	Air Flow Rate	m³/min	210+210+210		210+210+210	
	Drive	Direct Drive		Direct Drive		
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)		φ22.2 (Brazing Connection)	
	Gas Pipe	mm	φ54.1 (Brazing Connection)		φ54.1 (Brazing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight	kg	331+333+333		333+333+333		
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		
Defrost Method		Deicer		Deicer		
Capacity Control	%	3~100		3~100		
Refrigerant	Refrigerant Name	R22		R22		
	Charge	kg	17.1+18.6+18.6		18.6+18.6+18.6	
	Control	Electronic Expansion Valve		Electronic Expansion Valve		
Refrigerator Oil			SUNISO 4GSDID-K		SUNISO 4GSDID-K	
	Charge Volume	L	(1.9+1.6+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)		(1.9+1.6+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)	
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps		
Drawing No.		4D038974A, 4D038975A		4D038975A		

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

## 1.1.2 Heat Pump 60Hz <RXY-M>

Model Name		RXY5MYL(E) RXY5MTL(E)	RXY8MYL(E) RXY8MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	12,500	20,000
	Btu / h	49,200	78,900
	kW	14.4	23.1
★2 Cooling Capacity (19.0°CWB)	kW	14.0	22.4
★3 Heating Capacity	kcal / h	13,800	21,500
	Btu / h	54,600	85,400
	kW	16.0	25.0
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm	1600x635x765	1600x930x765
Heat Exchanger		Cross Fin Coil	Cross Fin Coil
Comp.	Type		Hermetically Sealed Scroll Type
	Piston Displacement	m <sup>3</sup> /h	19.36
	Number of Revolutions	r.p.m	6480
	Motor Output×Number of Units	kW	3.5×1
	Starting Method		Direct on Line
Fan	Type		Propeller Fan
	Motor Output	kW	0.35×1
	Air Flow Rate	m <sup>3</sup> /min	75
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ9.5 (Flare Connection)
	Gas Pipe	mm	φ19.1 (Brazing Connection)
	Oil Equalizing Pipe	mm	—
Machine Weight	kg	160	235
Safety Devices		High Pressure Switch, Fan Driver Overload Protector, Inverter Overload Protector, Fusible Plugs	High Pressure Switch, Fan Driver Overload Protector, Over Current Relay, Inverter Overload Protector, Fusible Plugs
Defrost Method		Deicer	Deicer
Capacity Control	%	24~100	14~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	8.5
	Control		Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K
	Charge Volume	L	1.2
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.	YL(E)	4D038976	4D038977
	TL(E)	4D038982	4D038983

- 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.

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

Model Name		RXY10MYL(E) RXY10MTL(E)	RXY12MYL(E) RXY12MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	25,000	30,000
	Btu / h	98,700	118,000
	kW	28.9	34.5
★2 Cooling Capacity (19.0°CWB)	kW	28.0	33.5
★3 Heating Capacity	kcal / h	27,000	30,000
	Btu / h	108,000	118,000
	kW	31.5	34.7
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
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	
	Piston Displacement	m³/h	19.36+14.68
	Number of Revolutions	r.p.m	6480, 2900
	Motor Output×Number of Units	kW	(2.75+4.5)×1
	Starting Method	Direct on Line	
Fan	Type	Propeller Fan	
	Motor Output	kW	0.75×1
	Air Flow Rate	m³/min	180
	Drive	Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ12.7 (Brazeing Connection)
	Gas Pipe	mm	φ28.6 (Brazeing Connection)
	Oil Equalizing Pipe	mm	—
Machine Weight	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
Defrost Method		Deicer	
Capacity Control	%	14~100	14~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	13.9
	Control		Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K
	Charge Volume	L	1.9+1.6
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.	YL(E)	4D038978	4D038979
	TL(E)	4D038984	4D038985

- 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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name		RXY14MYL(E) RXY14MTL(E)	RXY16MYL(E) RXY16MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	35,500	40,000
	Btu / h	141,000	158,000
	kW	41.2	46.4
★2 Cooling Capacity (19.0°CWB)	kW	40.0	45.0
★3 Heating Capacity	kcal / h	35,500	40,000
	Btu / h	142,000	154,000
	kW	41.5	45.0
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	1600×1240×765	1600×1240×765
Heat Exchanger		Cross Fin Coil	Cross Fin Coil
Comp.	Type	Hermetically Sealed Scroll Type	Hermetically Sealed Scroll Type
	Piston Displacement	m <sup>3</sup> /h	19.36+14.68+14.68
	Number of Revolutions	r.p.m	6480, 2900×2
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)×1
	Starting Method		Direct on Line
Fan	Type	Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×1
	Air Flow Rate	m <sup>3</sup> /min	210
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ15.9 (Brazeing Connection)
	Gas Pipe	mm	φ34.9 (Brazeing Connection)
	Oil Equalizing Pipe	mm	—
Machine Weight	kg	331	333
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
Defrost Method		Deicer	Deicer
Capacity Control		%	10~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	17.1
	Control		Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K
	Charge Volume	L	1.9+1.6+1.6
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.	YL(E)	4D038980	4D038981
	TL(E)	4D038986	4D038987

- 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.

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



Model Name (Combination Unit)		RXY18MYL(E) RXY18MTL(E)	RXY20MYL(E) RXY20MTL(E)
Model Name (Independent Unit)		RXY8MYL(E)+RXY10MYL(E) RXY8MTL(E)+RXY10MTL(E)	RXY10MYL(E)+RXY10MYL(E) RXY10MTL(E)+RXY10MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	45,000	50,000
	Btu / h	178,000	197,000
	kW	52.0	57.7
★2 Cooling Capacity (19.0°CWB)	kW	50.4	56.0
★3 Heating Capacity	kcal / h	48,500	54,000
	Btu / h	193,000	216,000
	kW	56.5	63.0
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×930×765)+(1600×930×765)	(1600×930×765)+(1600×930×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type		Hermetically Sealed Scroll Type
	Piston Displacement	m³/h	(19.36+14.68)×2
	Number of Revolutions	r.p.m	(6480, 2900)×2
	Motor Output×Number of Units	kW	(1.2+4.5)+(2.75+4.5)
	Starting Method		Direct on Line
Fan	Type		Propeller Fan
	Motor Output	kW	0.75×2
	Air Flow Rate	m³/min	175+180
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ19.1 (Brazing Connection)
	Gas Pipe	mm	φ34.9 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	235+235	235+235
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
Defrost Method		Deicer	Deicer
Capacity Control	%	7~100	7~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	13.1+13.9
	Control		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.	YL(E)	4D038977, 4D038978	4D038978
	TL(E)	4D038983, 4D038984	4D038984

**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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY22MYL(E) RXY22MTL(E)	RXY24MYL(E) RXY24MTL(E)
Model Name (Independent Unit)		RXY10MYL(E)+RXY12MYL(E) RXY10MTL(E)+RXY12MTL(E)	RXY10MYL(E)+RXY14MYL(E) RXY10MTL(E)+RXY14MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	55,000	60,500
	Btu / h	217,000	240,000
	kW	63.4	70.1
★2 Cooling Capacity (19.0°CWB)	kW	61.5	68.0
★3 Heating Capacity	kcal / h	57,000	62,500
	Btu / h	226,000	250,000
	kW	66.2	73.0
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×930×765)+(1600×1240×765)	(1600×930×765)+(1600×1240×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type		Hermetically Sealed Scroll Type
	Piston Displacement	m³/h	(19.36+14.68)×2
	Number of Revolutions	r.p.m	(6480, 2900)×2
	Motor Output×Number of Units	kW	(2.75+4.5)+(4.2+4.5)
	Starting Method		Direct on Line
Fan	Type		Propeller Fan
	Motor Output	kW	0.75×2
	Air Flow Rate	m³/min	180+210
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ19.1 (Brazing Connection)
	Gas Pipe	mm	φ34.9 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	235+290	235+331
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
Defrost Method		Deicer	Deicer
Capacity Control	%	7~100	6~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	13.9+15.6
	Control		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.	YL(E)	4D038978, 4D038979	4D038978, 4D038980
	TL(E)	4D038984, 4D038985	4D038984, 4D038986

- 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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY26MYL(E) RXY26MTL(E)	RXY28MYL(E) RXY28MTL(E)
Model Name (Independent Unit)		RXY10MYL(E)+RXY16MYL(E) RXY10MTL(E)+RXY16MTL(E)	RXY12MYL(E)+RXY16MYL(E) RXY12MTL(E)+RXY16MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	65,000	70,000
	Btu / h	257,000	276,000
	kW	75.3	80.9
★2 Cooling Capacity (19.0°CWB)	kW	73.0	78.5
★3 Heating Capacity	kcal / h	67,000	70,000
	Btu / h	262,000	272,000
	kW	76.5	79.7
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×930×765)+(1600×1240×765)	(1600×1240×765)+(1600×1240×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type		Hermetically Sealed Scroll Type
	Piston Displacement	m³/h	(19.36+14.68)+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)+(6480, 2900×2)
	Motor Output×Number of Units	kW	(2.75+4.5)+(3.0+4.5+4.5)
	Starting Method		Direct on Line
Fan	Type		Propeller Fan
	Motor Output	kW	0.75×2
	Air Flow Rate	m³/min	180+210
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ41.3 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	235+333	290+333
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
Defrost Method		Deicer	Deicer
Capacity Control	%	6~100	6~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	13.9+18.6
	Control		Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K
	Charge Volume	L	(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.	YL(E)	4D038978, 4D038981	4D038979, 4D038981
	TL(E)	4D038984, 4D038987	4D038985, 4D038987

- 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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY30MYL(E) RXY30MTL(E)	RXY32MYL(E) RXY32MTL(E)
Model Name (Independent Unit)		RXY14MYL(E)+RXY16MYL(E) RXY14MTL(E)+RXY16MTL(E)	RXY16MYL(E)+RXY16MYL(E) RXY16MTL(E)+RXY16MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	75,500	80,000
	Btu / h	299,000	316,000
	kW	87.6	92.8
★2 Cooling Capacity (19.0°CWB)	kW	85.0	90.0
★3 Heating Capacity	kcal / h	75,500	80,000
	Btu / h	296,000	308,000
	kW	86.5	90.0
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×1240×765)+(1600×1240×765)	(1600×1240×765)+(1600×1240×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type		Hermetically Sealed Scroll Type
	Piston Displacement	m³/h	(19.36+14.68+14.68)×2
	Number of Revolutions	r.p.m	(6480, 2900×2)×2
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)+(3.0+4.5+4.5)
	Starting Method		Direct on Line
Fan	Type		Propeller Fan
	Motor Output	kW	0.75×2
	Air Flow Rate	m³/min	210×2
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ41.3 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	331+333	333+333
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
Defrost Method		Deicer	Deicer
Capacity Control	%	5~100	5~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	17.1+18.6
	Control		Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K
	Charge Volume	L	(1.9+1.6+1.6)+(1.9+1.6+1.6)
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.	YL(E)	4D038980, 4D038981	4D038981
	TL(E)	4D038986, 4D038987	4D038987

**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.

## Conversion Formulae

kcal/h=kW×860  
Btu/h=kW×3414  
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY34MYL(E) RXY34MTL(E)	RXY36MYL(E) RXY36MTL(E)
Model Name (Independent Unit)		RXY10MYL(E)+RXY10MYL(E)+RXY14MYL(E) RXY10MTL(E)+RXY10MTL(E)+RXY14MTL(E)	RXY10MYL(E)+RXY10MYL(E)+RXY16MYL(E) RXY10MTL(E)+RXY10MTL(E)+RXY16MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	85,500	90,000
	Btu / h	338,000	355,000
	kW	99.0	104
★2 Cooling Capacity (19.0°CWB)	kW	96.0	101
★3 Heating Capacity	kcal / h	89,500	94,000
	Btu / h	358,000	370,000
	kW	105	108
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×930×765)+(1600×930×765)+(1600×1240×765)	(1600×930×765)+(1600×930×765)+(1600×1240×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type	Hermetically Sealed Scroll Type	
	Piston Displacement	m³/h	(19.36+14.68)×2+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)×2+(6480, 2900×2)
	Motor Output×Number of Units	kW	(2.75+4.5)+(2.75+4.5)+(2.0+4.5+4.5)
	Starting Method	Direct on Line	
Fan	Type	Propeller Fan	
	Motor Output	kW	0.75×3
	Air Flow Rate	m³/min	180+180+210
	Drive	Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Braze Connection)
	Gas Pipe	mm	φ41.3 (Braze Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	235+235+331	235+235+333
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
Defrost Method		Deicer	
Capacity Control	%	4~100	4~100
Refrigerant	Refrigerant Name	R22	
	Charge	kg	13.9+13.9+17.1
	Control	Electronic Expansion Valve	
Refrigerator Oil		SUNISO 4GSDID-K	
	Charge Volume	L	(1.9+1.6)+(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.	YL(E)	4D038978, 4D038980	4D038978, 4D038981
	TL(E)	4D038984, 4D038986	4D038984, 4D038987

- 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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY38MYL(E) RXY38MTL(E)	RXY40MYL(E) RXY40MTL(E)
Model Name (Independent Unit)		RXY10MYL(E)+RXY12MYL(E)+RXY16MYL(E) RXY10MTL(E)+RXY12MTL(E)+RXY16MTL(E)	RXY10MYL(E)+RXY14MYL(E)+RXY16MYL(E) RXY10MTL(E)+RXY14MTL(E)+RXY16MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	95,000	101,000
	Btu / h	375,000	398,000
	kW	110	116
★2 Cooling Capacity (19.0°CWB)	kW	107	113
★3 Heating Capacity	kcal / h	97,000	103,000
	Btu / h	380,000	404,000
	kW	111	118
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×930×765)+(1600×1240×765)+(1600×1240×765)	(1600×930×765)+(1600×1240×765)+(1600×1240×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type		Hermetically Sealed Scroll Type
	Piston Displacement	m <sup>3</sup> /h	(19.36+14.68)×2+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)×2+(6480, 2900×2)
	Motor Output×Number of Units	kW	(2.75+4.5)+(4.2+4.5)+(3.0+4.5+4.5)
	Starting Method		Direct on Line
Fan	Type		Propeller Fan
	Motor Output	kW	0.75×3
	Air Flow Rate	m <sup>3</sup> /min	180+210+210
	Drive		Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ54.1 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	235+290+333	235+331+333
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
Defrost Method		Deicer	Deicer
Capacity Control	%	4~100	4~100
Refrigerant	Refrigerant Name		R22
	Charge	kg	13.9+15.6+18.6
	Control		Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K
	Charge Volume	L	(1.9+1.6)+(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.	YL(E)	4D038978, 4D038979, 4D038981	4D038978, 4D038980, 4D038981
	TL(E)	4D038984, 4D038985, 4D038987	4D038984, 4D038986, 4D038987

- 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.

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

Model Name (Combination Unit)		RXY42MYL(E) RXY42MTL(E)	RXY44MYL(E) RXY44MTL(E)
Model Name (Independent Unit)		RXY10MYL(E)+RXY16MYL(E)+RXY16MYL(E) RXY10MTL(E)+RXY16MTL(E)+RXY16MTL(E)	RXY12MYL(E)+RXY16MYL(E)+RXY16MYL(E) RXY12MTL(E)+RXY16MTL(E)+RXY16MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	105,000	110,000
	Btu / h	415,000	434,000
	kW	122	127
★2 Cooling Capacity (19.0°CWB)	kW	118	124
★3 Heating Capacity	kcal / h	107,000	110,000
	Btu / h	416,000	426,000
	kW	122	125
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×930×765)+(1600×1240×765)+(1600×1240×765)	(1600×1240×765)+(1600×1240×765)+(1600×1240×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type	Hermetically Sealed Scroll Type	
	Piston Displacement	m³/h	(19.36+14.68)+(19.36+14.68+14.68)×2
	Number of Revolutions	r.p.m	(6480, 2900)+(6480, 2900×2)×2
	Motor Output×Number of Units	kW	(2.75+4.5)+(3.0+4.5+4.5)×2
	Starting Method	Direct on Line	
Fan	Type	Propeller Fan	
	Motor Output	kW	0.75×3
	Air Flow Rate	m³/min	180+210+210
	Drive	Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ54.1 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	235+333+333	290+333+333
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
Defrost Method		Deicer	
Capacity Control	%	4~100	
Refrigerant	Refrigerant Name	R22	
	Charge	kg	13.9+18.6+18.6
	Control	Electronic Expansion Valve	
Refrigerator Oil		SUNISO 4GSDID-K	
	Charge Volume	L	(1.9+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	
Drawing No.	YL(E)	4D038978, 4D038981	4D038979, 4D038981
	TL(E)	4D038984, 4D038987	4D038985, 4D068987

- 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.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RXY46MYL(E) RXY46MTL(E)	RXY48MYL(E) RXY48MTL(E)
Model Name (Independent Unit)		RXY14MYL(E)+RXY16MYL(E)+RXY16MYL(E) RXY14MTL(E)+RXY16MTL(E)+RXY16MTL(E)	RXY16MYL(E)+RXY16MYL(E)+RXY16MYL(E) RXY16MTL(E)+RXY16MTL(E)+RXY16MTL(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h	116,000	120,000
	Btu / h	457,000	474,000
	kW	134	139
★2 Cooling Capacity (19.0°CWB)	kW	130	135
★3 Heating Capacity	kcal / h	116,000	120,000
	Btu / h	450,000	462,000
	kW	132	135
Casing Color	YL, TL	Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	YLE, TLE	Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm	(1600×1240×765)+(1600×1240×765)+(1600×1240×765)	(1600×1240×765)+(1600×1240×765)+(1600×1240×765)
Heat Exchanger		Cross Fin Coil	
Comp.	Type	Hermetically Sealed Scroll Type	
	Piston Displacement	m <sup>3</sup> /h	(19.36+14.68+14.68)×3
	Number of Revolutions	r.p.m	(6480, 2900×2)×3
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)+(3.0+4.5+4.5)×2
	Starting Method	Direct on Line	
Fan	Type	Propeller Fan	
	Motor Output	kW	0.75×3
	Air Flow Rate	m <sup>3</sup> /min	210+210+210
	Drive	Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ54.1 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)
Machine Weight	kg	331+333+333	
Safety Devices		High Pressure Switch, Fan Driver Overload Protector, Over Current Relay, Inverter Overload Protector, Fusible Plugs	
Defrost Method		Deicer	
Capacity Control	%	3~100	
Refrigerant	Refrigerant Name	R22	
	Charge	kg	17.1+18.6+18.6
	Control	Electronic Expansion Valve	
Refrigerator Oil		SUNISO 4GSDID-K	
	Charge Volume	L	(1.9+1.6+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps	
Drawing No.	YL(E)	4D038980, 4D038981	
	TL(E)	4D038986, 4D038987	

- 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.

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



### 1.1.3 Cooling Only 50Hz <RX-M>

Model Name			RX5MY1(E)	RX8MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		12,500	22,400
	Btu / h		49,200	88,800
	kW		14.4	26.0
★2 Cooling Capacity (19.0°CWB)	kW		14.0	25.2
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (H×W×D)	mm		1600×635×765	1600×930×765
Heat Exchanger			Cross Fin Coil	Cross Fin Coil
Comp.	Type		Hermetically Sealed Scroll Type	Hermetically Sealed Scroll Type
	Piston Displacement	m <sup>3</sup> /h	19.36	19.36+14.68
	Number of Revolutions	r.p.m	6480	6480, 2900
	Motor Output×Number of Units	kW	3.5×1	(1.2+4.5)×1
	Starting Method		Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.35×1	0.75×1
	Air Flow Rate	m <sup>3</sup> /min	75	175
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ9.5 (Flare Connection)	φ12.7 (Brazing Connection)
	Gas Pipe	mm	φ19.1 (Brazing Connection)	φ28.6 (Brazing Connection)
	Oil Equalizing Pipe	mm	—	—
Machine Weight		kg		
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		%	24~100	14~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	8.5	13.1
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Refrigerator Oil	SUNISO 4GSDID-K			SUNISO 4GSDID-K
	Charge Volume	L	1.2	1.9+1.6
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D041534	4D039036

**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×3414  
 cfm=m<sup>3</sup>/min×35.3

Model Name			RX10MY1(E)	RX12MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		25,000	30,000
	Btu / h		98,700	118,000
	kW		28.9	34.5
★2 Cooling Capacity (19.0°CWB)	kW		28.0	33.5
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		1600x930x765	1600x1240x765
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 OutputxNumber of Units	kW	(2.75+4.5)x1	(4.2+4.5)x1
	Starting Method		Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75x1	0.75x1
	Air Flow Rate	m³/min	180	210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ12.7 (Brazeing Connection)	φ15.9 (Brazeing Connection)
	Gas Pipe	mm	φ28.6 (Brazeing Connection)	φ34.9 (Brazeing Connection)
	Oil Equalizing Pipe	mm	—	—
Machine Weight			kg	
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		R22	R22
	Charge	kg	13.9	15.6
	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.			4D039037	4D039038

- 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×3414
cfm=m³/min×35.3

Model Name			RX14MY1(E)	RX16MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		35,500	40,000
	Btu / h		141,000	158,000
	kW		41.2	46.4
★2 Cooling Capacity (19.0°CWB)	kW		40.0	45.0
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		1600x1240x765	1600x1240x765
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+14.68	19.36+14.68+14.68
	Number of Revolutions	r.p.m	6480, 2900x2	6480, 2900x2
	Motor OutputxNumber of Units	kW	(2.0+4.5+4.5)x1	(3.0+4.5+4.5)x1
	Starting Method		Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75x1	0.75x1
	Air Flow Rate	m³/min	210	210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ15.9 (Brazing Connection)	φ15.9 (Brazing Connection)
	Gas Pipe	mm	φ34.9 (Brazing Connection)	φ34.9 (Brazing Connection)
	Oil Equalizing Pipe	mm	—	—
Machine Weight			kg	
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		%	10~100	10~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	17.1	18.6
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K	SUNISO 4GSDID-K
	Charge Volume	L	1.9+1.6+1.6	1.9+1.6+1.6
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D039039	4D039040

- 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=kWx860
Btu/h=kWx3414
cfm=m³/minx35.3

Model Name (Combination Unit)			RX18MY1(E)	RX20MY1(E)
Model Name (Independent Unit)			RX8MY1(E)+RX10MY1(E)	RX10MY1(E)+RX10MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		47,400	50,000
	Btu / h		188,000	197,000
	kW		54.8	57.7
★2 Cooling Capacity (19.0°CWB)	kW		53.2	56.0
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		(1600×930×765)+(1600×930×765)	(1600×930×765)+(1600×930×765)
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)×2	(19.36+14.68)×2
	Number of Revolutions	r.p.m	(6480, 2900)×2	(6480, 2900)×2
	Motor Output×Number of Units	kW	(1.2+4.5)+(2.75+4.5)	(2.75+4.5)×2
Starting Method			Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×2	0.75×2
	Air Flow Rate	m³/min	175+180	180+180
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ19.1 (Brazing Connection)	φ19.1 (Brazing Connection)
	Gas Pipe	mm	φ34.9 (Brazing Connection)	φ34.9 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
Machine Weight			kg	
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		%	7~100	7~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	13.1+13.9	13.9+13.9
	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)	(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.			4D039036, 4D039037	4D039037

- 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×3414
cfm=m³/min×35.3

Model Name (Combination Unit)			RX22MY1(E)		RX24MY1(E)	
Model Name (Independent Unit)			RX10MY1(E)+RX12MY1(E)		RX10MY1(E)+RX14MY1(E)	
★1 Cooling Capacity (19.5°CWB)	kcal / h		55,000		60,500	
	Btu / h		217,000		240,000	
	kW		63.4		70.1	
★2 Cooling Capacity (19.0°CWB)	kW		61.5		68.0	
Casing Color	Y1		Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)	
	Y1E		Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)	
Dimensions: (HxWxD)	mm		(1600×930×765)+(1600×1240×765)		(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)×2		(19.36+14.68)+(19.36+14.68+14.68)	
	Number of Revolutions	r.p.m	(6480, 2900)×2		(6480, 2900)+(6480, 2900×2)	
	Motor Output×Number of Units	kW	(2.75+4.5)+(4.2+4.5)		(2.75+4.5)+(2.0+4.5+4.5)	
Starting Method			Direct on Line		Direct on Line	
Fan	Type		Propeller Fan		Propeller Fan	
	Motor Output	kW	0.75×2		0.75×2	
	Air Flow Rate	m³/min	180+210		180+210	
	Drive		Direct Drive		Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ19.1 (Brazing Connection)		φ19.1 (Brazing Connection)	
	Gas Pipe	mm	φ34.9 (Brazing Connection)		φ41.3 (Brazing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight			kg		kg	
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		%	7~100		6~100	
Refrigerant	Refrigerant Name		R22		R22	
	Charge	kg	13.9+15.6		13.9+17.1	
	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)		(1.9+1.6)+(1.9+1.6+1.6)	
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps	
Drawing No.			4D039037, 4D039038		4D039037, 4D039039	

- 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×3414
cfm=m³/min×35.3

Model Name (Combination Unit)			RX26MY1(E)	RX28MY1(E)
Model Name (Independent Unit)			RX10MY1(E)+RX16MY1(E)	RX12MY1(E)+RX16MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		65,000	70,000
	Btu / h		257,000	276,000
	kW		75.3	80.9
★2 Cooling Capacity (19.0°CWB)	kW		73.0	78.5
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		(1600×930×765)+(1600×1240×765)	(1600×1240×765)+(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+14.68)	(19.36+14.68)+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)+(6480, 2900×2)	(6480, 2900)+(6480, 2900×2)
	Motor Output×Number of Units	kW	(2.75+4.5)+(3.0+4.5+4.5)	(4.2+4.5)+(3.0+4.5+4.5)
Starting Method			Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×2	0.75×2
	Air Flow Rate	m³/min	180+210	210+210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazeing Connection)	φ22.2 (Brazeing Connection)
	Gas Pipe	mm	φ41.3 (Brazeing Connection)	φ41.3 (Brazeing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
Machine Weight			kg	
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		%	6~100	6~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	13.9+18.6	15.6+18.6
	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+1.6)	(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D039037, 4D039040	4D039038, 4D039040

- 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×3414  
 cfm=m³/min×35.3

Model Name (Combination Unit)			RX30MY1(E)	RX32MY1(E)
Model Name (Independent Unit)			RX14MY1(E)+RX16MY1(E)	RX16MY1(E)+RX16MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		75,500	80,000
	Btu / h		299,000	316,000
	kW		87.6	92.8
★2 Cooling Capacity (19.0°CWB)	kW		85.0	90.0
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		(1600x1240x765)+(1600x1240x765)	(1600x1240x765)+(1600x1240x765)
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+14.68)×2	(19.36+14.68+14.68)×2
	Number of Revolutions	r.p.m	(6480, 2900×2)×2	(6480, 2900×2)×2
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)+(3.0+4.5+4.5)	(3.0+4.5+4.5)+(3.0+4.5+4.5)
Starting Method			Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×2	0.75×2
	Air Flow Rate	m³/min	210×2	210×2
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazeing Connection)	φ22.2 (Brazeing Connection)
	Gas Pipe	mm	φ41.3 (Brazeing Connection)	φ41.3 (Brazeing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
Machine Weight			kg	
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		%	5~100	5~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	17.1+18.6	18.6+18.6
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Refrigerator Oil			SUNISO 4GSDID-K	SUNISO 4GSDID-K
	Charge Volume	L	(1.9+1.6+1.6)+(1.9+1.6+1.6)	(1.9+1.6+1.6)+(1.9+1.6+1.6)
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D039039, 4D039040	4D039040

- 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×3414
cfm=m³/min×35.3

Model Name (Combination Unit)			RX34MY1(E)	RX36MY1(E)
Model Name (Independent Unit)			RX10MY1(E)+RX10MY1(E)+RX14MY1(E)	RX10MY1(E)+RX10MY1(E)+RX16MY1(E)
★1 Cooling Capacity (19.5°CWB)	kcal / h		85,500	90,000
	Btu / h		338,000	355,000
	kW		99.0	104
★2 Cooling Capacity (19.0°CWB)	kW		96.0	101
Casing Color	Y1		Ivory White (5Y7.5/1)	Ivory White (5Y7.5/1)
	Y1E		Light Camel (2.5Y6.5/1.5)	Light Camel (2.5Y6.5/1.5)
Dimensions: (HxWxD)	mm		(1600×930×765)+(1600×930×765)+(1600×1240×765)	(1600×930×765)+(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	m <sup>3</sup> /h	(19.36+14.68)×2+(19.36+14.68+14.68)	(19.36+14.68)×2+(19.36+14.68+14.68)
	Number of Revolutions	r.p.m	(6480, 2900)×2+(6480, 2900×2)	(6480, 2900)×2+(6480, 2900×2)
	Motor Output×Number of Units	kW	(2.75+4.5)+(2.75+4.5)+(2.0+4.5+4.5)	(2.75+4.5)+(2.75+4.5)+(3.0+4.5+4.5)
Starting Method			Direct on Line	Direct on Line
Fan	Type		Propeller Fan	Propeller Fan
	Motor Output	kW	0.75×3	0.75×3
	Air Flow Rate	m <sup>3</sup> /min	180+180+210	180+180+210
	Drive		Direct Drive	Direct Drive
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)	φ22.2 (Brazing Connection)
	Gas Pipe	mm	φ41.3 (Brazing Connection)	φ54.1 (Brazing Connection)
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
Machine Weight			kg	
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		%	4~100	4~100
Refrigerant	Refrigerant Name		R22	R22
	Charge	kg	13.9+13.9+17.1	13.9+13.9+18.6
	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)+(1.9+1.6+1.6)	(1.9+1.6)+(1.9+1.6)+(1.9+1.6+1.6)
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps	Installation Manual, Operation Manual, Connection Pipes, Clamps
Drawing No.			4D039037, 4D039039	4D039037, 4D039040

- 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×3414
cfm=m <sup>3</sup> /min×35.3



Model Name (Combination Unit)			RX38MY1(E)		RX40MY1(E)	
Model Name (Independent Unit)			RX10MY1(E)+RX12MY1(E)+RX16MY1(E)		RX10MY1(E)+RX14MY1(E)+RX16MY1(E)	
★1 Cooling Capacity (19.5°CWB)	kcal / h		95,000		101,000	
	Btu / h		375,000		398,000	
	kW		110		116	
★2 Cooling Capacity (19.0°CWB)	kW		107		113	
Casing Color	Y1		Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)	
	Y1E		Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)	
Dimensions: (HxWxD)	mm		(1600×930×765)+(1600×1240×765)+(1600×1240×765)		(1600×930×765)+(1600×1240×765)+(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)×2+(19.36+14.68+14.68)		(19.36+14.68)+(19.36+14.68+14.68)×2	
	Number of Revolutions	r.p.m	(6480, 2900)×2+(6480, 2900×2)		(6480, 2900)+(6480, 2900×2)×2	
	Motor Output×Number of Units	kW	(2.75+4.5)+(4.2+4.5)+(3.0+4.5+4.5)		(2.75+4.5)+(2.0+4.5+4.5)+(3.0+4.5+4.5)	
Starting Method			Direct on Line		Direct on Line	
Fan	Type		Propeller Fan		Propeller Fan	
	Motor Output	kW	0.75×3		0.75×3	
	Air Flow Rate	m³/min	180+210+210		180+210+210	
	Drive		Direct Drive		Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazeing Connection)		φ22.2 (Brazeing Connection)	
	Gas Pipe	mm	φ54.1 (Brazeing Connection)		φ54.1 (Brazeing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight			kg		kg	
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		%	4~100		4~100	
Refrigerant	Refrigerant Name		R22		R22	
	Charge	kg	13.9+15.6+18.6		13.9+17.1+18.6	
	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)+(1.9+1.6+1.6)		(1.9+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)	
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps	
Drawing No.			4D039037, 4D039038, 4D039040		4D039037, 4D039039, 4D039040	

- 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×3414
cfm=m³/min×35.3

Model Name (Combination Unit)		RX42MY1(E)		RX44MY1(E)		
Model Name (Independent Unit)		RX10MY1(E)+RX16MY1(E)+RX16MY1(E)		RX12MY1(E)+RX16MY1(E)+RX16MY1(E)		
★1 Cooling Capacity (19.5°CWB)	kcal / h	105,000		110,000		
	Btu / h	415,000		434,000		
	kW	122		127		
★2 Cooling Capacity (19.0°CWB)	kW	118		124		
Casing Color	Y1	Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)		
	Y1E	Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)		
Dimensions: (HxWxD)	mm	(1600×930×765)+(1600×1240×765)+(1600×1240×765)		(1600×1240×765)+(1600×1240×765)+(1600×1240×765)		
Heat Exchanger		Cross Fin Coil		Cross Fin Coil		
Comp.	Type	Hermetically Sealed Scroll Type		Hermetically Sealed Scroll Type		
	Piston Displacement	m <sup>3</sup> /h	(19.36+14.68)+(19.36+14.68+14.68)×2		(19.36+14.68)+(19.36+14.68+14.68)×2	
	Number of Revolutions	r.p.m	(6480, 2900)+(6480, 2900×2)×2		(6480, 2900)+(6480, 2900×2)×2	
	Motor Output×Number of Units	kW	(2.75+4.5)+(3.0+4.5+4.5)×2		(4.2+4.5)+(3.0+4.5+4.5)×2	
Starting Method		Direct on Line		Direct on Line		
Fan	Type	Propeller Fan		Propeller Fan		
	Motor Output	kW	0.75×3		0.75×3	
	Air Flow Rate	m <sup>3</sup> /min	180+210+210		210+210+210	
	Drive	Direct Drive		Direct Drive		
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazing Connection)		φ22.2 (Brazing Connection)	
	Gas Pipe	mm	φ54.1 (Brazing Connection)		φ54.1 (Brazing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight		kg				
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		%	4~100		4~100	
Refrigerant	Refrigerant Name		R22		R22	
	Charge	kg	13.9+18.6+18.6		15.6+18.6+18.6	
	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+1.6)+(1.9+1.6+1.6)		(1.9+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)	
Standard Accessories		Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps		
Drawing No.		4D039037, 4D039040		4D039038, 4D039040		

- 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×3414
cfm=m <sup>3</sup> /min×35.3

Model Name (Combination Unit)			RX46MY1(E)		RX48MY1(E)	
Model Name (Independent Unit)			RX14MY1(E)+RX16MY1(E)+RX16MY1(E)		RX16MY1(E)+RX16MY1(E)+RX16MY1(E)	
★1 Cooling Capacity (19.5°CWB)	kcal / h		116,000		120,000	
	Btu / h		457,000		474,000	
	kW		134		139	
★2 Cooling Capacity (19.0°CWB)	kW		130		135	
Casing Color	Y1		Ivory White (5Y7.5/1)		Ivory White (5Y7.5/1)	
	Y1E		Light Camel (2.5Y6.5/1.5)		Light Camel (2.5Y6.5/1.5)	
Dimensions: (HxWxD)	mm		(1600×1240×765)+(1600×1240×765)+(1600×1240×765)		(1600×1240×765)+(1600×1240×765)+(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+14.68)×3		(19.36+14.68+14.68)×3	
	Number of Revolutions	r.p.m	(6480, 2900×2)×3		(6480, 2900×2)×3	
	Motor Output×Number of Units	kW	(2.0+4.5+4.5)+(3.0+4.5+4.5)×2		(3.0+4.5+4.5)×3	
Starting Method			Direct on Line		Direct on Line	
Fan	Type		Propeller Fan		Propeller Fan	
	Motor Output	kW	0.75×3		0.75×3	
	Air Flow Rate	m³/min	210+210+210		210+210+210	
	Drive		Direct Drive		Direct Drive	
Connecting Pipes	Liquid Pipe	mm	φ22.2 (Brazeing Connection)		φ22.2 (Brazeing Connection)	
	Gas Pipe	mm	φ54.1 (Brazeing Connection)		φ54.1 (Brazeing Connection)	
	Oil Equalizing Pipe	mm	φ6.4 (Flare Connection)		φ6.4 (Flare Connection)	
Machine Weight			kg		kg	
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			%		3~100	
Refrigerant	Refrigerant Name		R22		R22	
	Charge	kg	17.1+18.6+18.6		18.6+18.6+18.6	
	Control		Electronic Expansion Valve		Electronic Expansion Valve	
Refrigerator Oil			SUNISO 4GSDID-K		SUNISO 4GSDID-K	
	Charge Volume	L	(1.9+1.6+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)		(1.9+1.6+1.6)+(1.9+1.6+1.6)+(1.9+1.6+1.6)	
Standard Accessories			Installation Manual, Operation Manual, Connection Pipes, Clamps		Installation Manual, Operation Manual, Connection Pipes, Clamps	
Drawing No.			4D039039, 4D039040		4D039040	

- 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×3414
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	3,150	4,000	
	Btu/h	7,900	9,900	12,500	15,900	
	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: (HxWxD)		mm	305x780x600	305x780x600	305x995x600	
Coil (Cross Fin Coil)	RowsxStagesxFin Pitch	mm	2x10x1.5	2x10x1.5	2x10x1.5	
	Face Area	m <sup>2</sup>	2x0.100	2x0.100	2x0.145	
Fan	Model		D17K2AA1	D17K2AB1	D17K2AB1	2D17K1AA1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number of Units	W	10x1	15x1	15x1	20x1
	Air Flow Rate (H/L)	m <sup>3</sup> /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		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		R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L 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: (HxWxD)	mm	53x1,030x680	53x1,030x680	53x1,030x680	53x1,245x680
	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

$$\begin{aligned} \text{kcal/h} &= \text{kW} \times 860 \\ \text{Btu/h} &= \text{kW} \times 3414 \\ \text{cfm} &= \text{m}^3/\text{min} \times 35.3 \end{aligned}$$

**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	19,900	25,000	31,800	49,600	
	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: (HxWxD)		mm	305x995x600	305x1,180x600	305x1,670x600	
Coil (Cross Fin Coil)	RowsxStagesxFin Pitch	mm	2x10x1.5	2x10x1.5	2x10x1.5	
	Face Area	m <sup>2</sup>	2x0.145	2x0.184	2x0.287	
Fan	Model		2D17K1AA1	2D17K2AA1VE	3D17K2AA1	3D17K2AB1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number of Units	W	20x1	30x1	50x1	85x1
	Air Flow Rate (H/L)	m <sup>3</sup> /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	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		R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L 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: (HxWxD)	mm	53x1,245x680	53x1,430x680	53x1,920x680	53x1,920x680
	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=kWx860
Btu/h=kWx3414
cfm=m <sup>3</sup> /minx35.3

## Ceiling Mounted Cassette Type (Multi-flow)

Model		FXF25LVE	FXF32LVE	FXF40LVE	FXF50LVE		
★1 Cooling Capacity (19.5°CWB)	kcal/h	2,500	3,150	4,000	5,000		
	Btu/h	9,900	12,500	15,900	19,900		
	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		
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×8×1.2	2×8×1.2	2×8×1.2		
	Face Area	m <sup>2</sup>	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)	m <sup>3</sup> /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		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	
Refrigerant Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve		
Connectable outdoor unit		R22 : K or M Series R407C ; K or L Series	R22 : K or M Series R407C ; K or L Series	R22 : K or M Series R407C ; K or L Series	R22 : K or M Series R407C ; K or L 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.	
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×3414  
cfm=m<sup>3</sup>/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	25,000	31,800	39,700	49,600	
	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: (HxWxD)		mm	246x840x840	246x840x840	288x840x840	288x840x840
Coil (Cross Fin Coil)	RowsxStagesxFin Pitch	mm	2x10x1.2	2x10x1.2	2x12x1.2	2x12x1.2
	Face Area	m <sup>2</sup>	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 x Number of Units	W	30x1	30x1	120x1	120x1
	Air Flow Rate (H/L)	m <sup>3</sup> /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		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		R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L 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: (HxWxD)	mm	45x950x950	45x950x950	45x950x950	45x950x950
	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=kWx860  
Btu/h=kWx3414  
cfm=m<sup>3</sup>/minx35.3

## Ceiling Mounted Cassette Corner Type

Model		FXK25LVE	FXK32LVE	FXK40LVE	FXK63LVE		
★1 Cooling Capacity (19.5°CWB)	kcal/h	2,500	3,150	4,000	6,300		
	Btu/h	9,900	12,500	15,900	25,000		
	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: (HxWxD)		mm	215x1,110x710	215x1,110x710	215x1,310x710		
Coil (Cross Fin Coil)	RowsxStagesxFin Pitch	mm	2x11x1.75	2x11x1.75	3x11x1.75		
	Face Area	m <sup>2</sup>	0.180	0.180	0.226		
Fan	Model		3D12H1AN1V1	3D12H1AN1V1	3D12H1AP1V1	4D12H1AJ1V1	
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	
	Motor Output x Number of Units		W	15x1	15x1	20x1	45x1
	Air Flow Rate (H/L)	50Hz	m <sup>3</sup> /min	11/9	11/9	13/10	18/15
			cfm	388/318	388/318	459/353	635/530
		60Hz	m <sup>3</sup> /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		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		R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L 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: (HxWxD)		mm	70x1,240x800	70x1,240x800	70x1,240x800	70x1,440x800
	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=kWx860
Btu/h=kWx3414
cfm=m <sup>3</sup> /minx35.3



**Ceiling Mounted Low Silhouette Duct Type**

★6 Model			FXD20KAVE	FXD25KAVE	FXD32KAVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,150
		Btu/h	7,900	9,900	12,500
		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 <sup>2</sup>	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 <sup>3</sup> /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
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	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			R22 : K or M Series	R22 : K or M Series	R22 : K or 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

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

For General Country	FXD20KAVE	FXD25KAVE	FXD32KAVE
For Thailand	FXD20KVES	FXD25KVES	FXD32KVES

## Ceiling Mounted Low Silhouette Duct Type

★6 Model			FXD40KAVE	FXD50KAVE	FXD63KAVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	15,900	19,900	25,000
		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 <sup>2</sup>	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 <sup>3</sup> /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	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			R22 : K or M Series	R22 : K or M Series	R22 : K or 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	FXD40KAVE	FXD50KAVE	FXD63KAVE
For Thailand	FXD40KVES	FXD50KVES	FXD63KVES

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

**Ceiling Mounted Built-in Type**

Model			FXS20LVE	FXS25LVE	FXS32LVE	
★1 Cooling Capacity (19.5°CWB)	kcal/h		2,000	2,500	3,150	
	Btu/h		7,900	9,900	12,500	
	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		kg	30	30	30	
★7 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			R22 : K or M Series, R407C : K or L Series	R22 : K or M Series, R407C : K or L Series	R22 : K or M Series, R407C : K or L 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×3414
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		15,900	19,900	25,000	
	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	300×1,000×800	
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×14×1.75	3×14×1.75	3×14×1.75	
	Face Area	m <sup>2</sup>	0.132	0.132	0.221	
Fan	Model		D18H2A			
	Type		Sirocco Fan			
	Motor Output × Number of Units	W	65×1	85×1	125×1	
	Air Flow Rate (H/L)	(50Hz)	m <sup>3</sup> /min	11.5/9	15/11	21/15.5
		(60Hz)	m <sup>3</sup> /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				
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			
Air Filter			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		kg	30	31	41	
★7 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			
Connectable outdoor unit			R22 : K or M Series, R407C : K or L Series	R22 : K or M Series, R407C : K or L Series	R22 : K or M Series, R407C : K or L Series	
Decoration Panel (Option)	Model		BYBS45DJW1			
	Panel Color		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

$$\begin{aligned} \text{kcal/h} &= \text{kW} \times 860 \\ \text{Btu/h} &= \text{kW} \times 3414 \\ \text{cfm} &= \text{m}^3/\text{min} \times 35.3 \end{aligned}$$

## 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	31,800		39,700		49,600		
	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		
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm		3×14×1.75		3×14×1.75		
	Face Area	m <sup>2</sup>		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	
	Air Flow Rate (H/L)	(50Hz)	m <sup>3</sup> /min		27/21.5		28/22	
		(60Hz)	m <sup>3</sup> /min		27/20.5		28/21	
	★5 Static external pressure	(50Hz)	Pa		113-82		107-75	
		(60Hz)	Pa		147-92		136-83	
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)		
	Gas Pipes	mm		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)		
Machine Weight		kg		51		52		
★7 Sound Level (H/L)		dBA		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		R22 : K or M Series, R407C : K or L Series		R22 : K or M Series, R407C : K or L Series		R22 : K or M Series, R407C : K or L 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	
	Weight		kg		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×3414  
cfm=m<sup>3</sup>/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	3,150	
	Btu/h		7,900	9,900	12,500	
	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 <sup>2</sup>	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 <sup>3</sup> /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	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			R22 : K or M Series	R22 : K or M Series	R22 : K or 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×3414
cfm=m <sup>3</sup> /min×35.3

## Ceiling Mounted Built-in (Rear Suction Type)

Model			FXYP40KV1	FXYP50KV1	FXYP63KV1	
★1 Cooling Capacity (19.5°CWB)	kcal/h		4,000	5,000	6,300	
	Btu/h		15,900	19,900	25,000	
	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	m <sup>2</sup>	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)	m <sup>3</sup> /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	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			R22 : K or M Series	R22 : K or M Series	R22 : K or 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×3414
cfm=m <sup>3</sup> /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		31,800	39,700	49,600	
	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	m <sup>2</sup>	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)	m <sup>3</sup> /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	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			R22 : K or M Series	R22 : K or M Series	R22 : K or 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×3414 cfm=m <sup>3</sup> /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	15,900	19,900	25,000	31,800	
	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	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	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		R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L 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 Static external 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×3414
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	20,000	25,000	
	Btu/h	39,700	49,600	79,000	99,000	
	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: (HxWxD)		mm	390x1,110x690	390x1,110x690	470x1,380x1,100	470x1,380x1,100
Coil (Cross Fin Coil)	RowsxStagesxFin Pitch	mm	3x16x2.0	3x16x2.0	3x26x2.0	3x26x2.0
	Face Area	m <sup>2</sup>	0.319	0.319	0.68	0.68
Fan	Model		2D11/2D3AG1VE	2D11/2D3AF1VE	D13/4G2DA1x2	D13/4G2DA1x2
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number of Units	W	270x1	430x1	380x2	380x2
	Air Flow Rate (H/L)	m <sup>3</sup> /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	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 (Braze Connection)	φ28.6 (Braze Connection)
	Drain Pipe	mm	VP25 ( External Dia. 32 Internal Dia. 25 )	VP25 ( External Dia. 32 Internal Dia. 25 )	PS1B	PS1B
Machine Weight	kg	63	65	137	137	
★7 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		R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L Series	R22 ; K or M Series R407C ; K or L 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 Static external 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=kWx860
Btu/h=kWx3414
cfm=m <sup>3</sup> /minx35.3

## Ceiling Suspended Type

Model			FXH32LVE	FXH63LVE	FXH100LVE	
★1 Cooling Capacity (19.5°CWB)	kcal/h		3,150	6,300	10,000	
	Btu/h		12,500	25,000	39,700	
	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 <sup>2</sup>	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 <sup>3</sup> /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		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			R22 ; K or M Series, R407C ; K or L Series	R22 ; K or M Series, R407C ; K or L Series	R22 ; K or M Series, R407C ; K or L 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×3414
cfm=m <sup>3</sup> /min×35.3

## Wall Mounted Type

Model			FXA20LVE	FXA25LVE	FXA32LVE
★1 Cooling Capacity (19.5°CWB)	kcal/h		2,000	2,500	3,150
	Btu/h		7,900	9,900	12,500
	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 (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
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 <sup>2</sup>	0.161	0.161	0.161
Fan	Model		—		
	Type		Cross Flow Fan		
	Motor Output × Number of Units	W	40×1		
	Air Flow Rate (H/L)	m <sup>3</sup> /min	7.5/4.5		
		cfm	265/159		
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		kg	11		
★5 Sound Level (H/L)		dBA	35/29		
Safety Devices			Fuse		
Refrigerant Control			Electronic Expansion Valve		
Connectable outdoor unit			R22:K or M Series R407C:K or L Series		
Standard Accessories			Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.		
Drawing No.			3D034904A		

## 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×3414
cfm=m <sup>3</sup> /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		15,900	19,900	25,000
	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 (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
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	m <sup>2</sup>	0.213	0.213	0.213
Fan	Model		—		
	Type		Cross Flow Fan		
	Motor Output × Number of Units	W	43×1		
	Air Flow Rate (H/L)	m <sup>3</sup> /min	12/9		
		cfm	424/318		
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		kg	14		
★5 Sound Level (H/L)		dBA	39/34		
Safety Devices			Fuse		
Refrigerant Control			Electronic Expansion Valve		
Connectable outdoor unit			R22:K or M Series R407C:K or L Series		
Standard Accessories			Operation Manual, Installation Manual, Installation Panel, Paper Pattern for Installation, Insulation Tape, Clamps, screws.		
Drawing No.			3D034904A		

## 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×3414
cfm=m <sup>3</sup> /min×35.3

## Floor Standing Type

Model			FXL20LVE	FXL25LVE	FXL32LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	2,000	2,500	3,150
		Btu/h	7,900	9,900	12,500
		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	m <sup>2</sup>	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 <sup>3</sup> /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		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			R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L 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×3414  
cfm=m<sup>3</sup>/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	15,900	19,900	25,000
		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 <sup>2</sup>	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 <sup>3</sup> /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		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			R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L 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×3414  
cfm=m<sup>3</sup>/min×35.3

## Concealed Floor Standing Type

Model			FXN20LVE	FXN25LVE	FXN32LVE	
★1 Cooling Capacity (19.5°CWB)	kcal/h		2,000	2,500	3,150	
	Btu/h		7,900	9,900	12,500	
	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 <sup>2</sup>	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 <sup>3</sup> /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		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			R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L 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

$$\begin{aligned} \text{kcal/h} &= \text{kW} \times 860 \\ \text{Btu/h} &= \text{kW} \times 3414 \\ \text{cfm} &= \text{m}^3/\text{min} \times 35.3 \end{aligned}$$



## Concealed Floor Standing Type

Model			FXN40LVE	FXN50LVE	FXN63LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	4,000	5,000	6,300
		Btu/h	15,900	19,900	25,000
		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 <sup>2</sup>	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 <sup>3</sup> /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		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			R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L Series	R22 : K or M Series R407C : K or L 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×3414  
cfm=m<sup>3</sup>/min×35.3

# Part 3

# Refrigerant Circuit

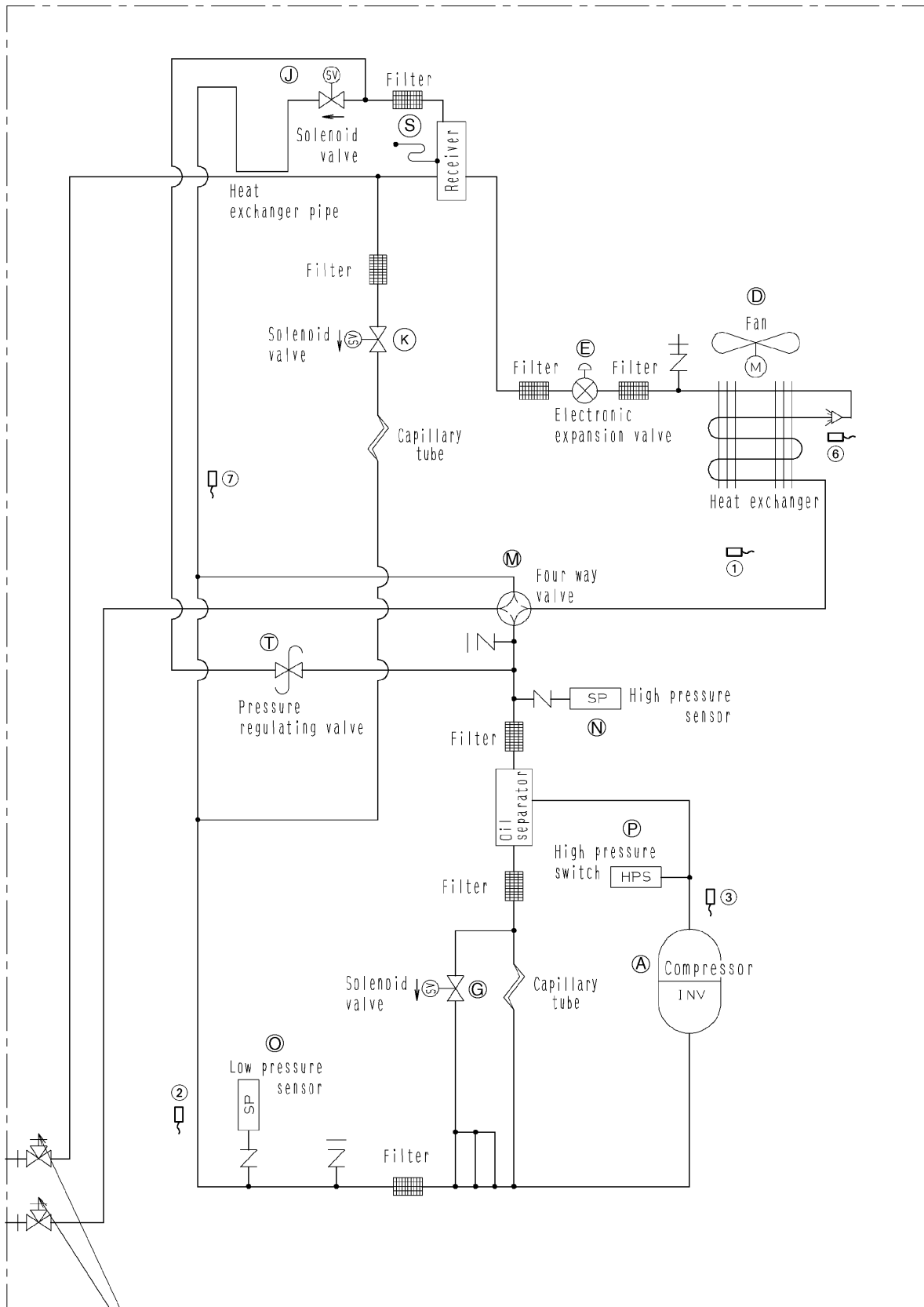
1. Refrigerant Circuit .....	64
1.1 RXY5M .....	64
1.2 RXY8, 10, 12M .....	66
1.3 RXY14, 16M .....	68
2. Functional Parts Layout .....	70
2.1 RXY5M .....	70
2.2 RXY8, 10, 12M .....	71
2.3 RXY14, 16M .....	72
3. Refrigerant Flow for Each Operation Mode.....	73

# 1. Refrigerant Circuit

## 1.1 RXY5M

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. The number of operating steps is as follows when Inverter compressor is operated. RXY5M : 20 steps
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.
G	Y1S	Solenoid valve (Hot gas: SVP)	Used to prevent the low pressure from transient falling.
J	Y2S	Solenoid valve (Receiver gas discharging: SVG)	Used to collect refrigerant to receiver.
K	Y4S	Solenoid valve (Injection):SVT	Used to control injection in order to prevent overheating.
M	Y3S	4-way valve	Used to switch the operation mode between cooling and heating.
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.
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.
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.
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 (Receiver gas pipe: Tsh)	Used to detect receiver gas pipe temperature in order to check the receiver to fill with liquid refrigerant.

RXY5M

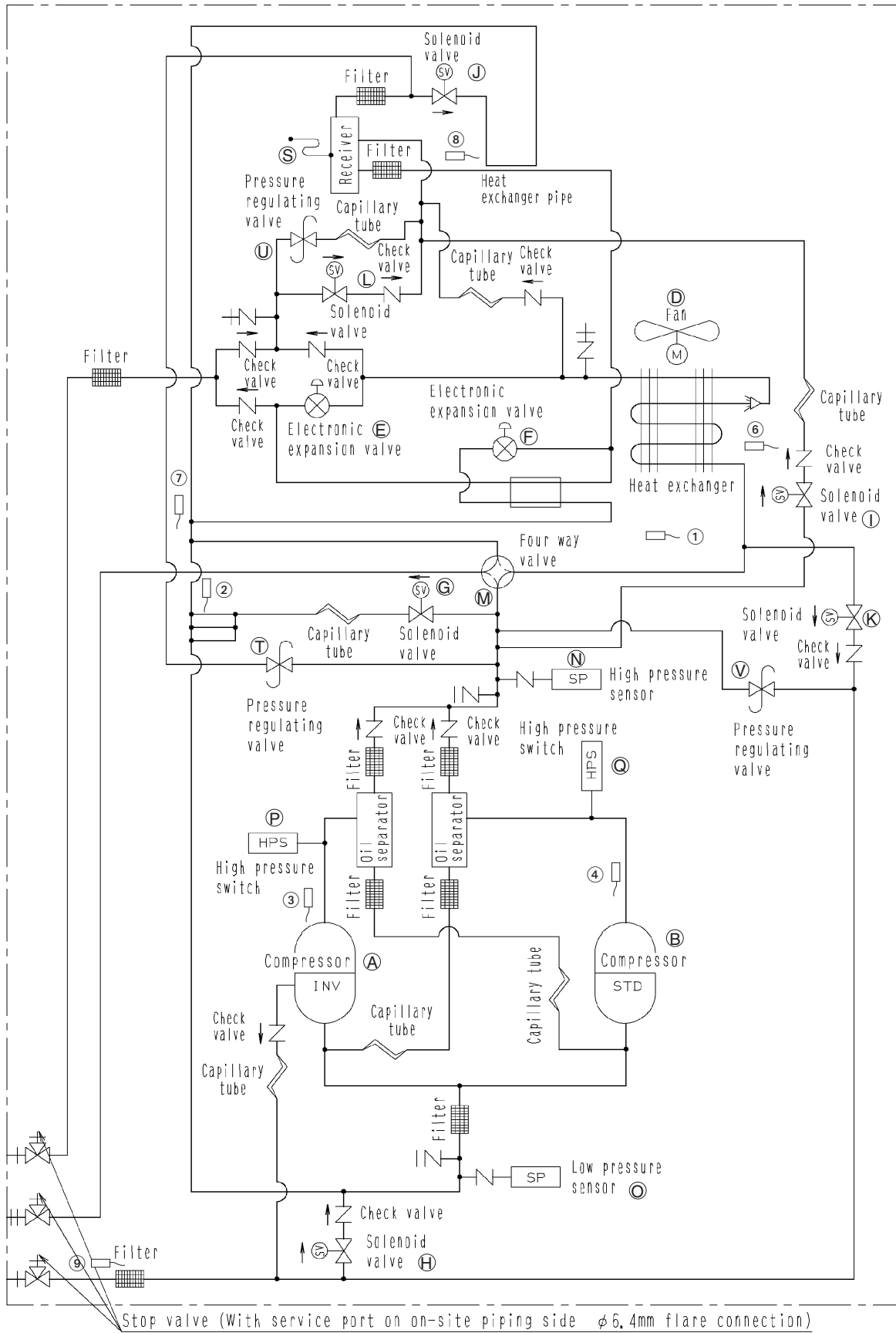


Stop valve (With service port on on-site piping side  $\phi 6,4$ mm flare connection)

## 1.2 RXY8, 10, 12M

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. RXY8, 10, 12M: 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.
M	Y7S	4-way valve	Used to switch the operation mode between cooling and heating.
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.

RXY8, 10, 12M

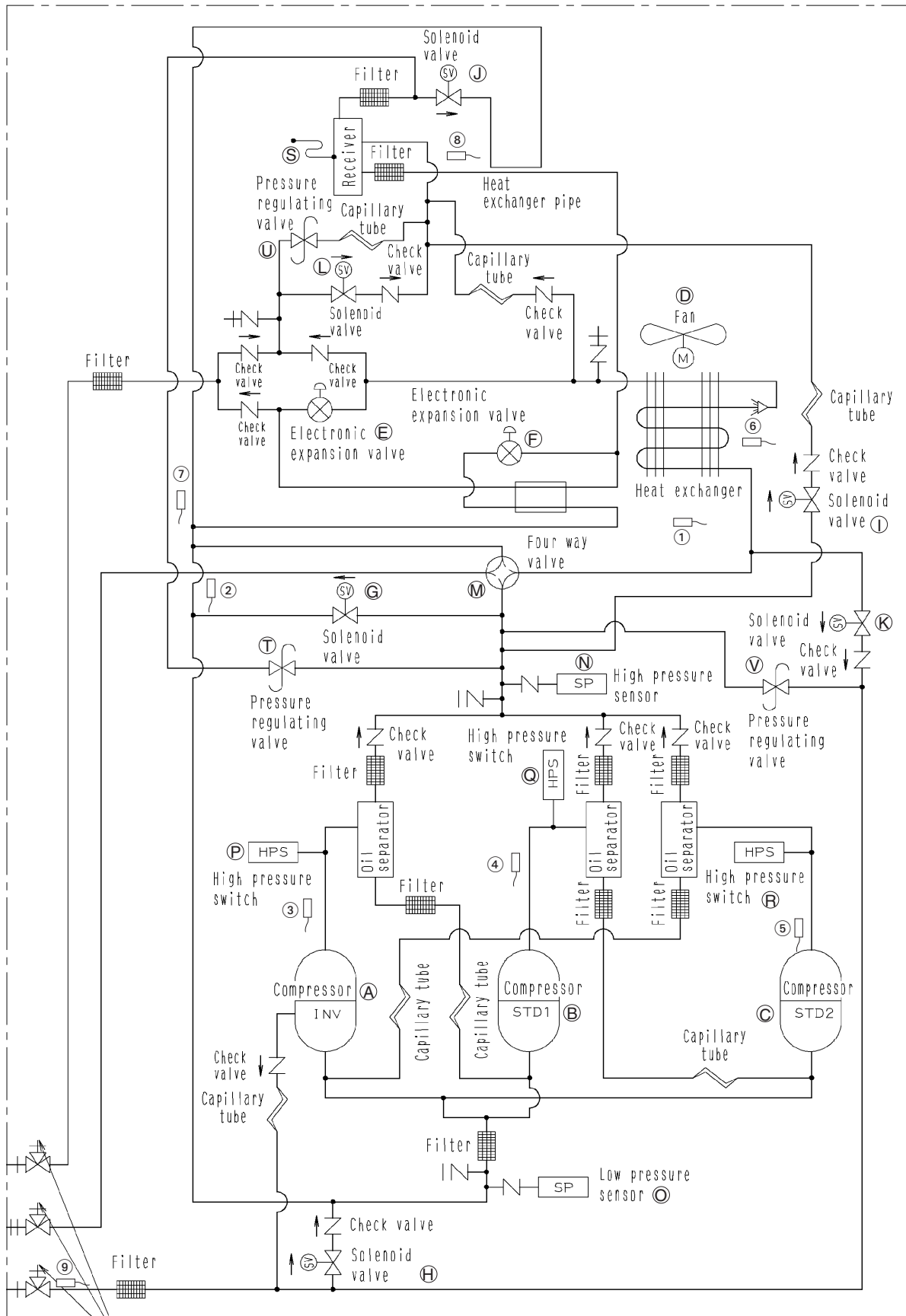


4D041236

## 1.3 RXY14, 16M

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. RXY14, 16M: 35 steps
B	M2C	Standard compressor 1 (STD1)	
C	M3C	Standard compressor 1 (STD2)	
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.
M	Y7S	4-way valve	Used to switch the operation mode between cooling and heating.
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)	
R	S3PH	HP pressure switch (For STD compressor 1)	
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)	
5	R33T	Thermistor (STD2 discharge pipe: Tds2)	
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.

RXY14, 16M



Stop valve (With service port on on-site piping side  $\phi$ 6,4mm flare connection)

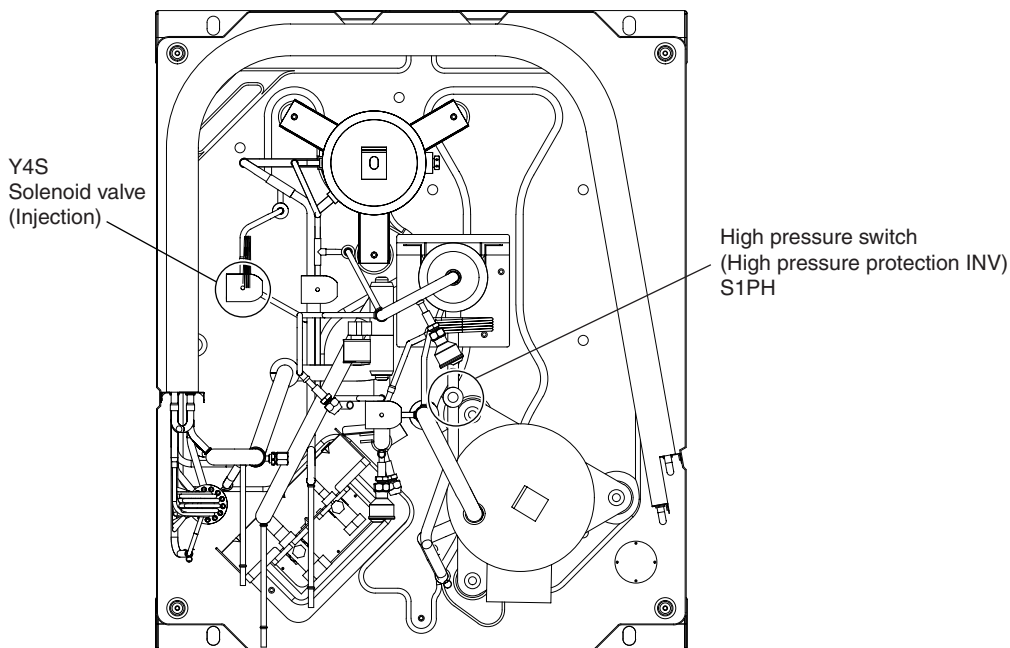
4D041237



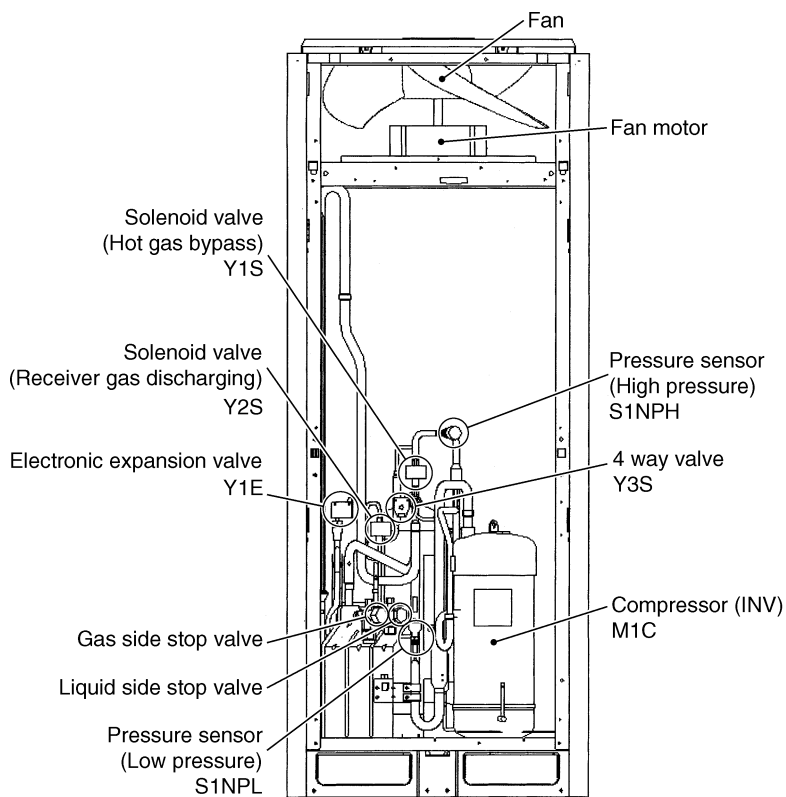
## 2. Functional Parts Layout

### 2.1 RXY5M

Plan

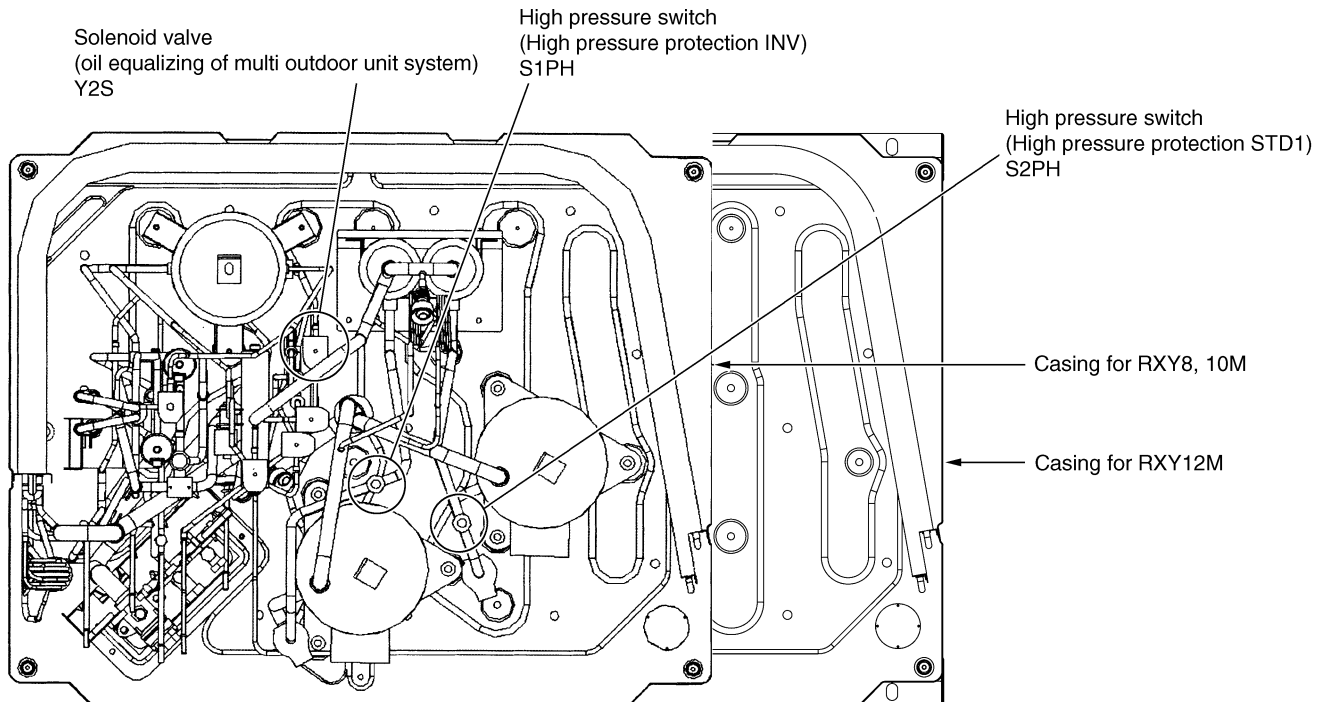


Front View

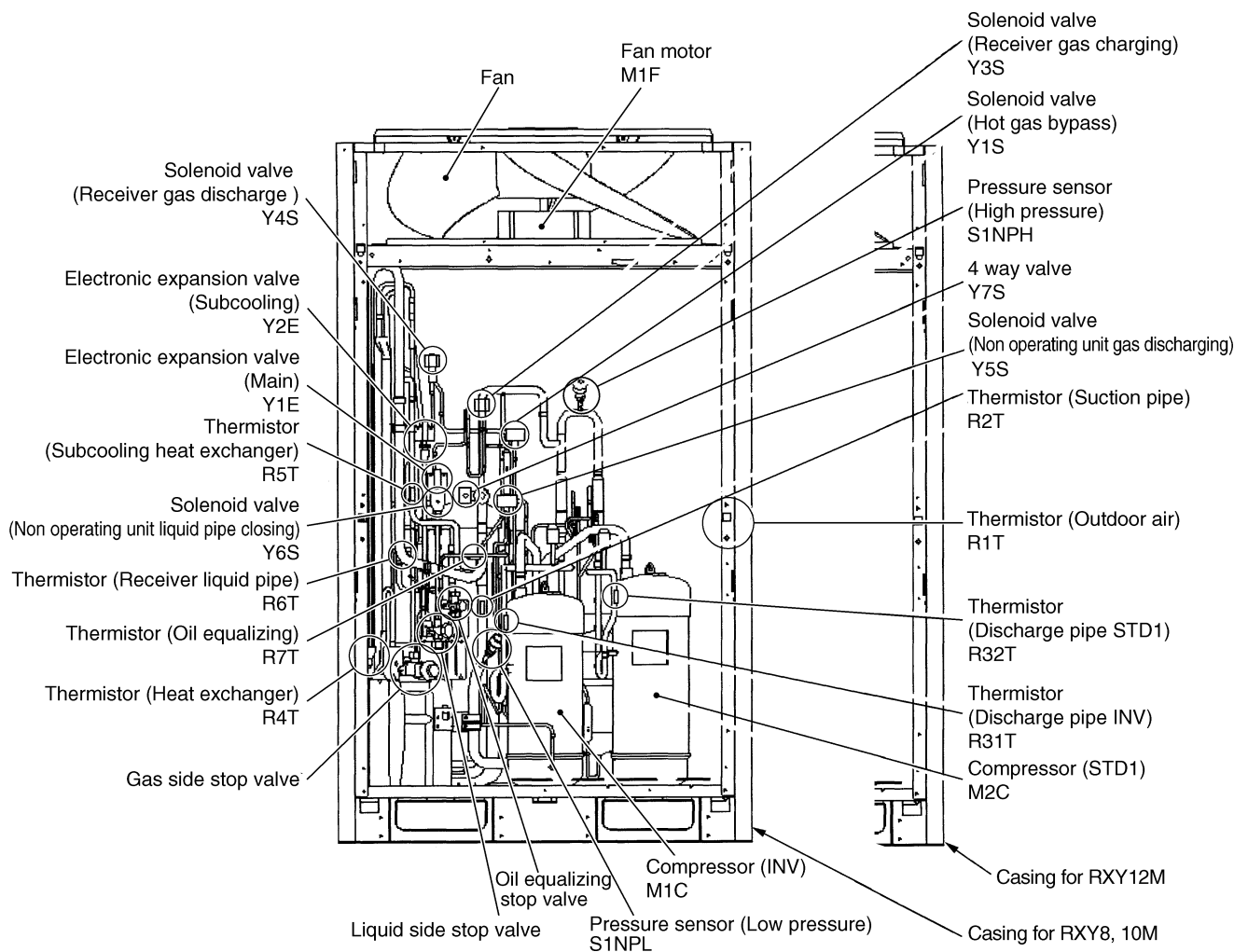


## 2.2 RXY8, 10, 12M

### Plan

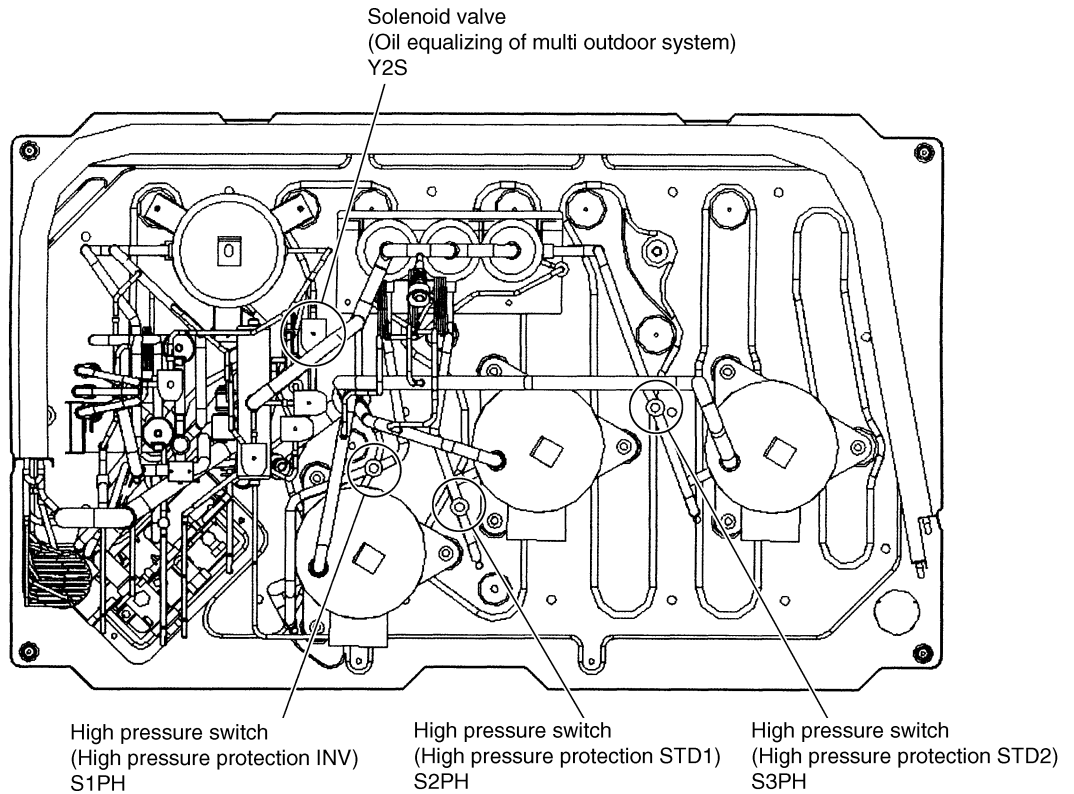


### Front View

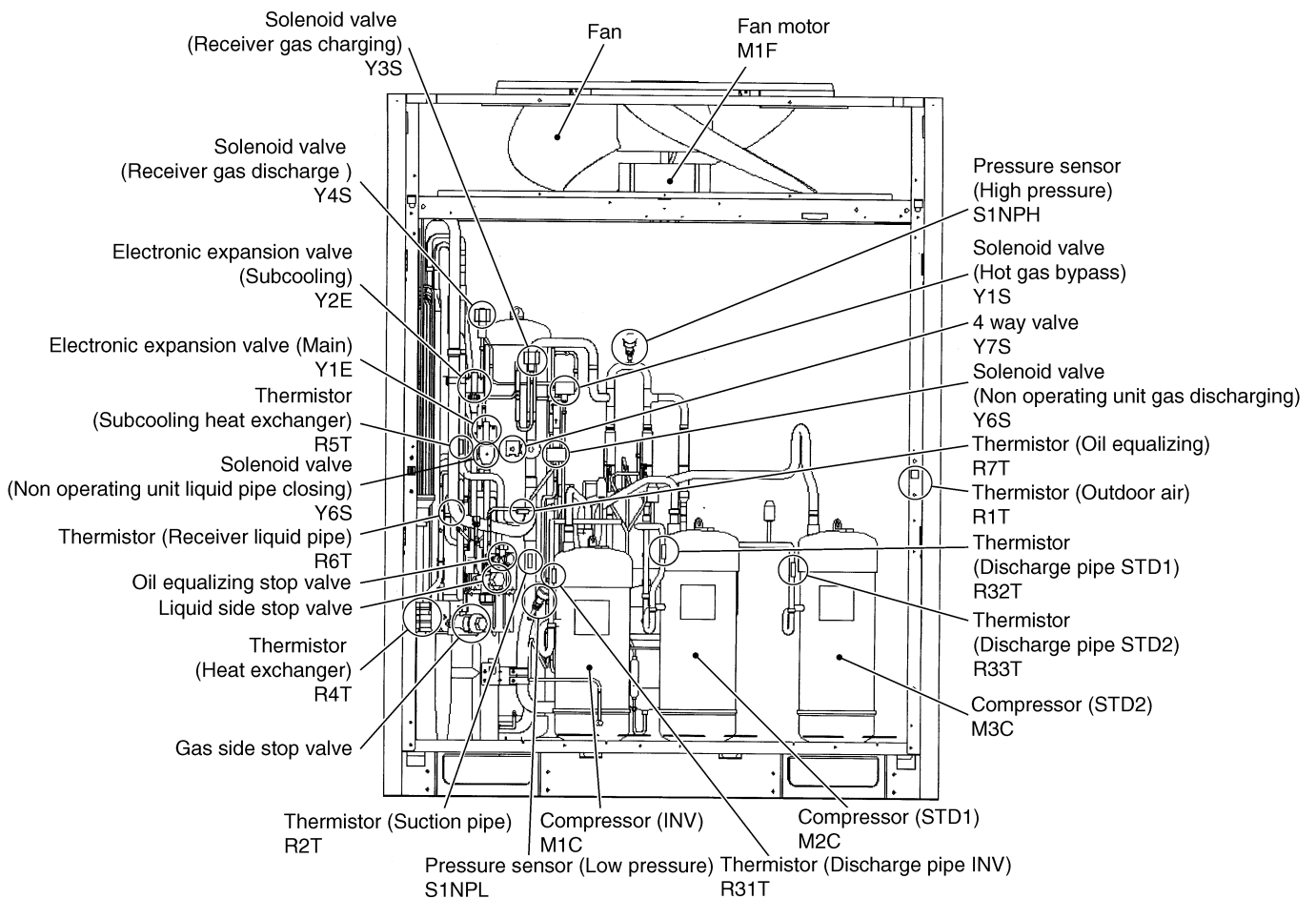


## 2.3 RXY14, 16M

### Plan



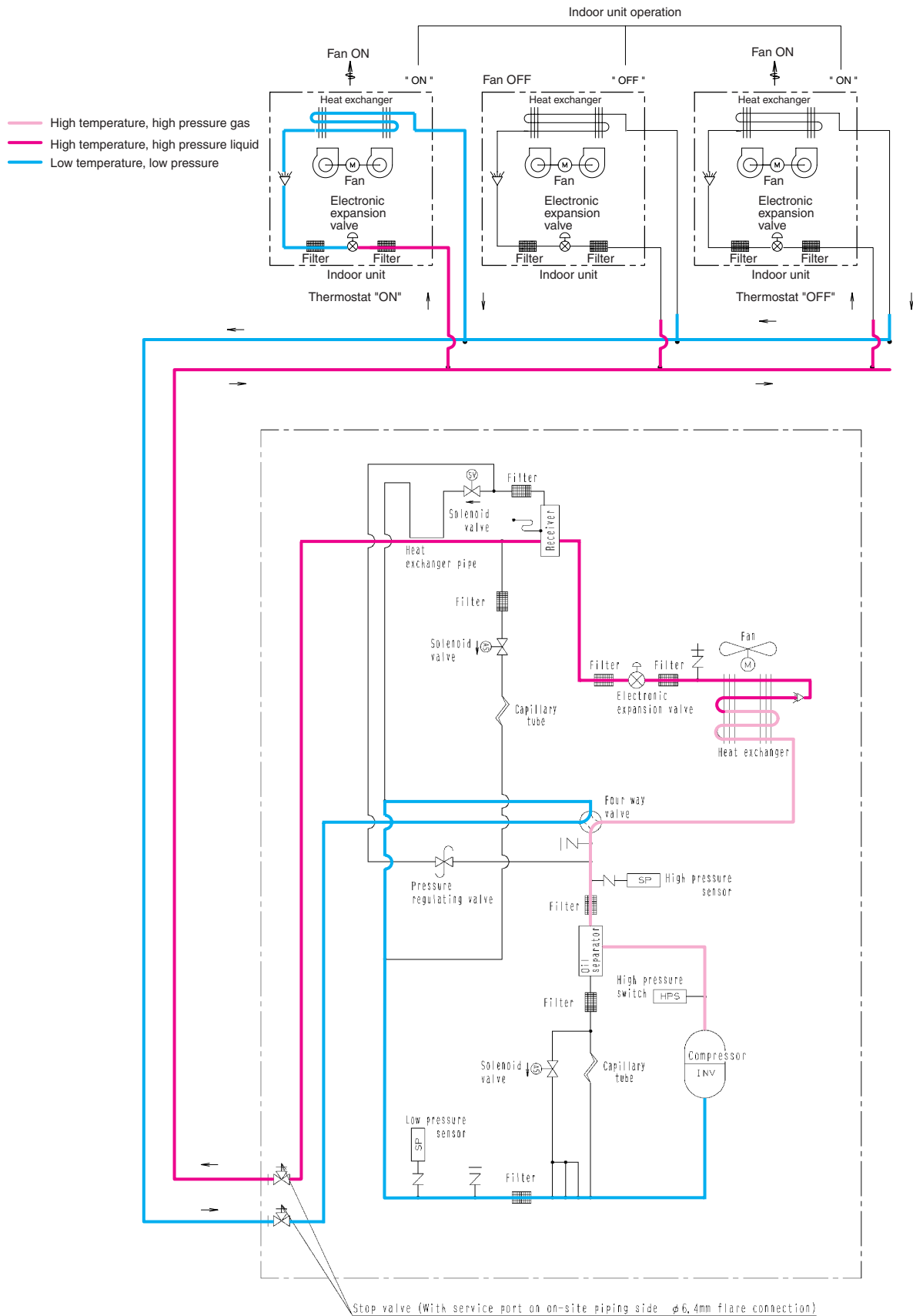
### Front View



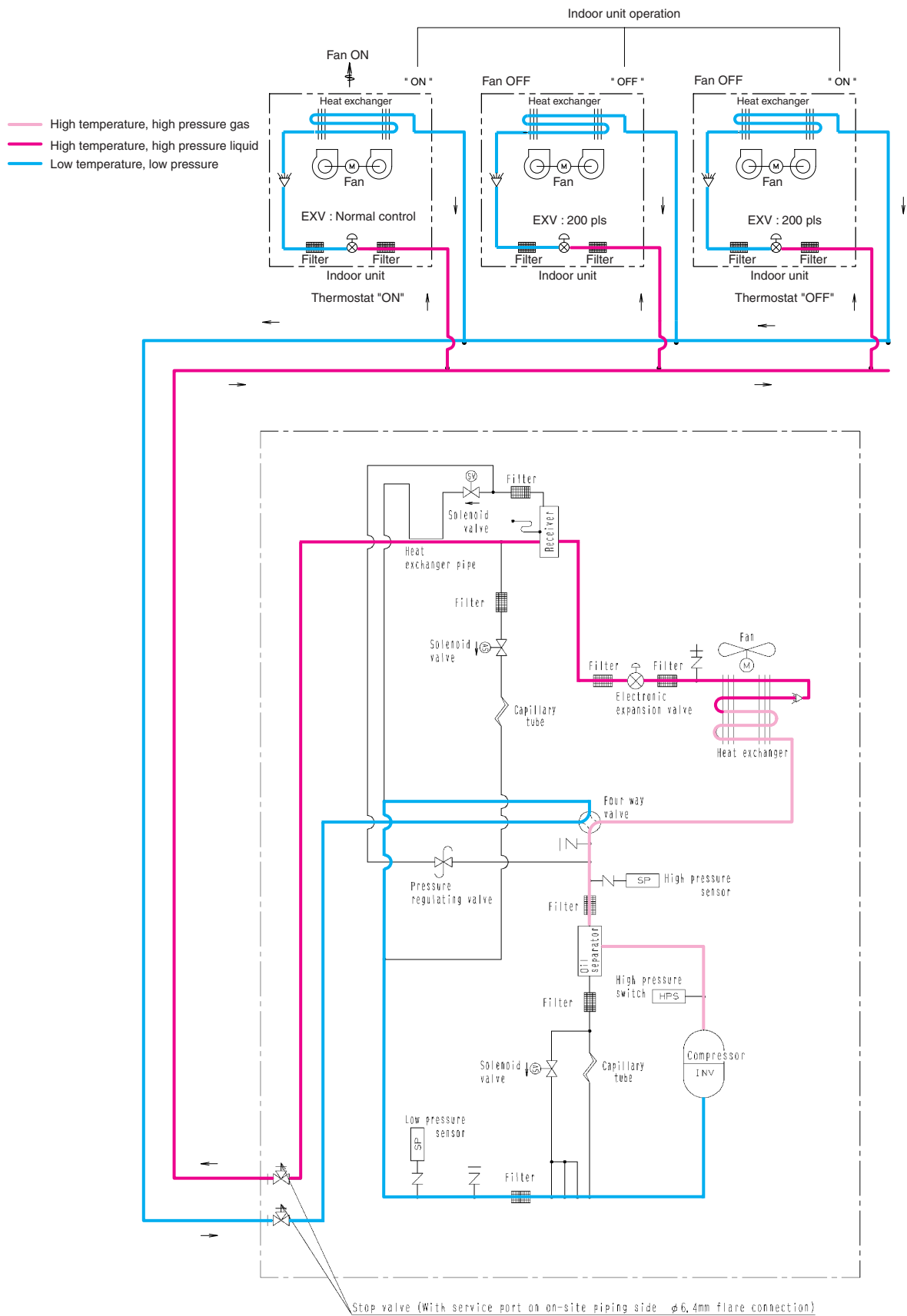
### 3. Refrigerant Flow for Each Operation Mode

#### RXY5M

#### Cooling Operation

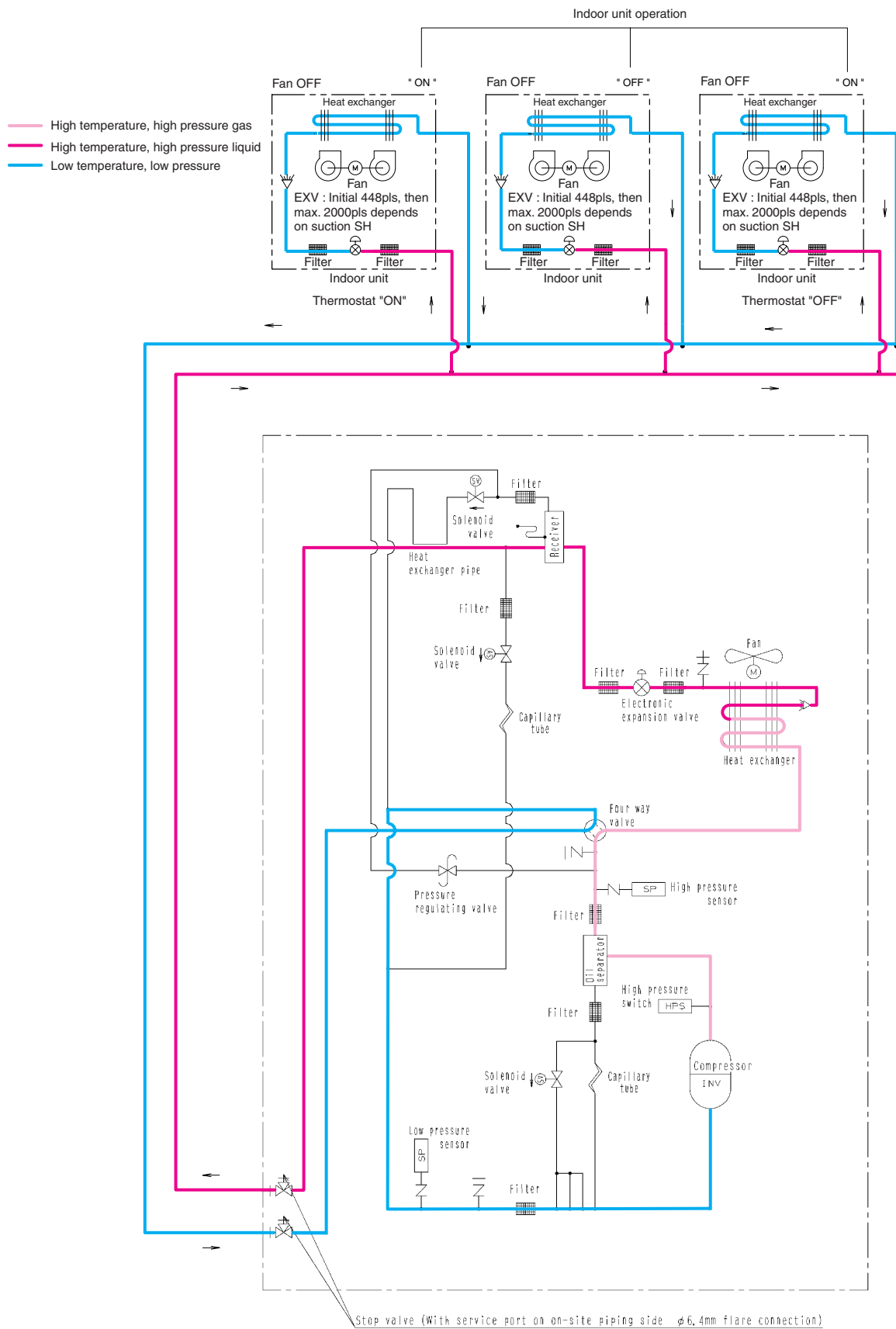


Cooling Oil Return Operation

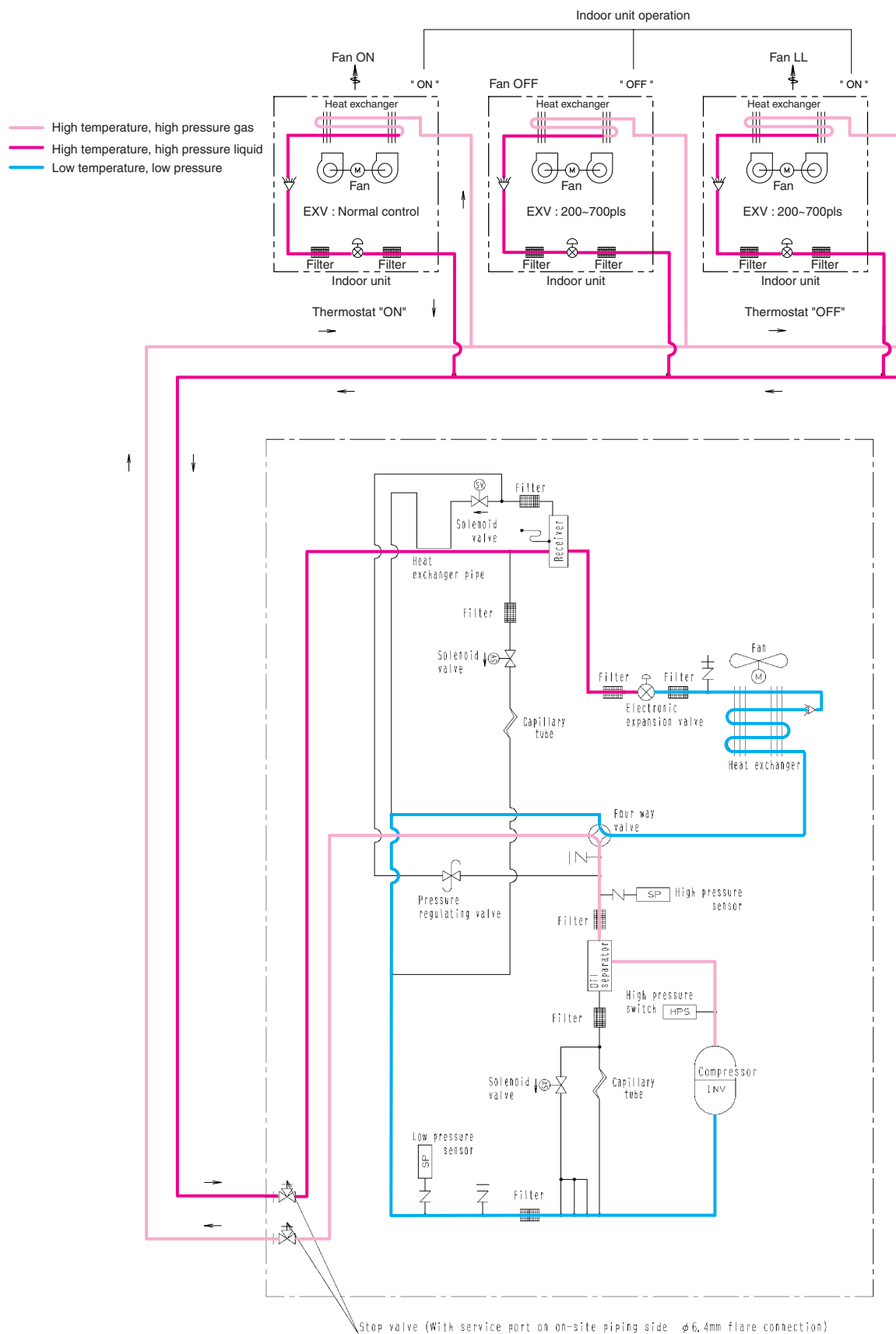


4D041235

Heating Oil Return & Defrost Operation

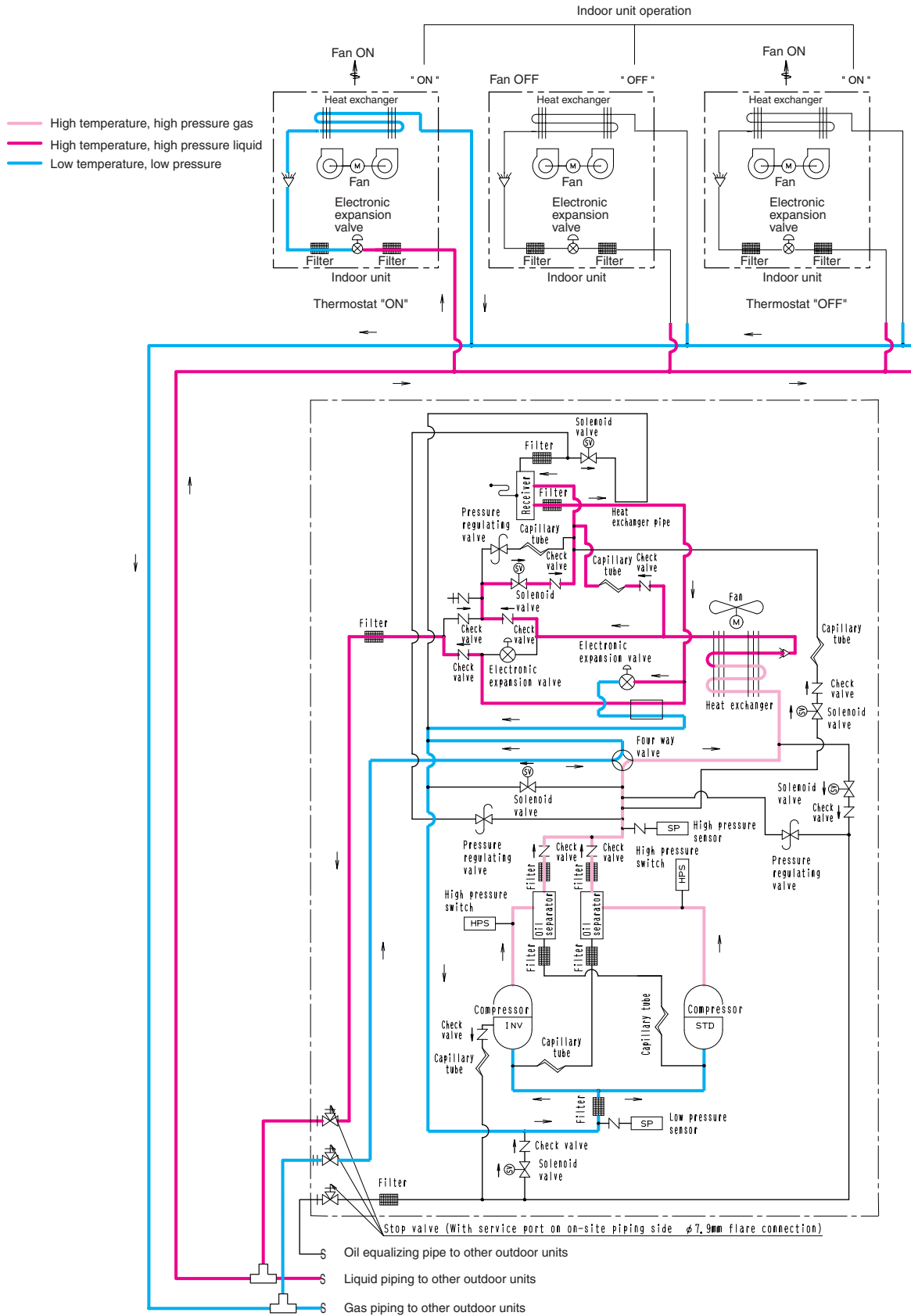


Heating Operation



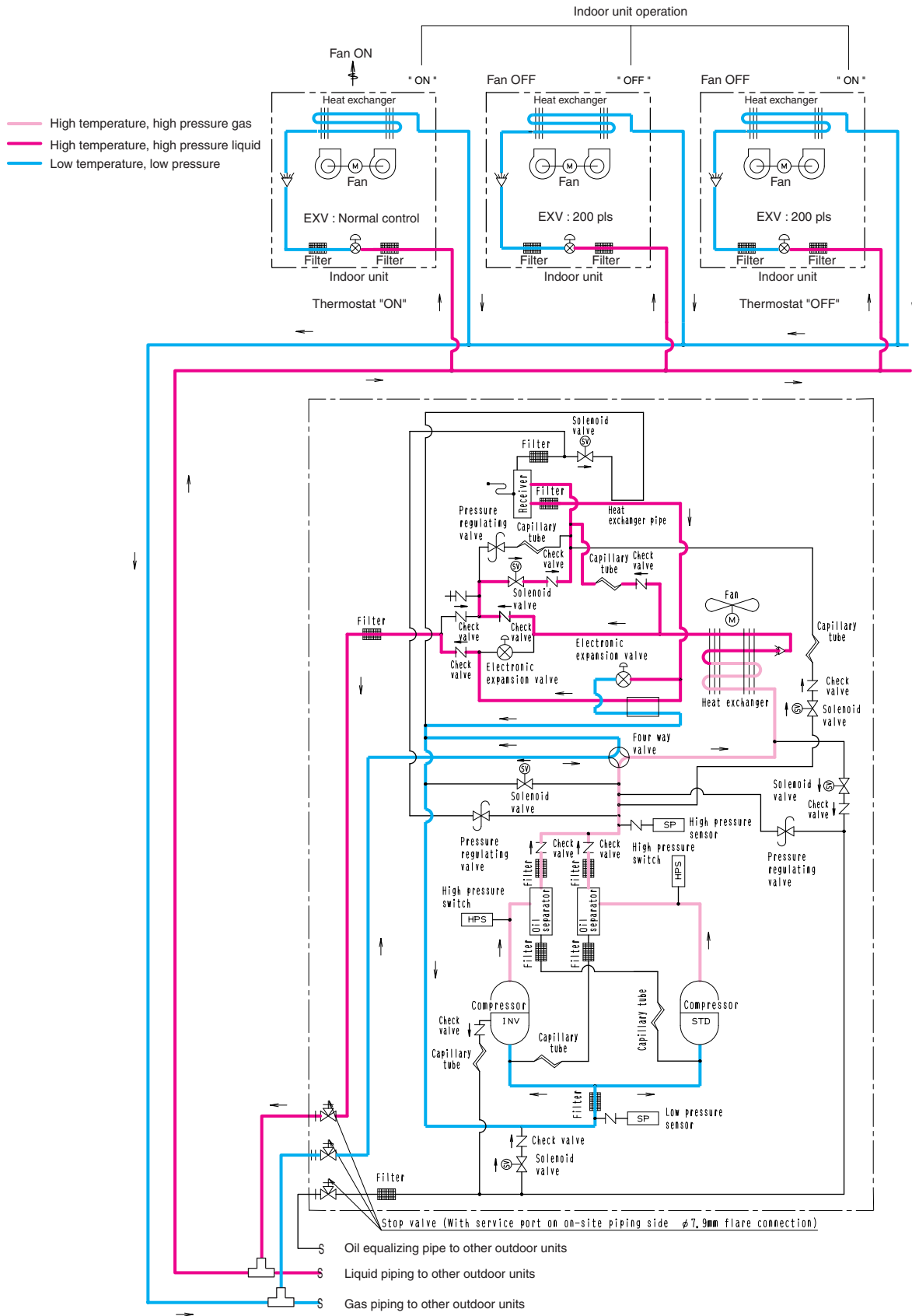
4D041235

**RXY8, 10, 12M**  
**Cooling Operation**



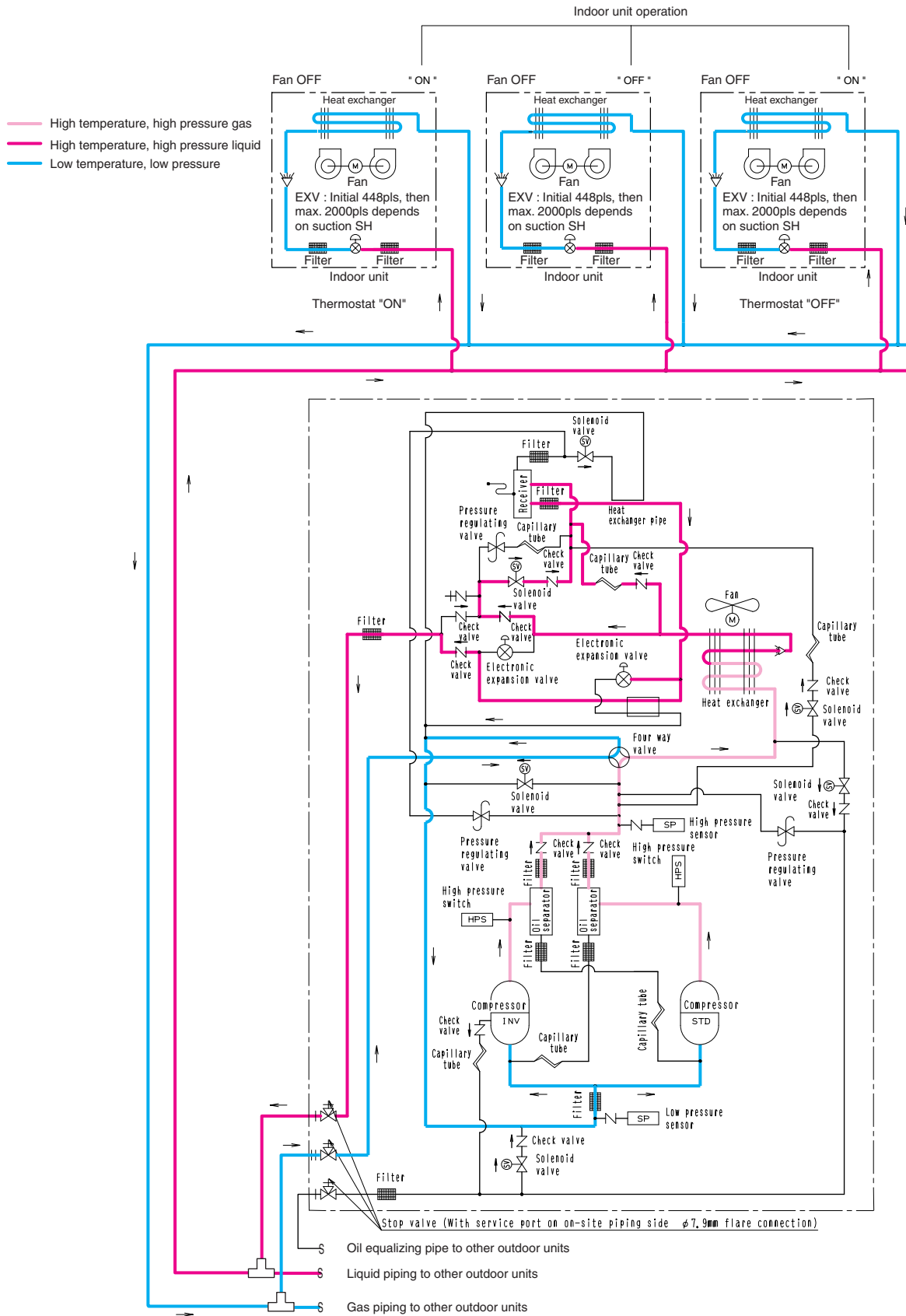


Cooling Oil Return



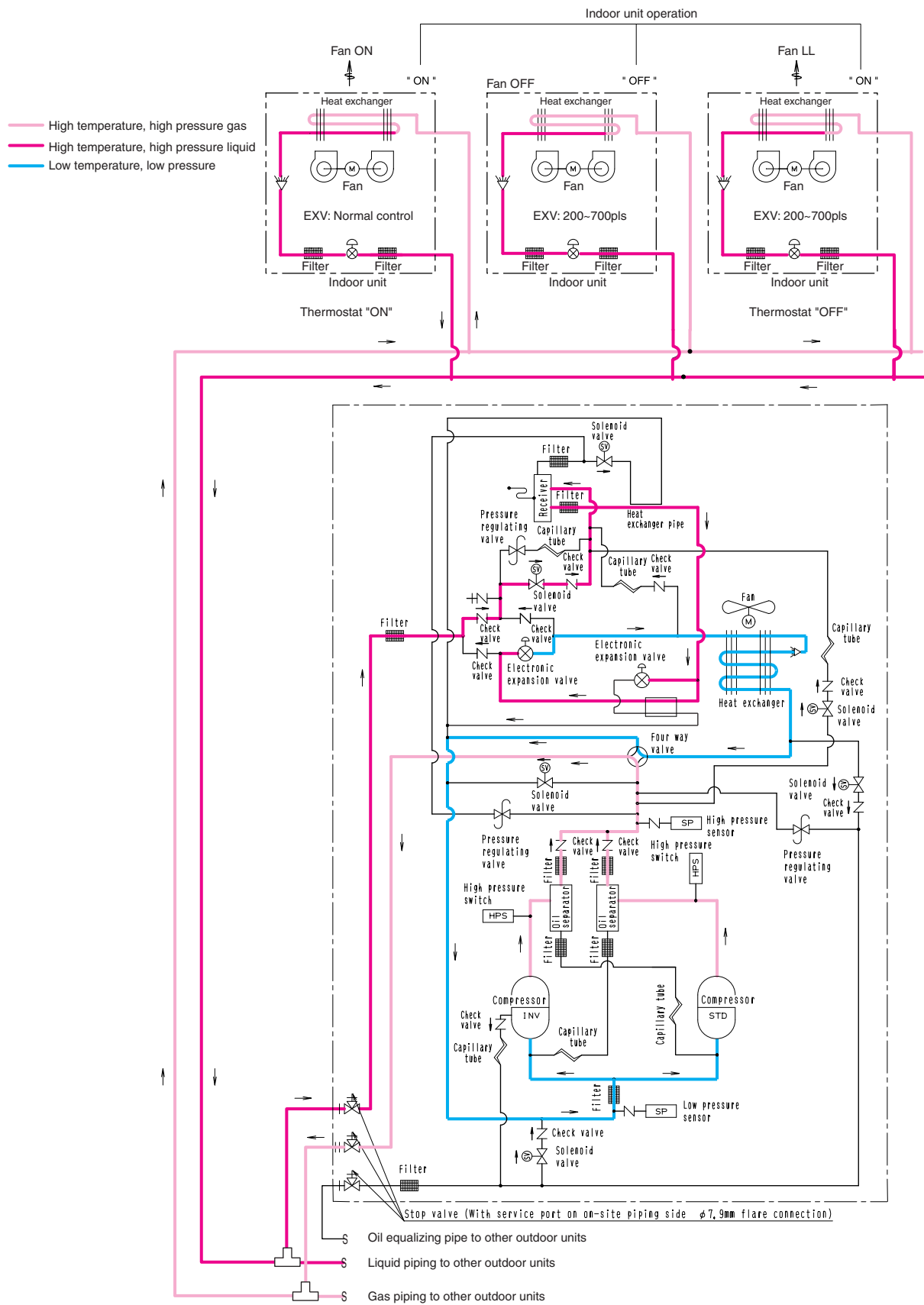
4D040338A

Heating Oil Return & Defrost



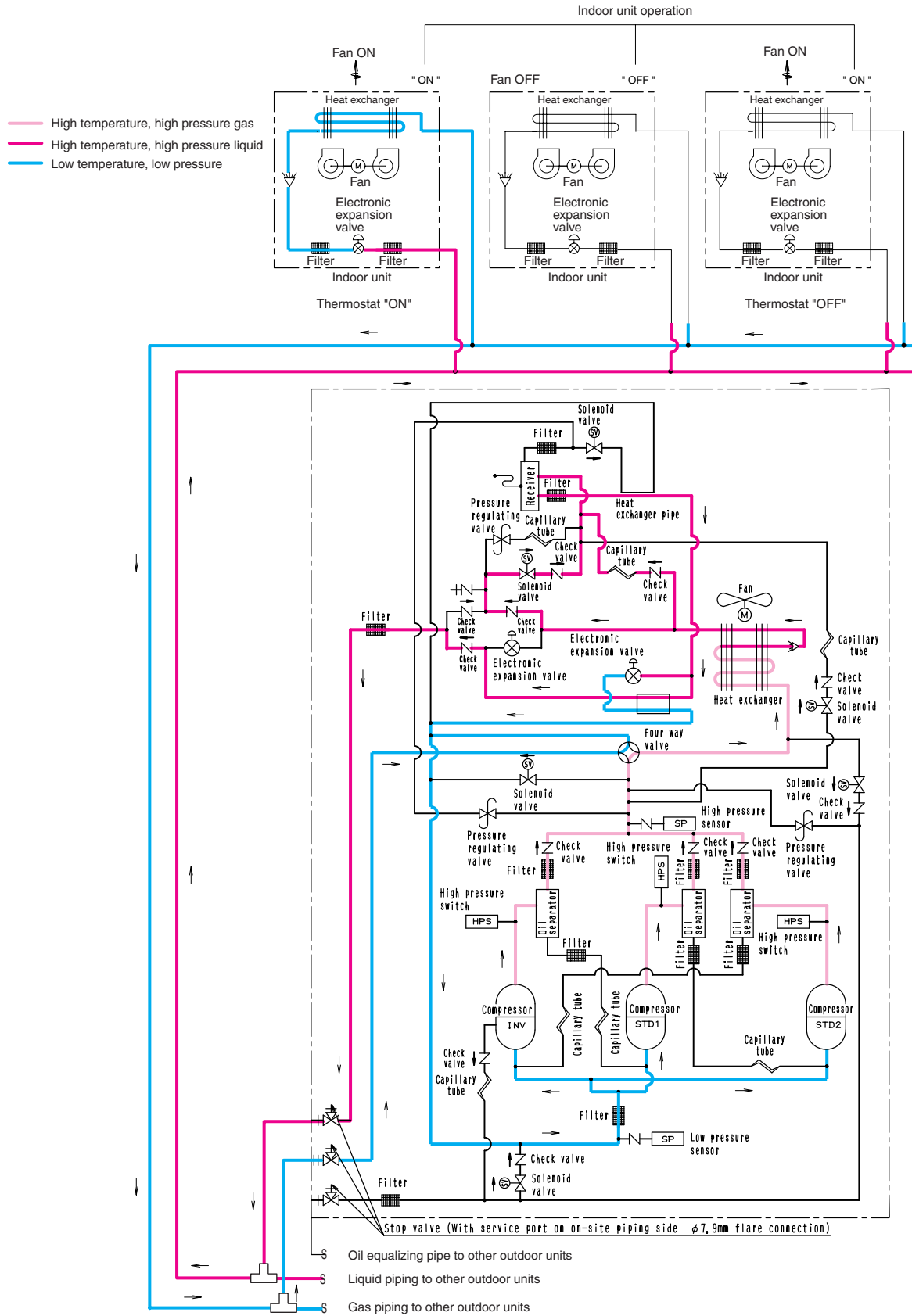
4D040338A

Heating Operation

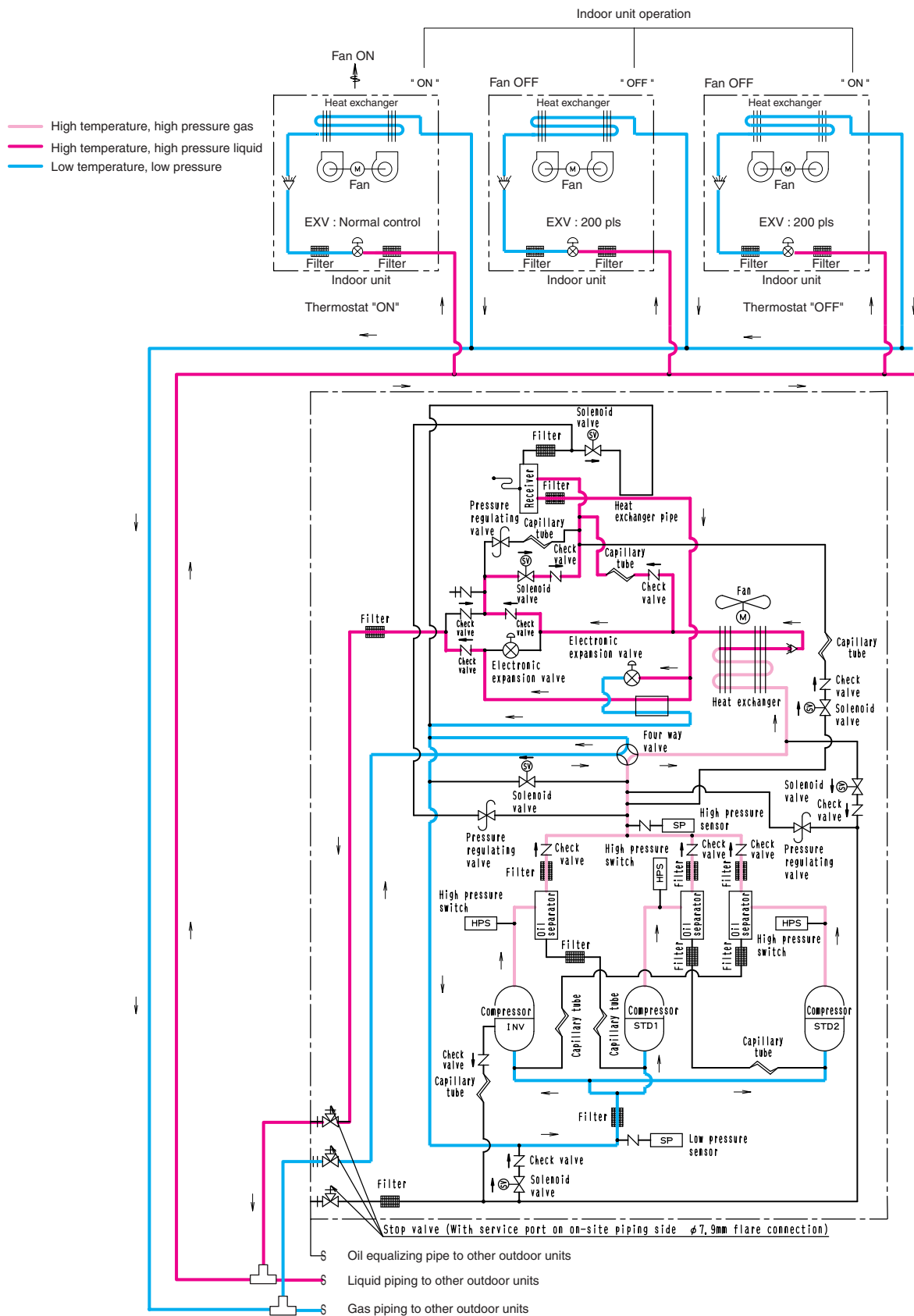


4D040338A

**RXY14, 16M**  
**Cooling Operation**



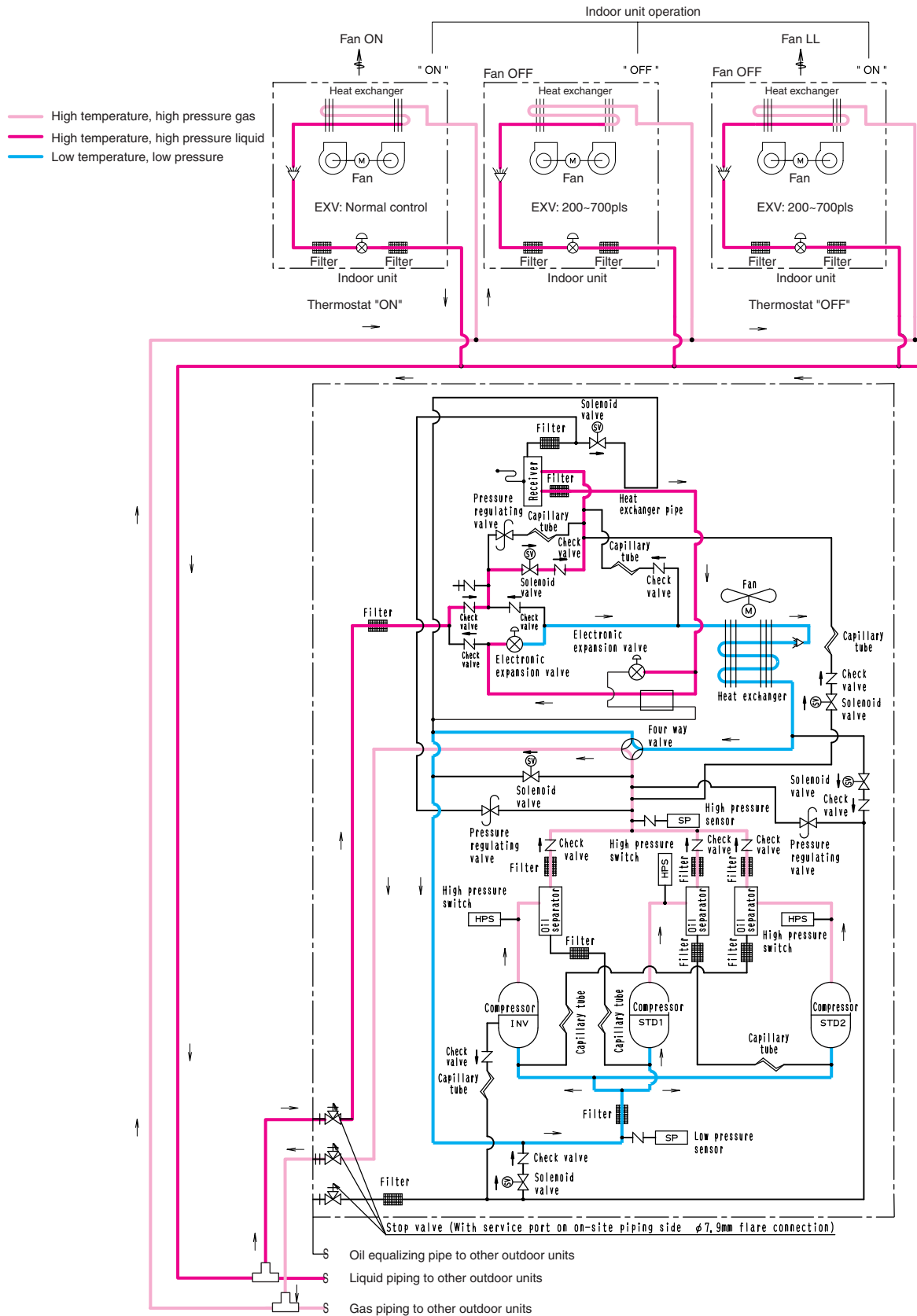
Cooling Oil Return Operation



4D040339A



Heating Operation



4D040339A

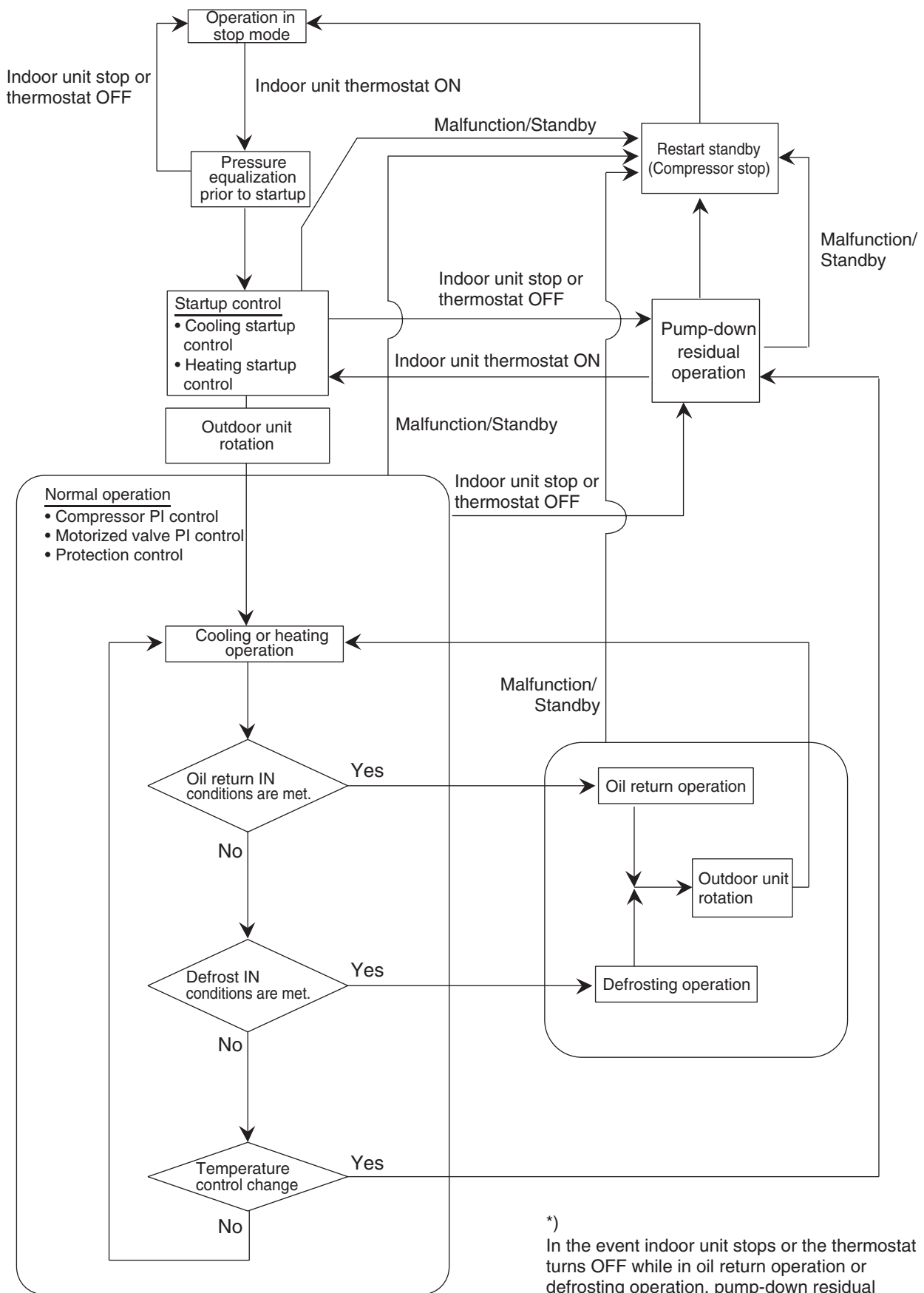
# Part 4

## Function

1. Operation Mode .....	86
2. Basic Control .....	87
2.1 Normal Operation .....	87
2.2 Compressor PI Control .....	88
2.3 Electronic Expansion Valve PI Control .....	94
2.4 Cooling Operation Fan Control .....	95
3. Special Control .....	96
3.1 Startup Control .....	96
3.2 Oil Return Operation .....	97
3.3 Defrosting Operation .....	99
3.4 Pump-down Residual Operation .....	100
3.5 Restart Standby .....	101
3.6 Stopping Operation .....	102
3.7 Pressure Equalization prior to Startup .....	104
4. Protection Control .....	105
4.1 High Pressure Protection Control .....	105
4.2 Low Pressure Protection Control .....	106
4.3 Discharge Pipe Protection Control .....	107
4.4 Inverter Protection Control .....	108
4.5 STD Compressor Overload Protection .....	109
4.6 Crankcase Heater Control .....	109
5. Other Control .....	110
5.1 Outdoor Unit Rotation .....	110
5.2 Emergency Operation .....	111
5.3 Demand Operation .....	113
5.4 Heating operation prohibition .....	113
6. Outline of Control (Indoor Unit) .....	114
6.1 Drain Pump Control .....	114
6.2 Louver Control for Preventing Ceiling Dirt .....	116
6.3 Thermostat Sensor in Remote Controller .....	117
6.4 Freeze Prevention .....	119



# 1. Operation Mode



\*)  
In the event indoor unit stops or the thermostat turns OFF while in oil return operation or defrosting operation, pump-down residual operation is performed on completion of the oil return operation or defrosting 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	—
Four way valve	OFF	—
Main motorized valve (EV1)	0 pls	— (RX(Y)5M : 2000pls)
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	—

#### ■ Heating 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	STEP8 or 9	—
Four way valve	ON	—
Main motorized valve (EV1)	PI control	—
Subcooling motorized valve (EV2)	0 pls	—
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	—
Receiver gas discharging valve (SVG)	OFF	—
Non-operating unit gas discharging valve (SVSG)	OFF	—
Non-operating unit liquid pipe stop valve (SVSL)	ON	—

★Heating operation is not functional at an outdoor air temperature of 25°C or more.

## 2.2 Compressor PI Control

### Compressor PI Control

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

#### [Cooling operation]

Controls compressor capacity to adjust  $T_e$  to achieve target value ( $T_eS$ ).

##### Te setting

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

$T_e$  : Low pressure equivalent saturation temperature (°C)

$T_eS$  : Target  $T_e$  value  
(Varies depending on  $T_e$  setting, operating frequency, etc.)

#### [Heating operation]

Controls compressor capacity to adjust  $T_c$  to achieve target value ( $T_cS$ ).

##### Tc setting

L	M (Normal) (factory setting)	H
43	46	49

$T_c$  : High pressure equivalent saturation temperature (°C)

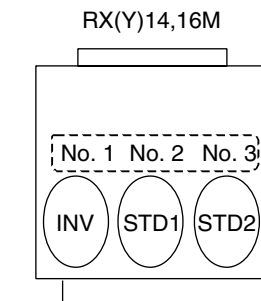
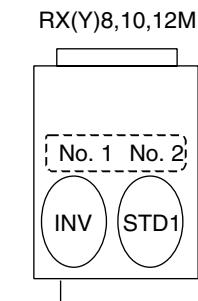
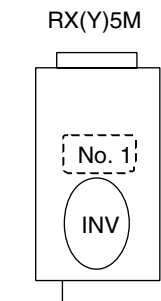
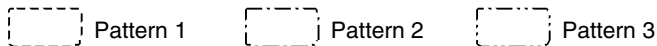
$T_cS$  : Target  $T_c$  value  
(Varies depending on  $T_c$  setting, operating frequency, etc.)

■ Compressor Operating Priority

Each compressor operates in the following order of priority.

In the case of multi-outdoor-unit system, each compressor operates in any of Pattern 1 through Pattern 3 according to the rotation of outdoor units.

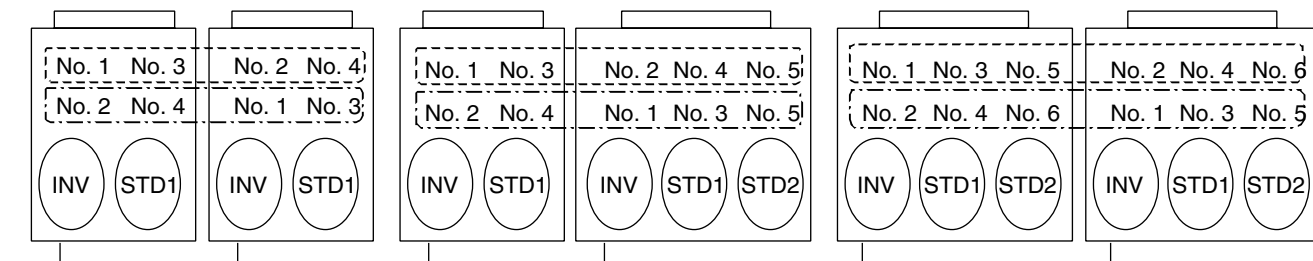
INV: Inverter compressor  
 STD1: Standard compressor 1  
 STD2: Standard compressor 2



RX(Y)18,20,22M

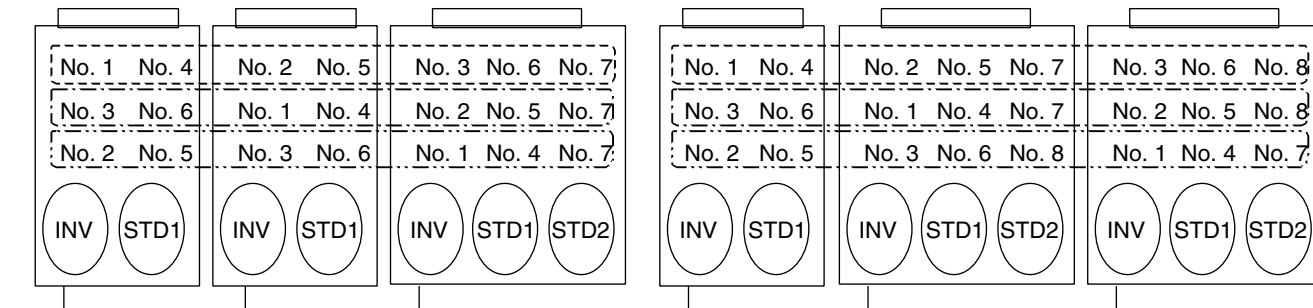
RX(Y)24,26,28M

RX(Y)30,32M

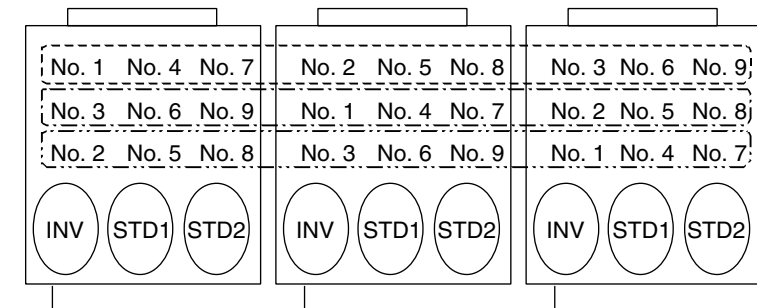


RX(Y)34,36,38M

RX(Y)40,42,44M



RX(Y)46,48M



- \*
- In the case of combination of 3 outdoor units, the above diagram shows master unit, slave unit 1, and slave unit 2 from left to right.
  - Compressors may operate in any pattern other than those mentioned above according to the operating status.

RX(Y)5M

STEP	INV
1	52Hz
2	57Hz
3	62Hz
4	68Hz
5	74Hz
6	81Hz
7	88Hz
8	96Hz
9	104Hz
10	110Hz
11	116Hz
12	124Hz
13	133Hz
14	143Hz
15	158Hz
16	165Hz
17	177Hz
18	189Hz
19	202Hz
20	210Hz

RX(Y)8,10,12M

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

RX(Y)14,16M

STEP	INV	STD1	STD2
1	52Hz	OFF	OFF
2	57Hz	OFF	OFF
3	62Hz	OFF	OFF
4	68Hz	OFF	OFF
5	74Hz	OFF	OFF
6	81Hz	OFF	OFF
7	88Hz	OFF	OFF
8	96Hz	OFF	OFF
9	104Hz	OFF	OFF
10	110Hz	OFF	OFF
11	116Hz	OFF	OFF
12	124Hz	OFF	OFF
13	133Hz	OFF	OFF
14	143Hz	OFF	OFF
15	158Hz	OFF	OFF
16	165Hz	OFF	OFF
17	177Hz	OFF	OFF
18	189Hz	OFF	OFF
19	202Hz	OFF	OFF
20	210Hz	OFF	OFF
21	52Hz	ON	OFF
22	74Hz	ON	OFF
23	96Hz	ON	OFF
24	116Hz	ON	OFF
25	133Hz	ON	OFF
26	158Hz	ON	OFF
27	177Hz	ON	OFF
28	189Hz	ON	OFF
29	52Hz	ON	ON
30	88Hz	ON	ON
31	124Hz	ON	ON
32	158Hz	ON	ON
33	189Hz	ON	ON

RX(Y)18,20,22M

STEP	Master unit INV	Slave unit INV	STD unit No.1	STD unit No.2
1	52Hz	OFF	OFF	OFF
2	57Hz	OFF	OFF	OFF
3	62Hz	OFF	OFF	OFF
4	68Hz	OFF	OFF	OFF
5	74Hz	OFF	OFF	OFF
6	81Hz	OFF	OFF	OFF
7	88Hz	OFF	OFF	OFF
8	96Hz	OFF	OFF	OFF
9	104Hz	OFF	OFF	OFF
10	110Hz	OFF	OFF	OFF
11	116Hz	OFF	OFF	OFF
12	124Hz	OFF	OFF	OFF
13	133Hz	OFF	OFF	OFF
14	143Hz	OFF	OFF	OFF
15	158Hz	OFF	OFF	OFF
16	165Hz	OFF	OFF	OFF
17	177Hz	OFF	OFF	OFF
18	189Hz	OFF	OFF	OFF
19	202Hz	OFF	OFF	OFF
20	210Hz	OFF	OFF	OFF
21	52Hz	189Hz	OFF	OFF
22	74Hz	189Hz	OFF	OFF
23	96Hz	189Hz	OFF	OFF
24	116Hz	189Hz	OFF	OFF
25	133Hz	189Hz	OFF	OFF
26	158Hz	189Hz	OFF	OFF
27	177Hz	189Hz	OFF	OFF
28	202Hz	189Hz	OFF	OFF
29	210Hz	189Hz	OFF	OFF
30	52Hz	189Hz	ON	OFF
31	88Hz	189Hz	ON	OFF
32	124Hz	189Hz	ON	OFF
33	158Hz	189Hz	ON	OFF
34	189Hz	189Hz	ON	OFF
35	210Hz	189Hz	ON	OFF
36	52Hz	189Hz	ON	ON
37	88Hz	189Hz	ON	ON
38	124Hz	189Hz	ON	ON
39	158Hz	189Hz	ON	ON
40	189Hz	189Hz	ON	ON
41	210Hz	189Hz	ON	ON

RX(Y)24,26,28M

STEP	Master unit INV	Slave unit INV	STD unit No.1	STD unit No.2	STD unit No.3
1	52Hz	OFF	OFF	OFF	OFF
2	57Hz	OFF	OFF	OFF	OFF
3	62Hz	OFF	OFF	OFF	OFF
4	68Hz	OFF	OFF	OFF	OFF
5	74Hz	OFF	OFF	OFF	OFF
6	81Hz	OFF	OFF	OFF	OFF
7	88Hz	OFF	OFF	OFF	OFF
8	96Hz	OFF	OFF	OFF	OFF
9	104Hz	OFF	OFF	OFF	OFF
10	110Hz	OFF	OFF	OFF	OFF
11	116Hz	OFF	OFF	OFF	OFF
12	124Hz	OFF	OFF	OFF	OFF
13	133Hz	OFF	OFF	OFF	OFF
14	143Hz	OFF	OFF	OFF	OFF
15	158Hz	OFF	OFF	OFF	OFF
16	165Hz	OFF	OFF	OFF	OFF
17	177Hz	OFF	OFF	OFF	OFF
18	189Hz	OFF	OFF	OFF	OFF
19	202Hz	OFF	OFF	OFF	OFF
20	210Hz	OFF	OFF	OFF	OFF
21	52Hz	189Hz	OFF	OFF	OFF
22	74Hz	189Hz	OFF	OFF	OFF
23	96Hz	189Hz	OFF	OFF	OFF
24	116Hz	189Hz	OFF	OFF	OFF
25	133Hz	189Hz	OFF	OFF	OFF
26	158Hz	189Hz	OFF	OFF	OFF
27	177Hz	189Hz	OFF	OFF	OFF
28	202Hz	189Hz	OFF	OFF	OFF
29	210Hz	189Hz	OFF	OFF	OFF
30	52Hz	189Hz	ON	OFF	OFF
31	88Hz	189Hz	ON	OFF	OFF
32	124Hz	189Hz	ON	OFF	OFF
33	158Hz	189Hz	ON	OFF	OFF
34	189Hz	189Hz	ON	OFF	OFF
35	210Hz	189Hz	ON	OFF	OFF
36	52Hz	189Hz	ON	ON	OFF
37	88Hz	189Hz	ON	ON	OFF
38	124Hz	189Hz	ON	ON	OFF
39	158Hz	189Hz	ON	ON	OFF
40	189Hz	189Hz	ON	ON	OFF
41	210Hz	189Hz	ON	ON	OFF
42	52Hz	189Hz	ON	ON	ON
43	104Hz	189Hz	ON	ON	ON
44	143Hz	189Hz	ON	ON	ON
45	189Hz	189Hz	ON	ON	ON
46	210Hz	189Hz	ON	ON	ON

- \*
- Compressors are operated in the order of descending priorities.
  - Compressors may operate in a pattern other than those listed in above tables subject to the operating conditions.
  - “Master unit”, and “slave unit” in this section are the names for control, and they will be transferred according to the priority of rotation system.

## RX(Y)30,32M

STEP	Master unit INV	Slave unit INV	STD unit No.1	STD unit No.2	STD unit No.3	STD unit No.4
1	52Hz	OFF	OFF	OFF	OFF	OFF
2	57Hz	OFF	OFF	OFF	OFF	OFF
3	62Hz	OFF	OFF	OFF	OFF	OFF
4	68Hz	OFF	OFF	OFF	OFF	OFF
5	74Hz	OFF	OFF	OFF	OFF	OFF
6	81Hz	OFF	OFF	OFF	OFF	OFF
7	88Hz	OFF	OFF	OFF	OFF	OFF
8	96Hz	OFF	OFF	OFF	OFF	OFF
9	104Hz	OFF	OFF	OFF	OFF	OFF
10	110Hz	OFF	OFF	OFF	OFF	OFF
11	116Hz	OFF	OFF	OFF	OFF	OFF
12	124Hz	OFF	OFF	OFF	OFF	OFF
13	133Hz	OFF	OFF	OFF	OFF	OFF
14	143Hz	OFF	OFF	OFF	OFF	OFF
15	158Hz	OFF	OFF	OFF	OFF	OFF
16	165Hz	OFF	OFF	OFF	OFF	OFF
17	177Hz	OFF	OFF	OFF	OFF	OFF
18	189Hz	OFF	OFF	OFF	OFF	OFF
19	202Hz	OFF	OFF	OFF	OFF	OFF
20	210Hz	OFF	OFF	OFF	OFF	OFF
21	52Hz	189Hz	OFF	OFF	OFF	OFF
22	74Hz	189Hz	OFF	OFF	OFF	OFF
23	96Hz	189Hz	OFF	OFF	OFF	OFF
24	116Hz	189Hz	OFF	OFF	OFF	OFF
25	133Hz	189Hz	OFF	OFF	OFF	OFF
26	158Hz	189Hz	OFF	OFF	OFF	OFF
27	177Hz	189Hz	OFF	OFF	OFF	OFF
28	202Hz	189Hz	OFF	OFF	OFF	OFF
29	210Hz	189Hz	OFF	OFF	OFF	OFF
30	52Hz	189Hz	ON	OFF	OFF	OFF
31	88Hz	189Hz	ON	OFF	OFF	OFF
32	124Hz	189Hz	ON	OFF	OFF	OFF
33	158Hz	189Hz	ON	OFF	OFF	OFF
34	189Hz	189Hz	ON	OFF	OFF	OFF
35	210Hz	189Hz	ON	OFF	OFF	OFF
36	52Hz	189Hz	ON	ON	OFF	OFF
37	88Hz	189Hz	ON	ON	OFF	OFF
38	124Hz	189Hz	ON	ON	OFF	OFF
39	158Hz	189Hz	ON	ON	OFF	OFF
40	189Hz	189Hz	ON	ON	OFF	OFF
41	52Hz	189Hz	ON	ON	ON	OFF
42	104Hz	189Hz	ON	ON	ON	OFF
43	143Hz	189Hz	ON	ON	ON	OFF
44	189Hz	189Hz	ON	ON	ON	OFF
45	52Hz	189Hz	ON	ON	ON	ON
46	104Hz	189Hz	ON	ON	ON	ON
47	143Hz	189Hz	ON	ON	ON	ON
48	189Hz	189Hz	ON	ON	ON	ON

## RX(Y)34,36,38M

STEP	Master unit INV	Slave unit1 INV	Slave unit2 INV	STD unit No.1	STD unit No.2	STD unit No.3	STD unit No.4
1	52Hz	OFF	OFF	OFF	OFF	OFF	OFF
2	57Hz	OFF	OFF	OFF	OFF	OFF	OFF
3	62Hz	OFF	OFF	OFF	OFF	OFF	OFF
4	68Hz	OFF	OFF	OFF	OFF	OFF	OFF
5	74Hz	OFF	OFF	OFF	OFF	OFF	OFF
6	81Hz	OFF	OFF	OFF	OFF	OFF	OFF
7	88Hz	OFF	OFF	OFF	OFF	OFF	OFF
8	96Hz	OFF	OFF	OFF	OFF	OFF	OFF
9	104Hz	OFF	OFF	OFF	OFF	OFF	OFF
10	110Hz	OFF	OFF	OFF	OFF	OFF	OFF
11	116Hz	OFF	OFF	OFF	OFF	OFF	OFF
12	124Hz	OFF	OFF	OFF	OFF	OFF	OFF
13	133Hz	OFF	OFF	OFF	OFF	OFF	OFF
14	143Hz	OFF	OFF	OFF	OFF	OFF	OFF
15	158Hz	OFF	OFF	OFF	OFF	OFF	OFF
16	165Hz	OFF	OFF	OFF	OFF	OFF	OFF
17	177Hz	OFF	OFF	OFF	OFF	OFF	OFF
18	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
19	202Hz	OFF	OFF	OFF	OFF	OFF	OFF
20	210Hz	OFF	OFF	OFF	OFF	OFF	OFF
21	52Hz	189Hz	OFF	OFF	OFF	OFF	OFF
22	74Hz	189Hz	OFF	OFF	OFF	OFF	OFF
23	96Hz	189Hz	OFF	OFF	OFF	OFF	OFF
24	116Hz	189Hz	OFF	OFF	OFF	OFF	OFF
25	133Hz	189Hz	OFF	OFF	OFF	OFF	OFF
26	158Hz	189Hz	OFF	OFF	OFF	OFF	OFF
27	177Hz	189Hz	OFF	OFF	OFF	OFF	OFF
28	202Hz	189Hz	OFF	OFF	OFF	OFF	OFF
29	210Hz	189Hz	OFF	OFF	OFF	OFF	OFF
30	52Hz	189Hz	189Hz	OFF	OFF	OFF	OFF
31	88Hz	189Hz	189Hz	OFF	OFF	OFF	OFF
32	124Hz	189Hz	189Hz	OFF	OFF	OFF	OFF
33	158Hz	189Hz	189Hz	OFF	OFF	OFF	OFF
34	189Hz	189Hz	189Hz	OFF	OFF	OFF	OFF
35	210Hz	189Hz	189Hz	OFF	OFF	OFF	OFF
36	52Hz	189Hz	189Hz	ON	OFF	OFF	OFF
37	88Hz	189Hz	189Hz	ON	OFF	OFF	OFF
38	124Hz	189Hz	189Hz	ON	OFF	OFF	OFF
39	158Hz	189Hz	189Hz	ON	OFF	OFF	OFF
40	189Hz	189Hz	189Hz	ON	OFF	OFF	OFF
41	210Hz	189Hz	189Hz	ON	OFF	OFF	OFF
42	52Hz	189Hz	189Hz	ON	ON	OFF	OFF
43	104Hz	189Hz	189Hz	ON	ON	OFF	OFF
44	143Hz	189Hz	189Hz	ON	ON	OFF	OFF
45	189Hz	189Hz	189Hz	ON	ON	OFF	OFF
46	210Hz	189Hz	189Hz	ON	ON	OFF	OFF
47	52Hz	189Hz	189Hz	ON	ON	ON	OFF
48	104Hz	189Hz	189Hz	ON	ON	ON	OFF
49	143Hz	189Hz	189Hz	ON	ON	ON	OFF
50	189Hz	189Hz	189Hz	ON	ON	ON	OFF
51	52Hz	189Hz	189Hz	ON	ON	ON	ON
52	104Hz	189Hz	189Hz	ON	ON	ON	ON
53	143Hz	189Hz	189Hz	ON	ON	ON	ON
54	189Hz	189Hz	189Hz	ON	ON	ON	ON

- \*
- Compressors are operated in the order of descending priorities.
  - Compressors may operate in a pattern other than those listed in above tables subject to the operating conditions.
  - "Master unit", and "slave unit" in this section are the names for control, and they will be transferred according to the priority of rotation system.

## RX(Y)40,42,44M

STEP	Master unit INV	Slave unit1 INV	Slave unit2 INV	STD unit No.1	STD unit No.2	STD unit No.3	STD unit No.4	STD unit No.5
1	52Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	57Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	62Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4	68Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
5	74Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
6	81Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
7	88Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
8	96Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
9	104Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
10	110Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
11	116Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
12	124Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
13	133Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
14	143Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
15	158Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
16	165Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
17	177Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
18	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
19	202Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
20	210Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
21	52Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
22	74Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
23	96Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
24	116Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
25	133Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
26	158Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
27	177Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
28	202Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
29	210Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
30	52Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF
31	88Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF
32	124Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF
33	158Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF
34	189Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF
35	210Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF
36	52Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF
37	88Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF
38	124Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF
39	158Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF
40	189Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF
41	210Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF
42	52Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF
43	104Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF
44	143Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF
45	189Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF
46	210Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF
47	52Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF
48	104Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF
49	143Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF
50	189Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF
51	52Hz	189Hz	189Hz	ON	ON	ON	ON	OFF
52	104Hz	189Hz	189Hz	ON	ON	ON	ON	OFF
53	143Hz	189Hz	189Hz	ON	ON	ON	ON	OFF
54	189Hz	189Hz	189Hz	ON	ON	ON	ON	OFF
55	52Hz	189Hz	189Hz	ON	ON	ON	ON	ON
56	104Hz	189Hz	189Hz	ON	ON	ON	ON	ON
57	143Hz	189Hz	189Hz	ON	ON	ON	ON	ON
58	189Hz	189Hz	189Hz	ON	ON	ON	ON	ON

\*

- Compressors are operated in the order of descending priorities.
- Compressors may operate in a pattern other than those listed in above tables subject to on the operating conditions.
- “Master unit”, “slave unit 1” and “slave unit 2” in this section are the names for control, and they will be transferred according to the priority of rotation system.

## RX(Y)46,48M

STEP	Master unit INV	Slave unit1 INV	Slave unit2 INV	STD unit No.1	STD unit No.2	STD unit No.3	STD unit No.4	STD unit No.5	STD unit No.6
1	52Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	57Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	62Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4	68Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
5	74Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
6	81Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
7	88Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
8	96Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
9	104Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
10	110Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
11	116Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
12	124Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
13	133Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
14	143Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
15	158Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
16	165Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
17	177Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
18	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
19	202Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
20	210Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
21	52Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
22	74Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
23	96Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
24	116Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
25	133Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
26	158Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
27	177Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
28	202Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
29	210Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF	OFF
30	52Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
31	88Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
32	124Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
33	158Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
34	189Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
35	210Hz	189Hz	189Hz	OFF	OFF	OFF	OFF	OFF	OFF
36	52Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF	OFF
37	88Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF	OFF
38	124Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF	OFF
39	158Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF	OFF
40	189Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF	OFF
41	210Hz	189Hz	189Hz	ON	OFF	OFF	OFF	OFF	OFF
42	52Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF	OFF
43	104Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF	OFF
44	143Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF	OFF
45	189Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF	OFF
46	210Hz	189Hz	189Hz	ON	ON	OFF	OFF	OFF	OFF
47	52Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF	OFF
48	104Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF	OFF
49	143Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF	OFF
50	189Hz	189Hz	189Hz	ON	ON	ON	OFF	OFF	OFF
51	52Hz	189Hz	189Hz	ON	ON	ON	ON	OFF	OFF
52	104Hz	189Hz	189Hz	ON	ON	ON	ON	OFF	OFF
53	143Hz	189Hz	189Hz	ON	ON	ON	ON	OFF	OFF
54	189Hz	189Hz	189Hz	ON	ON	ON	ON	OFF	OFF
55	52Hz	189Hz	189Hz	ON	ON	ON	ON	ON	OFF
56	104Hz	189Hz	189Hz	ON	ON	ON	ON	ON	OFF
57	143Hz	189Hz	189Hz	ON	ON	ON	ON	ON	OFF
58	189Hz	189Hz	189Hz	ON	ON	ON	ON	ON	OFF
59	52Hz	189Hz	189Hz	ON	ON	ON	ON	ON	ON
60	104Hz	189Hz	189Hz	ON	ON	ON	ON	ON	ON
61	143Hz	189Hz	189Hz	ON	ON	ON	ON	ON	ON
62	189Hz	189Hz	189Hz	ON	ON	ON	ON	ON	ON

- Compressors are operated in the order of descending priorities.
- Compressors may operate in a pattern other than those listed in above tables subject to on the operating conditions.
- “Master unit”, “slave unit 1” and “slave unit 2” in this section are the names for control, and they will be transferred according to the priority of rotation system.



## 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.

$$SH = Tsh - Te$$

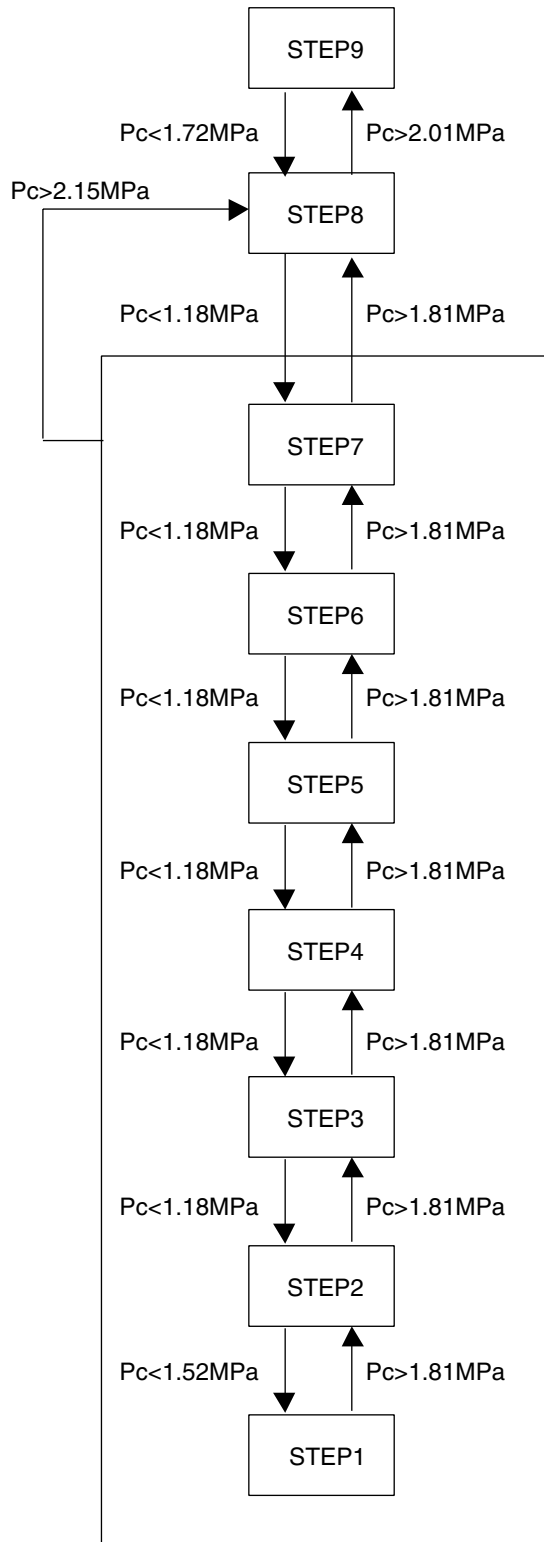
SH : Outlet superheated degree of evaporator (°C)

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

	RX(Y)5M	RX(Y) 8 and 10M	RX(Y) 12 to 16M
STEP1	0rpm	0rpm	0rpm
STEP2	300rpm	300rpm	300rpm
STEP3	320rpm	320rpm	325rpm
STEP4	350rpm	345rpm	355rpm
STEP5	385rpm	385rpm	400rpm
STEP6	470rpm	465rpm	500rpm
STEP7	585rpm	575rpm	630rpm
STEP8	800rpm	765rpm	880rpm
STEP9	840rpm	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 $P_c - P_e > 0.4$ MPa.
Outdoor unit fan	High pressure control	Initial compressor operating frequency is set to STEP 1. 1-step increase with $P_c > 1.5$ MPa 1-step decrease with $P_c < 1.2$ MPa
Four way valve	OFF	—
Main motorized valve (EV1)	0 pls	— (RX(Y)5M : 2000pls)
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	<ul style="list-style-type: none"> <li>• 200 sec.</li> <li>• <math>P_c - P_e &gt; 0.4</math> MPa</li> </ul>

\* In the case of multi-outdoor-unit system, both master and slave units perform the operations listed in the table above.

\* Actuators are based on RX(Y)16M.

#### 3.1.2 Startup Control in Heating Operation (H / P model only)

Actuator	Operation	Remarks
Compressor	Differential pressure control	Compressor operating frequency increases by 2 step / 20 sec until $P_c - P_e > 0.4$ MPa.
Outdoor unit fan	STEP9	—
Four way valve	ON	—
Main motorized valve (EV1)	180 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	<ul style="list-style-type: none"> <li>• 200 sec.</li> <li>• <math>P_c - P_e &gt; 0.4</math> MPa</li> </ul>

\* In the case of multi-outdoor-unit system, both master and slave units perform the operations listed in the table above.

\* Actuators are based on RXY16M.

## 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
Four way valve	OFF	OFF	OFF
Main motorized valve (EV1) *Value in ( ) are for RX(Y)5M only.	0 pls (2000pls)	0 pls (2000pls)	0 pls (2000pls)
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 $\left\{ \begin{array}{l} \bullet 3 \text{ min.} \\ \bullet T_s - T_e < 5 \end{array} \right.$	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".)

\* Actuators are based on RX(Y)16M.

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

### 3.2.2 Oil Return Operation in Heating Operation (H / P model only)

Outdoor Unit Actuator	Oil return preparation operation	Oil return operation	Post-oil-return operation
Compressor	Upper limit control	124 Hz + ON + ON	2-step increase from (74 Hz + OFF + OFF) to (Pc - Pe>0.4 MPa) time
Outdoor unit fan	STEP8 or STEP9	OFF	STEP9
Four way valve	ON	OFF	ON
Main motorized valve (EV1) *Value in ( ) are for RXY5M only.	SH control	0 pls (2000pls)	200~400 pls
Subcooling motorized valve (EV2)	0 pls	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	2 min.	or [ <ul style="list-style-type: none"> <li>• 6 min.</li> <li>• Ts - Te&lt;5</li> </ul>	or [ <ul style="list-style-type: none"> <li>• 160 sec.</li> <li>• Pc - Pe&gt;0.4MPa</li> </ul>

\* 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".)

\* Actuators are based on RXY16M.

Indoor unit actuator		Heating oil return operation
Fan	Thermostat ON unit	OFF
	Stopping unit	OFF
	Thermostat OFF unit	OFF
Electronic expansion valve	Thermostat ON unit	512 pls
	Stopping unit	512 pls
	Thermostat OFF unit	512 pls

<In condition of oil return operation>

Compressor cumulative operation time > Max. 8 hours, it will depend on the compressor frequency during operation.

(However, 2 hours after turning power on first time.)

### 3.3 Defrosting Operation (H / P model only)

Outdoor unit actuator	Defrost preparation operation	Defrost operation	Post Defrost operation
Compressor	Upper limit control	143 Hz + ON + ON	2-step increase from (74 Hz + OFF + OFF) to (Pc - Pe > 0.4 MPa)
Outdoor unit fan	STEP8 or STEP9	OFF $\xrightarrow{P_c > 1.8 \text{ MPa}}$ Step4 $\xleftarrow{P_c < 1.5 \text{ MPa}}$	STEP9
Four way valve	ON	OFF	ON
Main motorized valve (EV1) *Value in ( ) are for RX(Y)5M only.	SH control	0 pls (2000pls)	200~400 pls
Subcooling motorized valve (EV2)	0 pls	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	2 min.	or $\left[ \begin{array}{l} \bullet 12 \text{ min.} \\ \bullet T_s > 11^\circ\text{C} \end{array} \right.$	or $\left[ \begin{array}{l} \bullet 160 \text{ sec.} \\ \bullet P_c - P_e > 0.4 \text{ MPa} \end{array} \right.$

\* 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 Defrost operation.

(Non-operating unit stops during "Defrost preparation operation".)

\* Actuators are based on RXY16M.

Indoor unit actuator		During defrost
Fan	Thermostat ON unit	OFF
	Stopping unit	OFF
	Thermostat OFF unit	OFF
Electronic expansion valve	Thermostat ON unit	512 pls
	Stopping unit	512 pls
	Thermostat OFF unit	512 pls

<Defrost starting condition>

Defrost operation is started when the outdoor heat exchanger temperature becomes lower than deicer temperature.

Defrost operation is conducted once in max. 2 hours.

## 3.4 Pump-down Residual Operation

### 3.4.1 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
Four way valve	OFF	OFF
Main motorized valve (EV1) *Value in ( ) are for RX(Y)5M only.	0 pls (2000pls)	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 [ <ul style="list-style-type: none"> <li>• 5 min.</li> <li>• Pe&lt;0.25 MPa</li> <li>• Td&gt;110°C</li> </ul>	

\* Actuators are based on RX(Y)16M.

### 3.4.2 Pump-down Residual Operation in Heating Operation (H / P model only)

Actuator	Master unit operation	Slave unit operation
Compressor	124 Hz + OFF + OFF	OFF
Outdoor unit fan	STEP9	STEP5
Four way valve	ON	ON
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 [ <ul style="list-style-type: none"> <li>• 3 min.</li> <li>• Pe&lt;0.10 MPa</li> <li>• Td&gt;135°C</li> </ul>	

\* Actuators are based on RXY16M.

### 3.5 Restart Standby

Actuator	Operation	Remarks
Compressor	OFF	—
Outdoor unit fan	Ta>30°C: STEP5 Ta≤30°C: OFF	—
Four way valve	Holds ON	—
Main motorized valve (EV1)	0 pls	—
Subcooling motorized valve (EV2)	0 pls	—
Hot gas bypass valve (SVP)	OFF	In the case of RX(Y)5M , this valve turns ON.
Oil equalization valve (SVO)	ON	In the case of slave units, this valve turns 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	5 min.	—

\* Actuators are based on RX(Y)16M.



## 3.6 Stopping Operation

### 3.6.1 When System is in Stop Mode

Actuator	Operation
Compressor	OFF
Outdoor unit fan	OFF
Four way valve	Holds ON
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.

\* Actuators are based on RX(Y)16M.

### 3.6.2 Stopping Operation of Slave Units During Master Unit is in Operation With Multi-Outdoor-Unit System

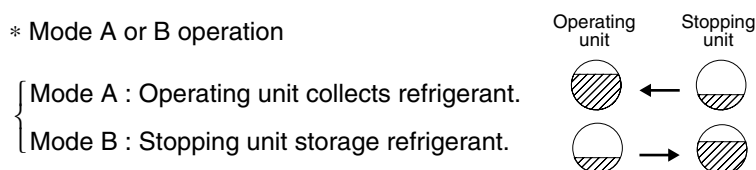
In cooling operation: The system operates in Mode A or Mode B listed in the table below.

Actuator	Mode-A operation	Mode-B operation
Compressor	OFF	OFF
Outdoor unit fan	STEP4	OFF
Four way valve	OFF	Holds ON
Main motorized valve (EV1)	150 pls to 300 pls	0 pls
Subcooling motorized valve (EV2)	0 pls	0 pls
Hot gas bypass valve (SVP)	OFF	OFF
Oil equalization valve (SVO)	OFF	OFF
Receiver gas charging valve (SVL)	OFF	OFF
Receiver gas discharging valve (SVG)	OFF	OFF
Non-operating unit gas discharging valve (SVSG)	ON	ON
Non-operating unit liquid pipe stop valve (SVSL)	OFF	ON
Mode transition conditions	To Mode B when $T_c - T_l > 0.27 \times (T_c - T_a) + 6$	To Mode A when gas shortage signal is sent from indoor unit
Ending conditions	Slave units are required to operate.	

In heating operation: The system operates in Mode A or Mode B listed in the table below. (H / P model only)

Actuator	Mode-A operation	Mode-B operation
Compressor	OFF	OFF
Outdoor unit fan	STEP2	STEP2
Four way valve	ON	ON
Main motorized valve (EV1)	0 pls	0 pls
Subcooling motorized valve (EV2)	0 pls	0 pls
Hot gas bypass valve (SVP)	OFF	OFF
Oil equalization valve (SVO)	OFF	OFF
Receiver gas charging valve (SVL)	ON	OFF
Receiver gas discharging valve (SVG)	OFF	OFF
Non-operating unit gas discharging valve (SVSG)	ON	ON
Non-operating unit liquid pipe stop valve (SVSL)	OFF	ON
Mode transition conditions	To Mode B when $T_c$ - mean temperature of indoor unit liquid pipes $> 10^\circ\text{C}$	To Mode A when motorized valve of operating outdoor unit fully opens.
Ending conditions	Slave units are required to operate.	

\* Mode A or B operation



The changeover operation for mode A and B is performed for the reason that the required refrigerant amount varies depending on the indoor unit operation capacity.

### 3.7 Pressure Equalization prior to Startup

Actuator	Operation	Remarks
Compressor	OFF	—
Outdoor unit fan	Cooling:OFF Heating:STEP 4	—
Four way valve	Holds ON	—
Main motorized valve (EV1)	0 pls	—
Subcooling motorized valve (EV2)	0 pls	—
Hot gas bypass valve (SVP)	OFF	In the case of RX(Y)5M, this valve turns ON.
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.	In the case of RX(Y)5M, 3 min. or $P_c - P_e < 0.2$ MPa

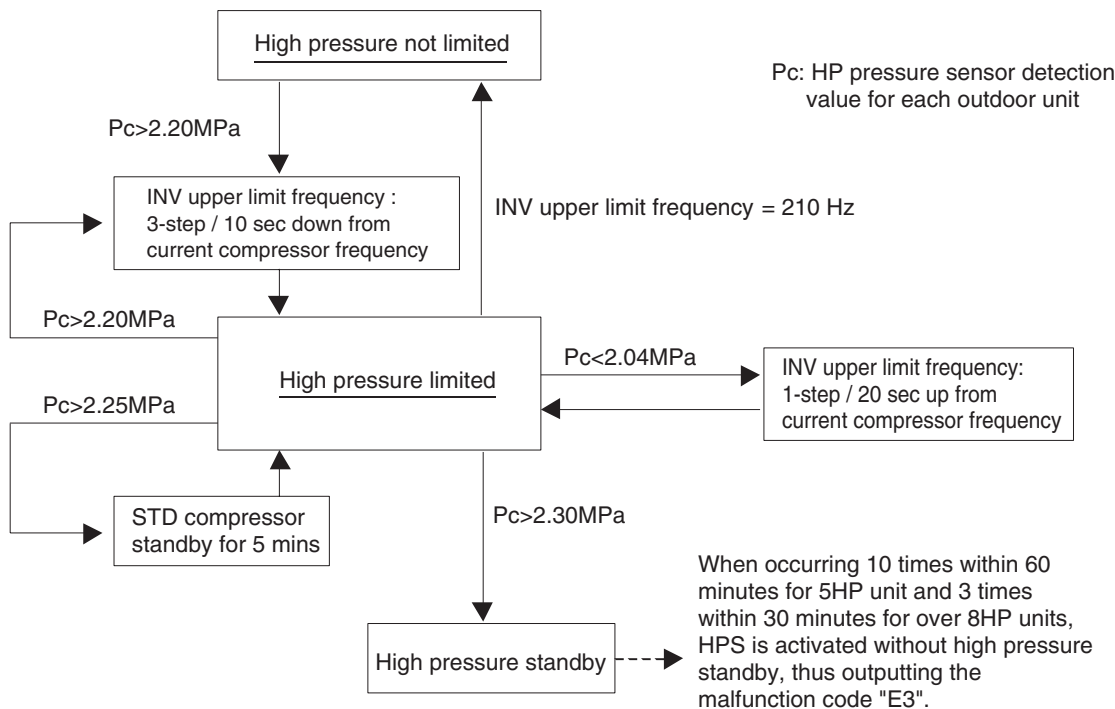
## 4. Protection Control

### 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.

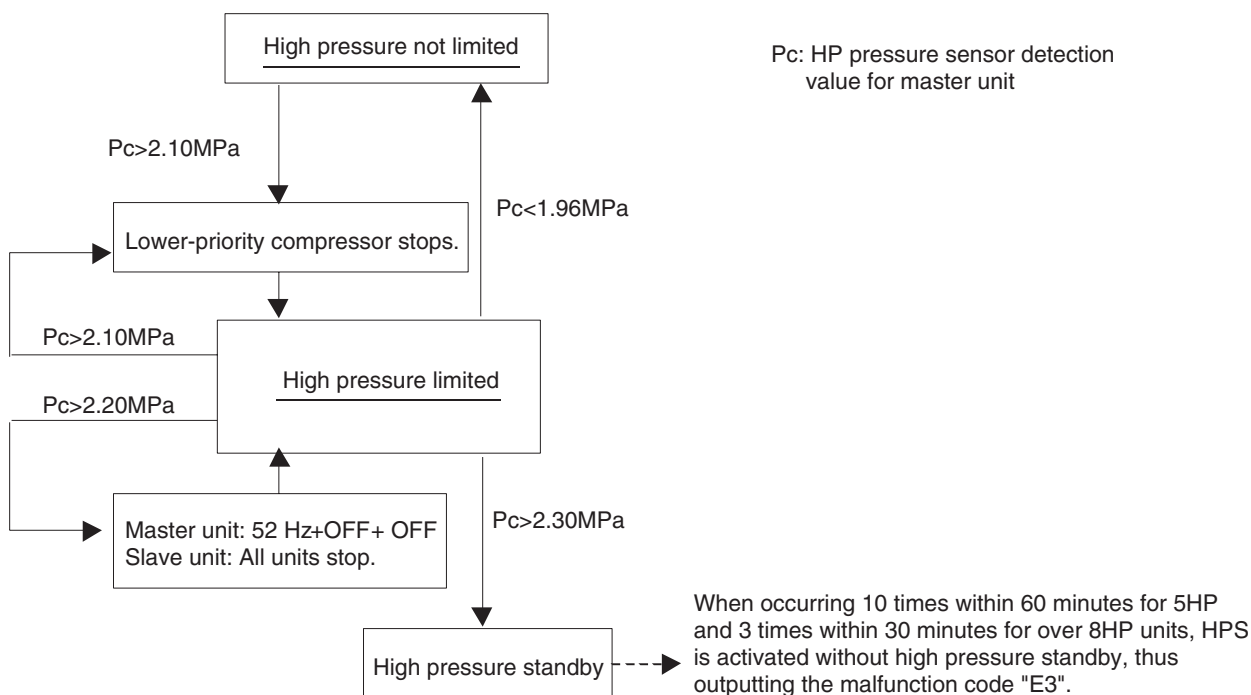
[In cooling operation]

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



[In heating operation]

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

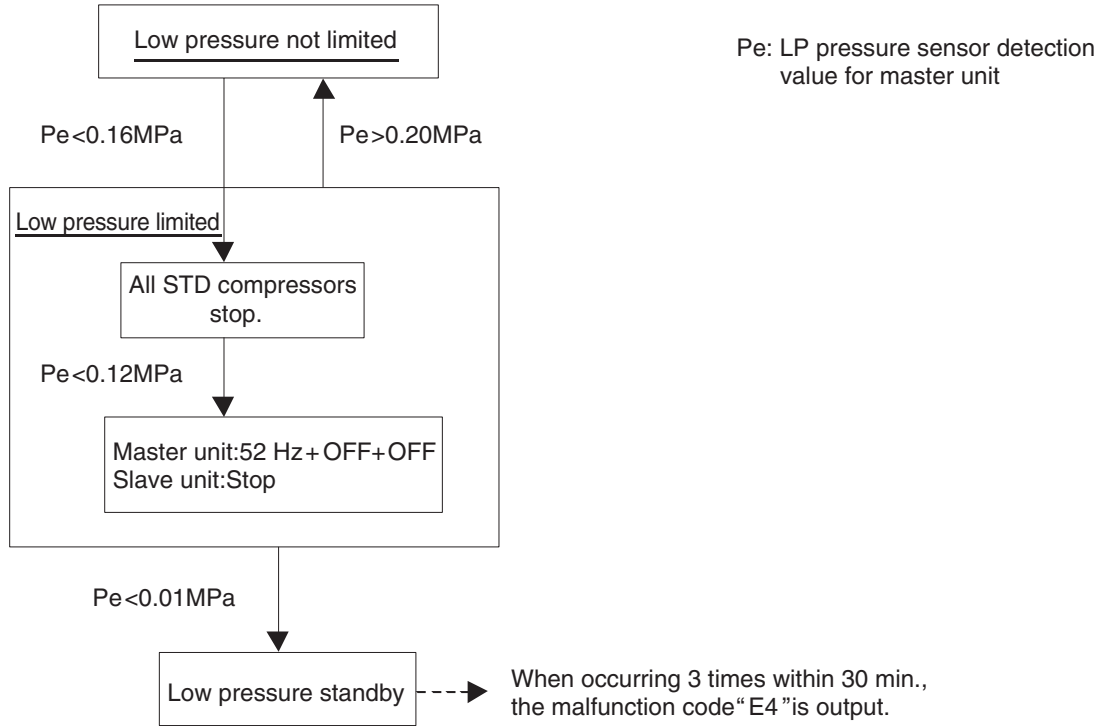


## 4.2 Low Pressure Protection Control

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

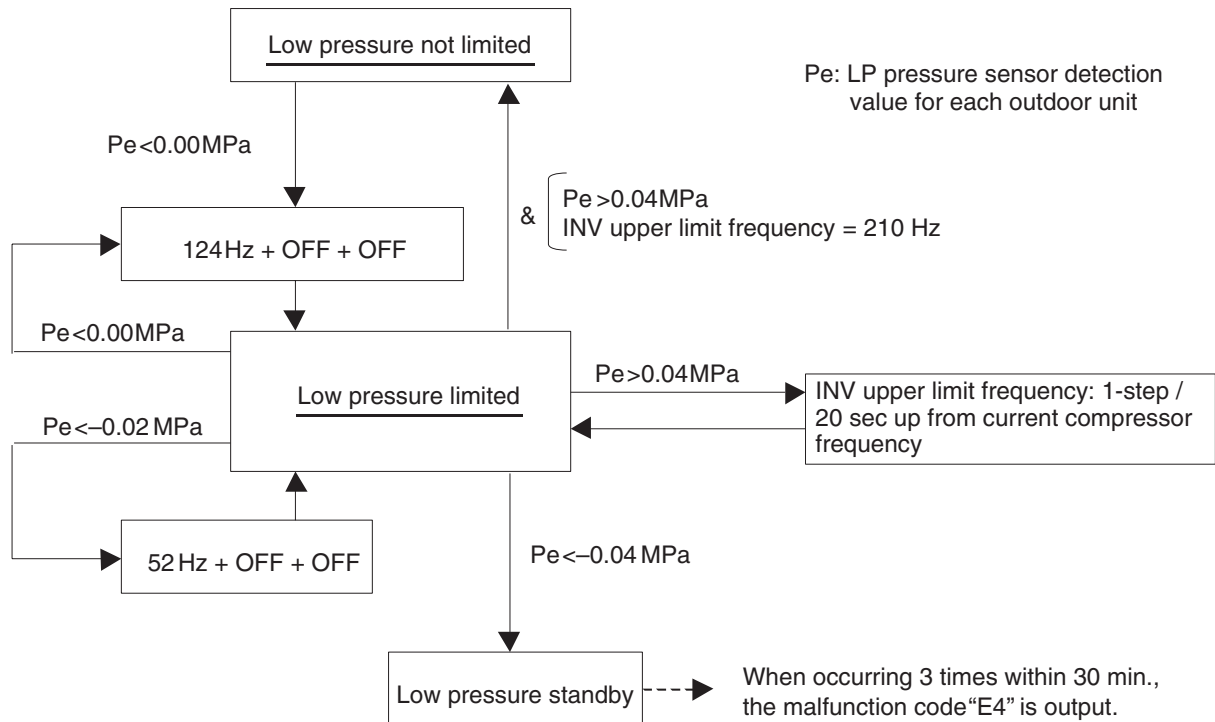
[In cooling operation]

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



[In heating operation]

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

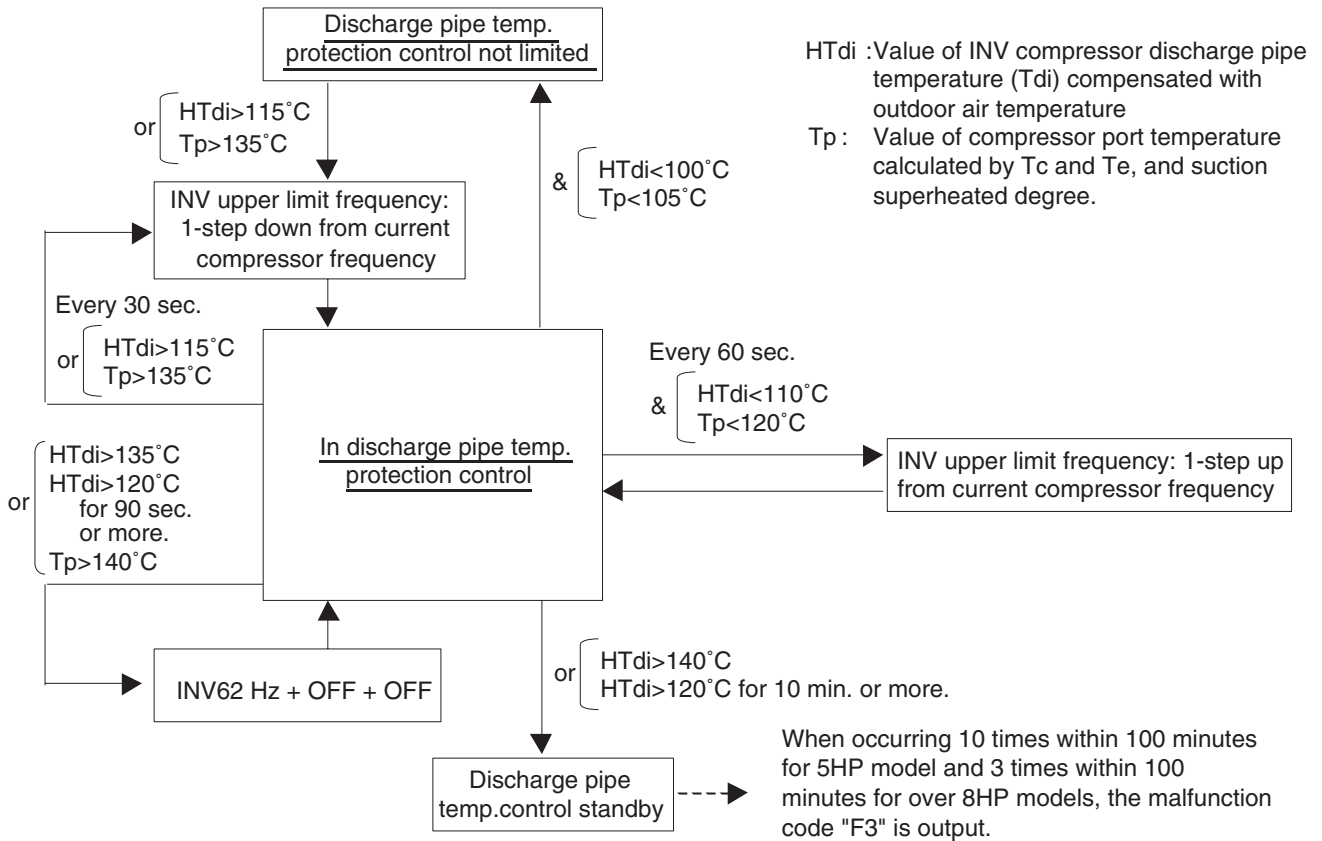


### 4.3 Discharge Pipe Protection Control

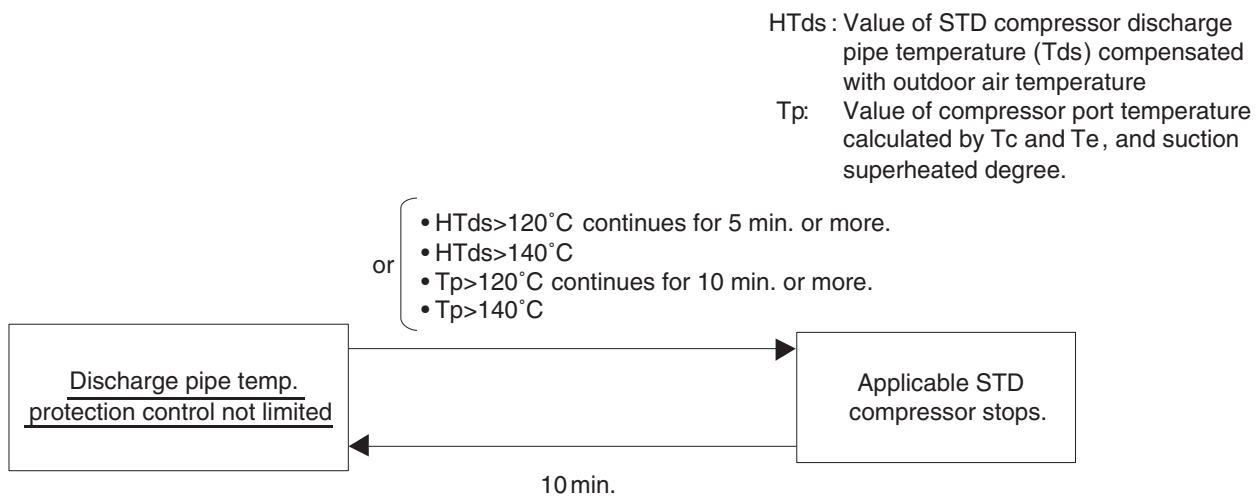
This discharge pipe protection control is used to protect the compressor internal temperature against a malfunction or transient increase of discharge pipe temperature.

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

[INV compressor]



[STD compressor]

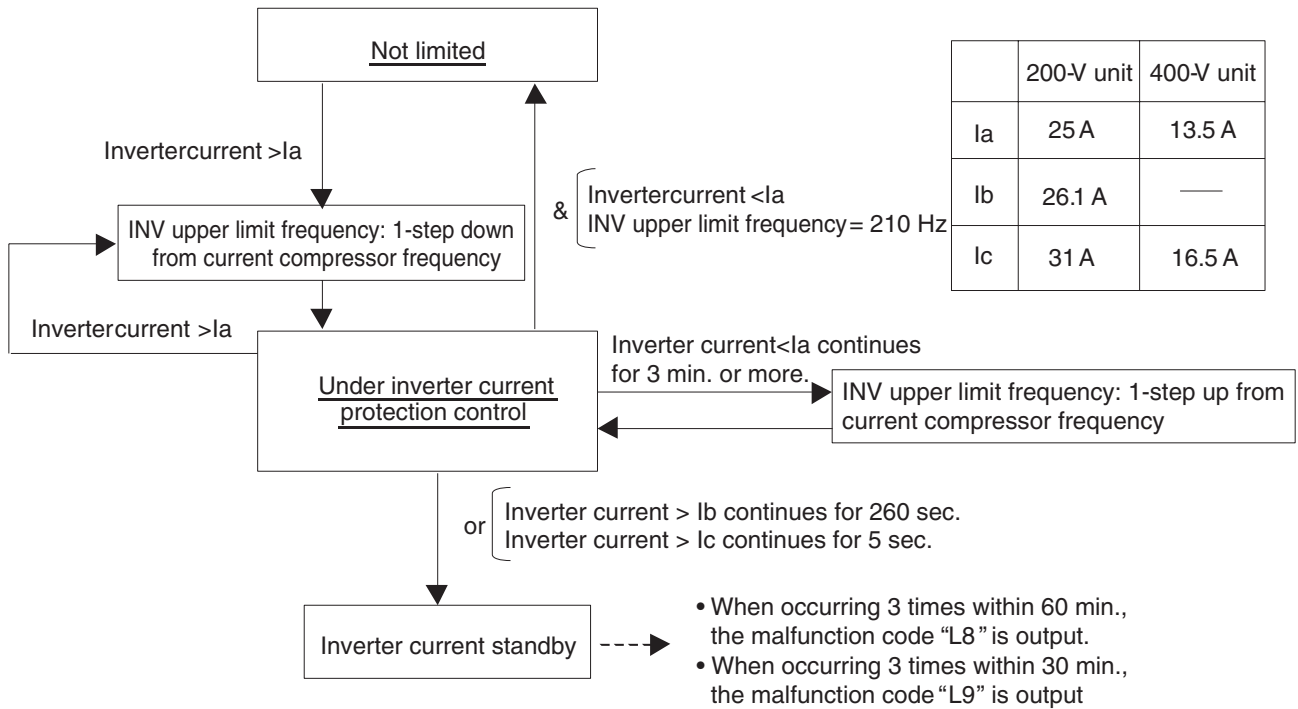


## 4.4 Inverter Protection Control

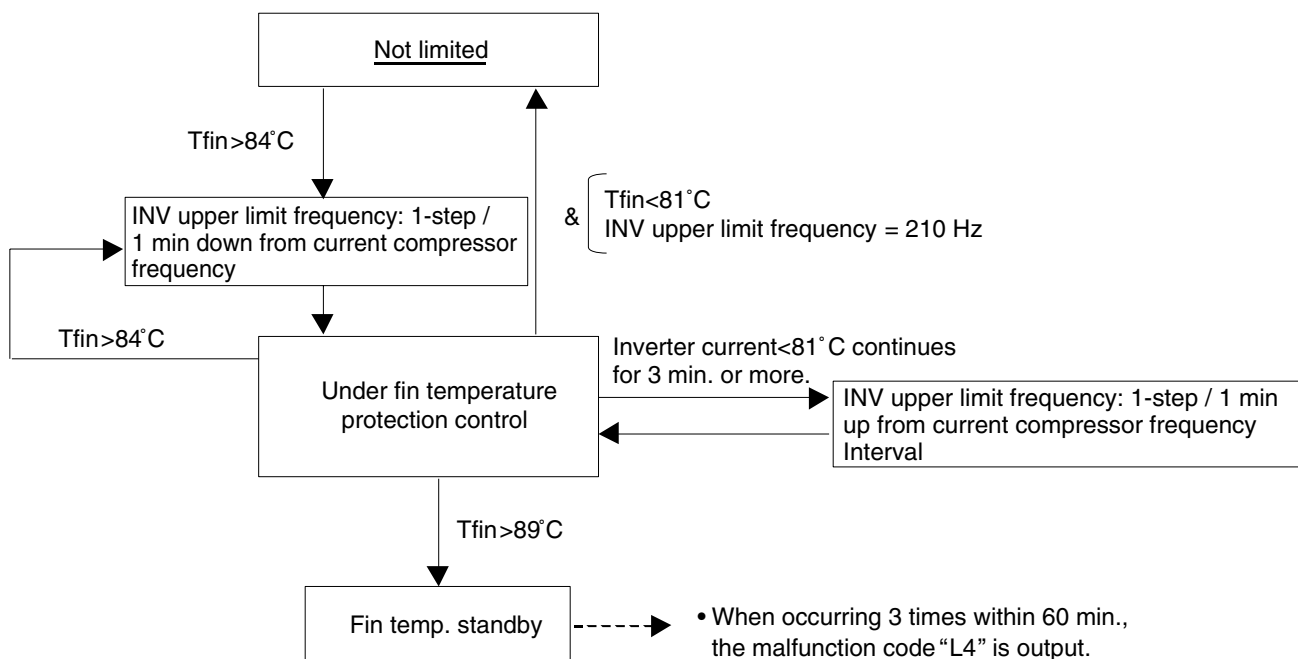
Inverter current protection control and inverter fin temperature control are performed to prevent tripping due to a malfunction, or transient inverter overcurrent, and fin temperature increase.

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

[Inverter overcurrent protection control]

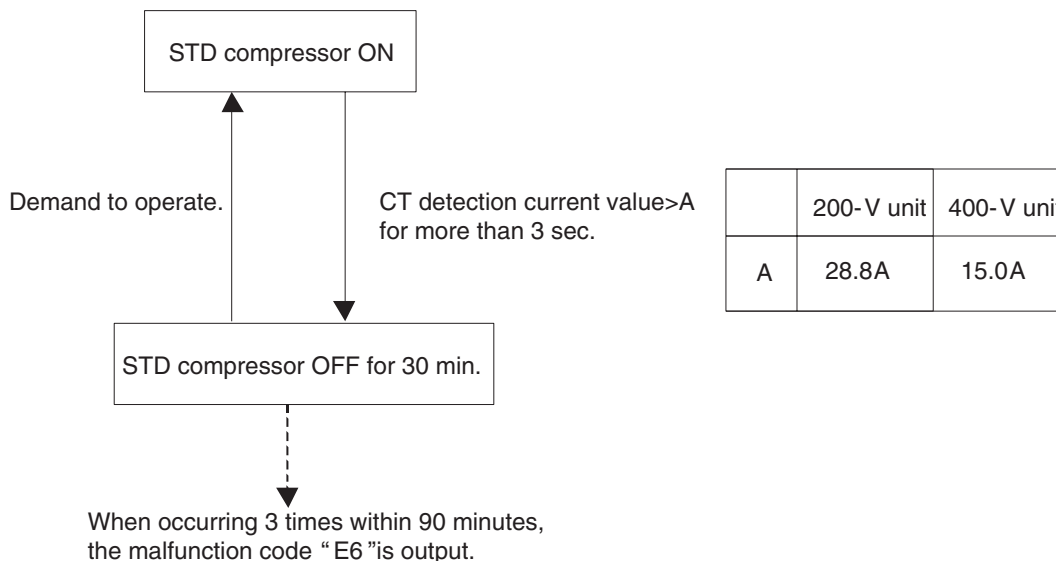


[Inverter fin temperature control]



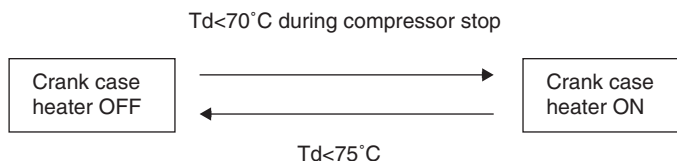
## 4.5 STD Compressor Overload Protection

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.



(V0833)

Td : Compressor discharge pipe temperature.



## 5. Other Control

### 5.1 Outdoor Unit Rotation

In the case of multi-outdoor-unit system, this outdoor unit rotation is used to prevent the compressor from burning out due to unbalanced oil level between outdoor units.

**[Details of outdoor unit rotation]**

In the case of multi-outdoor-unit system, each outdoor unit is given an operating priority for the control.

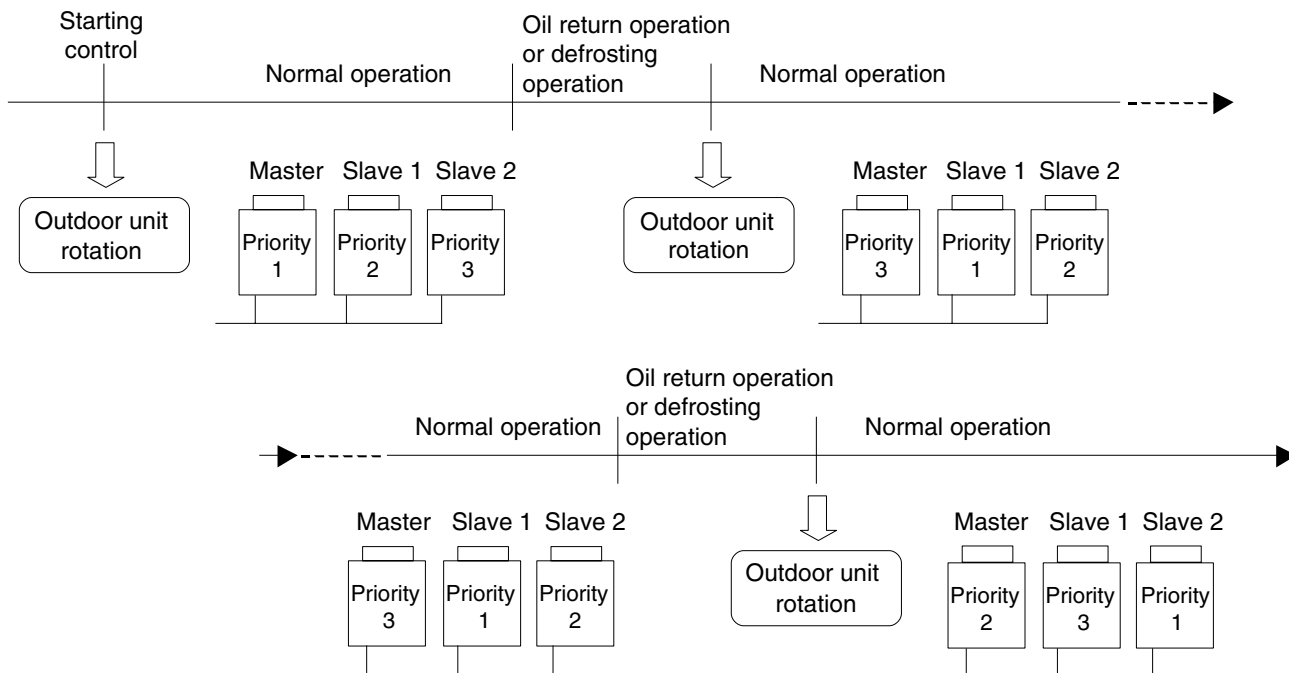
Outdoor unit rotation makes it possible to change the operating priority of outdoor units.

Thus, the system becomes free of compressors that stop over an extended period of time at the time of partial loading, preventing unbalanced oil level.

**[Timing of outdoor unit rotation]**

- or
- After oil return operation
- After defrosting operation
- At the beginning of the starting control

Example) The following diagram shows outdoor unit rotation in combination of 3 outdoor units.



\* "Master unit", "slave unit 1" and "slave unit 2" in this section are the names for installation. They are determined in installation work, and not changed thereafter. (These names are different from "master unit" and "slave unit" for control.)

The outdoor unit connected the control wires (F1 and F2) for the indoor unit should be designated as master unit

Consequently, The LED display on the main PCB for "master unit", "slave unit 1" and "slave unit 2" do not change. (Refer to the page 90.)

## 5.2 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.**

### 5.2.1 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).

### 5.2.2 In the Case of 1-Outdoor-Unit System (RX(Y)8 to 16M)

- 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 and STD2 compressors from operating → Set setting mode 2 from No. 19 to No. 2. (RX(Y)8M to RX(Y)16M)

(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)

○ ● ● ● ● ● ● ◐

○ ● ● ● ● ● ● ●

○ ● ● ● ● ● ● ●

● ● ○ ● ● ● ● ●

- To inhibit STD2 compressor from operating → Set setting mode 2 from No. 19 to No.3.(RX(Y)14M-16M)

(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) twice.
- (5) Press the RETURN button (BS3) twice.
- (6) Press the MODE button (BS1) once.

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

○ ● ● ● ● ● ● ●

○ ● ○ ● ● ○ ○ ○ (Factory set)

○ ● ● ● ● ● ● ◐

○ ● ● ● ● ● ● ●

○ ● ● ● ● ● ● ●

● ● ○ ● ● ● ● ●

- With RX(Y)14M and 16M, if INV compressor is inhibited from operating, only 1 STD compressor can operate for reasons of oil equalization.
- With RX(Y)14M and 16M, STD1 compressor cannot be inhibited from operating for reasons of oil equalization.
- When 1 outdoor unit is installed (with RX (Y) 8M to 16M), automatic backup operation cannot be performed.

### 5.2.3 In The Case of Multi-Outdoor-Unit System (RX(Y)18 to 48M)

#### Automatic backup operation

With multi-outdoor-unit system, if a certain outdoor unit system malfunctions (i.e., the system stops and indoor unit remote controller displays the malfunction), by resetting the system with the indoor unit remote controller, the applicable outdoor unit is inhibited from operating for 8 hours, thus making it possible to perform emergency operation automatically.

However, in the event any of the following malfunctions occurs, automatic backup operation can be performed.

#### Malfunctions under which automatic backup operation can be performed:

- E3, E4, E5, E7
- F3
- H7, H9
- J2, J3, J5, J6, J7, J9, JA, JC
- L3, L4, L5, L8, L9, LC
- U2, UJ

#### Emergency operation with settings in service mode

\* "Inhibition of operation" is set with each outdoor unit.

Make the following settings with the master unit. (Setting with the slave unit becomes disabled.)

\* Discriminate the operating status of the master unit/slave units through the following LED display.

LED display (○:ON ●:OFF ◐:Blink)  
H1P — — — H7P H8P

Master: ●●○●●●●● ○  
Slave 1: ●●●●●●●● ◐  
Slave 2: ●●●●●●●● ●  
(Factory set)

- To inhibit the master unit from operating → Set setting mode 2 from No. 38 to No. 2.

#### (Procedure)

- (1) Press and hold the MODE button (BS1) for 5 sec. or more.
- (2) Press the SET button (BS2) 38 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)  
○ ●●●●●●●● ◐ ●●  
○ ●●●●●●●● ●●

- To inhibit the slave unit 1 from operating → Set setting mode 2 from No. 39 to No. 2.

#### (Procedure)

- (1) Press and hold the MODE button (BS1) for 5 sec. or more.
- (2) Press the SET button (BS2) 39 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)  
○ ●●●●●●●● ◐ ●●  
○ ●●●●●●●● ●●

- To inhibit the slave unit 2 from operating → Set setting mode 2 from No. 40 to No. 2.

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

(Procedure)

- (1) Press and hold the MODE button (BS1) for 5 sec. or more.
- (2) Press the SET button (BS2) 40 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.

○ ● ● ● ● ● ● ●

○ ○ ● ○ ● ● ● ●

○ ● ● ● ● ● ● ◐ (Factory set)

○ ● ● ● ● ● ● ●

○ ● ● ● ● ● ● ●

● ● ○ ● ● ● ● ●

\*

- In the case of multi-outdoor-unit system, “Inhibition of operation” is not set with each compressor individually.
- In the case of multi-outdoor-unit system, when the above “Inhibition of operation” is set, outdoor unit rotation is not functional.



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

## 5.3 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.

## 5.4 Heating operation prohibition

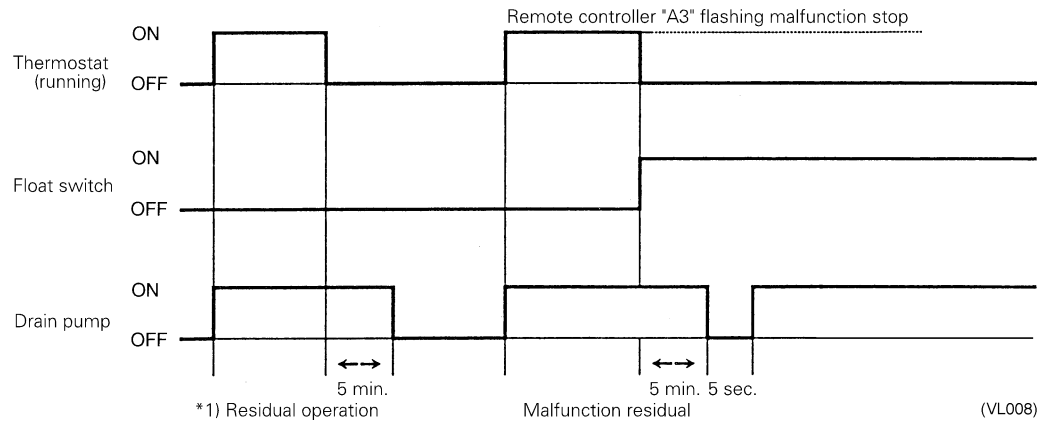
Heating operation is prohibited above 25°C ambient temperature.

## 6. Outline of Control (Indoor Unit)

### 6.1 Drain Pump Control

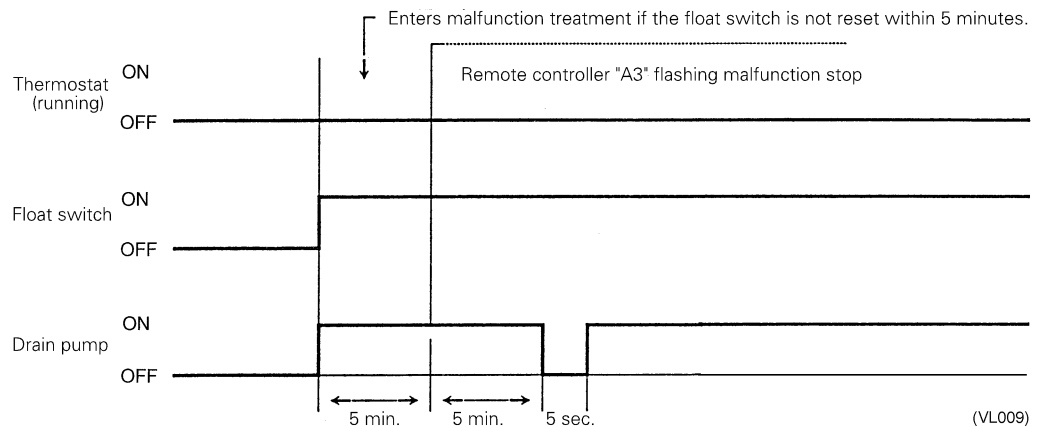
- The drain pump is controlled by the ON/OFF buttons (4 button (1) - (4) given in the figure below).

#### 6.1.1 When the Float Switch is Tripped While the Cooling Thermostat is ON:

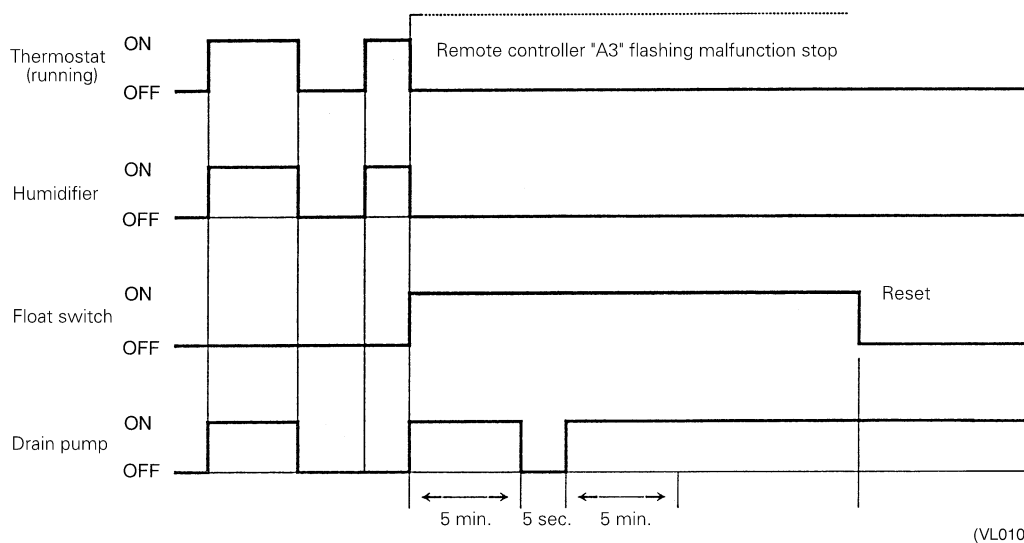


- \* 1. The objective of residual operation is to completely drain any moisture adhering to the fin of the indoor unit heat exchanger when the thermostat goes off during cooling operation.

#### 6.1.2 When the Float Switch is Tripped During Cooling OFF by Thermostat:

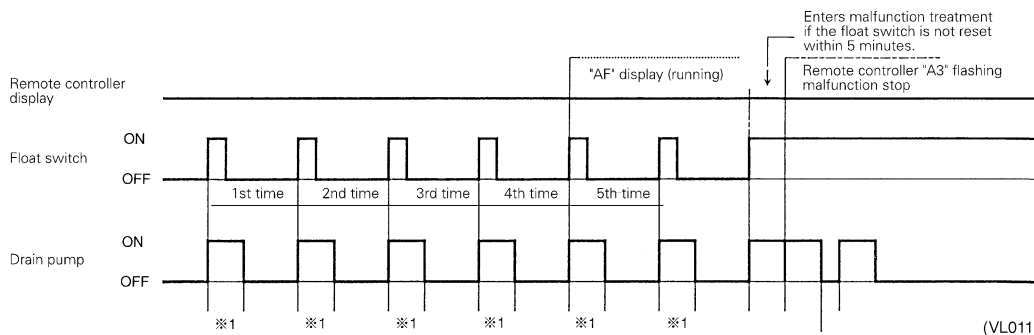


### 6.1.3 When the Float Switch is Tripped During Heating Operation:



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.

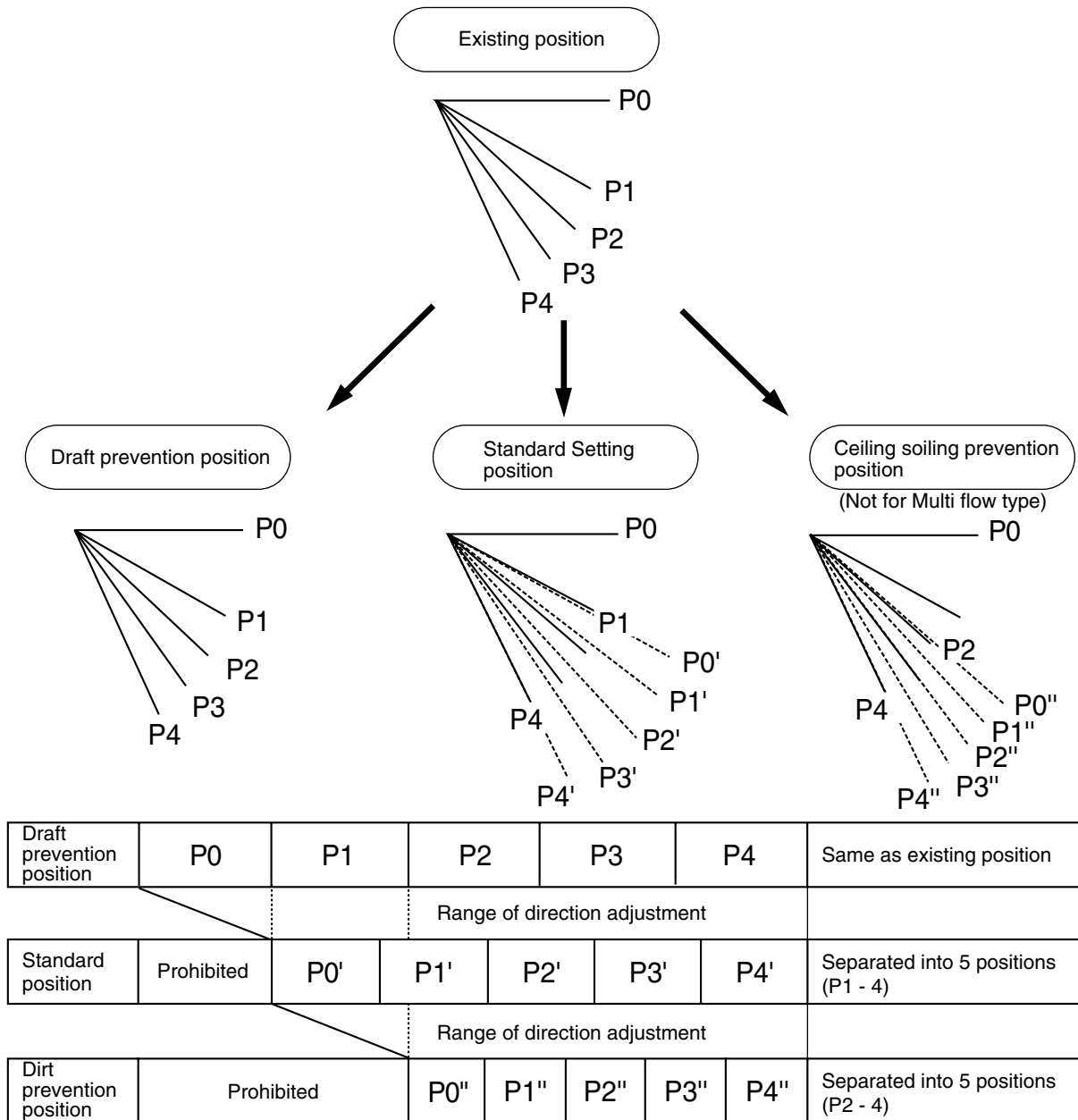
### 6.1.4 When the Float Switch is Tripped and “AF” is Displayed on the Remote Controller:



**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.)



The factory set position is standard position.

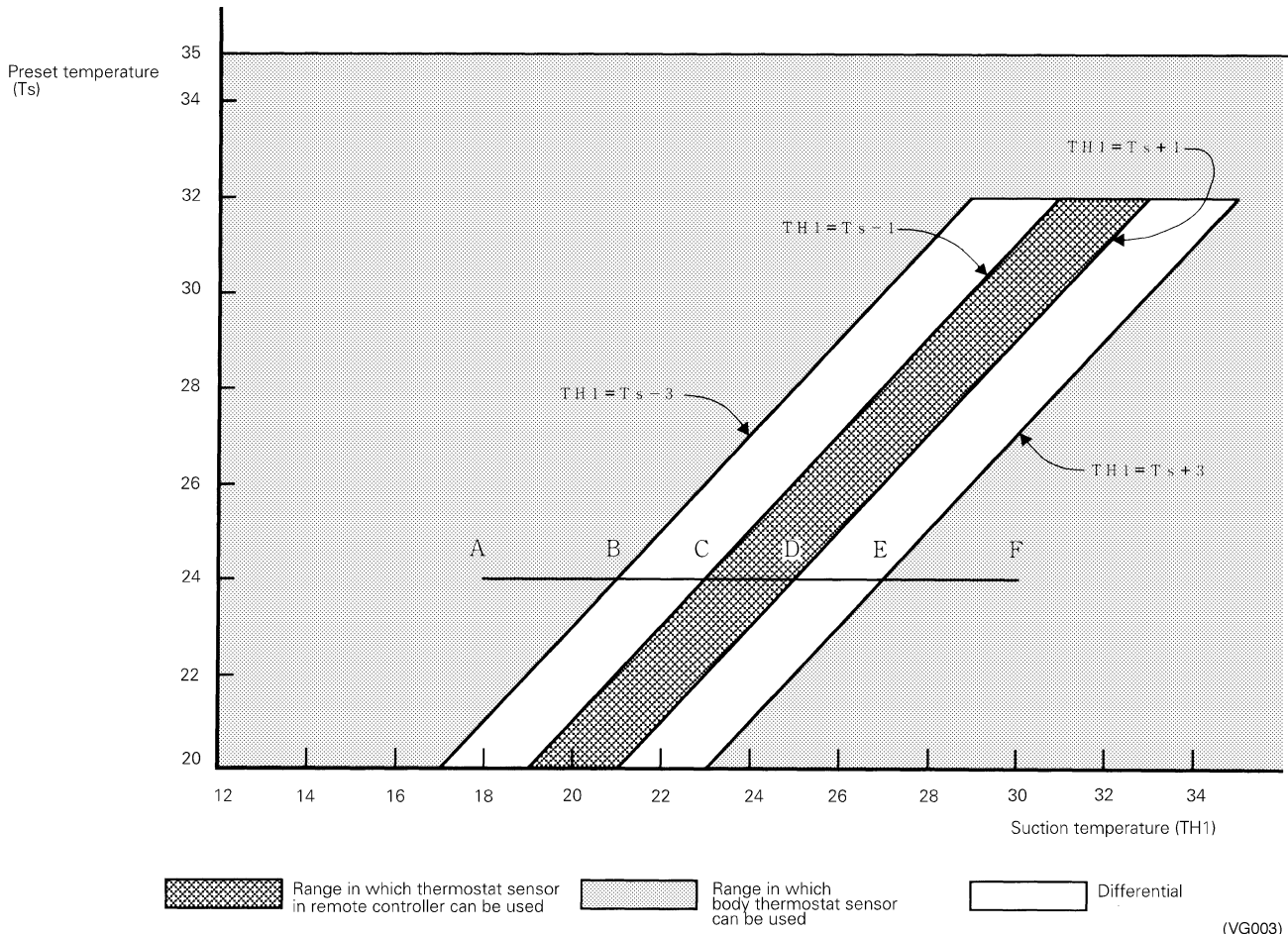
(VL012)

## 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).

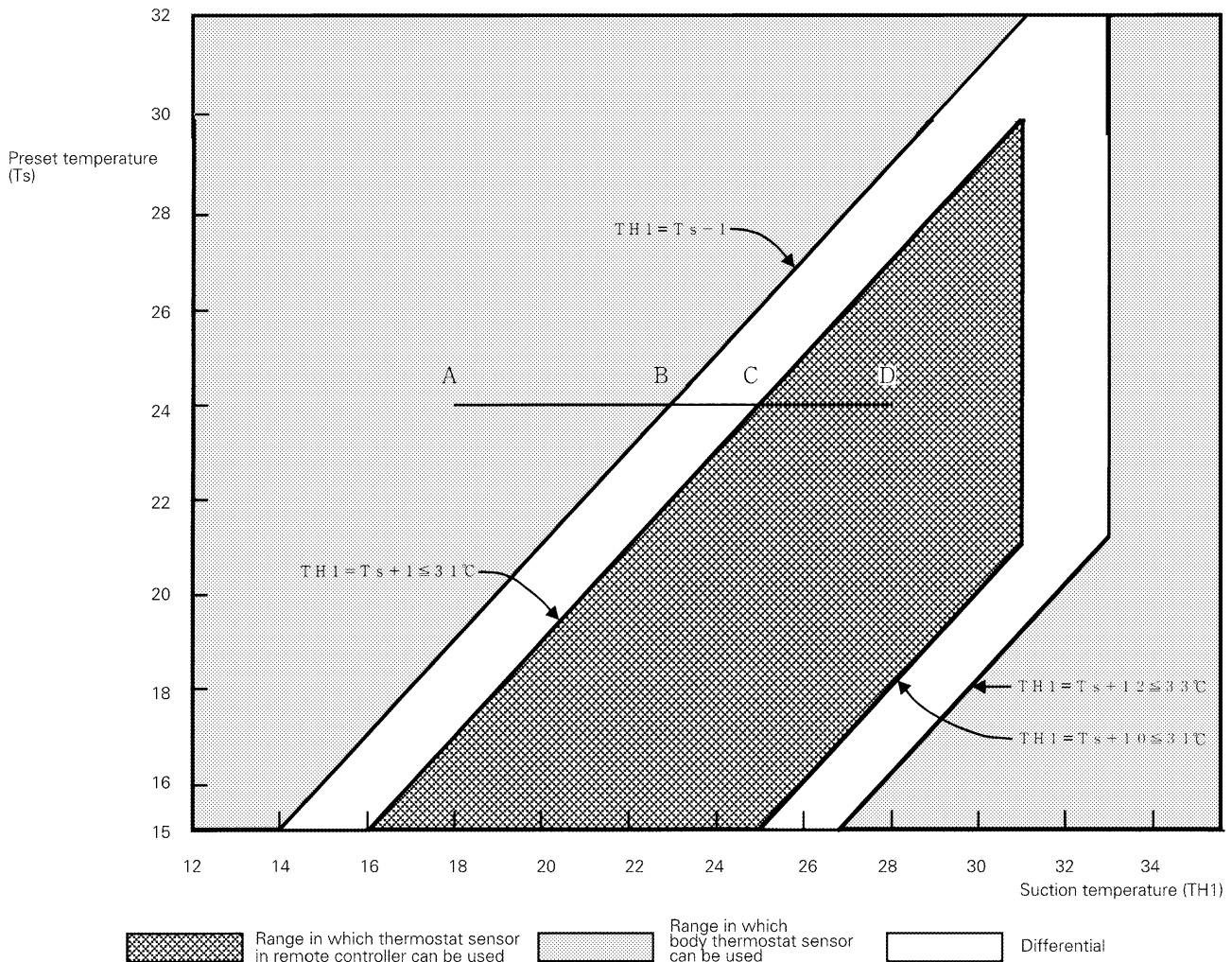
Remote controller thermostat sensor is used for temperatures from 25°C to 21°C (D → B).

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.



(V2769)

### ■ 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

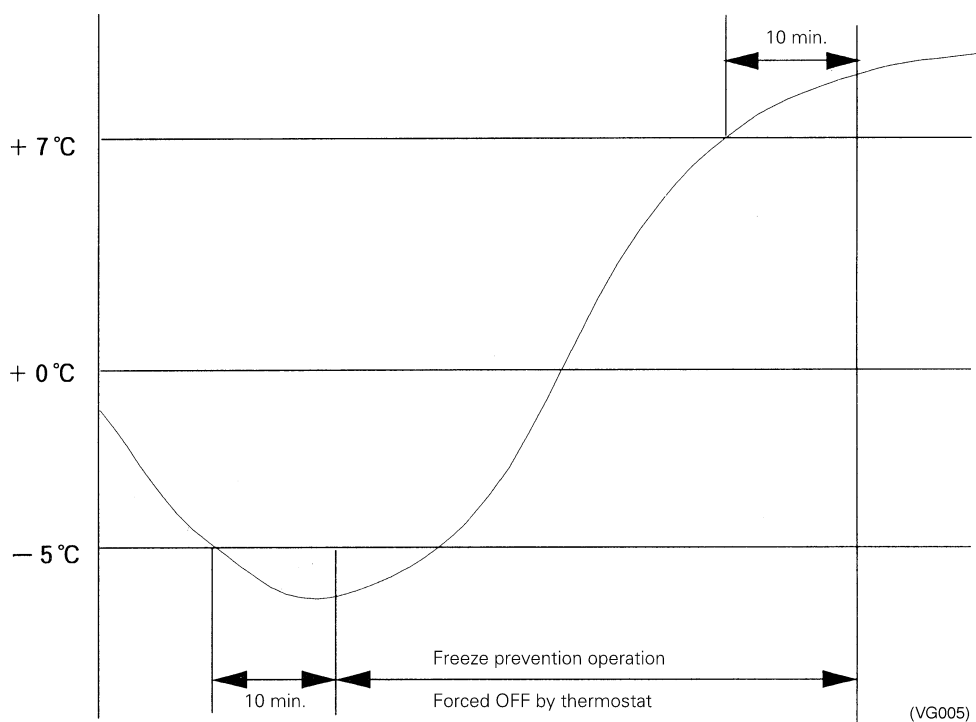
### Freeze Prevention by Off Cycle (Indoor Unit)

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  $-1^{\circ}\text{C}$  or less for total of 40 min., or temperature is  $-5^{\circ}\text{C}$  or less for total of 10 min.

Conditions for stopping freeze prevention: Temperature is  $+7^{\circ}\text{C}$  or more for 10 min. continuously

Ex: Case where temperature is  $-5^{\circ}\text{C}$  or less for total of 10 min.





# Part 5

# Test Operation

1. Test Operation .....	122
1.1 Procedure and Outline .....	122
1.2 Operation When Power is Turned On .....	125
2. Outdoor Unit PC Board Layout .....	126
3. Field Setting .....	127
3.1 Field Setting from Remote Controller .....	127
3.2 Field Setting from Outdoor Unit.....	139

# 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 P95. 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.)

Press and hold the TEST OPERATION button (BS4) on outdoor unit PC board for 5 seconds.



Check on operation

○ The test operation is started automatically.

The following judgements are conducted within 15 minutes.

- "Check for wrong wiring"
- "Check refrigerant for over charge"
- "Check stop valve for not open"
- Pipe length automatic judgement"

The following indications are conducted while in test operation.

- LED lamp on outdoor unit PC board — H2P flickers (test operation)
- Remote controller — Indicates "On Centralized Control" on upper right.  
— Indicates "Test Operation" on lower left

(V3057)

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.

In the case of multi-outdoor-unit system, make setting on the master unit PC board. (Setting with the slave unit is disabled.)

[LED display in the case of multi-outdoor-unit system] (Same as that in emergency operation)

- \* Discriminate the operating status of the master unit/slave units through the following LED display.

LED display (○:ON ●:OFF ◐:Blink)

H1P — — — H7P H8P

Master: ● ● ○ ● ● ● ● ○

Slave 1: ● ● ● ● ● ● ● ◐

Slave 2: ● ● ● ● ● ● ● ●

(Factory set)

#### Malfunction code

In case of an alarm code displayed on remote controller:

Cause of trouble due to faulty installation work	Alarm code	Countermeasure
Closed stop valve of outdoor unit	E3 E4 F3 UF	In case of RX(Y)5 to 16M (Single outdoor installation) Liquid side stop valve : Open Gas side stop valve : Open Oil equalizing pipe stop valve : Close In case of RX(Y)18 to 48M (Multi outdoor installation) Liquid side stop valve : Open Gas side stop valve : Open Oil equalizing pipe stop valve : Open
Reversed phase in power cable connection for outdoor unit	U1	Change connection of two wires among three for correct phasing.
Electric power for outdoor or indoor unit is not supplied. (Including open phase)	U4	Check that the power cable for outdoor unit is connected properly.
Incorrect wiring between units	UF	Check that the wiring between units corresponds correctly to refrigerant piping system.
Refrigerant overcharge	E3 F6 UF	Compute again optimum amount of refrigerant to be added based on the piping length, then, collect the excessive amount by using refrigerant collector to make the refrigerant amount proper.
Insufficient refrigerant	E4 F3	- Check that additional charging has been carried out. - Compute again the refrigerant amount to be added based on the piping length, and charge proper amount of refrigerant additionally.

### 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.)



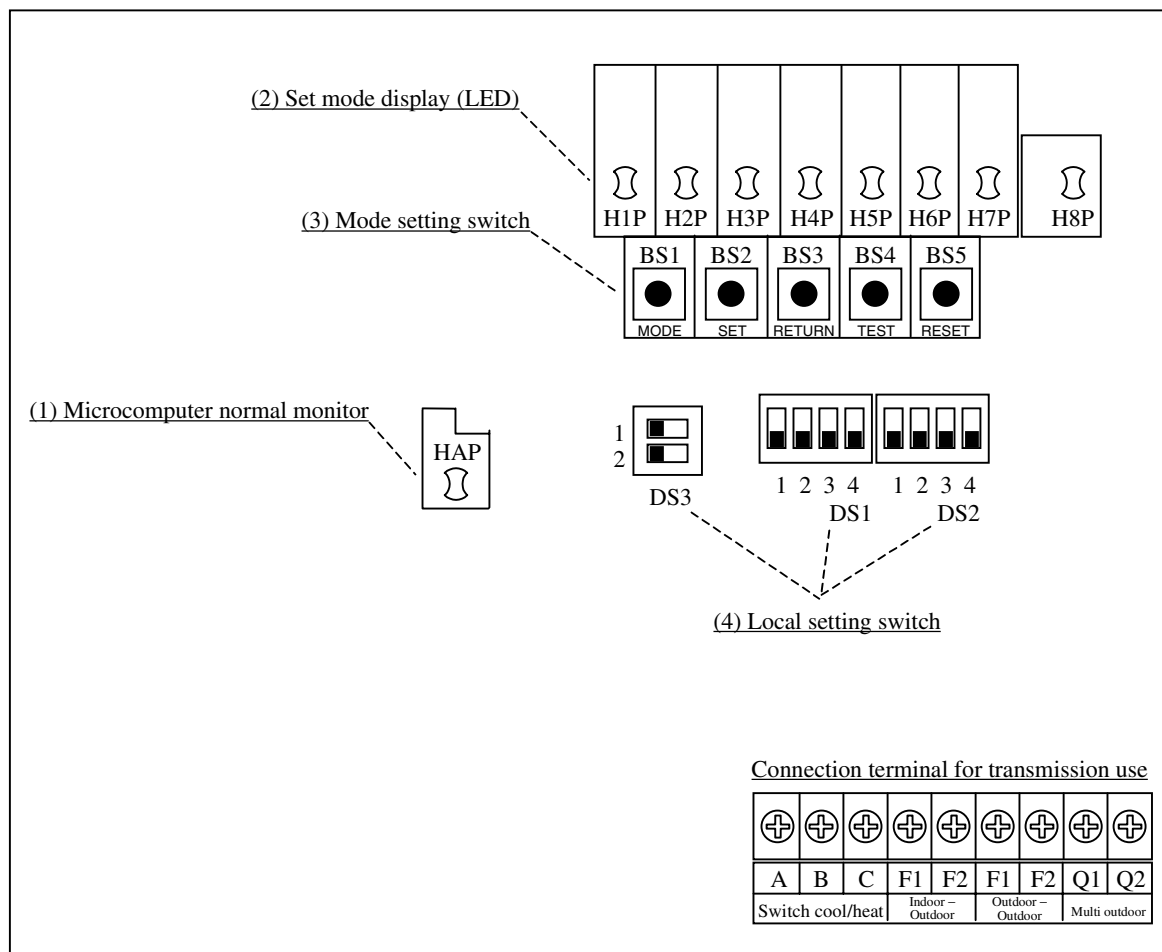
**Caution** When the 400 volt power supply is applied to "N" phase by mistake, replace Inverter P.C.B (A2P) and control transformer (T1R, T2R) in switch box together.

(V0847)



## 2. Outdoor Unit PC Board Layout

### Outdoor unit PC board



(V3054)

- (1) Microcomputer normal 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

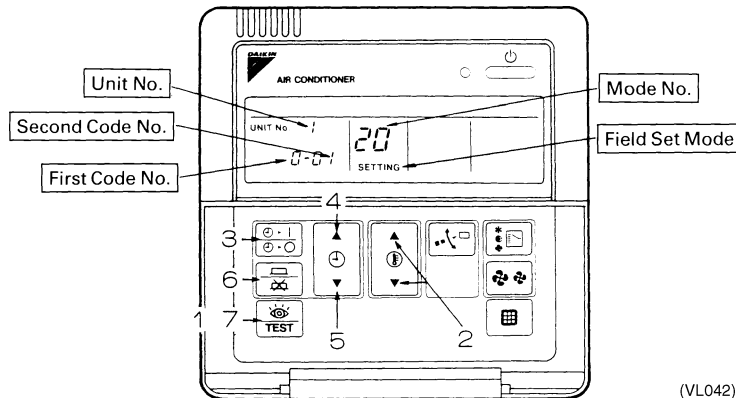
### 3.1 Field Setting from Remote Controller

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 <BRC1A61, 62>



(VL042)

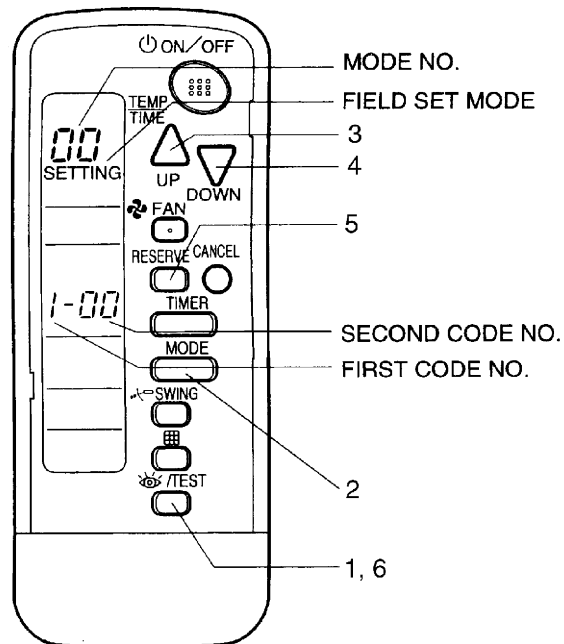
1. When in the normal mode, push the  button for 4 seconds or more, and operation then enters the “field set mode.”
2. Select the desired “mode No.” with the  button.
3. During group control and you want to set by each individual indoor unit (when mode No. 20, 21, 22, 23, 25 has been selected), push the time mode  button and select the “indoor unit No.” to be set.  
Note: This operation is not required when setting as a group.
4. Push the  button and select the first code No.
5. Push the  button and select the second code No.
6. Push the timer  button one time and “define” the currently set contents.
7. Push the  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”.

### 3.1.2 Wireless Remote Controller - Indoor Unit

BRC7C type



(V2770)

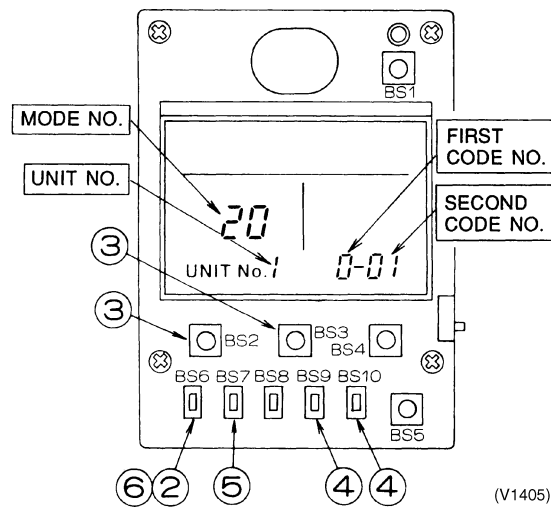
1. When in the normal mode, push the  button for 4 seconds or more, and operation then enters the "field set mode."
2. Select the desired "mode No." with the  button.
3. Pushing the  button, select the first code No.
4. Pushing the  button, select the second code No.
5. Push the timer  button and check the settings.
6. Push the  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



■ 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		—		—		
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:**
- 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.
  - The mode numbers inside parentheses cannot be used by wireless remote controllers, so they cannot be set individually. Setting changes also cannot be checked.
  - Marked   are factory set.
  - Do not make settings other than those described above. Nothing is displayed for functions the indoor unit is not equipped with.
  - “88” may be displayed to indicate the remote controller is resetting when returning to the normal mode.
  - 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	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								
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

Setting	Filter Specs.	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	—

### 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.

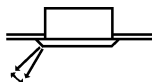
#### Setting Table

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

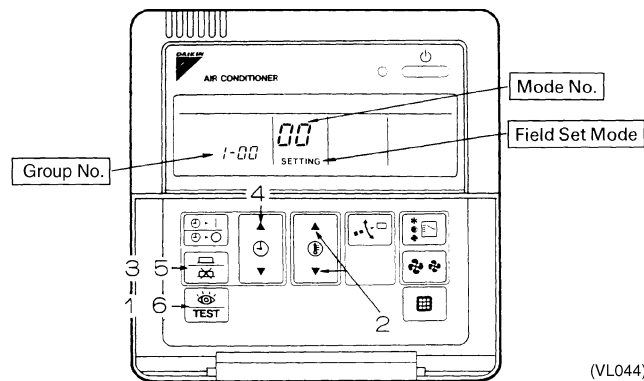
When the optional parts (high performance filter, etc.) is installed, sets to change fan speed for securing air flow rate.

Follow the instruction manual for the optional parts to enter the setting numbers.

### 3.1.7 Centralized Control Group No. Setting

#### BRC1A Type






- If carrying out centralized control by central remote controller or unified ON/OFF controller, group No. must be set for each group individually by remote controller.
  - Group No. setting by remote controller for centralized control
1. When in the normal mode, push the  button for 4 seconds or more, and operation then enters the “field setting mode.”
  2. Set mode No. “00” with the  button. \*
  3. Push the  button to inspect the group No. display.
  4. Set the group No. for each group with the  button (The group No. increases in the manner of 1-00, 1-01, ..., 1-15, 2-00, ..., 4-15. However, the unified ON/OFF controller displays only the group No. within the range selected by the switch for setting each address.)
  5. Push the timer  button to define the selected group No.
  6. Push the  button to return to the normal mode.



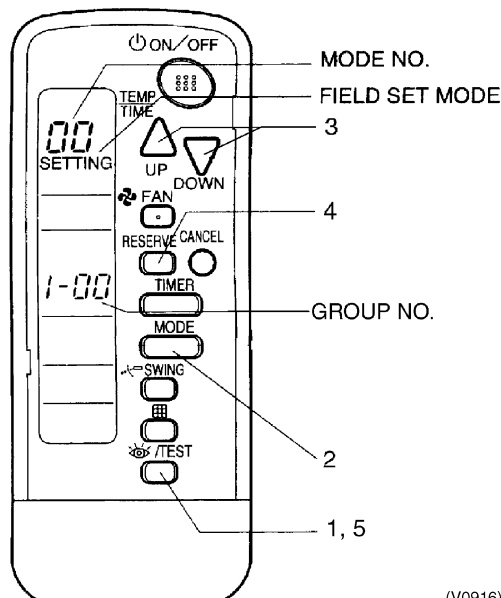
(VL044)

- Even if not using a remote controller, connect the remote controller when setting the group No., set the group No. for centralized control, and disconnect after making the setting.
- Set the group No. after turning on the power supply for the central remote controller, unified ON/OFF controller, and indoor unit.

#### BRC7C Type

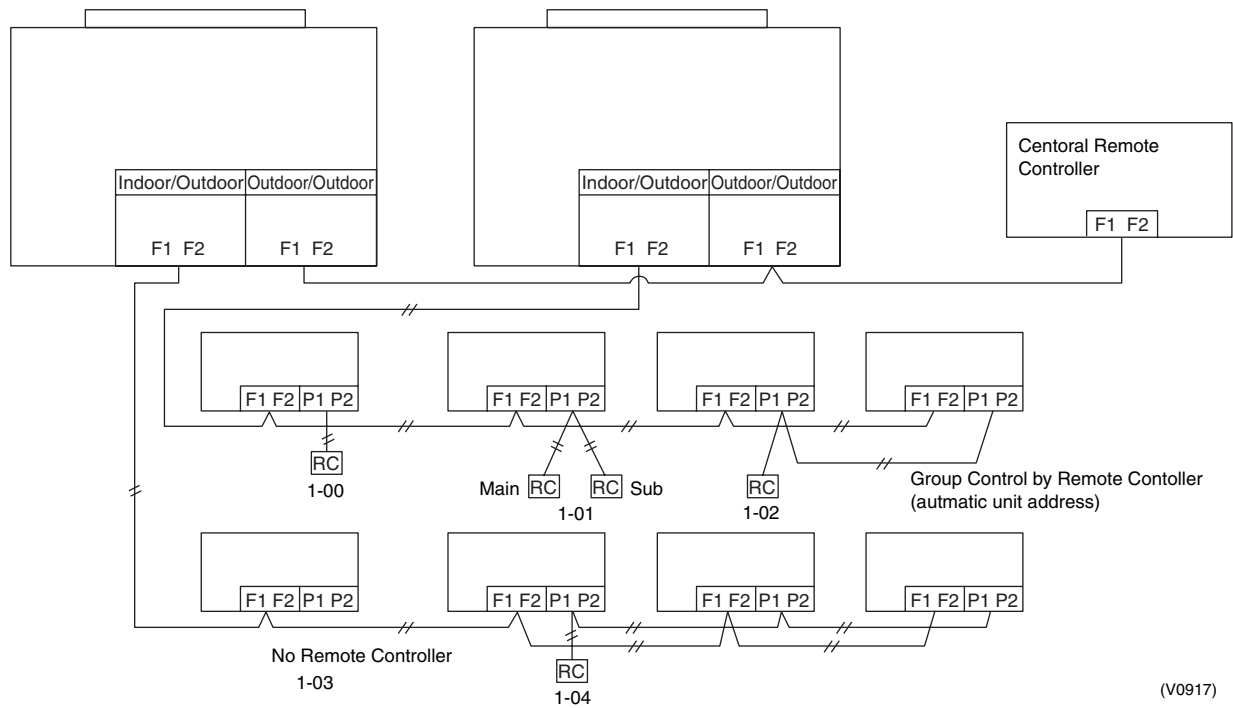
- Group No. setting by wireless remote controller for centralized control
1. When in the normal mode, push  button for 4 seconds or more, and operation then enters the “field set mode.”
  2. Set mode No. “00” with  button.
  3. Set the group No. for each group with  button (advance/backward).
  4. Enter the selected group numbers by pushing  button.
  5. Push  button and return to the normal mode.

#### BRC7C Type



(V0916)

**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

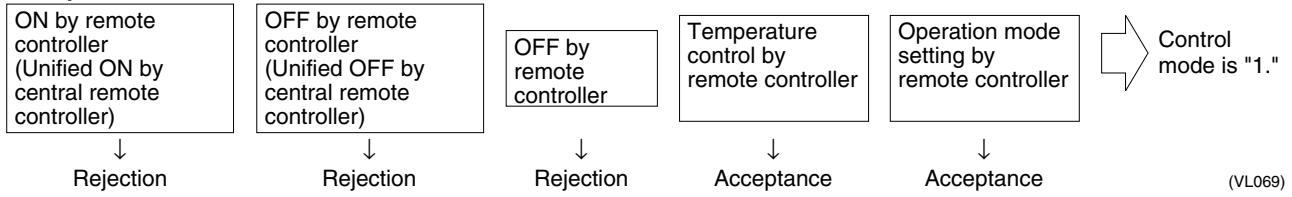
Twenty modes consisting of combinations of the following five operation modes with temperature and operation mode setting by remote controller can be set and displayed by operation modes 0 through 19.

- ◆ 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.

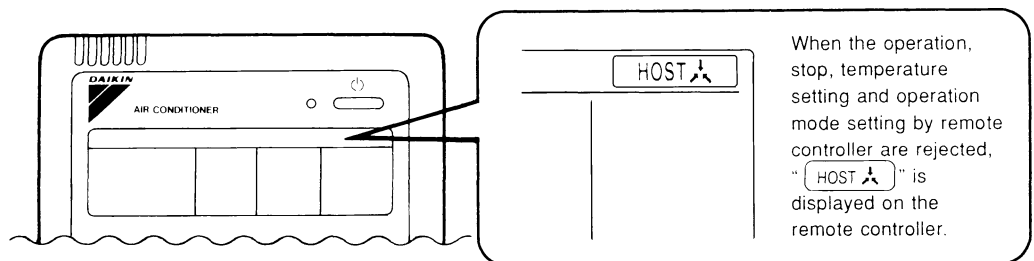
**Example**



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)	1 (Example)
OFF control only possible by remote controller	Acceptance	Acceptance	Acceptance	Rejection	2	
				Acceptance	3	
				Rejection	13	
Centralized	Acceptance	Acceptance	Acceptance	Rejection	4	
				Rejection	14	
				Acceptance	5	
Individual	Acceptance	Acceptance	Acceptance	Rejection	15	
				Rejection	6	
				Acceptance	16	
Timer operation possible by remote controller	Acceptance (During timer at ON position only)	Acceptance (During timer at ON position only)	Acceptance	Rejection	7 *1	
				Rejection	17	
				Acceptance	8	
				Rejection	9	
				Rejection	18	
				Acceptance	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



(VL070)

## 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)		<table border="1"> <thead> <tr> <th></th> <th>5</th> <th>6</th> <th>8</th> <th>10</th> <th>12</th> <th>14</th> <th>16</th> <th>HP</th> </tr> </thead> <tbody> <tr> <td>DS2-2</td> <td>OFF</td> <td>ON</td> <td>OFF</td> <td>ON</td> <td>OFF</td> <td>ON</td> <td>OFF</td> <td></td> </tr> <tr> <td>DS2-3</td> <td>OFF</td> <td>OFF</td> <td>ON</td> <td>ON</td> <td>OFF</td> <td>OFF</td> <td>ON</td> <td></td> </tr> <tr> <td>DS2-4</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> <td>ON</td> <td>ON</td> <td>ON</td> <td></td> </tr> </tbody> </table>		5	6	8	10	12	14	16	HP	DS2-2	OFF	ON	OFF	ON	OFF	ON	OFF		DS2-3	OFF	OFF	ON	ON	OFF	OFF	ON		DS2-4	OFF	OFF	OFF	OFF	ON	ON	ON	
		5	6	8	10	12	14	16	HP																														
DS2-2		OFF	ON	OFF	ON	OFF	ON	OFF																															
DS2-3	OFF	OFF	ON	ON	OFF	OFF	ON																																
DS2-4	OFF	OFF	OFF	OFF	ON	ON	ON																																
DS2-3																																							
DS2-4																																							

#### ■ Setting by pushbutton switches

The following settings are made by pushbutton switches on PC board.

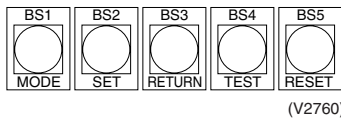
In case of multi-outdoor unit system, various items should be set with the master unit.

(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
Master unit	●	●	○	●	●	●	●	○
Slave unit 1	●	●	●	●	●	●	●	◐
Slave unit 2	●	●	●	●	●	●	●	●

(Factory setting)



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”.

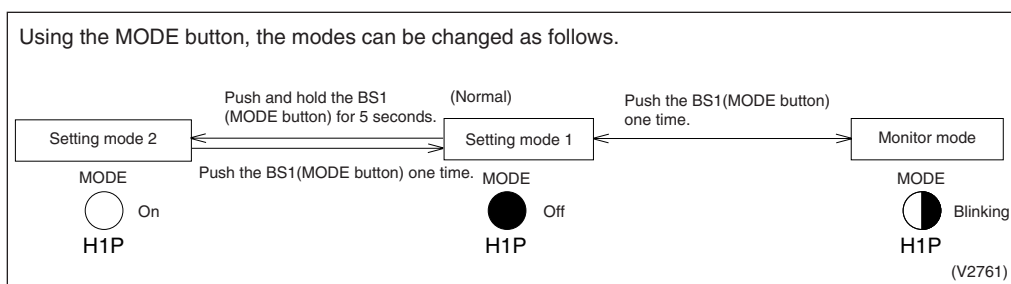
② **Setting mode 2 (H1P on)**

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

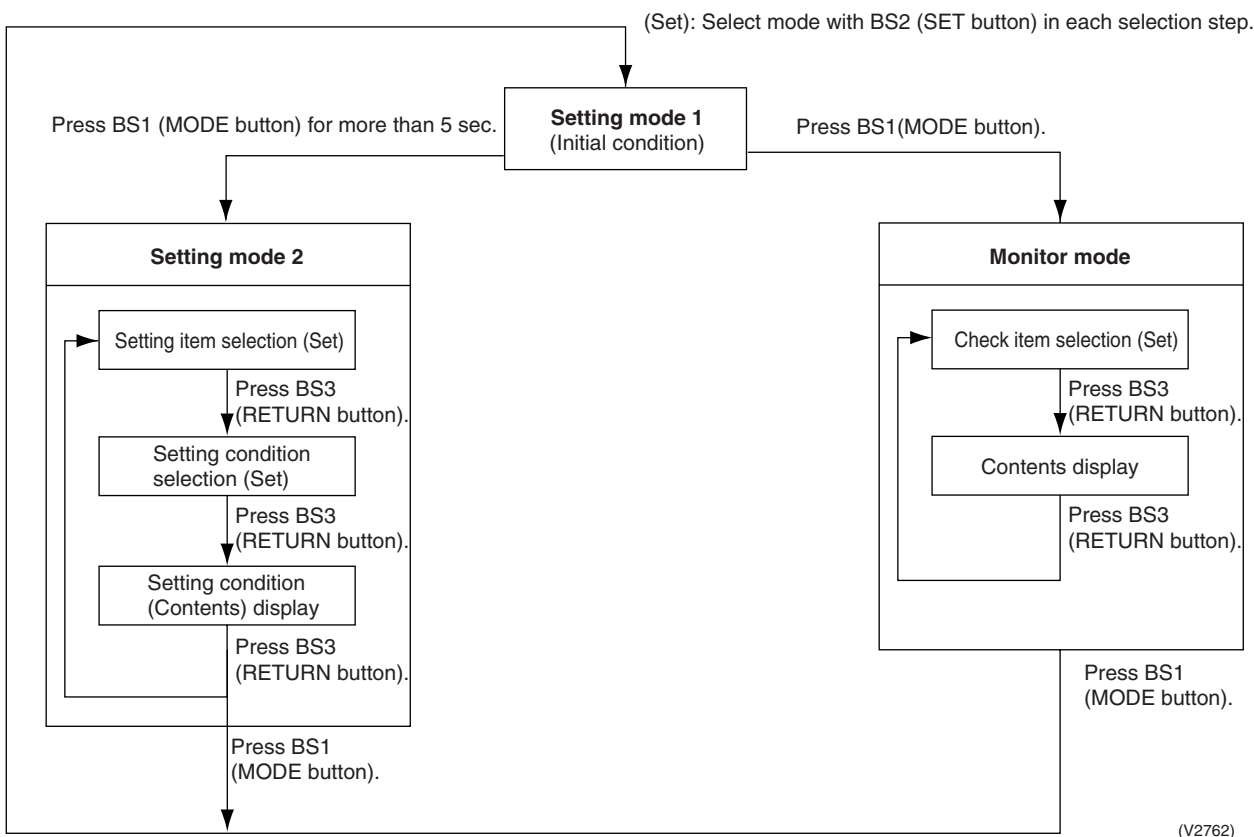
③ **Monitor mode (H1P blinks)**

Used to check the program made in Setting mode 2.

■ **Mode changing procedure**



■ **Mode changing procedure**



### a. "Setting mode 1"

"Normally, "Setting mode 1" is set. In case of other status, push MODE button (BS1) one time and set to "Setting mode 1".

#### <Selection of setting items>

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

- Regarding setting item No. 1,5,6, only the present status is displayed. For the respective description, refer to the table shown on lower right.
- The cool/heat selection setting can be changed on setting item 2, 3, 4. → After setting, push the RETURN button (BS3) and decide the item.

When the RETURN button (BS3) is pushed, the status becomes the initial status of "Setting mode 1".

(V2763)

No.	Setting (displaying) item	LED display example						
		H1P	H2P	H3P	H4P	H5P	H6P	H7P
1	Display for malfunction / preparing / test run *	●	●	○	●	●	●	●
2	C/H selector (individual)	●	●	○	●	●	●	●
3	C/H selector (Master)	●	●	●	○	●	●	●
4	C/H selector (Slave)	●	●	●	●	○	●	●
5	Low noise operation *	●	●	○	●	●	●	●
6	Demand operation *	●	●	○	●	●	●	●

\* Setting No. 1, 5, 6 are the present status display only.

#### Display for malfunction/preparing/test-run

Normal	●	●	○	●	●	●	●
Malfunction	●	○	○	●	●	●	●
Preparing/Test-run	●	◐	○	●	●	●	●

#### Display during low noise operation

Normal	●	●	○	●	●	●	●
During low noise operation	●	●	○	●	●	○	●

H3P to H5P LED display changes depending on setting No. 2, 3, 4.

#### Display during demand operation

Normal	●	●	○	●	●	●	●
During demand operation	●	●	○	●	●	●	○

H3P to H5P LED display changes depending on setting No. 2, 3, 4.

○	: ON
●	: OFF
◐	: Blinking



## b. "Setting mode 2"

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

## &lt;Selection of setting items&gt;

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.)

## &lt;Selection of setting conditions&gt;

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
10	Defrost changeover setting	Changes the temperature condition for defrost and sets to quick defrost or slow defrost.
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. (This operation, however, is not set with RXY5M.)
20	Additional refrigerant charge operation setting	Carries out additional refrigerant charge operation.
21	Refrigerant collection 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.)

No.	Setting item	Description
38	Emergency operation (Setting for the master unit operation prohibition in multi-outdoor-unit system)	Used to temporarily prohibit the applicable outdoor unit from operating should there be any faulty part in multi-outdoor-unit system. Since the comfortable environment is extremely impaired, prompt replacement of the part is required.
39	Emergency operation (Setting for the slave unit 1 operation prohibition in multi-outdoor-unit system)	
40	Emergency operation (Setting for the slave unit 2 operation prohibition in multi-outdoor-unit system)	

No.	Setting item display								Setting condition display	
	Setting item	MODE H1P	TEST H2P	C/H selection			Low noise H6P	Demand H7P		
				IND H3P	Master H4P	Slave H5P				
0	EMG (emergency operation) INV compressor operation inhibited.	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Normal operation	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Emergency operation	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
1	Cool / Heat Unified address	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Address 0	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Binary number (6 digits)	1 <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
									31	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
2	Low noise/demand address	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Address 0	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Binary number (6 digits)	1 <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
									31	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
5	Indoor forced fan H	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Normal operation	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Indoor forced fan H	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
6	Indoor forced operation	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Normal operation	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Indoor forced operation	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
8	Te setting	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	High	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
									Normal (factory setting)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> *
									Low	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
9	Tc setting	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	High	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
									Normal (factory setting)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> *
									Low	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
10	Defrost setting	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Quick defrost	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
									Normal (factory setting)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> *
									Slow defrost	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
11	Sequential operation setting	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	OFF	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
									ON	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> *
12	External low noise/demand setting	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	External low noise/demand: NO	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									External low noise/demand: YES	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
13	Airmet address	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Address 0	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Binary number (6 digits)	1 <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
									63	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
18	High static pressure setting	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	High static pressure setting: OFF	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									High static pressure setting: ON	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
19	Emergency operation (STD compressor is inhibited to operate.)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	OFF	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									STD 1, 2 operation: Inhibited	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
									STD 2 operation: Inhibited	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
20	Additional refrigerant operation setting	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Refrigerant charging: OFF	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Refrigerant charging: ON	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
21	Refrigerant recovery mode setting	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Refrigerant recovery: OFF	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Refrigerant recovery: ON	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
22	Night-time low noise setting	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	OFF	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> *
									Level 1 (outdoor fan with 8 step or lower)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
									Level 2 (outdoor fan with 7 step or lower)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
									Level 3 (outdoor fan with 6 step or lower)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
25	Low noise setting	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Level 1 (outdoor fan with 8 step or lower)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
									Level 2 (outdoor fan with 7 step or lower)	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/> *
									Level 3 (outdoor fan with 6 step or lower) *	<input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input checked="" type="radio"/>

No.	Setting item display								Setting condition display	
	Setting item	MODE H1P	TEST H2P	C/H selection			Low noise H6P	Demand H7P		
				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 setting)	○ ● ● ● ○ ● ● *
28	Power transistor check mode	○	●	○	○	○	●	●	OFF	○ ● ● ● ● ● ○ *
									ON	○ ● ● ● ● ● ○ ●
29	Capacity precedence setting	○	●	○	○	○	●	○	OFF	○ ● ● ● ● ● ○ *
									ON	○ ● ● ● ● ● ○ ●
30	Demand setting 1	○	●	○	○	○	○	●	60 % demand	○ ● ● ● ● ● ○
									70 % demand	○ ● ● ● ● ● ○ ● *
									80 % demand	○ ● ● ● ○ ● ●
32	Continuous demand setting	○	○	●	●	●	●	●	OFF	○ ● ● ● ● ● ○ *
									ON	○ ● ● ● ● ● ○ ●
38	Emergency operation (Master unit with multi-outdoor-unit system is inhibited to operate.)	○	○	●	●	○	○	●	OFF	○ ● ● ● ● ● ○ *
									Master unit operation: Inhibited	○ ● ● ● ● ● ○ ●
39	Emergency operation (Slave unit 1 with multi-outdoor-unit system is inhibited to operate.)	○	○	●	●	○	○	○	OFF	○ ● ● ● ● ● ○ *
									Slave unit 1 operation: Inhibited	○ ● ● ● ● ● ○ ●
40	Emergency operation (Slave unit 2 with multi-outdoor-unit system is inhibited to operate.)	○	○	●	○	●	●	●	OFF	○ ● ● ● ● ● ○ *
									Slave unit 2 operation: Inhibited	○ ● ● ● ● ● ○ ●

### 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".

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	●	●	●	●	○	●	○	
6	Number of connected BS units	●	●	●	●	○	○	●	
7	Number of connected zone units (excluding outdoor and BS unit)	●	●	●	●	○	○	○	Lower 4 digits: upper
8	Number of outdoor units	●	●	●	○	●	●	●	
9	Number of connected BS units	●	●	●	○	●	●	○	Lower 4 digits: lower
10	Number of connected BS units	●	●	●	○	●	○	●	Lower 6 digits
11	Number of zone units (excluding outdoor and BS unit)	●	●	●	○	●	○	○	Lower 4 digits: upper
12	Number of terminal blocks	●	●	●	○	○	●	●	Lower 4 digits: lower
13	Number of terminal blocks	●	●	●	○	○	●	○	Malfunction code table Refer page 154, 155.
14	Contents of malfunction (the latest)	○	●	●	○	○	○	●	
15	Contents of malfunction (1 cycle before)	○	●	●	○	○	○	○	
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)	○	●	○	●	○	○	●	

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

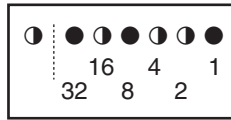
Number of units for sequential start	1 unit	●	●	●	●	●	●	●
	2 units	●	●	○	●	●	●	●
	3 units	●	●	○	○	●	●	●
EMG operation /backup operation setting	ON	●	●	●	○	●	●	●
	OFF	●	●	●	●	●	●	●
Defrost select setting	Short	●	●	●	●	○	●	●
	Medium	●	●	●	●	○	●	●
	Long	●	●	●	●	●	●	●
Te setting	H	●	●	●	●	○	●	●
	M	●	●	●	●	●	○	●
	L	●	●	●	●	●	●	●
Tc setting	H	●	●	●	●	●	○	●
	M	●	●	●	●	●	●	○
	L	●	●	●	●	●	●	●

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

(V2765)

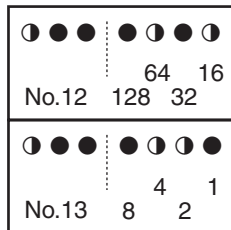
Push the SET button and match with the LEDs No. 1 - 15, push the RETURN button, and enter the data for each setting.

★ 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.

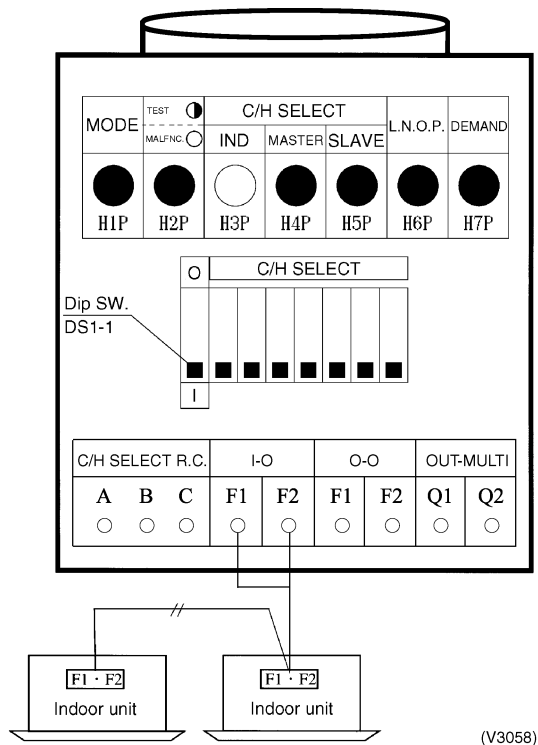
### 3.2.2 Cool / Heat Mode Switching

There are the following 5 cool/heat switching modes.

- ① Set cool/heat separately for each outdoor unit system by indoor unit remote controller.
- ② Set cool/heat separately for each outdoor unit system by cool/heat switching remote controller.
- ③ Set cool/heat for more than one outdoor unit system simultaneously in accordance with unified master outdoor unit by indoor unit remote controller.
- ④ Set cool/heat for more than one outdoor unit system simultaneously in accordance with unified master outdoor unit by cool/heat switching remote controller.

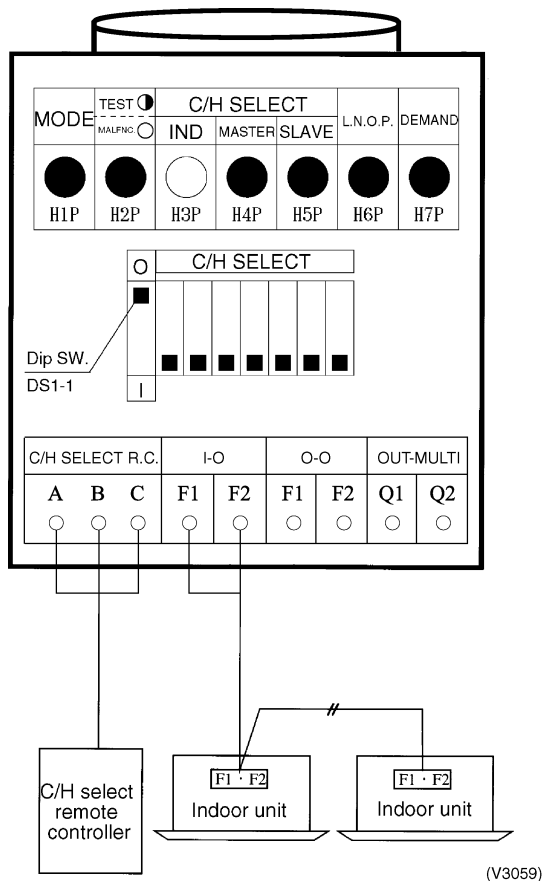
#### ① Set Cool/Heat Separately for Each Outdoor System by Indoor Unit Remote Controller

- ◆ It does not matter whether or not there is outdoor - outdoor unit wiring.
- ◆ Set outdoor unit PC board DS1-1 to "indoor" (factory set).
- ◆ Set cool/heat switching to "individual" for "Setting mode 1" (factory set).



② Set Cool / Heat Separately for Each Outdoor Unit System by Cool/Heat Switching Remote Controller

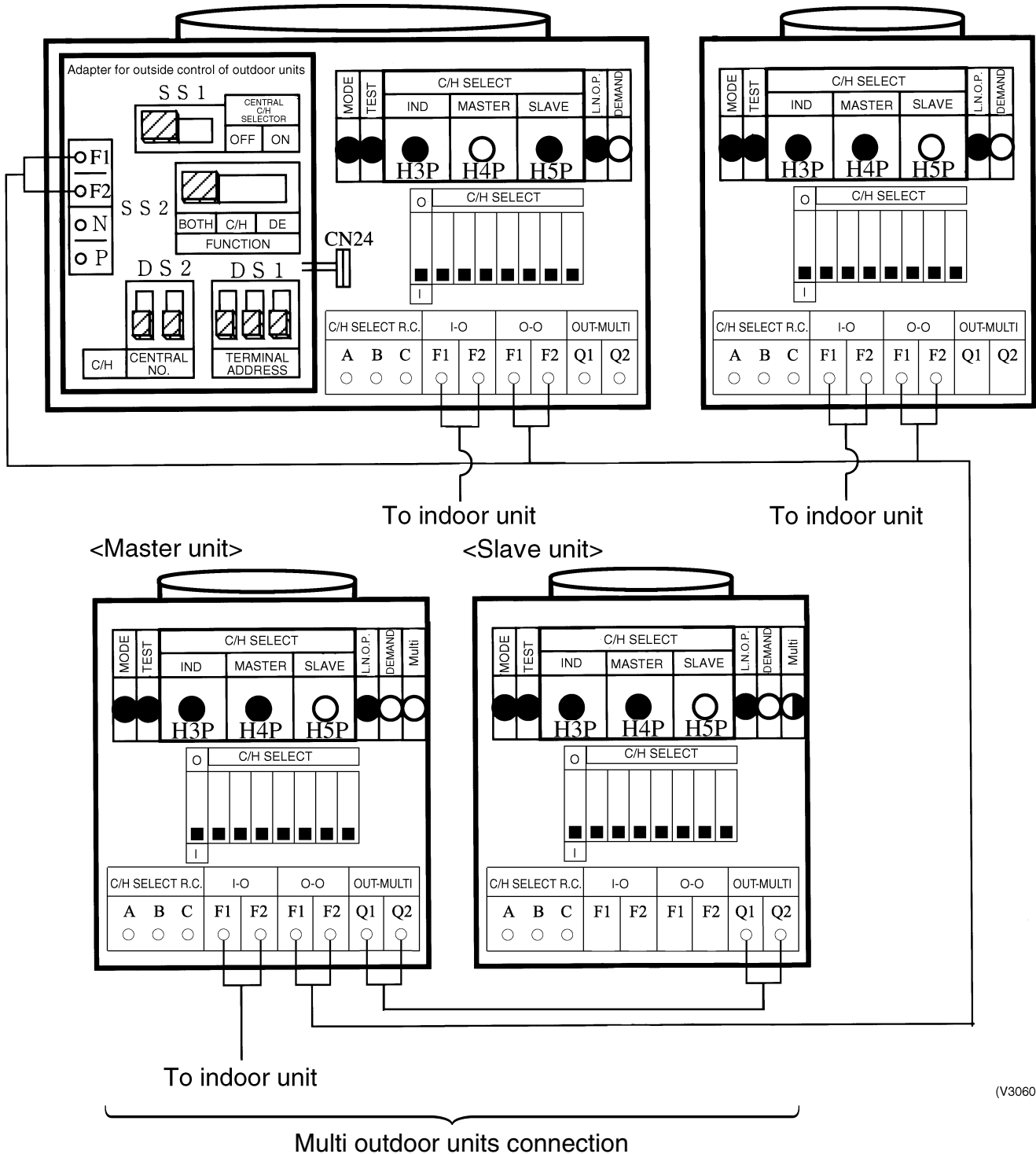
- ◆ It does not matter whether or not there is outdoor - outdoor unit wiring.
- ◆ Set outdoor unit PC board DS1-1 to "outdoor" (factory set).
- ◆ Set cool/heat switching to "individual" for "Setting mode 1" (factory set).





③ Set Cool / Heat for More Than One Outdoor Unit System Simultaneously in Accordance with Unified Master Outdoor Unit by Indoor Unit Remote Controller

- ◆ Install the outdoor unit external control adapter on either the outdoor-outdoor, indoor-outdoor, or transmission line.
- ◆ Set outdoor unit PC board DS1-1 to "Indoor" (factory set).
- ◆ In setting mode 1, set the outdoor unit you want to give cool/heat selection permission to as the group master, and set the other outdoor units as group slave units.
- ◆ Set the outdoor unit external control adapter SS1 to Unified (factory set) or Cool, and SS2 to No (factory set).



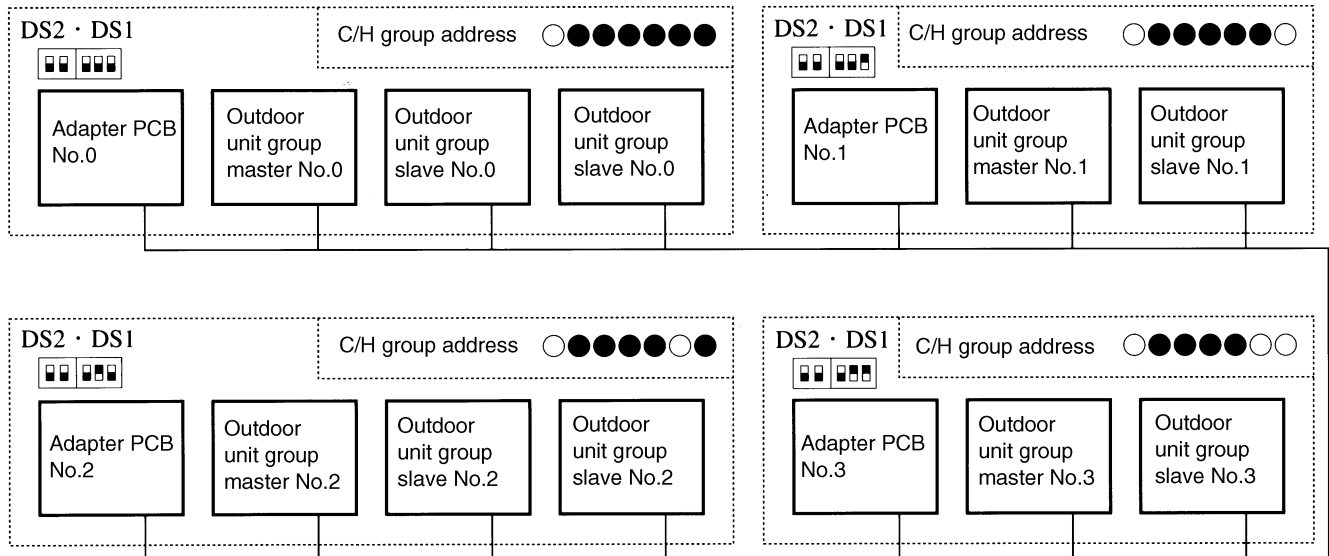
(V3060)

④ **Set Cool / Heat for More Than One Outdoor Unit System Simultaneously in Accordance with Unified Master Outdoor Unit by Cool/Heat Switching Remote Controller**

- ◆ Add and change the following items to ③.
- ★ Install cool/heat switching remote controller on the group master outdoor unit.
- ★ Set SS1 on the group master outdoor unit PC board.

**Supplementation on ③ and ④.**

When switching cool/heat for each adapter PC board with the use of more than one adapter PC board, set the address of the adapter PC board DS1 and DS2 so that it matches the unified cool/heat address of outdoor unit PC board.



(V2723)

Address setting for ③ and ④ (Set lower 5 digits with binary number.) [No.0 to No.31]

Address No.	Outdoor unit PCB LED Set with setting mode 2		Adapter PCB					
			DS2		DS1			
No 0	○ ●	● ● ● ● ● 0						0
No 1	○ ●	● ● ● ● ○ 1						1
No 2	○ ●	● ● ● ○ ● 2						2
No 3	○ ●	● ● ● ○ ○ 3						3
No 4	○ ●	● ● ○ ● ● 4						4
}		}	}					
No 30	○ ●	○ ○ ○ ○ ● 30						30
No 31	○ ●	○ ○ ○ ○ ○ 31						31

○ ON    ● OFF    Upper position (ON)    lower position (OFF)  
(The shaded part shows knob)

(V2724)

## 3.2.3 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.

#### **A. When the low noise operation is carried out by external instructions (with the use of the outdoor unit external control adapter)**

1. Set "External low noise / Demand YES/NO setting" to "External low noise / Demand YES". (Set by Setting Mode 2)
2. Set "External low noise level setting" on the outdoor unit PC board, as the need arises. (Lower noise operation can be carried out by "Mode 2" than by "Mode 1", and by "Mode 3" than by "Mode 2".)
3. Set "Capacity precedence setting" on the outdoor unit PC board, as the need arises. (If set to "ON", when air conditioning load gets higher, the low noise instructions are neglected to switch to normal operation.) (Set by Setting Mode 2)

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

1. Set "Night-time low noise setting" on the outdoor unit PC board. (Set by Setting Mode 2) (Lower noise operation can be carried out by "Mode 2" than by "Mode 1", and by "Mode 3" than by "Mode 2".)
2. Set "Night-time low noise start setting" on the outdoor unit PC board, as the need arises. (Set by Setting Mode 2) (Since the time is presumed in accordance with the outdoor temperature, the starting time is a target only.)
3. Set "Night-time low noise end setting" on the outdoor unit PC board, as the need arises. (Set by Setting Mode 2) (Since the time is presumed in accordance with the outdoor temperature, the ending time is a target only.)
4. Set "Capacity precedence setting" on the outdoor unit PC board, as the need arises. (Set by Setting Mode 2) (If set to "ON", when air conditioning load gets higher, the status is switched to normal operation even at night.)

Image of operation in the case of A

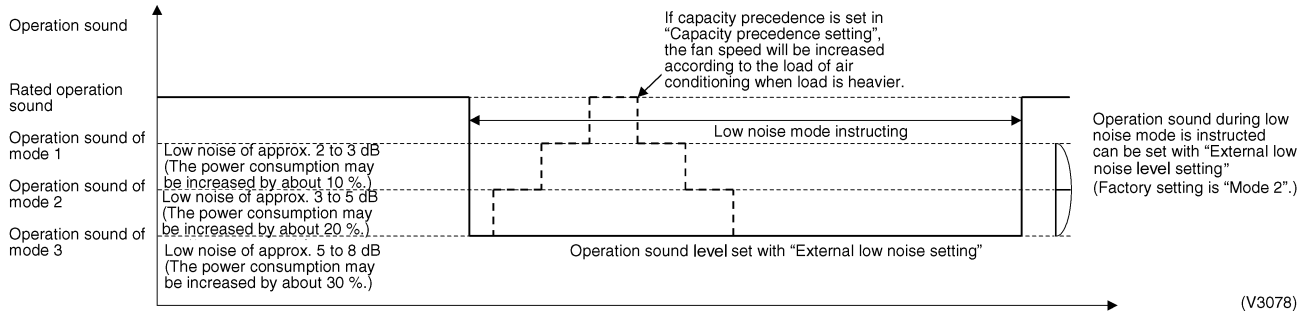


Image of operation in the case of B

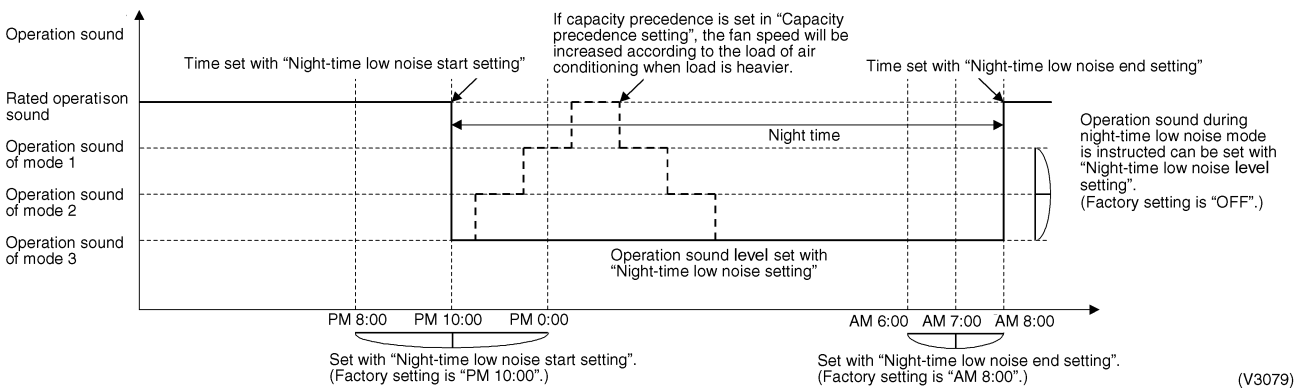
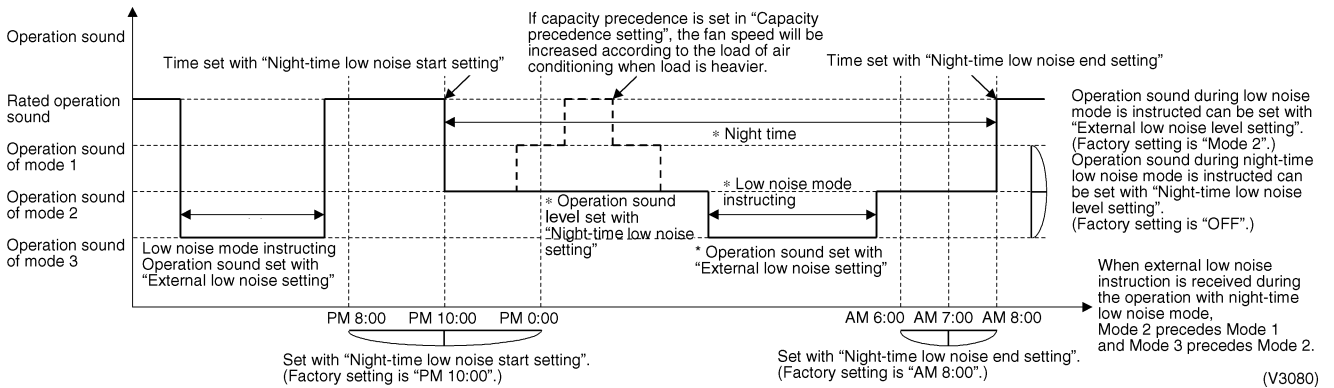


Image of operation in the case of A, B



---

## 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.

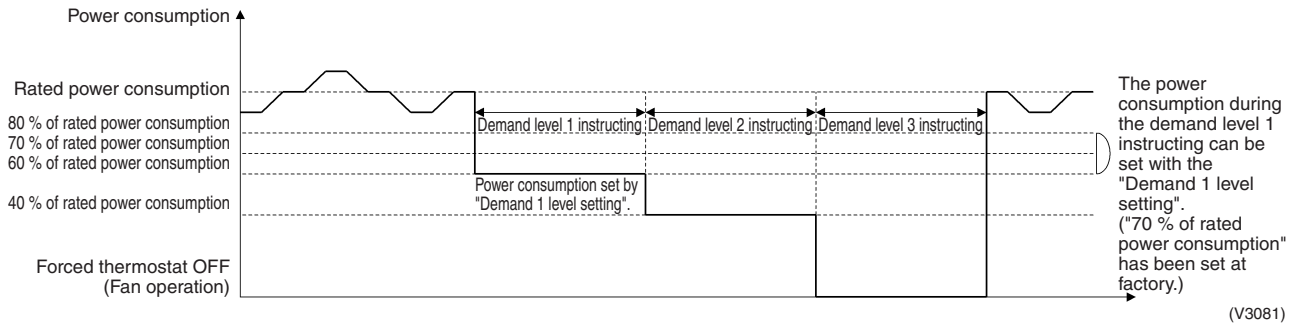
### **A. When the demand operation is carried out by external instructions (with the use of the outdoor unit external control adapter).**

- Set the "External low noise/Demand YES/NO setting" switch on the outdoor unit PCB to the "External low noise/Demand YES".  
(Set by Setting Mode 2)
- Set the "Demand 1 level setting " on the outdoor unit PCB, as the need arises.  
(During the demand level 1 instruction, the power consumption can be saved to 80 %, 70 % or 60 % of the rated value respectively.)

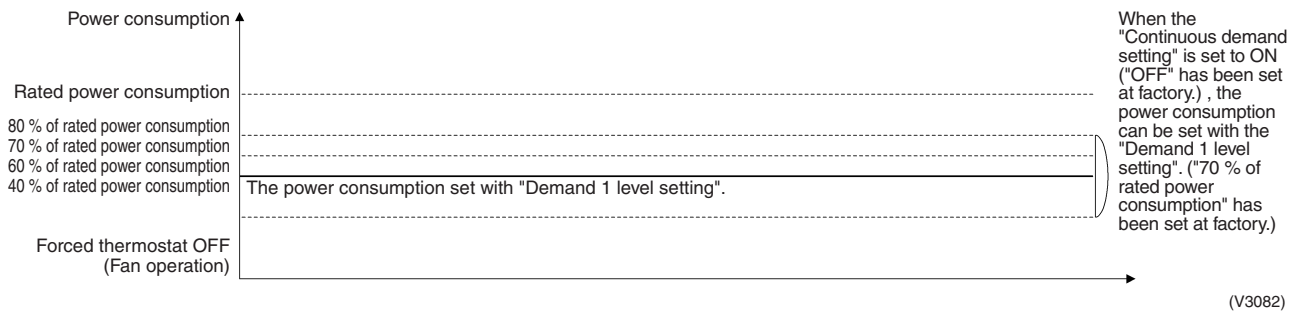
### **B. When the continuous demand operation is carried out. (Use of the outdoor unit external control adapter is not required.)**

- Set the "Continuous demand setting" on the outdoor unit PCB.
- If the "Continuous demand setting" is set to the "Continuous demand 1 fixing", set the "Demand 1 setting " on the outdoor unit PCB, as the need arises.  
(During the continuous demand level 1 operation, the power consumption can be saved to 80 %, 70 % or 60 % of the rated value respectively.)

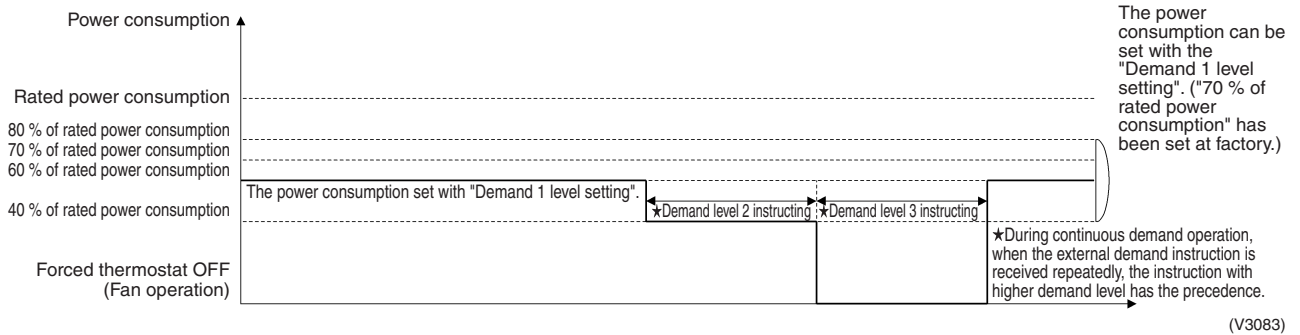
**Image of operation in the case of A**



**Image of operation in the case of B**



**Image of operation in the case of A and B**



---

## 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 2 is entered and H1P lights.  
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 below) 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.



Setting No.	Setting contents	① Setting No. indication							② Setting No. indication							Setting contents	③ 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				
22	Night-time low noise setting	○	●	●	●	●	●	●	○	●	○	●	○	○	●	OFF (Factory setting)	○	●	●	●	●	●	●	●	●		
																Mode 1	○	●	●	●	●	●	●	●	●	●	●
																Mode 2	○	●	●	●	●	●	●	●	●	●	●
																Mode 3	○	●	●	●	●	●	●	●	●	●	●
25	External low noise setting	○	●	○	○	●	●	○	○	●	○	○	●	●	○	Mode 1	○	●	●	●	●	●	●	●	●		
																Mode 2 (Factory setting)	○	●	●	●	●	●	●	●	●	●	●
																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	Continuous demand setting	○	●	●	●	●	●	●	●	●	●	●	●	OFF (Factory setting)	○	●	●	●	●	●	●	●	●				
														Continuous demand 1 fixed	○	●	●	●	●	●	●	●	●	●	●		
12	External low noise / Demand setting	○	●	●	○	○	●	●	○	●	○	○	●	●	NO (Factory set)	○	●	●	●	●	●	●	○				
															YES	○	●	●	●	●	●	○	●				

Setting mode indication section

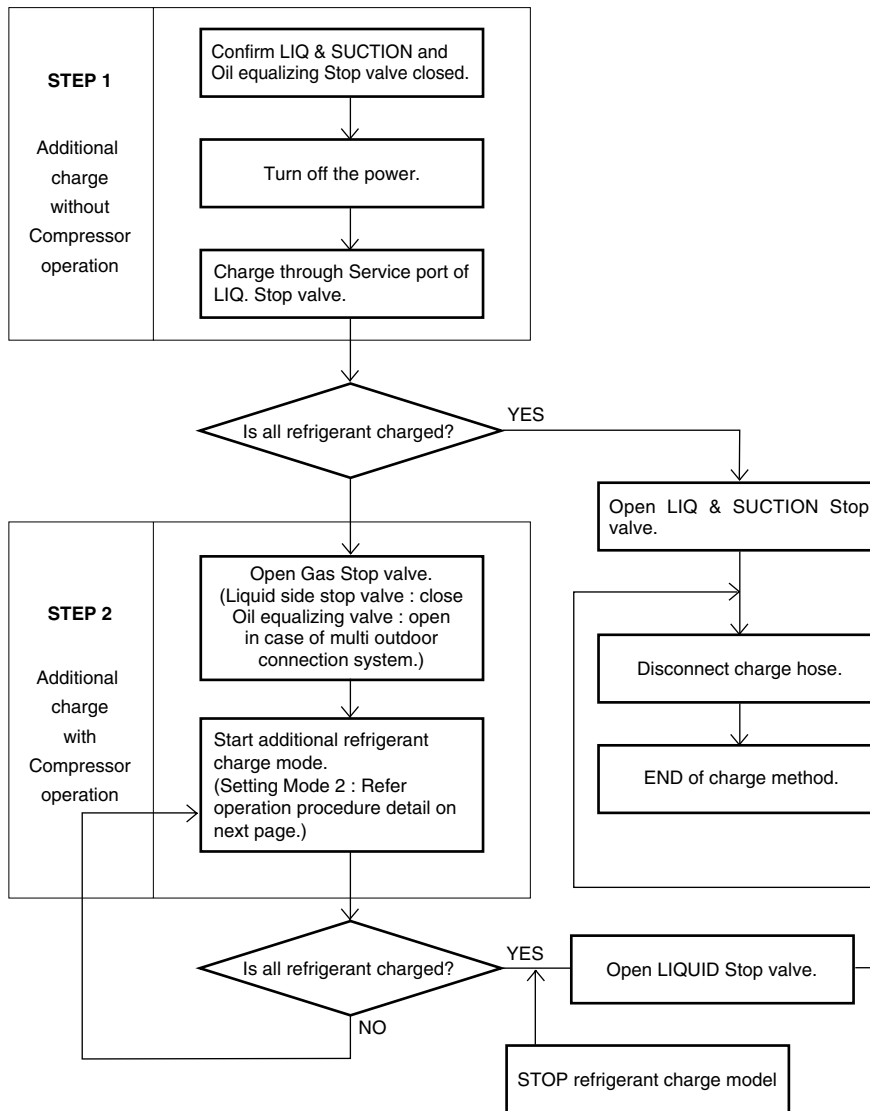
Setting No. indication section

Set contents indication section

### 3.2.4 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 valve. 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

### 3.2.5 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 detail.)
- ③ Press Mode button "BS1" once and reset "Setting Mode 2".

### 3.2.6 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.

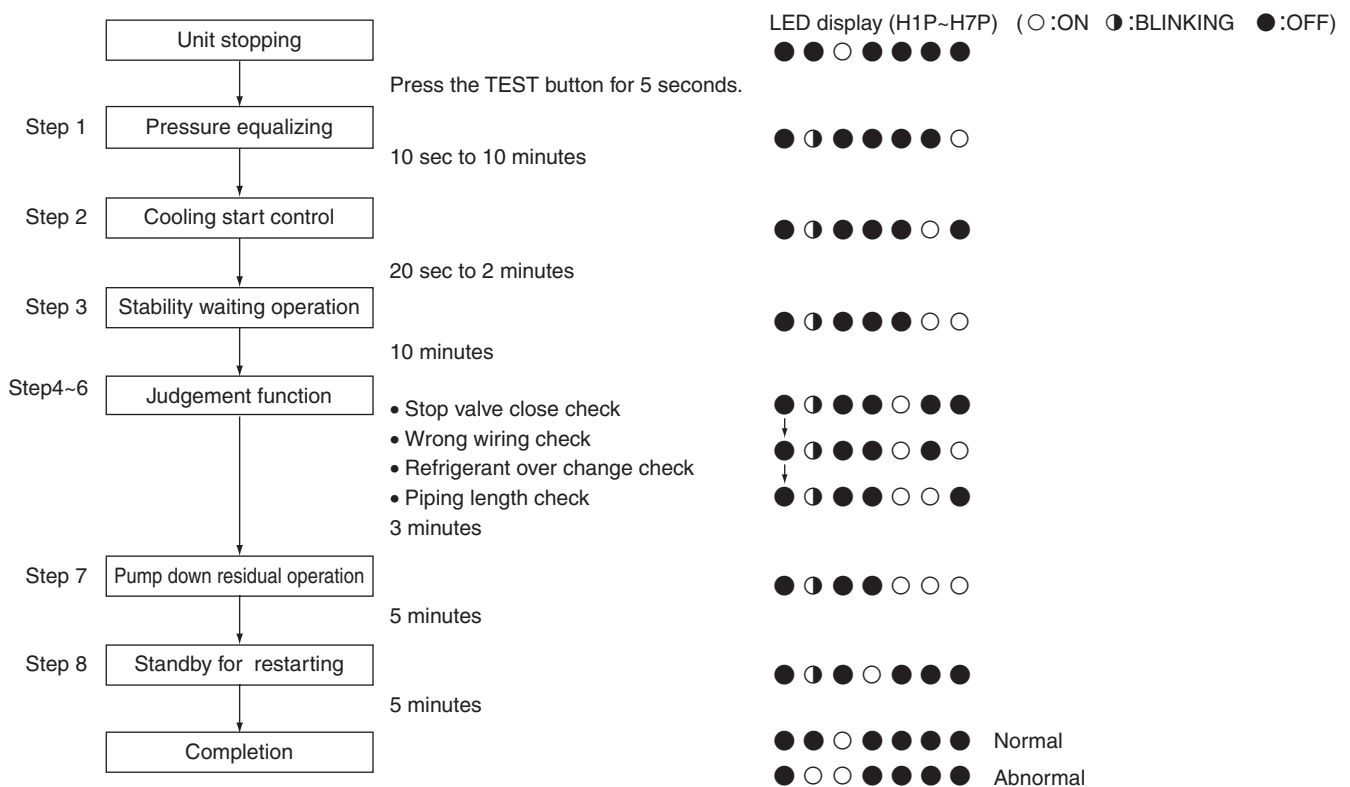
#### [Operating procedure]

- 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".

### 3.2.7 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



### 3.2.8 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  $\pm 5\%$ , the inverter PCB is normal.



# Part 6

## Troubleshooting

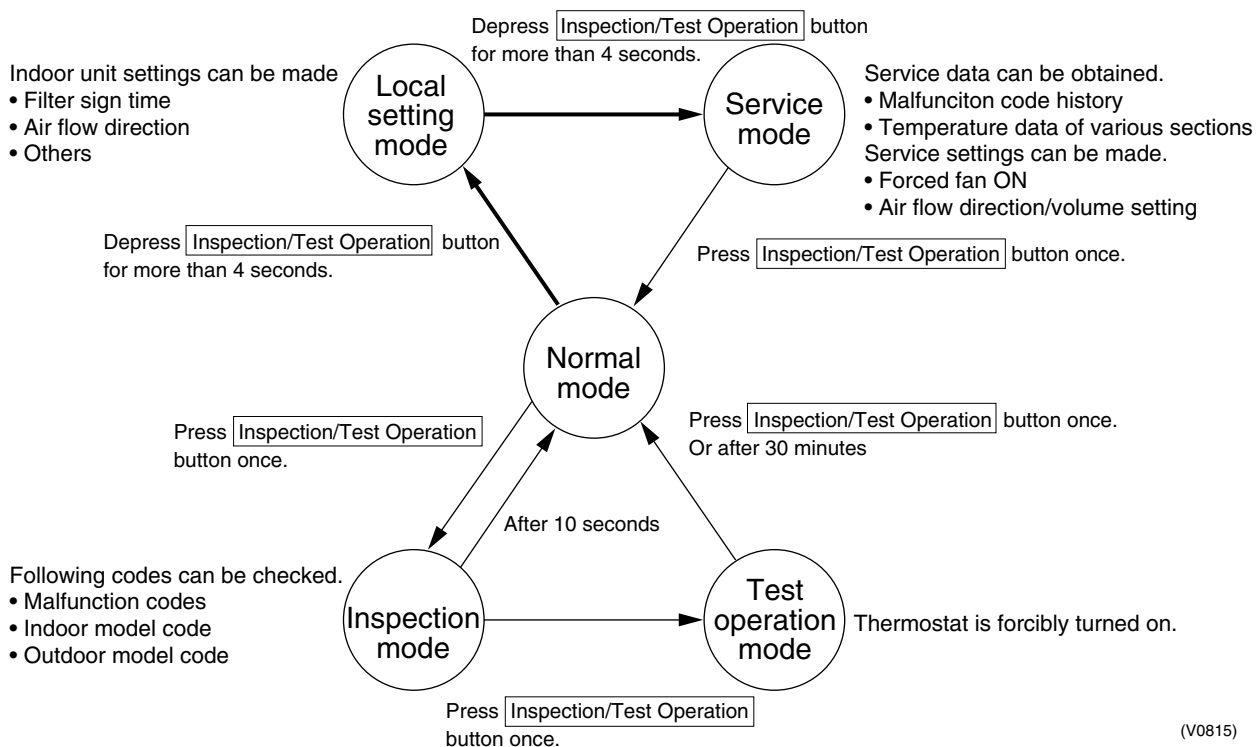
1. Troubleshooting by Remote Controller .....	165
1.1 The INSPECTION / TEST Button.....	165
1.2 Self-diagnosis by Wired Remote Controller .....	166
1.3 Self-diagnosis by Wireless Remote Controller.....	167
1.4 Operation of The Remote Controller's Inspection / Test Operation Button .....	170
1.5 Remote Controller Service Mode .....	171
1.6 Remote Controller Self-Diagnosis Function .....	173
2. Troubleshooting by Indication on the Remote Controller .....	178
2.1 "R0" Indoor Unit: Error of External Protection Device .....	178
2.2 "R1" Indoor Unit: PC Board Defect.....	179
2.3 "R3" Indoor Unit: Malfunction of Drain Level Control System (33H).....	180
2.4 "R5" Indoor Unit: Fan Motor (M1F) Lock, Overload.....	182
2.5 "R7" Indoor Unit: Malfunction of Swing Flap Motor (MA) .....	183
2.6 "R9" Indoor Unit: Malfunction of Moving Part of Electronic Expansion Valve (20E) .....	185
2.7 "RF" Indoor Unit: Drain Level above Limit.....	187
2.8 "RJ" Indoor Unit: Malfunction of Capacity Determination Device .....	188
2.9 "LC" Indoor Unit: Malfunction of Thermistor (R2T) for Heat Exchanger.....	189
2.10 "CS" Indoor Unit: Malfunction of Thermistor (R3T) for Gas Pipes.....	190
2.11 "CG" Indoor Unit: Malfunction of Thermistor (R1T) for Suction Air.....	191
2.12 "LJ" Indoor Unit: Malfunction of Thermostat Sensor in Remote Controller .....	192
2.13 "E1" Outdoor Unit: PC Board Defect .....	193
2.14 "E3" Outdoor Unit: Actuation of High Pressure Switch .....	194
2.15 "E4" Outdoor Unit: Actuation of Low Pressure Sensor .....	195
2.16 "E5" Compressor Motor Lock .....	196
2.17 "E6" Standard Compressor Motor Overcurrent/Lock.....	197
2.18 "E7" Malfunction of Outdoor Unit Fan Motor.....	198
2.19 "E9" Outdoor Unit: Malfunction of Moving Part of Electronic Expansion Valve (Y1E, Y2E).....	200
2.20 "F3" Outdoor Unit: Abnormal Discharge Pipe Temperature .....	202
2.21 "F6" Refrigerant Overcharged .....	203
2.22 "H7" Abnormal Outdoor Fan Motor Signal .....	204
2.23 "HG" Outdoor Unit: Malfunction of Thermistor for Outdoor Air (R1T).....	205
2.24 "J2" Current Sensor Malfunction.....	206
2.25 "J3" Outdoor Unit: Malfunction of Discharge Pipe Thermistor (R31~33T).....	207
2.26 "J5" Outdoor Unit: Malfunction of Thermistor (R2T) for Suction Pipe ...	208
2.27 "J6" Outdoor Unit: Malfunction of Thermistor (R4T) for Outdoor Unit Heat Exchanger .....	209
2.28 "J9" Malfunction of Receiver Gas Pipe Thermistor (R5T).....	210
2.29 "JR" Outdoor Unit: Malfunction of High Pressure Sensor.....	211
2.30 "LC" Outdoor Unit: Malfunction of Low Pressure Sensor.....	212

2.31	“L4” Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise .....	213
2.32	“L5” Outdoor Unit: Inverter Compressor Abnormal .....	214
2.33	“L8” Outdoor Unit: Inverter Current Abnormal .....	215
2.34	“L9” Outdoor Unit: Inverter Start up Error .....	216
2.35	“LC” Outdoor Unit: Malfunction of Transmission Between Inverter and Control PC Board .....	217
2.36	“P” Outdoor Unit: Inverter Over-Ripple Protection .....	219
2.37	“P4” Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise Sensor .....	220
2.38	“UD” Low Pressure Drop Due to Refrigerant Shortage or Electronic Expansion Valve Failure .....	221
2.39	“U1” Reverse Phase, Open Phase .....	222
2.40	“U2” Power Supply Insufficient or Instantaneous Failure .....	223
2.41	“U3” Check Operation not executed .....	225
2.42	“U4” Malfunction of Transmission Between Indoor Units .....	226
2.43	“U5” Malfunction of Transmission Between Remote Controller and Indoor Unit .....	228
2.44	“U7” Malfunction of Transmission Between Outdoor Units .....	229
2.45	“U8” Malfunction of Transmission Between Master and Slave Remote Controllers .....	231
2.46	“U9” Malfunction of Transmission Between Indoor and Outdoor Units in the Same System .....	232
2.47	“UR” Excessive Number of Indoor Units .....	234
2.48	“UL” Address Duplication of Central Remote Controller .....	235
2.49	“UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit .....	236
2.50	“UF” Refrigerant System not Set, Incompatible Wiring/Piping .....	238
2.51	“UH” Malfunction of System, Refrigerant System Address Undefined .....	239
3.	Troubleshooting (OP: Central Remote Controller) .....	240
3.1	“UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit .....	240
3.2	“77” PC Board Defect .....	241
3.3	“78” Malfunction of Transmission Between Optional Controllers for Centralized Control .....	242
3.4	“79” Improper Combination of Optional Controllers for Centralized Control .....	243
3.5	“7C” Address Duplication, Improper Setting .....	245
4.	Troubleshooting (OP: Schedule Timer) .....	246
4.1	“UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit .....	246
4.2	“77” PC Board Defect .....	248
4.3	“78” Malfunction of Transmission Between Optional Controllers for Centralized Control .....	249
4.4	“79” Improper Combination of Optional Controllers for Centralized Control .....	250
4.5	“7C” Address Duplication, Improper Setting .....	252
5.	Troubleshooting (OP: Unified ON/OFF Controller) .....	253
5.1	Operation Lamp Blinks .....	253
5.2	Display “Under Host Computer Integrate Control” Blinks (Repeats Single Blink) .....	255
5.3	Display “Under Host Computer Integrate Control” Blinks (Repeats Double Blink) .....	258

# 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.



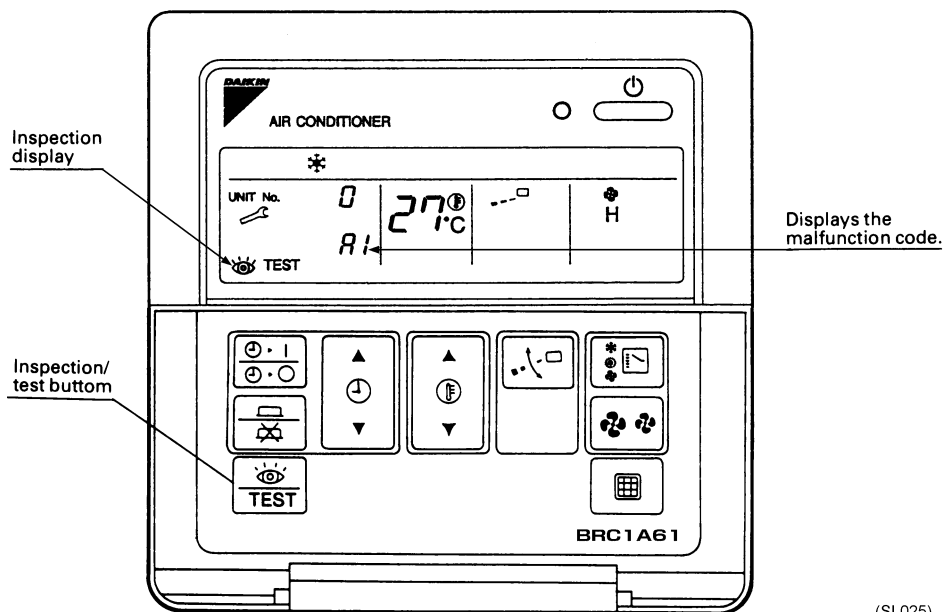
(V0815)



## 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 173 for malfunction code and malfunction contents.



(SL025)

## 1.3 Self-diagnosis by Wireless Remote Controller

### In the Case of BRC7C ~ 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

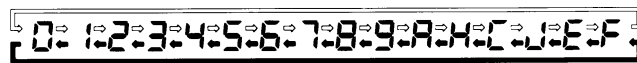
**Continuous beep** : Both upper and lower digits matched. (Malfunction code confirmed)

**2 short beeps** : Upper digit matched.

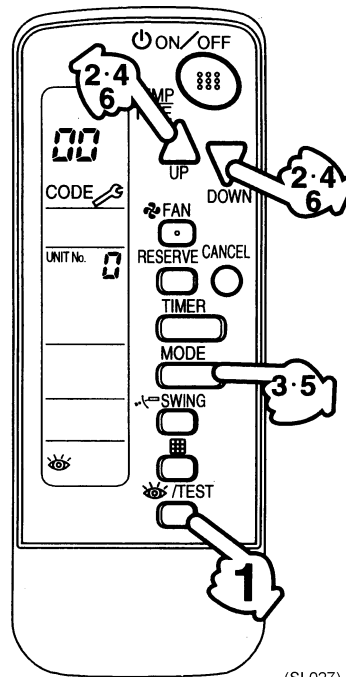
**1 short beep** : Lower digit matched.

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.

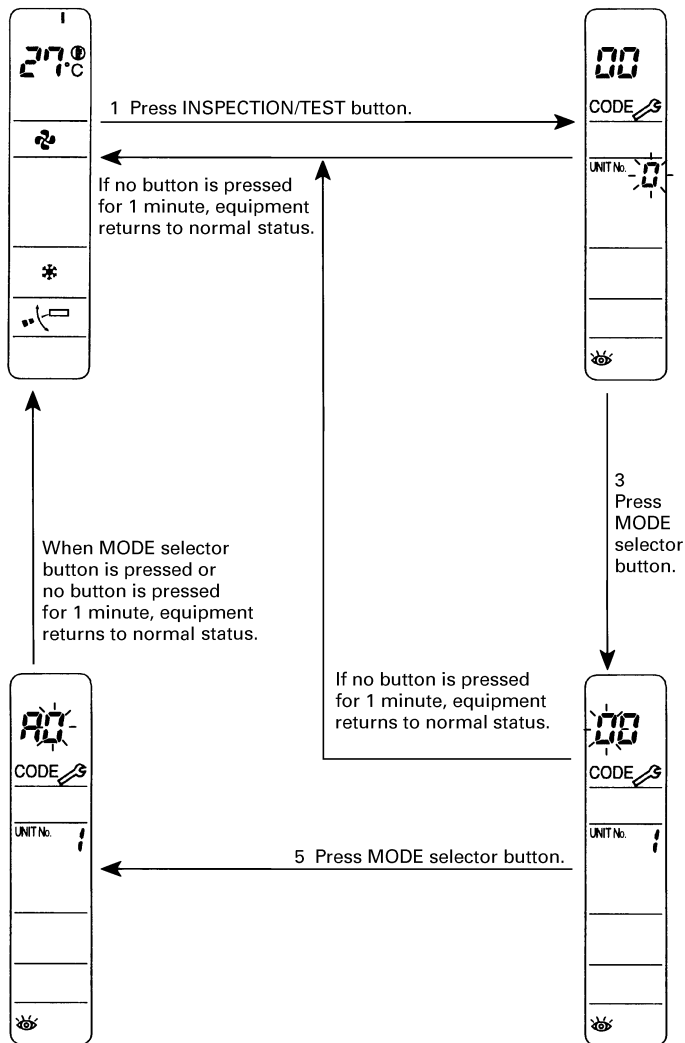


⇒ "Advance" button    ← "Backward" button (SE007)



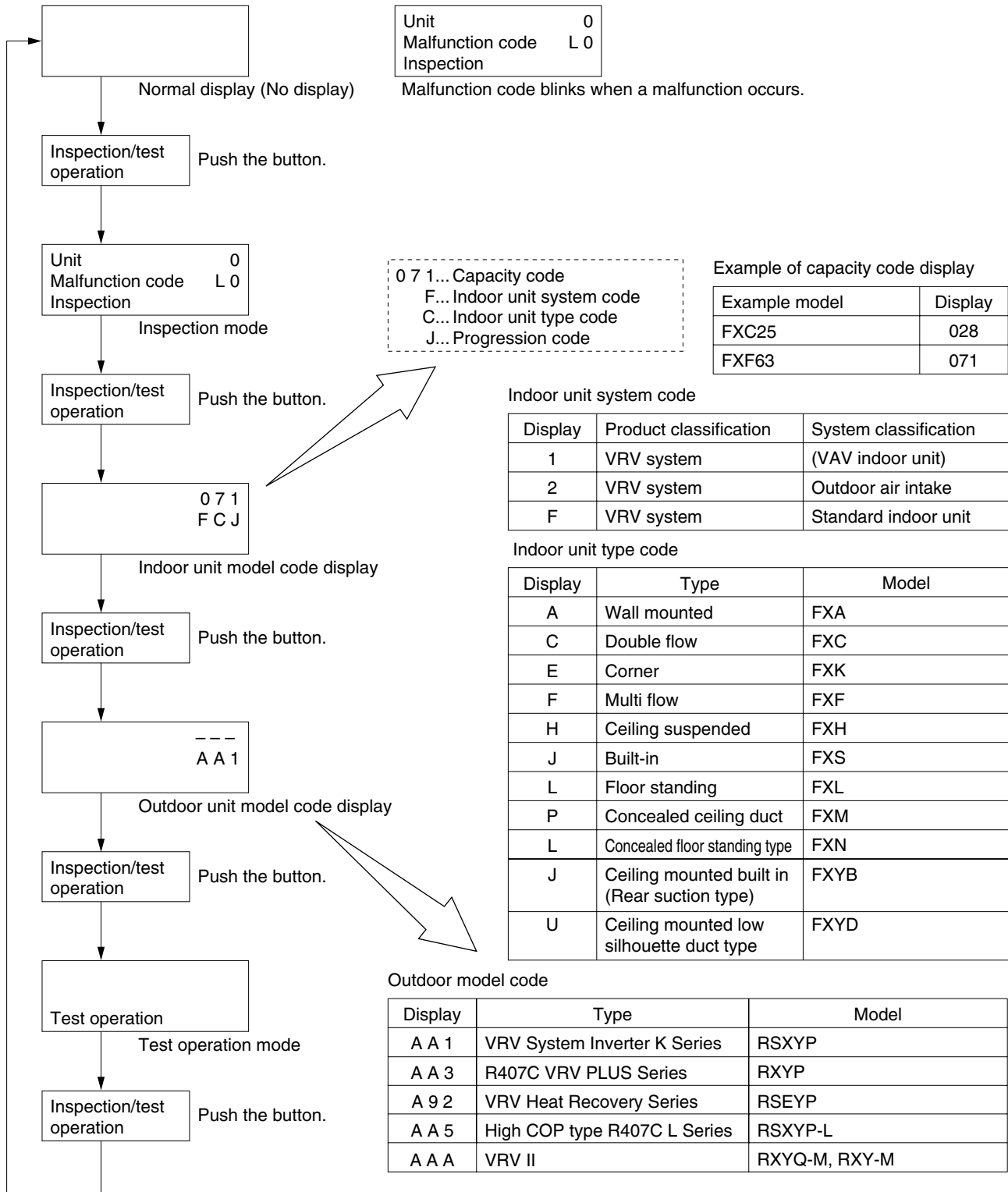
(SL027)

Normal status  
Enters inspection mode from normal status when the INSPECTION/TEST button is pressed.



(SF008)

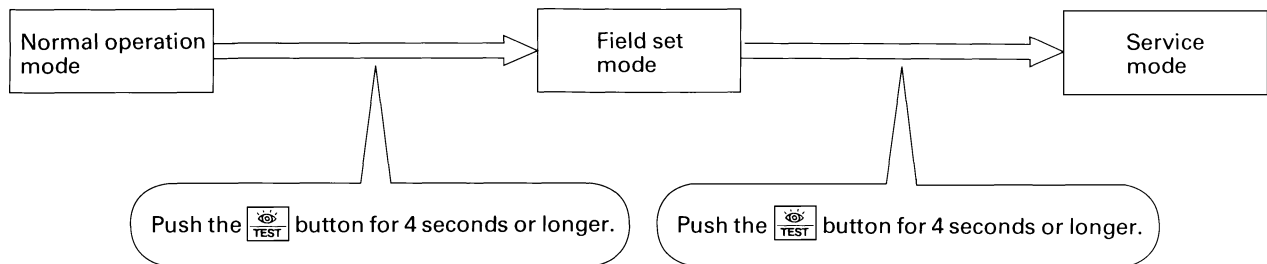
# 1.4 Operation of The Remote Controller's Inspection / Test Operation Button



(V2775)

## 1.5 Remote Controller Service Mode


### How to Enter the Service Mode



(VF020)



### 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.

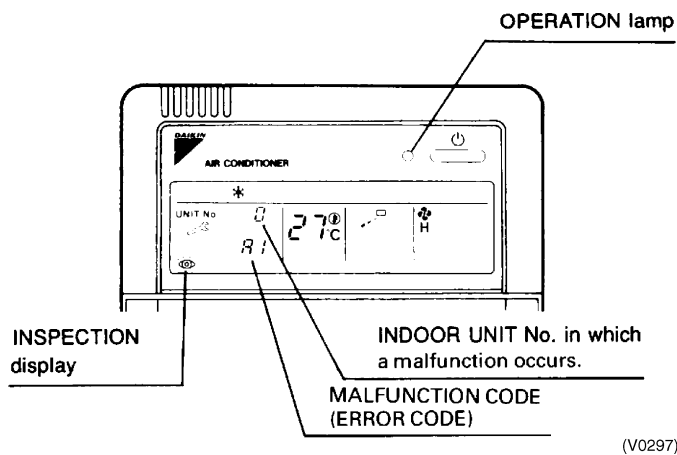
Push the  button one time.

Mode No	Function	Contents and operation method	Remote controller display example
40	Malfunction hysteresis display	<p>Display malfunction hysteresis.</p> <p>The history No. can be changed with the  button.</p>	<p>Unit 1 Malfunction code <b>40</b></p> <p>2-U4 Malfunction code</p> <p>Hystory No: 1 - 9 1: Latest</p> <p>(VE007)</p>
41	Display of sensor and address data	<p>Display various types of data.</p> <p>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</p> <p>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</p>	<p>Sensor data display</p> <p>Unit No. Sensor type</p> <p>1 1 2 7 <b>41</b></p> <p>Temperature °C</p> <p>Address display</p> <p>Unit No. Address type</p> <p>1 8 1 <b>41</b></p> <p>Address</p> <p>(VE008)</p>
43	Forced fan ON	<p>Manually turn the fan ON by each unit. (When you want to search for the unit No.)</p> <p>By selecting the unit No. with the  button, you can turn the fan of each indoor unit on (forced ON) individually.</p>	<p>Unit 1 <b>43</b></p> <p>(VE009)</p>
44	Individual setting	<p>Set the fan speed and air flow direction by each unit</p> <p>Select the unit No. with the time mode  button. Set the fan speed with the  button.</p> <p>Set the air flow direction with the  button.</p>	<p>Unit 1 Code <b>44</b></p> <p>1 3 Fan speed 1: Low 3: High Air flow direction P0 - P4</p> <p>(VE010)</p>
45	Unit No. transfer	<p>Transfer unit No.</p> <p>Select the unit No. with the  button. Set the unit No. after transfer with the  button.</p>	<p>Present unit No.</p> <p>Unit 1 Code <b>45</b></p> <p>0 2 Unit No. after transfer</p> <p>(VE011)</p>
46	This function is not used by VRV II R410A Heat Pump 50Hz.		
47			

## 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.



(V0297)



	Malfunction code	Operation lamp	Inspection display	Unit No.	Malfunction contents	Page Referred
Indoor Unit	A0	●	●	●	Error of external protection device	178
	A1	●	●	●	PC board defect, E <sup>2</sup> PROM defect	179
	A3	●	●	●	Malfunction of drain level control system (33H)	180
	A6	●	●	●	Fan motor (MF) lock, overload	182
	A7	○	●	●	Malfunction of swing flap motor (MA)	183
	A9	●	●	●	Malfunction of moving part of electronic expansion valve (20E)	185
	AF	○	●	●	Drain level about limit	187
	AH	○	●	●	Malfunction of air filter maintenance	—
	AJ	●	●	●	Malfunction of capacity setting	188
	C4	●	●	●	Malfunction of thermistor (R2T) for heat exchange (loose connection, disconnection, short circuit, failure)	189
	C5	●	●	●	Malfunction of thermistor (R3T) for gas pipes (loose connection, disconnection, short circuit, failure)	190
	C9	●	●	●	Malfunction of thermistor (R1T) for air inlet (loose connection, disconnection, short circuit, failure)	191
	CJ	○	○	○	Malfunction of thermostat sensor in remote controller	192
Outdoor Unit	E1	●	●	●	PC board defect	193
	E3	●	●	●	Actuation of high pressure switch	194
	E4	●	●	●	Actuation of low pressure sensor	195
	E5	●	●	●	Compressor motor lock	196
	E6	●	●	●	Standard compressor lock or over current	197
	E7	●	●	●	Malfunction of outdoor unit fan motor	198
	E9	●	●	●	Malfunction of moving part of electronic expansion valve (Y1E~3E)	200
	F3	●	●	●	Abnormal discharge pipe temperature	202
	F6	●	●	●	Refrigerant overcharged	203
	H3	○	●	●	Malfunction of High pressure switch	—
	H4	●	●	●	Actuation of Low pressure switch	—
	H7	●	●	●	Abnormal outdoor fan motor signal	204
	H9	●	●	●	Malfunction of thermistor (R1T) for outdoor air (loose connection, disconnection, short circuit, failure)	205
	J2	●	●	●	Current sensor malfunction	206
	J3	●	●	●	Malfunction of discharge pipe thermistor (R31~33T) (loose connection, disconnection, short circuit, failure)	207
	J5	●	●	●	Malfunction of thermistor (R2T) for suction pipe (loose connection, disconnection, short circuit, failure)	208
	J6	●	●	●	Malfunction of thermistor (R4T) for heat exchanger (loose connection, disconnection, short circuit, failure)	209
	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)	210
	JA	●	●	●	Malfunction of discharge pipe pressure sensor	211
JC	●	●	●	Malfunction of suction pipe pressure sensor	212	
L0	●	●	●	Inverter system error	—	
L4	●	●	●	Malfunction of inverter radiating fin temperature rise	213	
L5	●	●	●	Inverter compressor motor grounding, short circuit	214	
L6	●	●	●	Compressor motor coil grounding on short circuit	—	
L8	●	●	●	Inverter current abnormal	215	
L9	●	●	●	Inverter start up error	216	

	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	217
	P1	●	●	●	Inverter over-ripple protection	219
	P4	●	●	●	Malfunction of inverter radiating fin temperature rise sensor	220
System	U0	○	●	●	Low pressure drop due to refrigerant shortage or electronic expansion valve failure	221
	U1	●	●	●	Reverse phase / open phase	222
	U2	●	●	●	Power supply insufficient or instantaneous failure	223
	U3	●	●	●	Check operation is not conducted.	225
	U4	●	●	●	Malfunction of transmission between indoor and outdoor units	226
	U5	●	●	●	Malfunction of transmission between remote controller and indoor unit	228
	U5	●	○	●	Failure of remote controller PC board or setting during control by remote controller	228
	U7	●	●	●	Malfunction of transmission between outdoor units	229
	U8	●	●	●	Malfunction of transmission between master and slave remote controllers (malfunction of slave remote controller)	231
	U9	●	●	●	Malfunction of transmission between indoor unit and outdoor unit in the same system	232
	UA	●	●	●	Excessive number of indoor units etc.	234
	UC	○	○	○	Address duplication of central remote controller	235
	UE	●	●	●	Malfunction of transmission between central remote controller and indoor unit	236 240 246
	UF	●	●	●	Refrigerant system not set, incompatible wiring / piping	238
	UH	●	●	●	Malfunction of system, refrigerant system address undefined	239
Centralized Control and Schedule Timer	M1	○ or ●	●	●	PC board defect	241 248
	M8	○ or ●	●	●	Malfunction of transmission between optional controllers for centralized control	242 249
	MA	○ or ●	●	●	Improper combination of optional controllers for centralized control	243 250
	MC	○ or ●	●	●	Address duplication, improper setting	245 252
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 PCB

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

\* Refer P.124 for Monitor mode.

<Selection of setting item>

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

\* Refer P.124 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".

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".

Detail description on next page.

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, abnormal lock of outdoor unit fan motor	Instantaneous over current of DC fan motor	E7
	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 TI 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	Incorrect combination of inverter and fan driver	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 ● ● Malfunction location  
 Slave 1 ● ○  
 Slave 2 ○ ●

## 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

Malfunction Decision Conditions

Supposed Causes

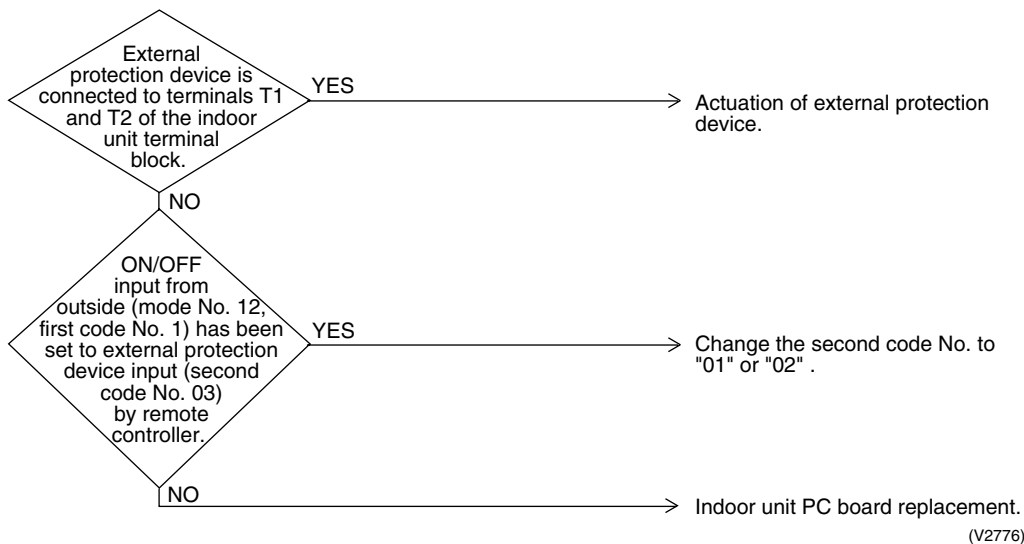
- Actuation of external protection device
- Improper field set
- Defect of indoor unit PC board

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 E<sup>2</sup>PROM.

Malfunction  
Decision  
Conditions

When data could not be correctly received from the E<sup>2</sup>PROM  
E<sup>2</sup>PROM : Type of nonvolatile memory. Maintains memory contents even when the power supply is turned off.

Supposed  
Causes

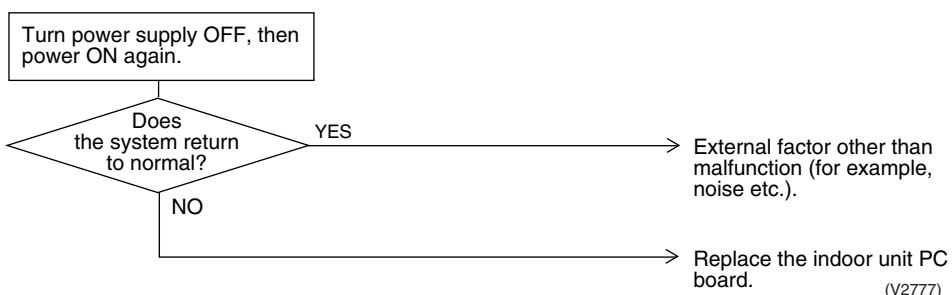
- Defect of indoor unit PC board

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 (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.

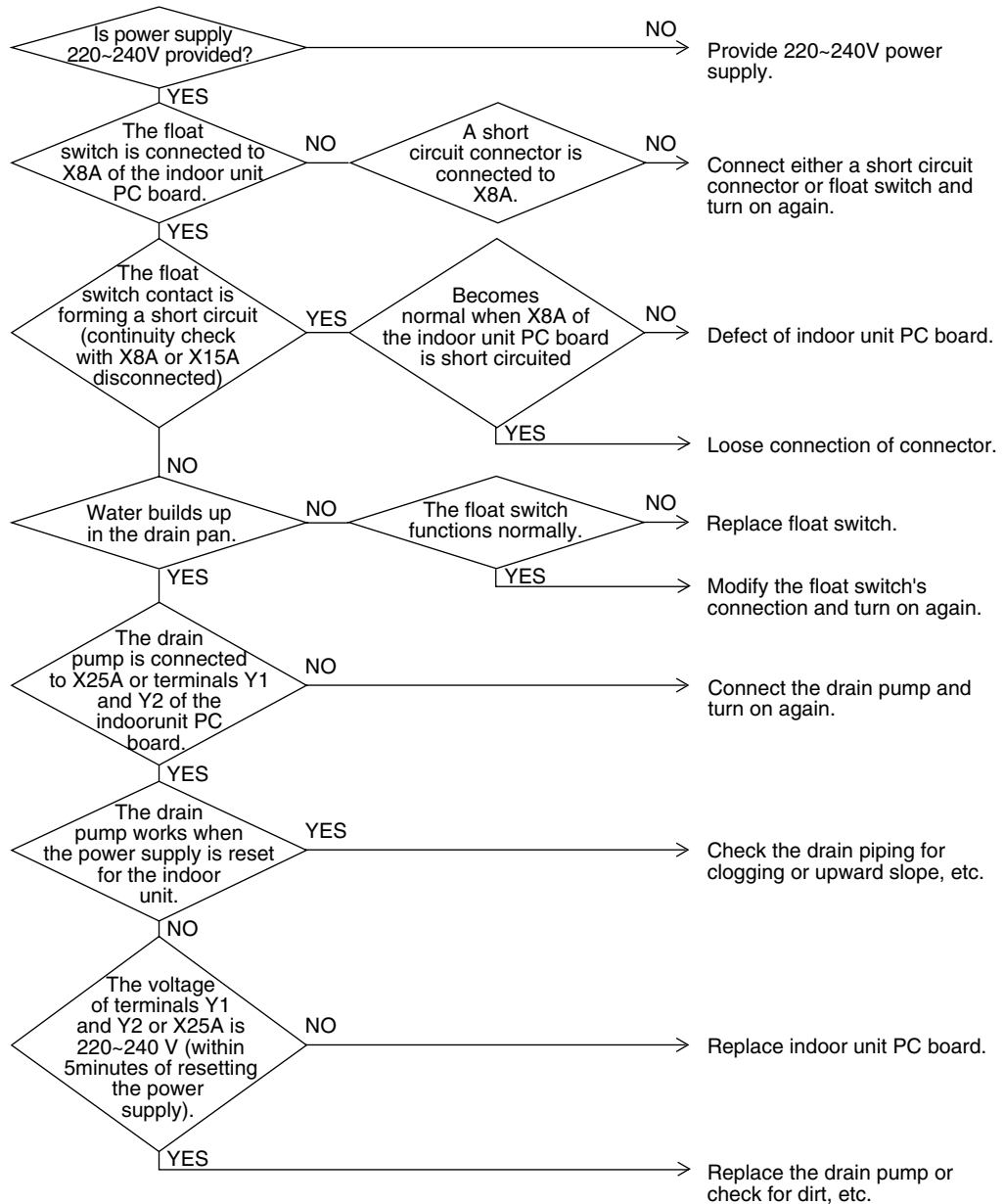
Supposed  
Causes

- 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)



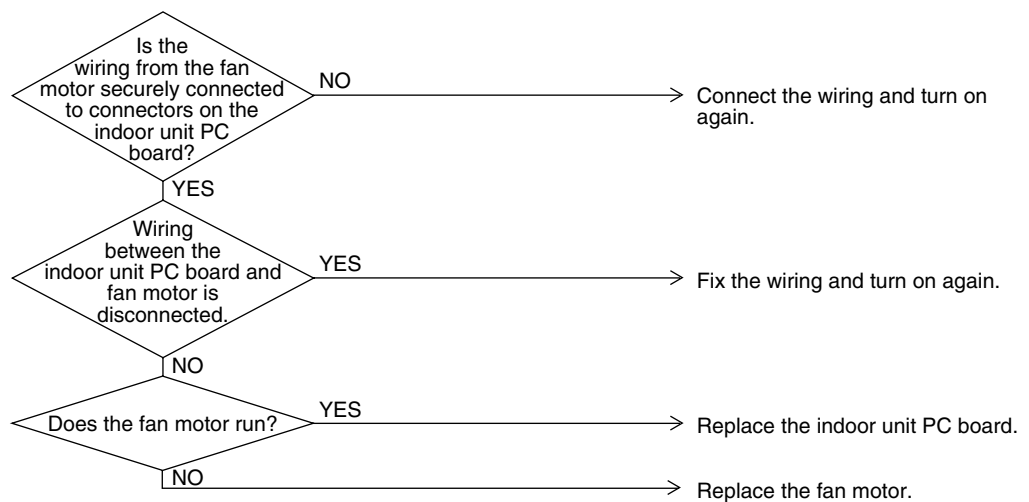
## 2.4 “A6” Indoor Unit: Fan Motor (M1F) Lock, Overload

<b>Remote Controller Display</b>	A6
<b>Applicable Models</b>	All indoor units
<b>Method of Malfunction Detection</b>	Detection by failure of signal for detecting number of turns to come from the fan motor
<b>Malfunction Decision Conditions</b>	When number of turns can't be detected even when output voltage to the fan is maximum
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Fan motor lock</li> <li>■ Disconnected or faulty wiring between fan motor and PC board</li> </ul>
<b>Troubleshooting</b>	



**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

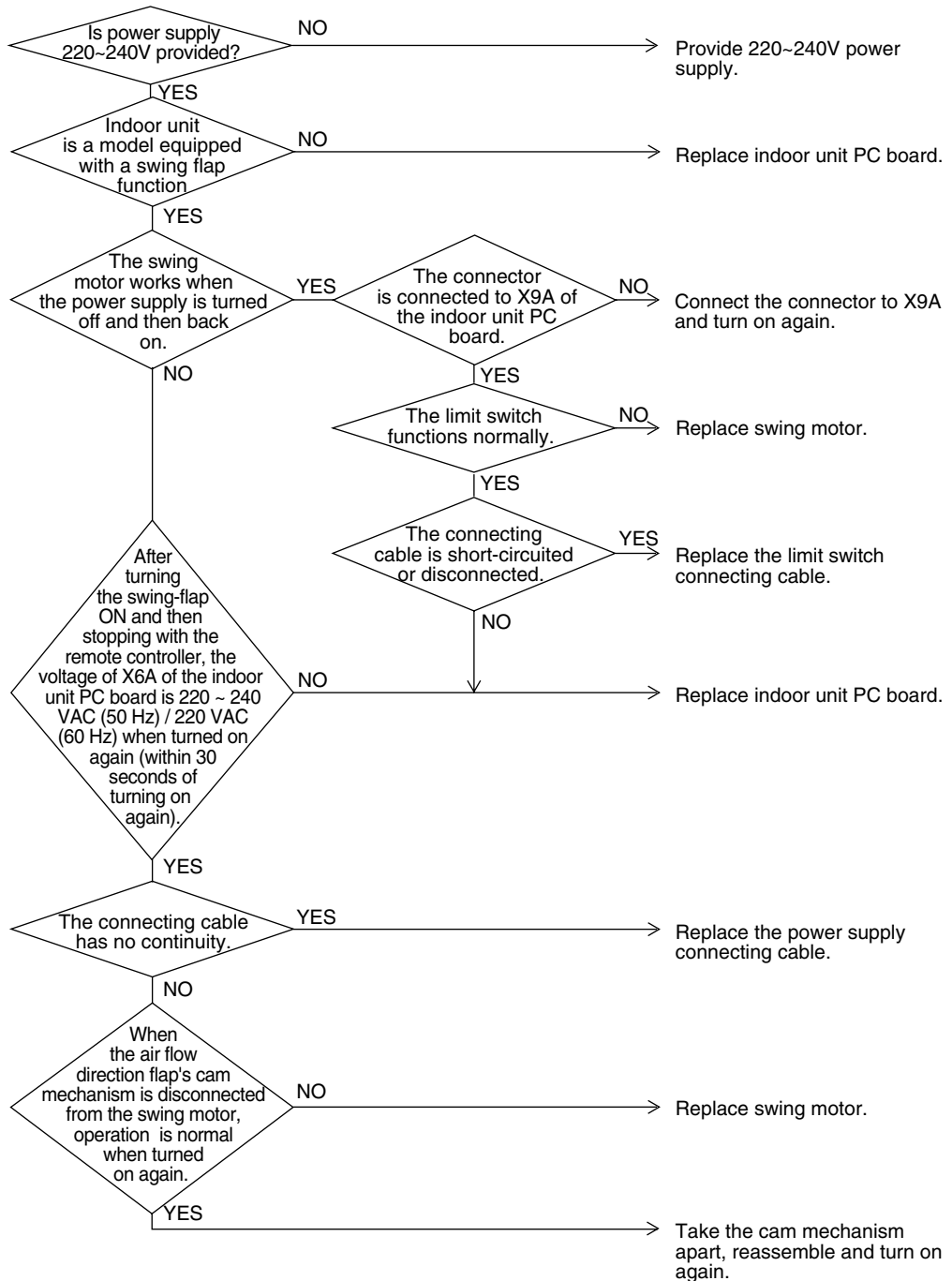
- Defect of swing motor
- Defect of connection cable (power supply and limit switch)
- Defect of air flow direction adjusting flap-cam
- Defect of indoor unit PC board

Troubleshooting



**Caution**

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



(V2780)

## 2.6 “R9” Indoor Unit: Malfunction of Moving Part of Electronic Expansion Valve (20E)

Remote  
Controller  
Display

R9

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

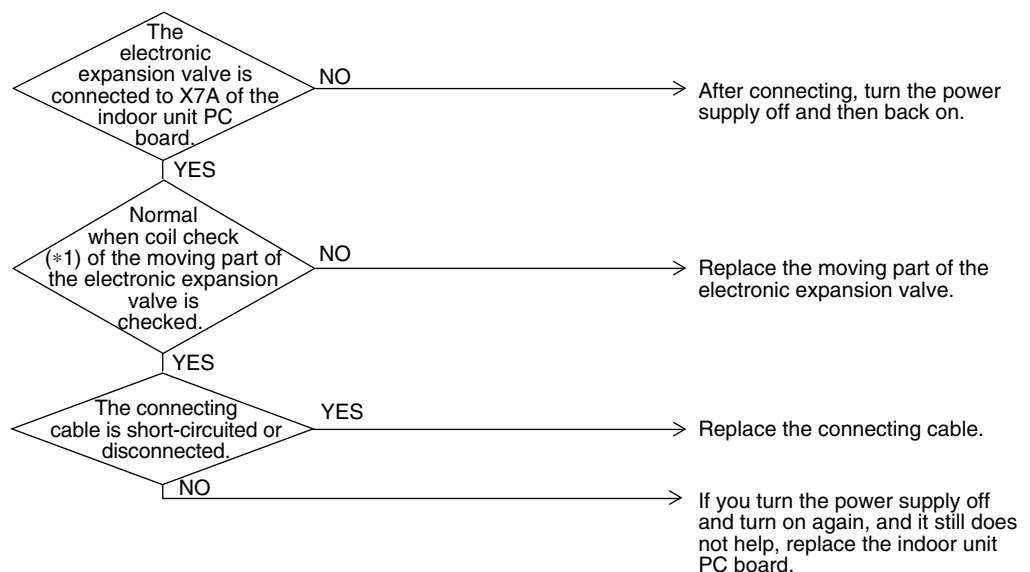
- Malfunction of moving part of electronic expansion valve
- Defect of indoor unit PC board
- Defect of connecting cable

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

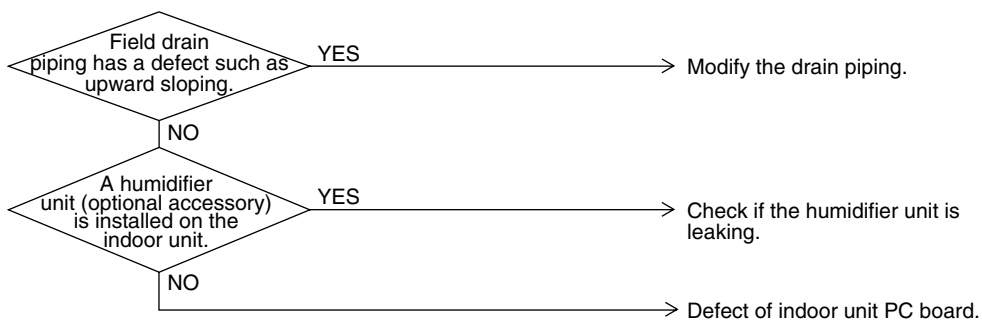
- Humidifier unit (optional accessory) leaking
- Defect of drain pipe (upward slope, etc.)
- Defect of indoor unit PC board

Troubleshooting



**Caution**

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



(V2782)

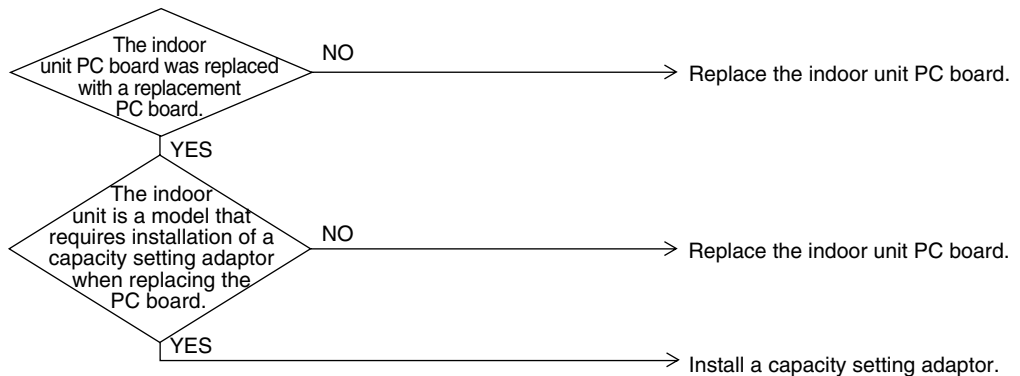
## 2.8 “AU” Indoor Unit: Malfunction of Capacity Determination Device

<b>Remote controller display</b>	AU
<b>Applicable Models</b>	All indoor unit models
<b>Method of Malfunction Detection</b>	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.
<b>Malfunction Decision Conditions</b>	<p>Operation and:</p> <ol style="list-style-type: none"> <li>1. When the capacity code is not contained in the PC board's memory, and the capacity setting adaptor is not connected.</li> <li>2. When a capacity that doesn't exist for that unit is set.</li> </ol>
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ You have forgotten to install the capacity setting adaptor.</li> <li>■ Defect of indoor unit PC board</li> </ul>
<b>Troubleshooting</b>	



**Caution**

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



(V2783)

## 2.9 “E4” Indoor Unit: Malfunction of Thermistor (R2T) for Heat Exchanger

Remote  
Controller  
Display

E4

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

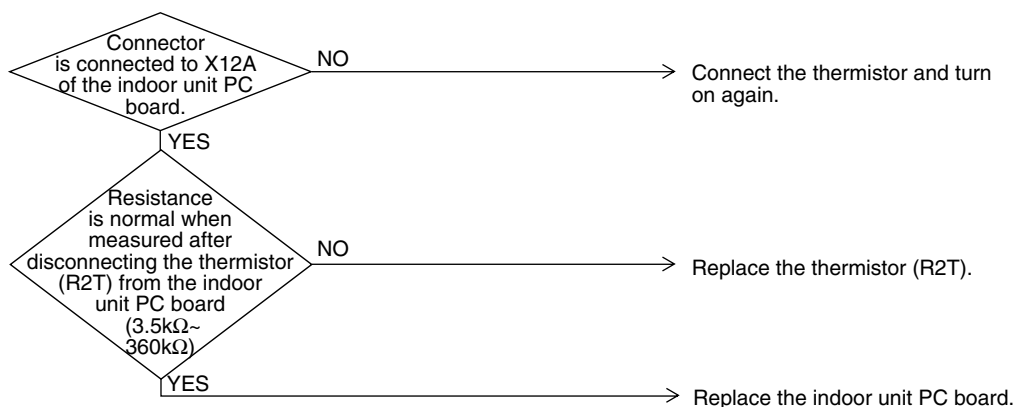
- Defect of thermistor (R2T) for liquid pipe
- Defect of indoor unit PC board

Troubleshooting



**Caution**

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



(V2784)




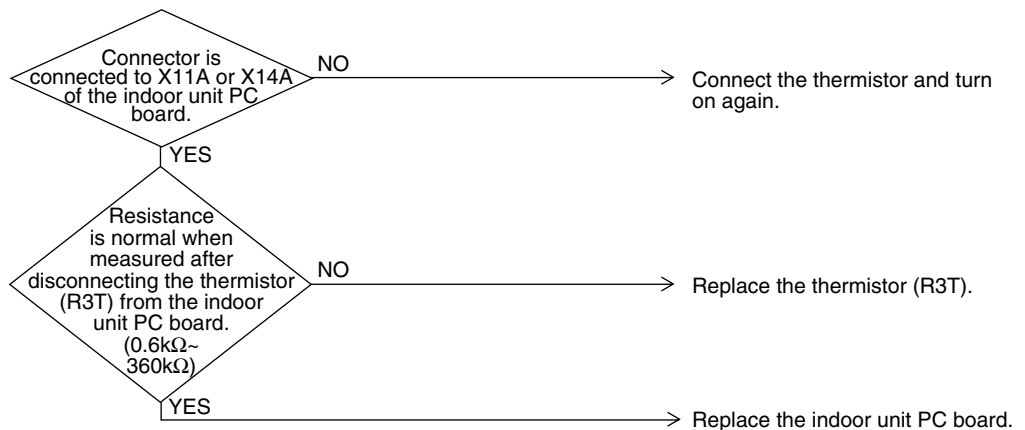
\*2: Refer to thermistor resistance / temperature characteristics table on P321.



## 2.10 “E5” Indoor Unit: Malfunction of Thermistor (R3T) for Gas Pipes

<b>Remote Controller Display</b>	E5
<b>Applicable Models</b>	All indoor unit models
<b>Method of Malfunction Detection</b>	Malfunction detection is carried out by temperature detected by gas pipe thermistor.
<b>Malfunction Decision Conditions</b>	When the gas pipe thermistor becomes disconnected or shorted while the unit is running.
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Defect of indoor unit thermistor (R3T) for gas pipe</li> <li>■ Defect of indoor unit PC board</li> </ul>
<b>Troubleshooting</b>	

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



(V2785)



\*2: Refer to thermistor resistance / temperature characteristics table on P321.

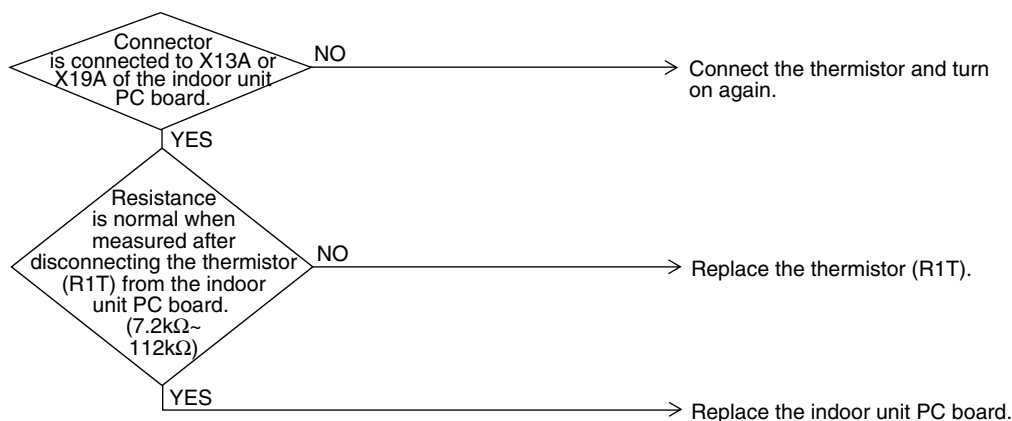
## 2.11 “E9” Indoor Unit: Malfunction of Thermistor (R1T) for Suction Air

Remote Controller Display	E9
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	<ul style="list-style-type: none"> <li>■ Defect of indoor unit thermistor (R1T) for air inlet</li> <li>■ Defect of indoor unit PC board</li> </ul>

### Troubleshooting


**Caution**

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



(V2786)




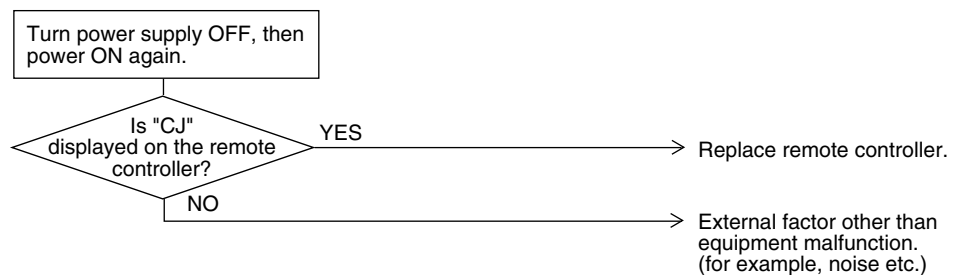
\*2: Refer to thermistor resistance / temperature characteristics table on P321.

## 2.12 “CJ” Indoor Unit: Malfunction of Thermostat Sensor in Remote Controller


<b>Remote Controller Display</b>	CJ
<b>Applicable Models</b>	All indoor unit models
<b>Method of Malfunction Detection</b>	Malfunction detection is carried out by temperature detected by remote controller air temperature thermistor. (Note1)
<b>Malfunction Decision Conditions</b>	When the remote controller air temperature thermistor becomes disconnected or shorted while the unit is running.
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Defect of remote controller thermistor</li> <li>■ Defect of remote controller PC board</li> </ul>

### 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.



\*2: Refer to thermistor resistance / temperature characteristics table on P321.

## 2.13 “E1” Outdoor Unit: PC Board Defect

Remote  
Controller  
Display

E1

Applicable  
Models

RX(Y)5~48M

Method of  
Malfunction  
Detection

Check data from E<sup>2</sup>PROM

Malfunction  
Decision  
Conditions

When data could not be correctly received from the E<sup>2</sup>PROM  
E<sup>2</sup>PROM : 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)

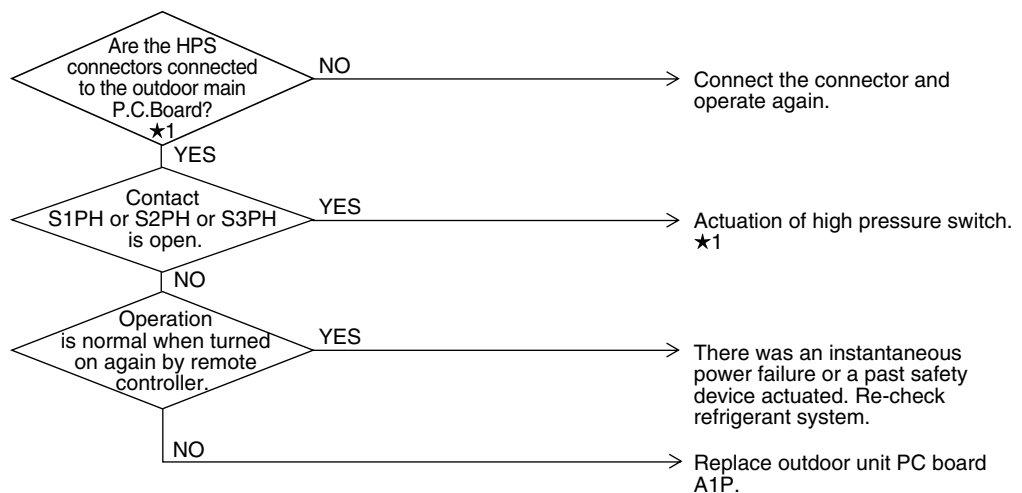
## 2.14 “E3” Outdoor Unit: Actuation of High Pressure Switch

<b>Remote Controller Display</b>	<b>E3</b>
<b>Applicable Models</b>	RX(Y)5~48M
<b>Method of Malfunction Detection</b>	Abnormality is detected when the contact of the high pressure protection switch opens.
<b>Malfunction Decision Conditions</b>	Error is generated when the HPS activation count reaches the number specific to the operation mode.
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Actuation of outdoor unit high pressure switch</li> <li>■ Defect of High pressure switch</li> <li>■ Defect of outdoor unit PC board</li> <li>■ Instantaneous power failure</li> <li>■ Faulty high pressure sensor</li> </ul>

### 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

RX(Y)5~48M

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

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

Supposed  
Causes

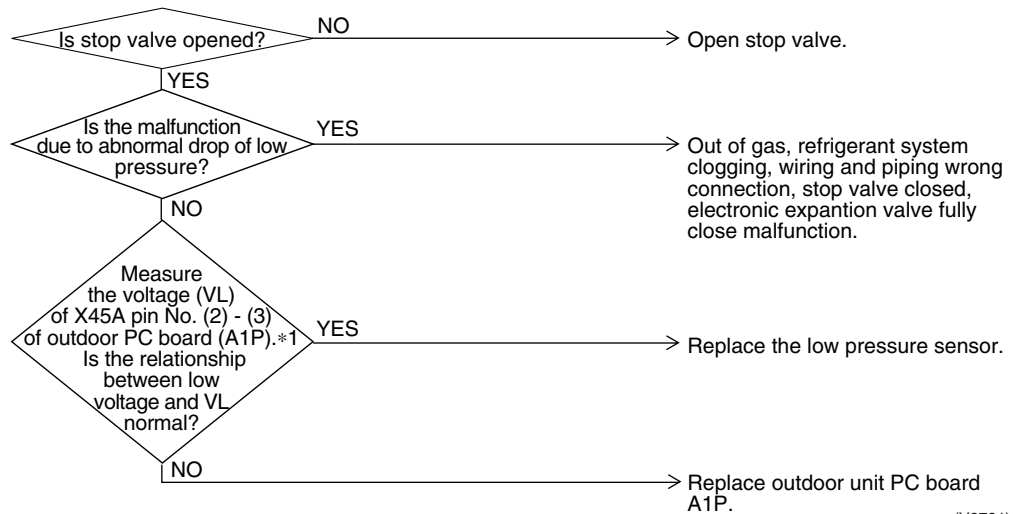
- Abnormal drop of low pressure (Refer to page106 for Low Pressure Control)
- Defect of low pressure sensor
- Defect of outdoor unit PC board
- Stop valve is not opened.

Troubleshooting



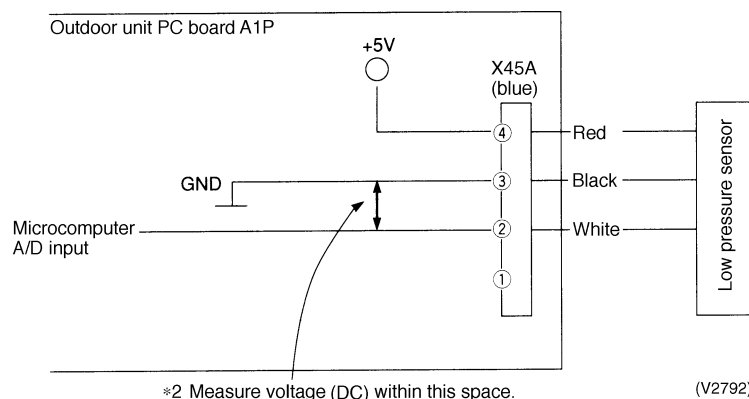
**Caution**

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



(V2791)

\*1: Voltage measurement point



(V2792)



\*2: Refer to pressure sensor, pressure / voltage characteristics table on P323.

## 2.16 “E5” Compressor Motor Lock

Remote Controller Display

E5

Applicable Models

RX(Y)5~48M

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

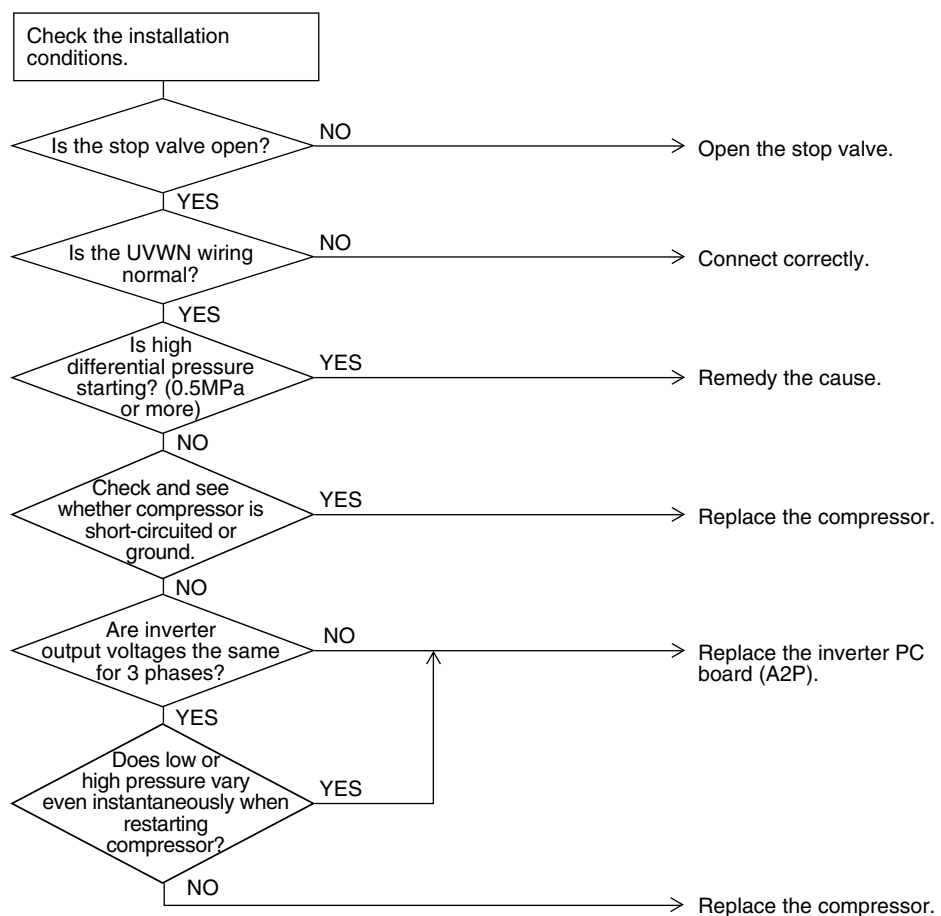
- Compressor lock
- High differential pressure (0.5MPa or more)
- Incorrect UVWN wiring
- Faulty inverter PC board
- Stop valve is left in closed.

### 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

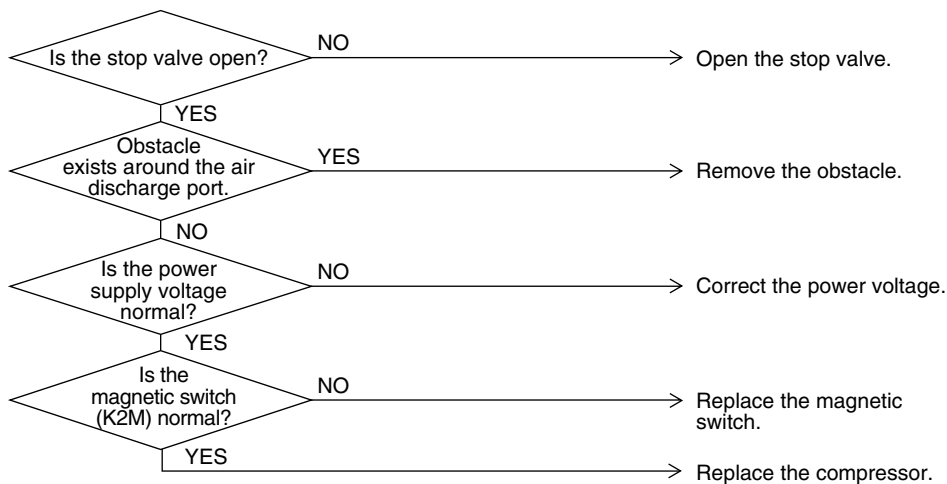
<b>Remote Controller Display</b>	E6
<b>Applicable Models</b>	RX(Y)5~48M
<b>Method of Malfunction Detection</b>	Detects the overcurrent with current sensor (CT).
<b>Malfunction Decision Conditions</b>	<p>Malfunction is decided when the detected current value exceeds the below mentioned value for 2 seconds.</p> <ul style="list-style-type: none"> <li>■ 400 V unit : 15.0 A</li> <li>■ 200 V unit : 28.8 A</li> </ul>
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Closed stop valve</li> <li>■ Obstacles at the discharge port</li> <li>■ Improper power voltage</li> <li>■ Faulty magnetic switch</li> <li>■ Faulty compressor</li> </ul>

### 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

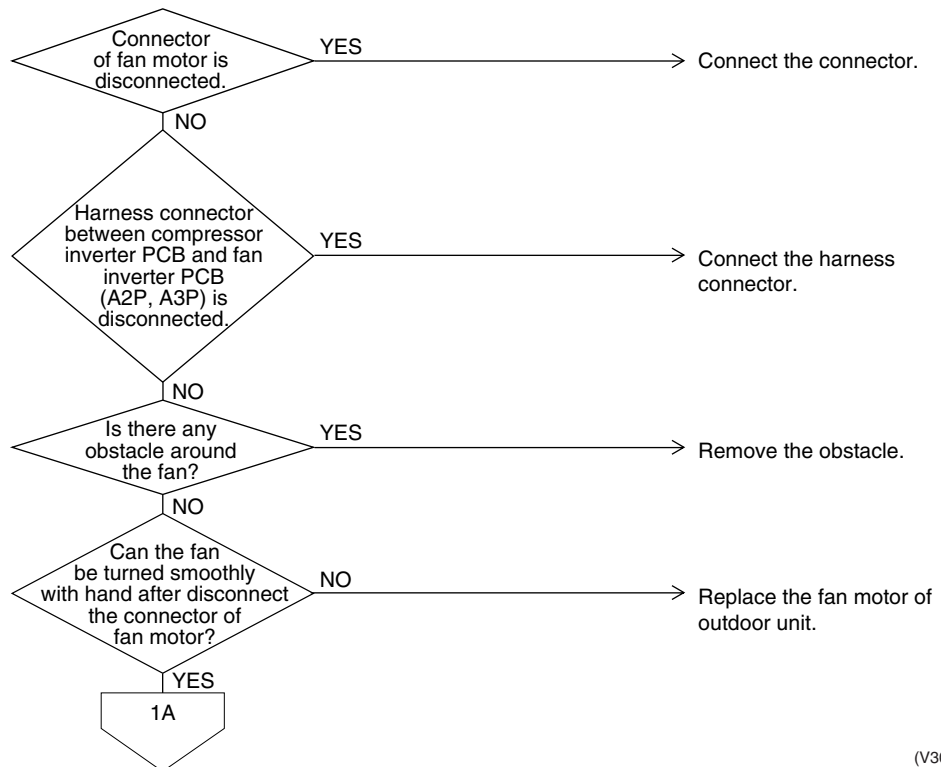
<b>Remote Controller Display</b>	<b>E7</b>
<b>Applicable Models</b>	RX(Y)5~48M
<b>Method of Malfunction Detection</b>	Malfunction of fan motor system is detected according to the fan speed detected by hall IC when the fan motor runs.
<b>Malfunction Decision Conditions</b>	<ul style="list-style-type: none"> <li>■ When the fan runs with speed less than a specified one for 15 seconds or more when the fan motor running conditions are met</li> <li>■ When connector detecting fan speed is disconnected</li> <li>■ When malfunction is generated 4 times, the system shuts down.</li> </ul>
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Malfunction of fan motor</li> <li>■ The harness connector between fan motor and PC board is left in disconnected, or faulty connector</li> <li>■ Fan does not run due to foreign matters tangled</li> <li>■ Clearing condition: Operate for 5 minutes (normal)</li> </ul>

### Troubleshooting



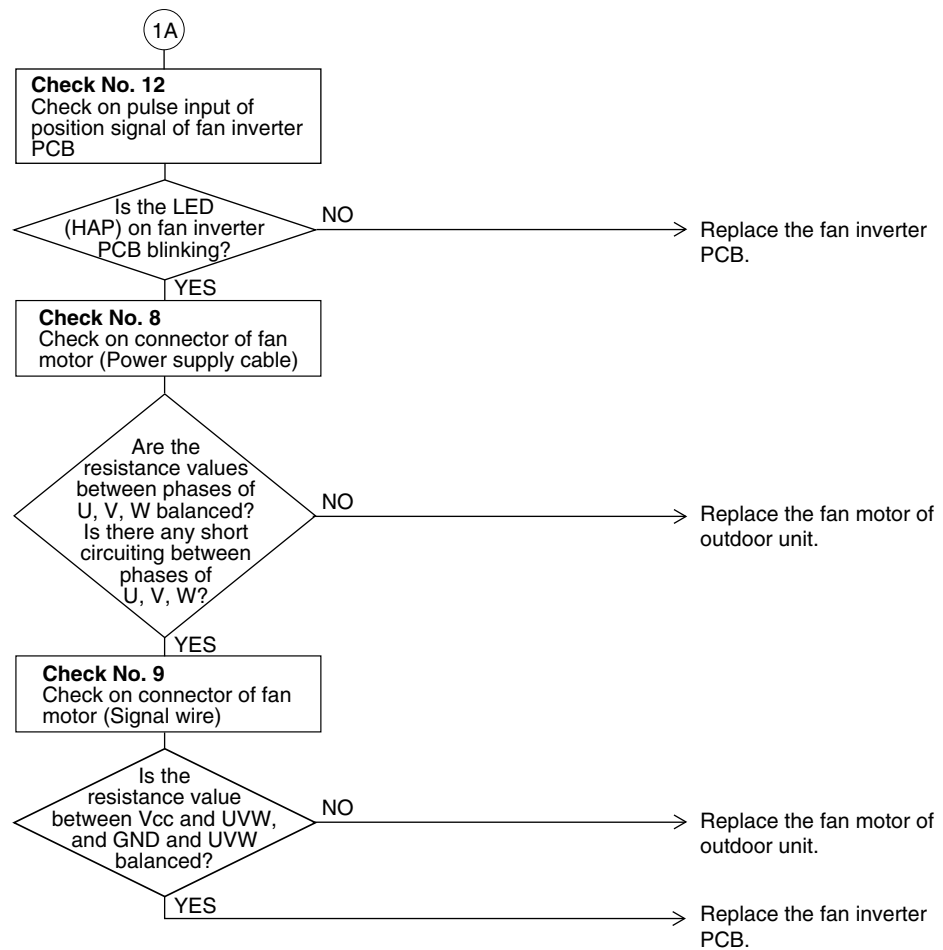
**Caution**

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



(V3076)

## Troubleshooting



(V3077)



**Note:** Refer check 8, 9 and 12 to P.259~260.

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

Remote Controller Display

E9

Applicable Models

RX(Y)5~48M

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

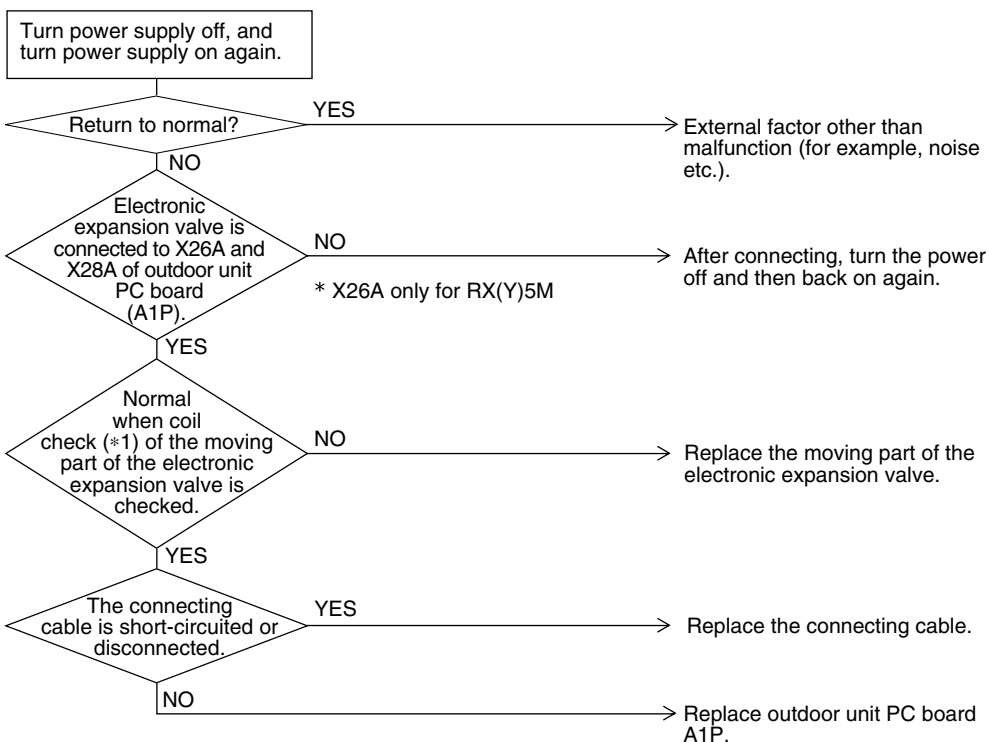
- Defect of moving part of electronic expansion valve
- Defect of outdoor unit PC board (A1P)
- Defect of connecting cable

### 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		x	⊙	x	○	x
2. Yellow			x	⊙	x	○
3. Orange				x	○	x
4. Blue					x	○
5. Red						x
6. Brown						

⊙ : Continuity Approx. 300Ω

○ : Continuity Approx. 150Ω

x : No continuity

## 2.20 “F3” Outdoor Unit: Abnormal Discharge Pipe Temperature

Remote Controller Display

F3

Applicable Models

RX(Y)5~48M

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

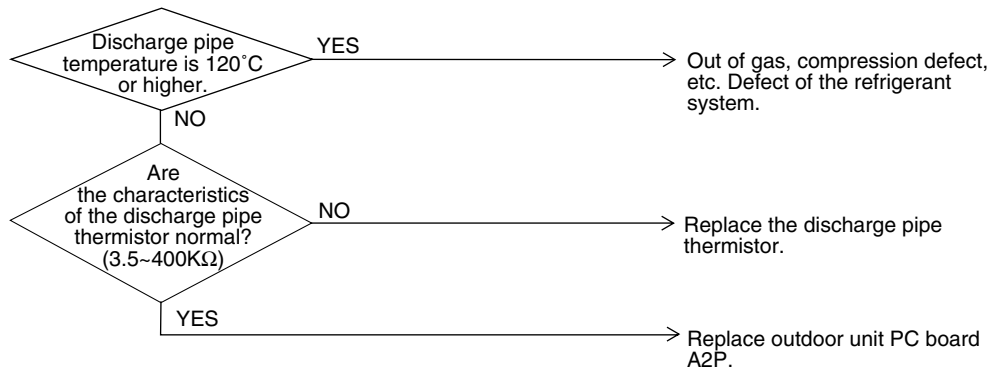
- Faulty discharge pipe temperature sensor
- Faulty connection of discharge pipe temperature sensor
- Faulty outdoor unit PCB

### Troubleshooting



**Caution**

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



(V3068)



\*2: Refer to thermistor resistance / temperature characteristics table on P321.

## 2.21 “F5” Refrigerant Overcharged

Remote  
Controller  
Display

F5

Applicable  
Models

RX(Y)5~48M

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

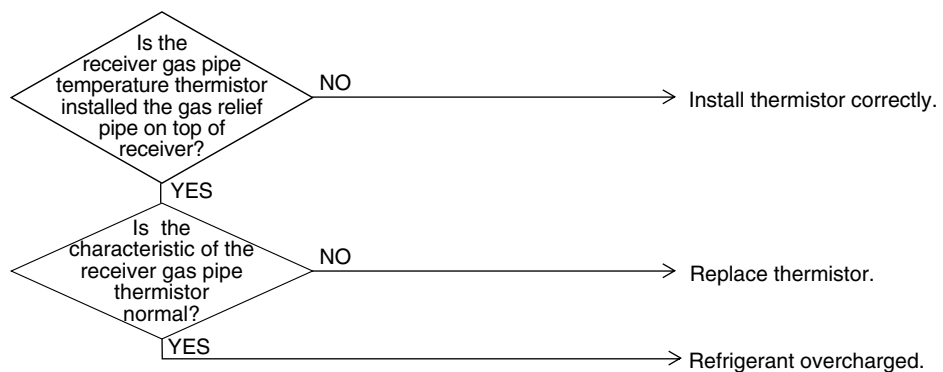
- Refrigerant overcharge
- Disconnection of the receiver gas pipe thermistor

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

RX(Y)5~48M

Method of Malfunction Detection

Detection of abnormal signal from fan motor.


Malfunction Decision Conditions

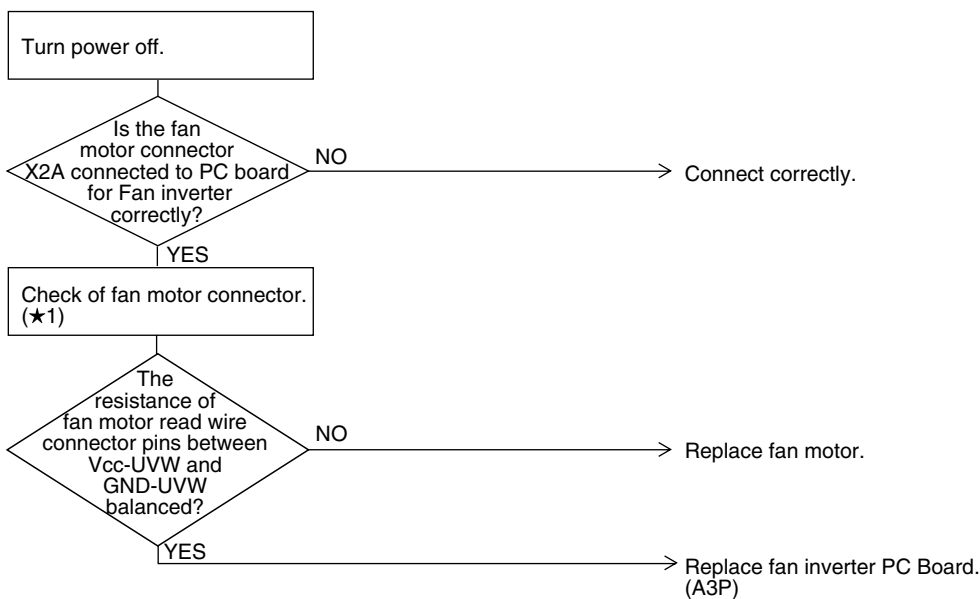
In case of detection of abnormal signal at starting fan motor.

Supposed Causes

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

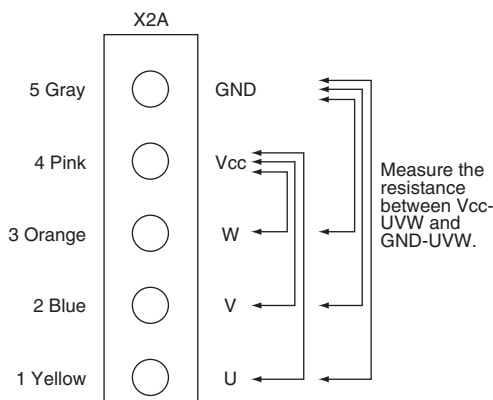
### Troubleshooting

 **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

RX(Y)5~48M

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

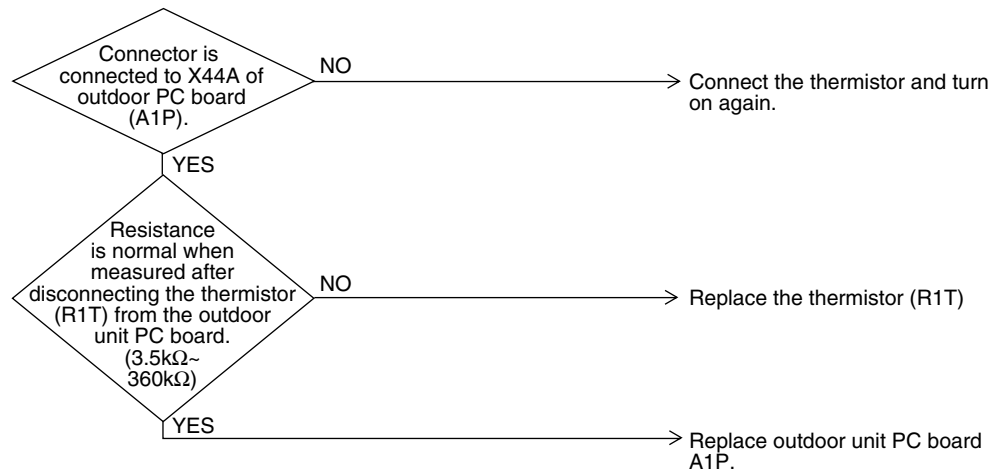
- Defect of thermistor (R1T) for outdoor air
- Defect of outdoor unit PC board (A1P)

Troubleshooting



**Caution**

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



(V3070)

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



\*2: Refer to thermistor resistance / temperature characteristics table on P321.



## 2.24 “J2” Current Sensor Malfunction

Remote Controller Display



Applicable Models

RX(Y)5~48M

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) and 3A (200 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 (R31~33T)

Remote Controller Display

J3

Applicable Models

RX(Y)5~48M

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

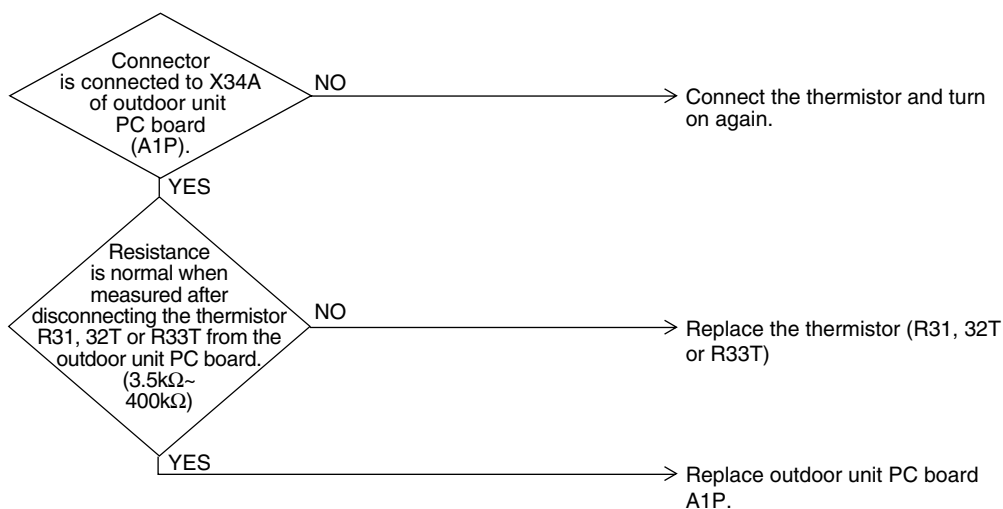
- Defect of thermistor (R31T, R32T or R33T) for outdoor unit discharge pipe
- Defect of outdoor unit PC board (A1P)

Troubleshooting



**Caution**

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



(V3072)

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



**Note:**

5 HP class ... R31T  
 8~12 HP class ... R31T, R32T  
 14, 16HP class ... R31T, R32T and R33T

## 2.26 “J5” Outdoor Unit: Malfunction of Thermistor (R2T) for Suction Pipe

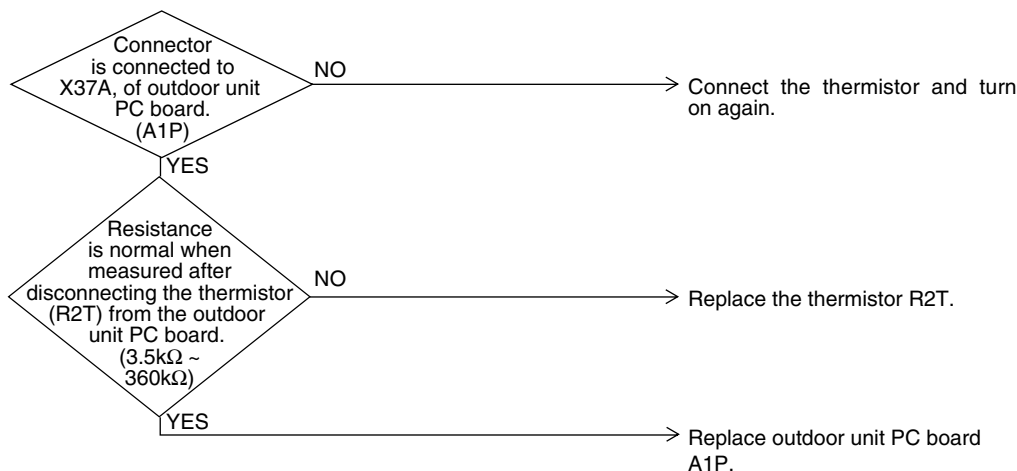
Remote Controller Display	J5
Applicable Models	RX(Y)5~48M
Method of Malfunction Detection	Malfunction is detected from the temperature detected by the suction pipe temperature thermistor.
Malfunction Decision Conditions	When a short circuit or an open circuit in the suction pipe temperature thermistor is detected.
Supposed Causes	<ul style="list-style-type: none"> <li>■ Defect of thermistor (R2T) for outdoor unit suction pipe</li> <li>■ Defect of outdoor unit PC board (A1P)</li> </ul>

### Troubleshooting



**Caution**

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



(V3073)



\*2: Refer to thermistor resistance / temperature characteristics table on P321.

## 2.27 “J6” Outdoor Unit: Malfunction of Thermistor (R4T) for Outdoor Unit Heat Exchanger

Remote  
Controller  
Display

J6

Applicable  
Models

RX(Y)5~48M

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

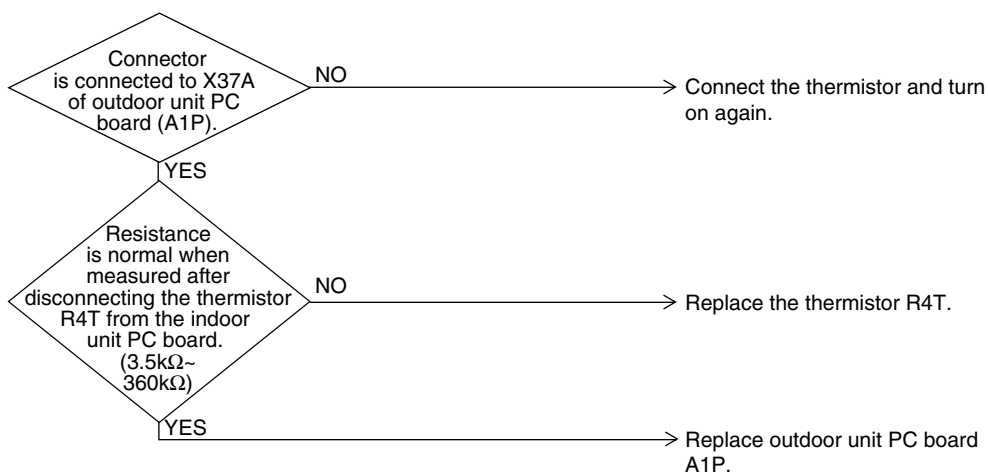
- Defect of thermistor (R4T) for outdoor unit coil
- Defect of outdoor unit PC board (A1P)

Troubleshooting



**Caution**

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



(V3074)



\*2: Refer to thermistor resistance / temperature characteristics table on P321.

## 2.28 “J9” Malfunction of Receiver Gas Pipe Thermistor (R5T)

Remote Controller Display

J9

Applicable Models

RX(Y)5~48M

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

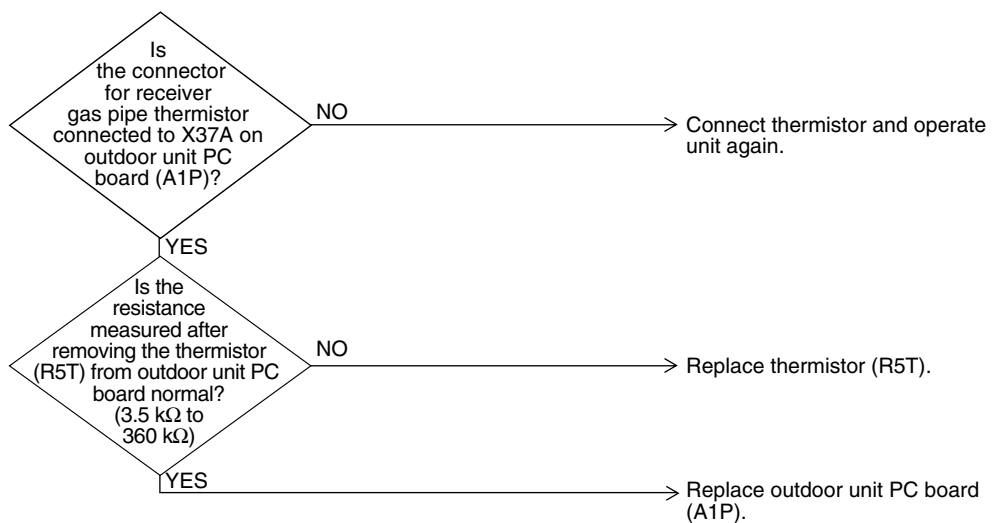
- Faulty receiver gas pipe thermistor (R5T)
- Faulty outdoor unit PC board

Troubleshooting



**Caution**

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



(V3075)



\*2: Refer to thermistor resistance / temperature characteristics table on P321.

## 2.29 “JA” Outdoor Unit: Malfunction of High Pressure Sensor

Remote  
Controller  
Display

JA

Applicable  
Models

RX(Y)5~48M

Method of  
Malfunction  
Detection

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


Malfunction  
Decision  
Conditions

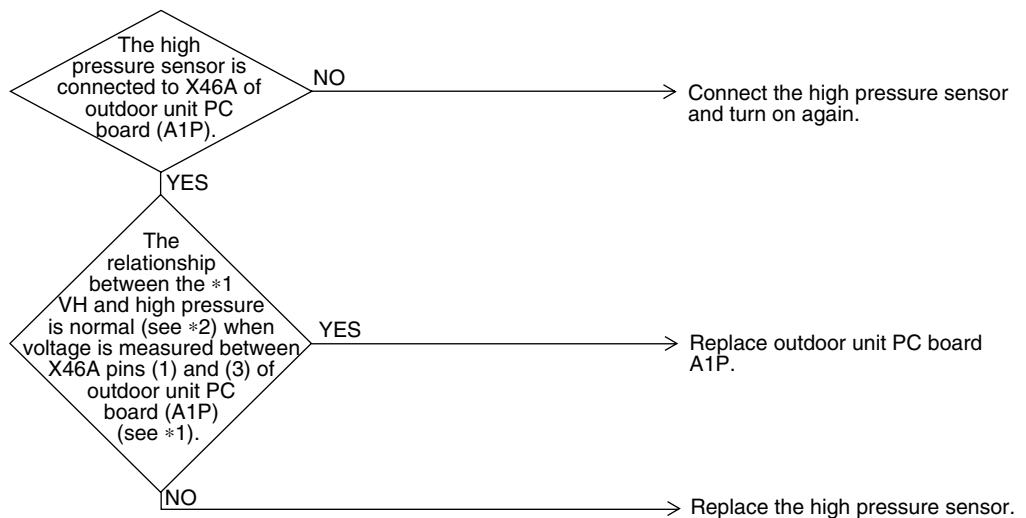
When the high pressure sensor is short circuit or open circuit.

Supposed  
Causes

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

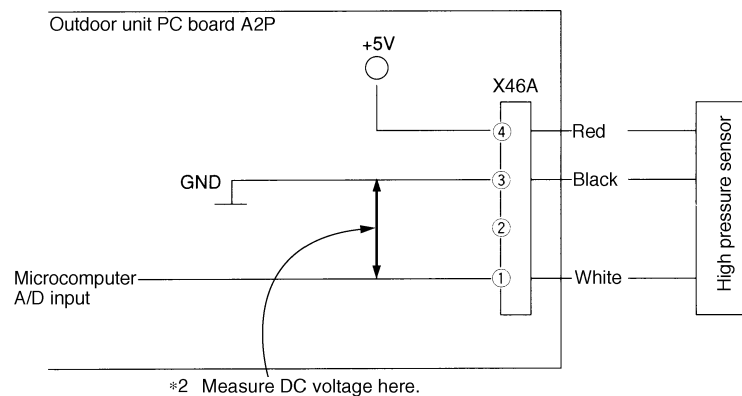
Troubleshooting

 **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 P323.

## 2.30 “JC” Outdoor Unit: Malfunction of Low Pressure Sensor

Remote Controller Display



Applicable Models

RX(Y)5~48M

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

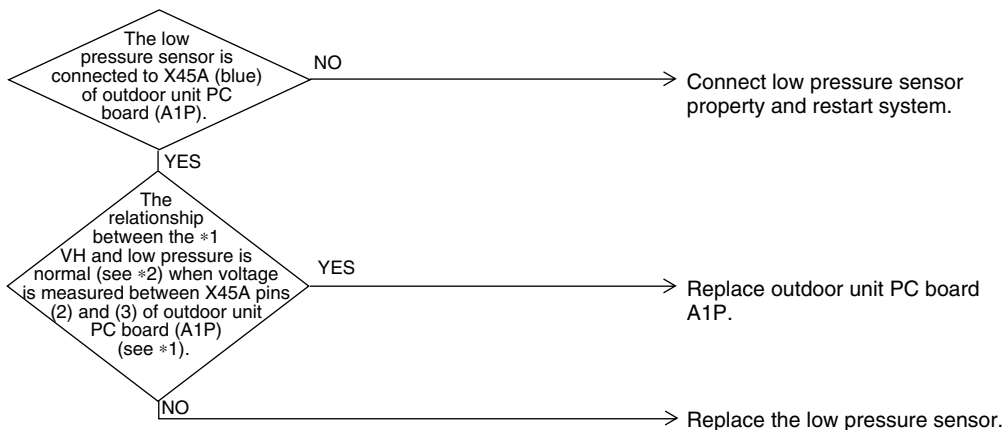
- Defect of low pressure sensor system
- Connection of high pressure sensor with wrong connection.
- Defect of outdoor unit PC board.

### Troubleshooting



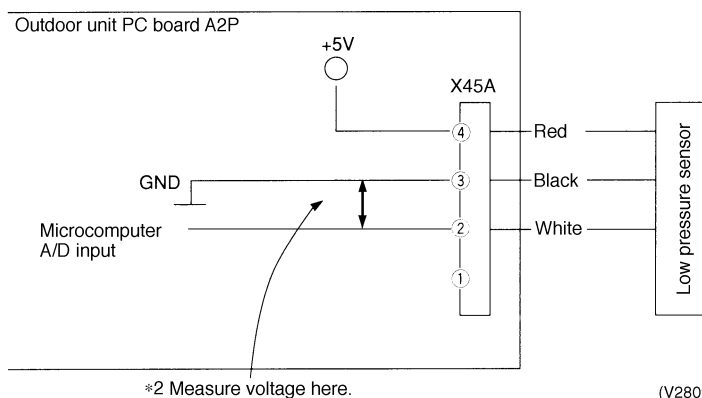
**Caution**

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



(V2808)

\*1: Voltage measurement point



(V2809)



\*2: Refer to pressure sensor, pressure/voltage characteristics table on P323.

## 2.31 “L4” Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise

Remote  
Controller  
Display

L4

Applicable  
Models

RX(Y)5~48M

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

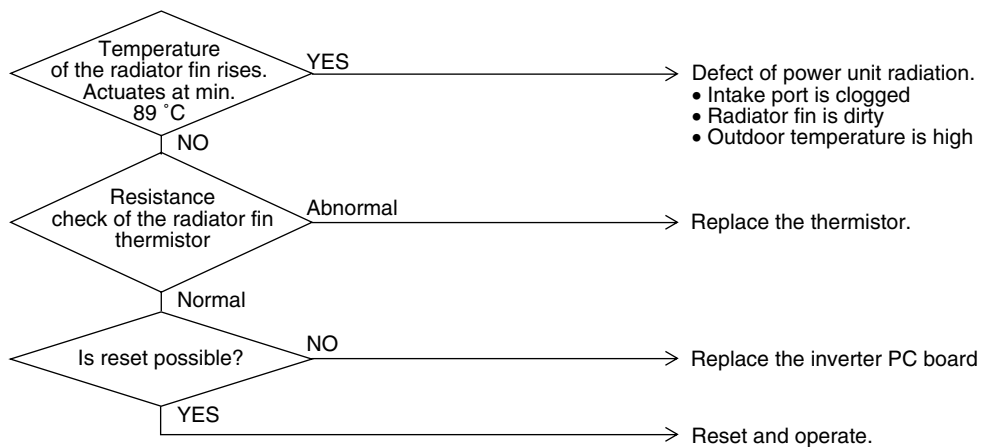
- Actuation of fin thermal (Actuates above 89°C)
- Defect of inverter PC board
- Defect of fin thermistor

Troubleshooting



**Caution**

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



(V2811)




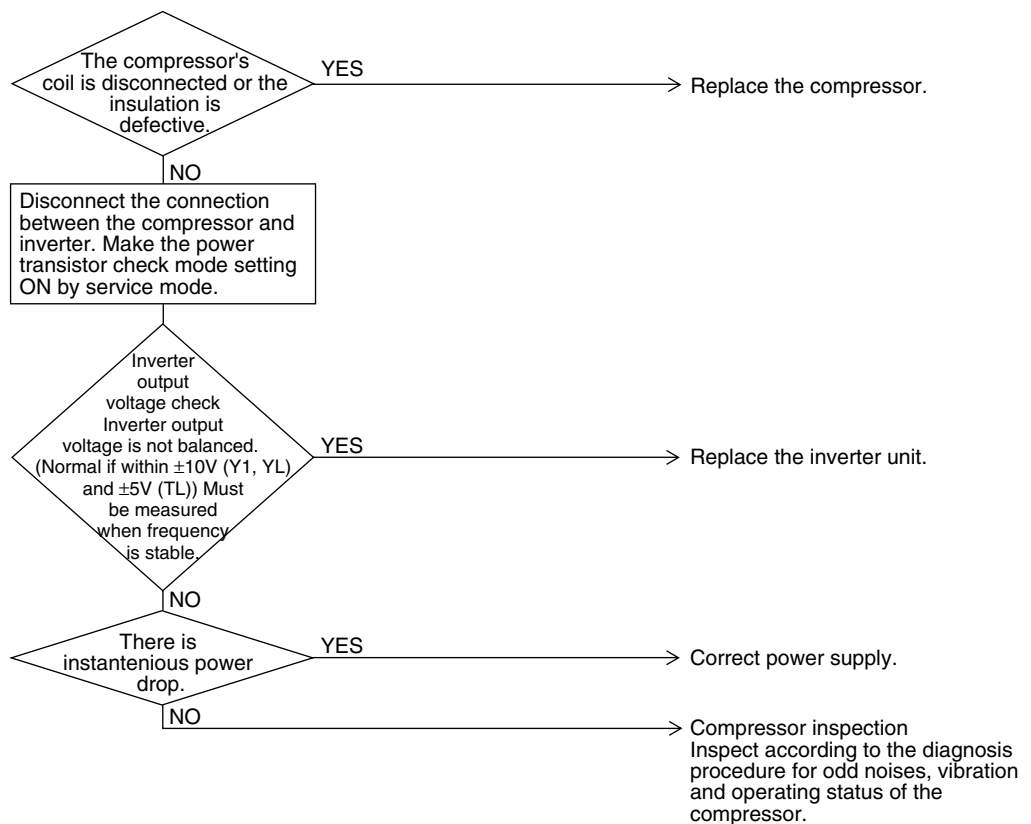
\*2: Refer to thermistor resistance / temperature characteristics table on P321.



## 2.32 “L5” Outdoor Unit: Inverter Compressor Abnormal

Remote Controller Display	L5
Applicable Models	RX(Y)5~48M
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	<ul style="list-style-type: none"> <li>■ Defect of compressor coil (disconnected, defective insulation)</li> <li>■ Compressor start-up malfunction (mechanical lock)</li> <li>■ Defect of inverter PC board</li> </ul>
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

RX(Y)5~48M

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

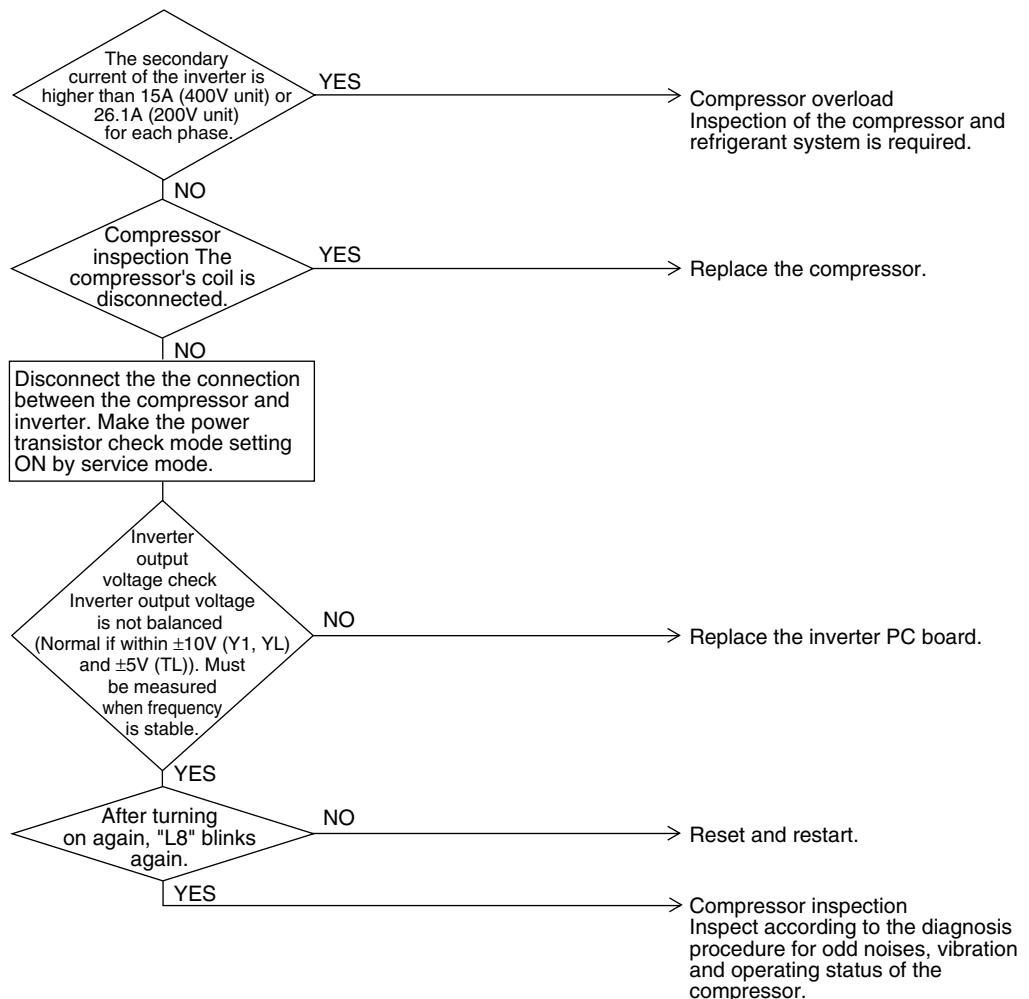
Troubleshooting

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

RX(Y)5~48M

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

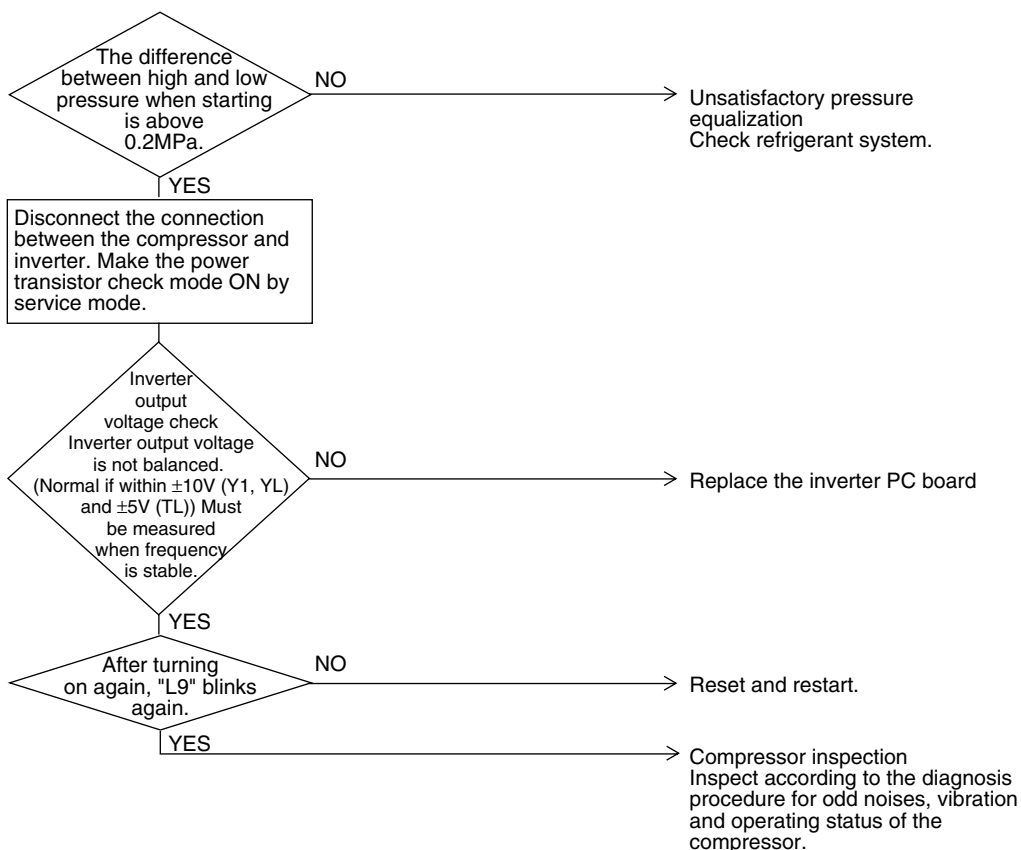
- Defect of compressor
- Pressure differential start
- Defect of inverter PC board

### Troubleshooting



**Caution**

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



(V2814)

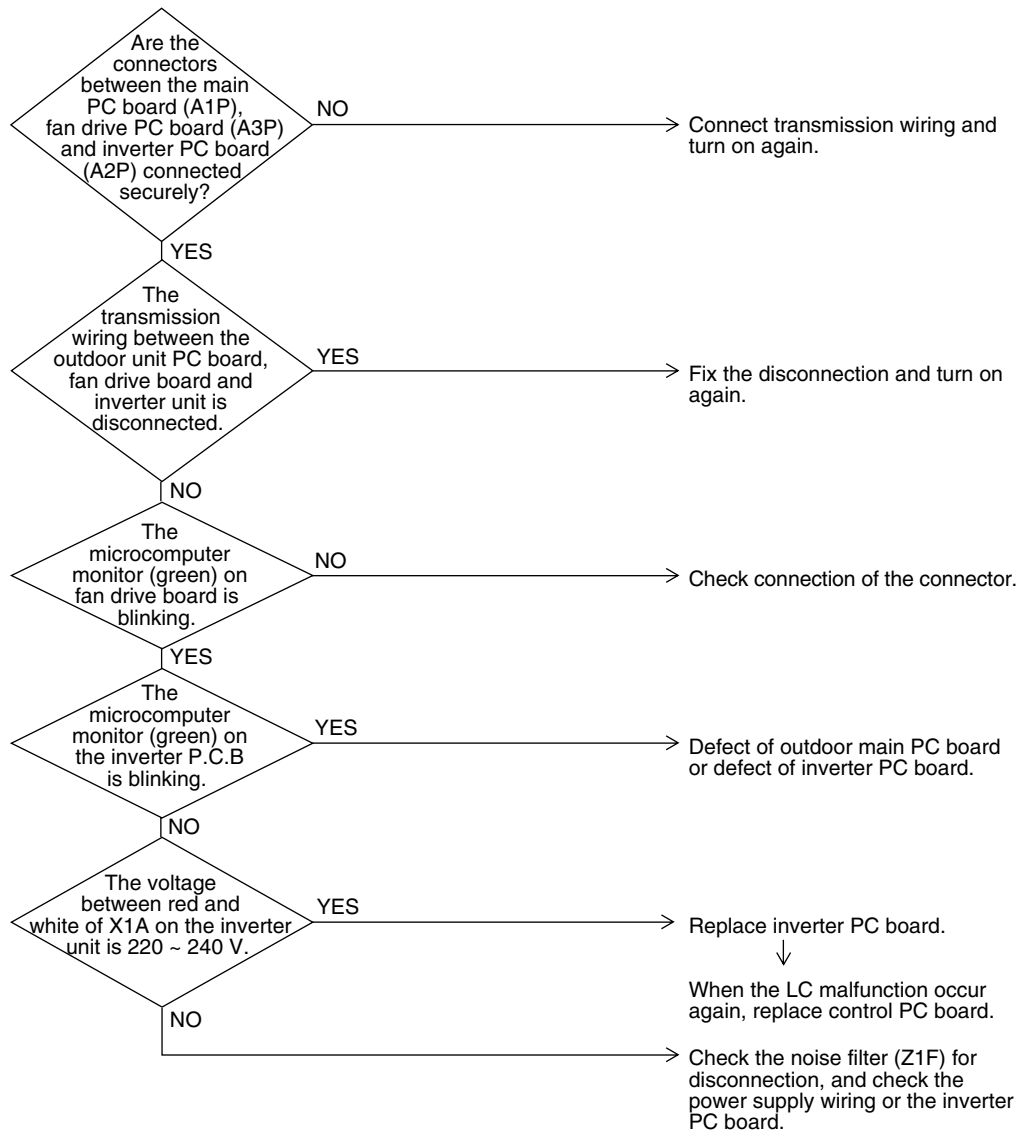
## 2.35 “LC” Outdoor Unit: Malfunction of Transmission Between Inverter and Control PC Board

<b>Remote Controller Display</b>	LC
<b>Applicable Models</b>	RX(Y)5~48M
<b>Method of Malfunction Detection</b>	Check the communication state between inverter PC board and control PC board by micro-computer.
<b>Malfunction Decision Conditions</b>	When the correct communication is not conducted in certain period.
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Malfunction of connection between the inverter PC board and outdoor control PC board</li> <li>■ Defect of outdoor control PC board (transmission section)</li> <li>■ Defect of inverter PC board</li> <li>■ Defect of noise filter</li> <li>■ External factor (Noise etc.)</li> </ul>

Troubleshooting



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



(V2815)

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

Remote Controller Display

P1

Applicable Models

RX(Y)5~48M

Method of Malfunction Detection

Imbalance in supply voltage is detected in PC board.

Malfunction Decision Conditions

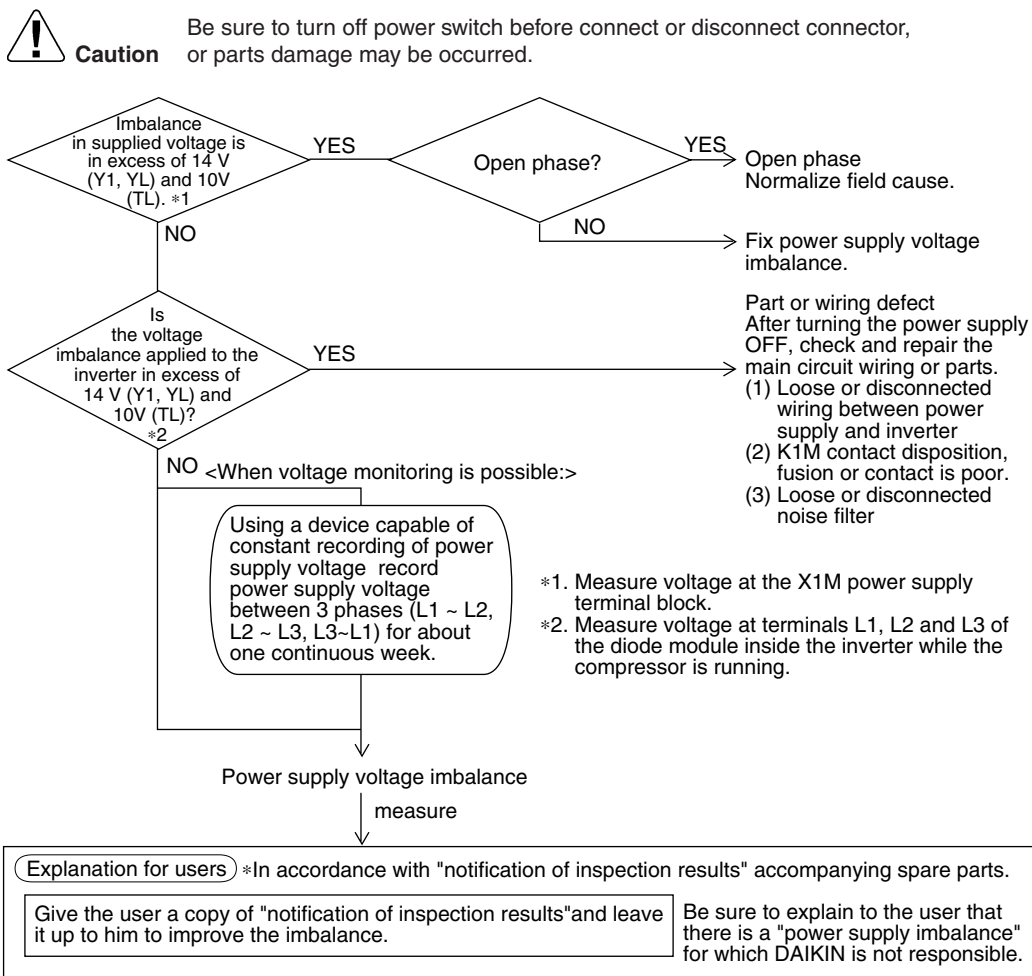
When the resistance value of thermistor becomes a value equivalent to open or short circuited status.

- 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



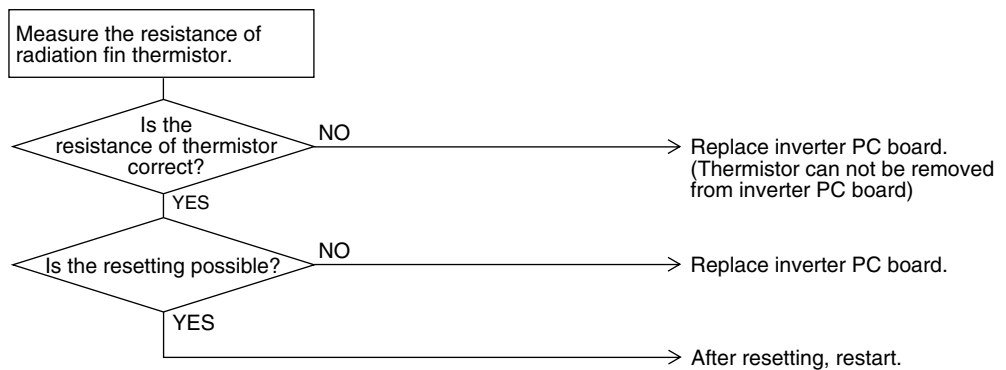
## 2.37 "P4" Outdoor Unit: Malfunction of Inverter Radiating Fin Temperature Rise Sensor

Remote Controller Display	P4
Applicable Models	RX(Y)5~48M
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. <ul style="list-style-type: none"> <li>Malfunction is not decided while the unit operation is continued.</li> <li>"P4" will be displayed by pressing the inspection button.</li> </ul>
Supposed Causes	<ul style="list-style-type: none"> <li>Defect of radiator fin temperature sensor</li> <li>Defect of inverter PC board</li> </ul>
Troubleshooting	



**Caution**

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



(V2818)



\*2: Refer to thermistor resistance / temperature characteristics table on P321.

## 2.38 “U0” Low Pressure Drop Due to Refrigerant Shortage or Electronic Expansion Valve Failure

Remote  
Controller  
Display

U0

Applicable  
Models

RX(Y)5~48M

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

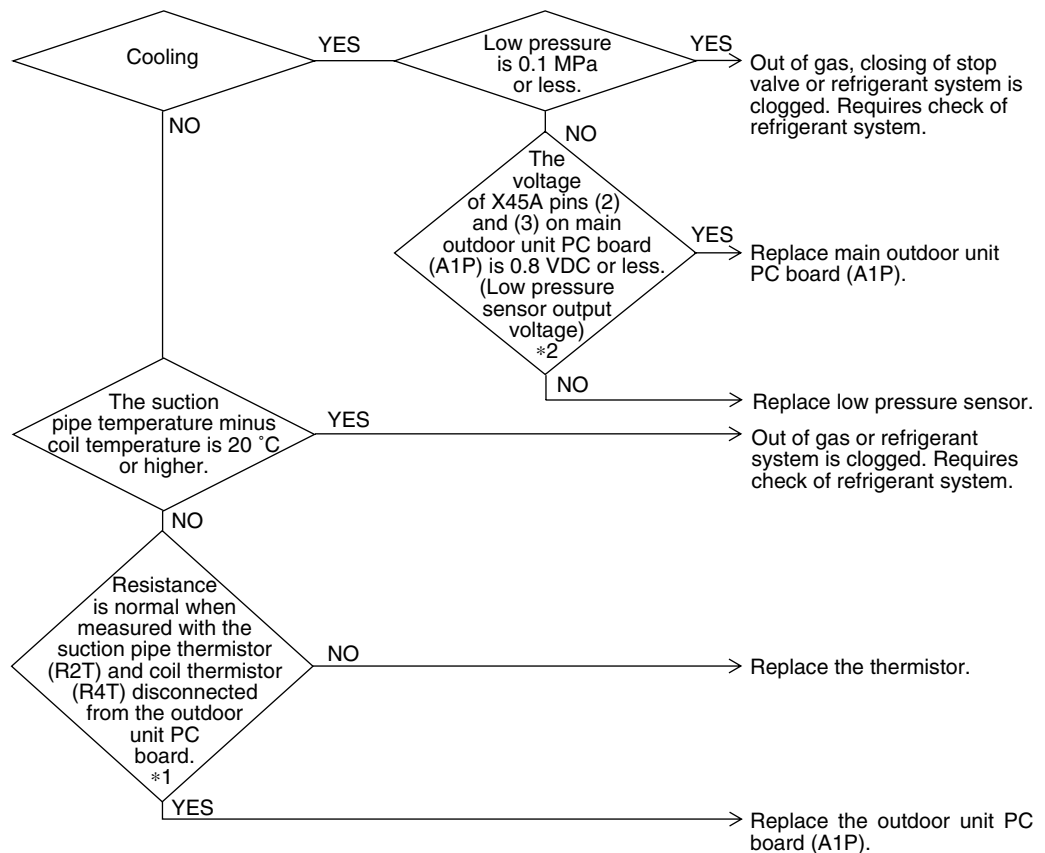
- Out of gas or refrigerant system clogging (incorrect piping)
- Defect of pressure sensor
- Defect of outdoor unit PC board (A1P)
- Defect of thermistor R2T or R4T

### Troubleshooting



**Caution**

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



(V2819)



\*1: Refer to thermistor resistance / temperature characteristics table on P321.

\*2: Refer to pressure sensor, pressure / voltage characteristics table on P323.



## 2.39 “U1” Reverse Phase, Open Phase

Remote Controller Display

U1

Applicable Models

RX(Y)5~48M

Method of Malfunction Detection

Detection is based on the voltage in main circuit capacitor for inverter and supply voltage. The phase of each phase are detected by reverse phase detection circuit and right phase or reverse phase are judged.

Malfunction Decision Conditions

Supposed Causes

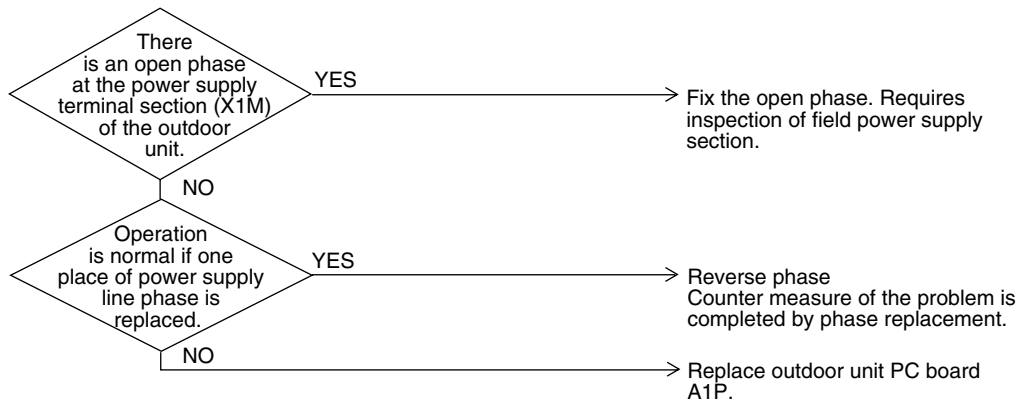
- Power supply reverse phase
- Power supply open phase
- Defect of outdoor PC board A1P

Troubleshooting



**Caution**

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



(V2820)

## 2.40 “U2” Power Supply Insufficient or Instantaneous Failure

Remote  
Controller  
Display

U2

Applicable  
Models

RX(Y)5~48M

Method of  
Malfunction  
Detection

Detection of voltage of main circuit capacitor built in the inverter and power supply voltage.

Malfunction  
Decision  
Conditions

Supposed  
Causes

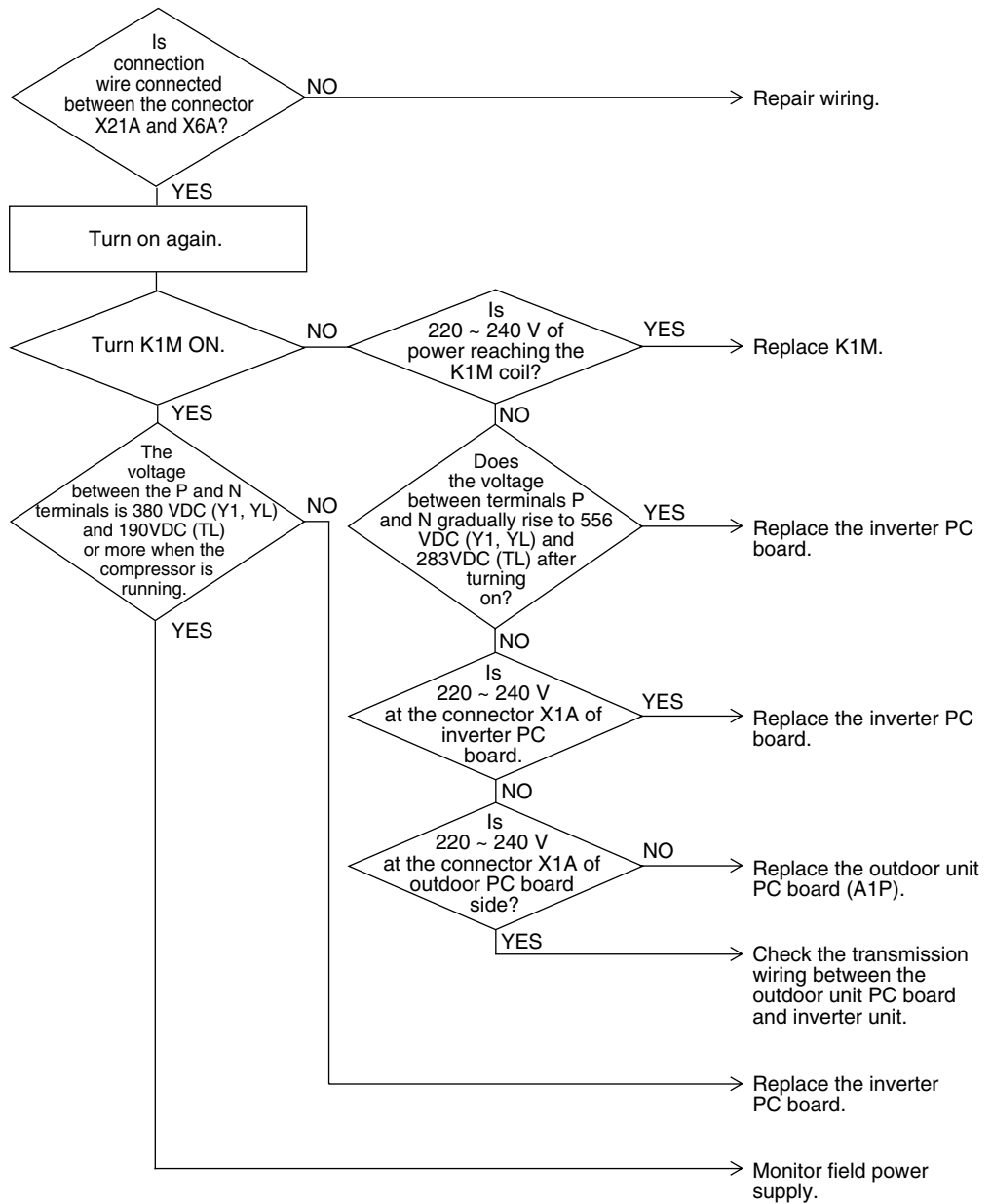
- Power supply insufficient
- Instantaneous failure
- Open phase
- Defect of inverter PC board
- Defect of outdoor control PC board
- Defect of K1M.
- Main circuit wiring defect

Troubleshooting



**Caution**

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



(V2821)

## 2.41 “U3” Check Operation not executed

Remote  
Controller  
Display

U3

Applicable  
Models

RX(Y)5~48M

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

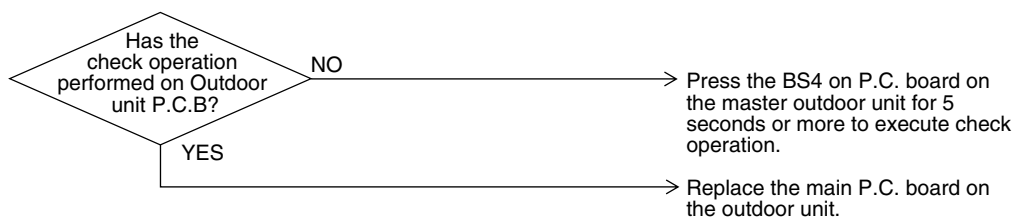
- Check operation is not executed.

Troubleshooting



**Caution**

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



(V3052)

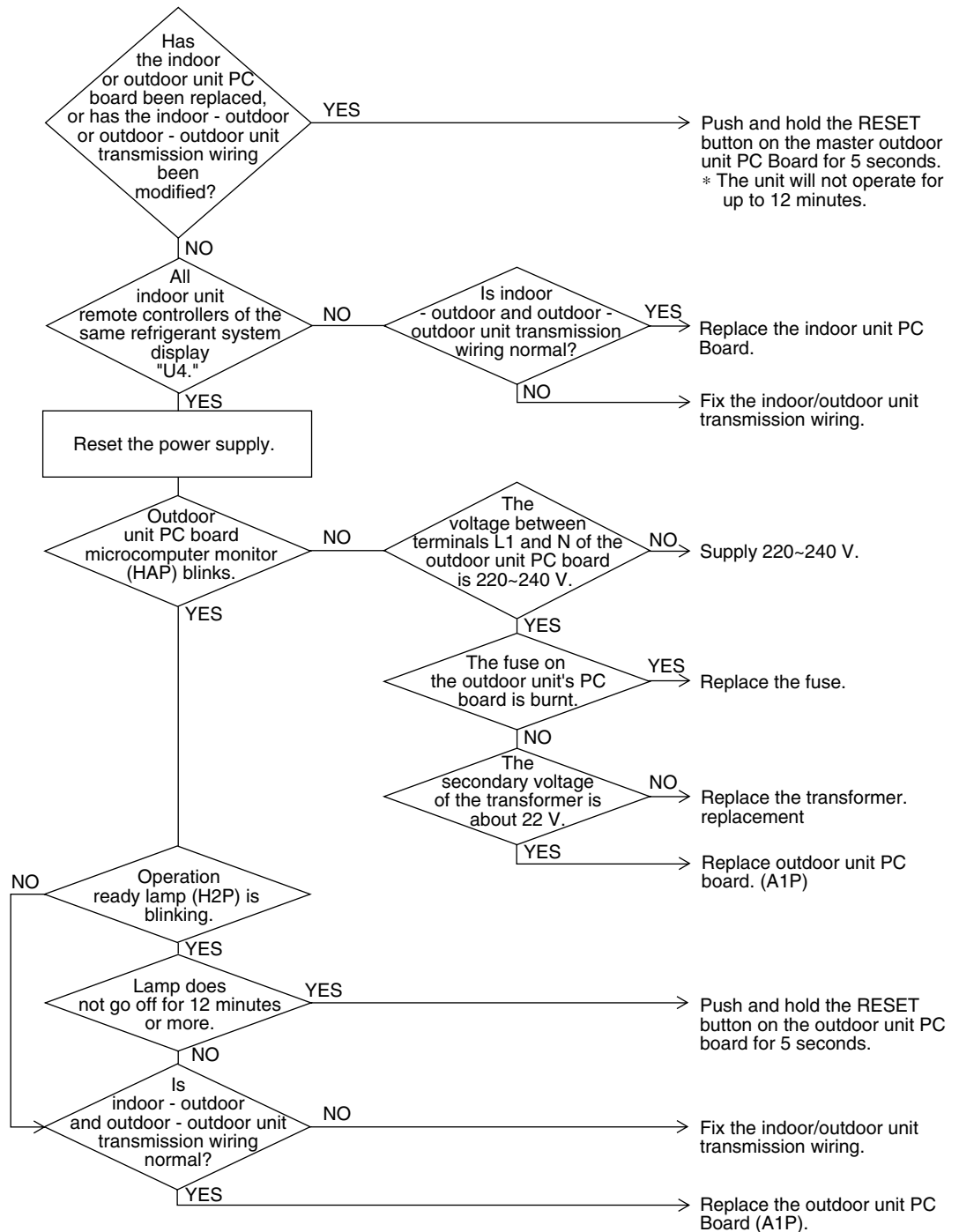
## 2.42 “U4” Malfunction of Transmission Between Indoor Units

<b>Remote Controller Display</b>	U4
<b>Applicable Models</b>	All model of indoor unit RX(Y)5~48M
<b>Method of Malfunction Detection</b>	Microcomputer checks if transmission between indoor and outdoor units is normal.
<b>Malfunction Decision Conditions</b>	When transmission is not carried out normally for a certain amount of time
<b>Supposed Causes</b>	<ul style="list-style-type: none"><li>■ Indoor to outdoor,outdoor to outdoor transmission wiring F1, F2 disconnection, short circuit or wrong wiring</li><li>■ Outdoor unit power supply is OFF</li><li>■ System address doesn't match</li><li>■ Defect of indoor unit PC board</li><li>■ Defect of outdoor unit PC board</li></ul>

## Troubleshooting

**Caution**

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



(V2822)

## 2.43 “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

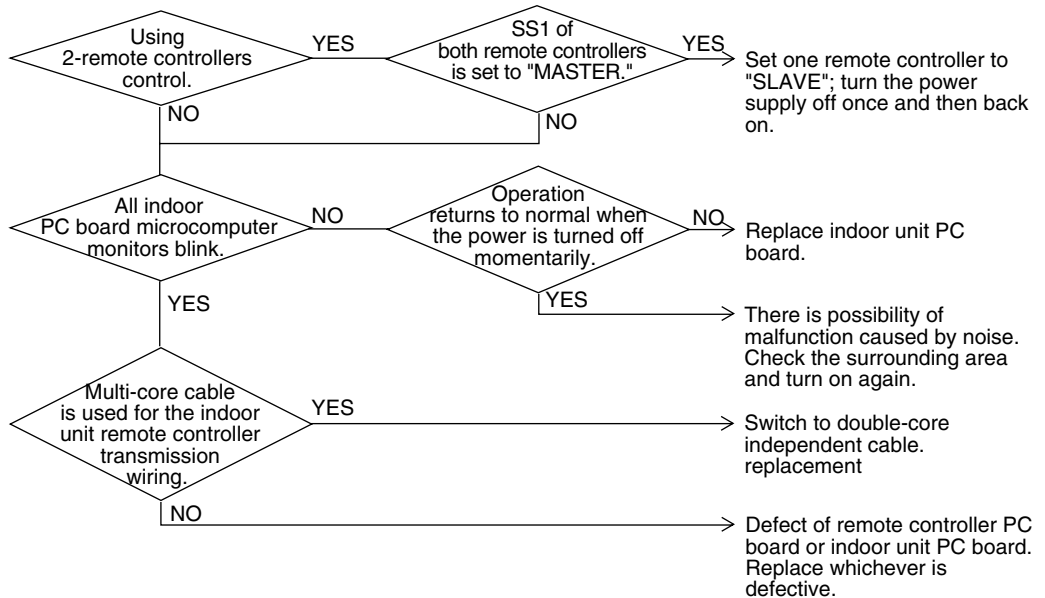
- Malfunction of indoor unit remote controller transmission
- Connection of two main remote controllers (when using 2 remote controllers)
- Defect of indoor unit PC board
- Defect of remote controller PC board
- Malfunction of transmission caused by noise

### Troubleshooting



**Caution**

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



(V2823)

## 2.44 “U7” Malfunction of Transmission Between Outdoor Units

<b>Remote Controller Display</b>	U7
<b>Applicable Models</b>	All models of indoor units
<b>Method of Malfunction Detection</b>	Microcomputer checks if transmission between indoor unit and remote controller is normal.
<b>Malfunction Decision Conditions</b>	When transmission is not carried out normally for a certain amount of time
<b>Supposed Causes</b>	<ul style="list-style-type: none"><li>■ Improper connection of transmission wiring between outdoor unit and outdoor unit outside control adaptor</li><li>■ Improper cool/heat selection</li><li>■ Improper cool/heat unified address (outdoor unit, external control adaptor for outdoor unit)</li><li>■ Defect of outdoor unit PC board (A1P)</li><li>■ Defect of outdoor unit outside control adaptor</li><li>■ Improper connection of transmission wiring between outdoor units of multi outdoor unit connection.</li></ul>

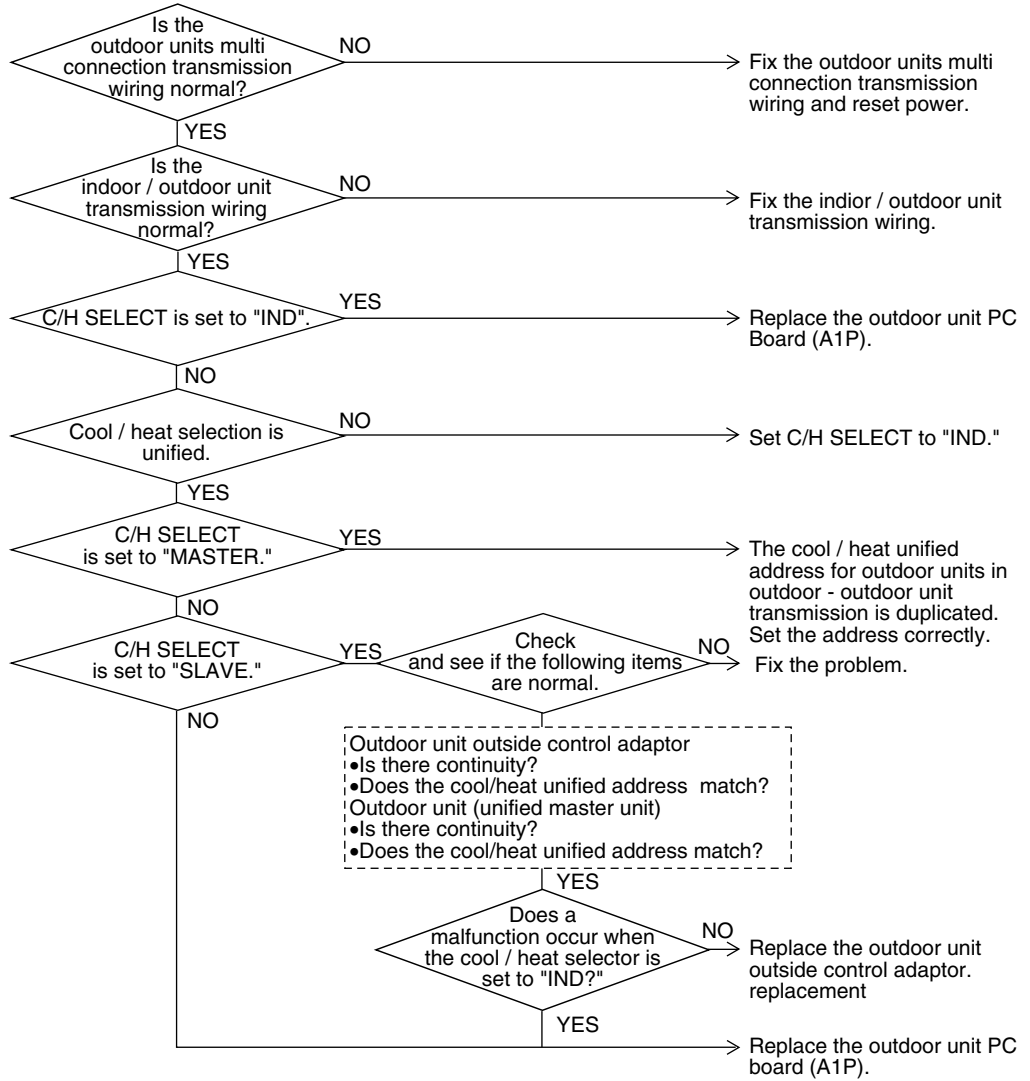


Troubleshooting



**Caution**

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



(V2824)

## 2.45 “U8” Malfunction of Transmission Between Master and Slave 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

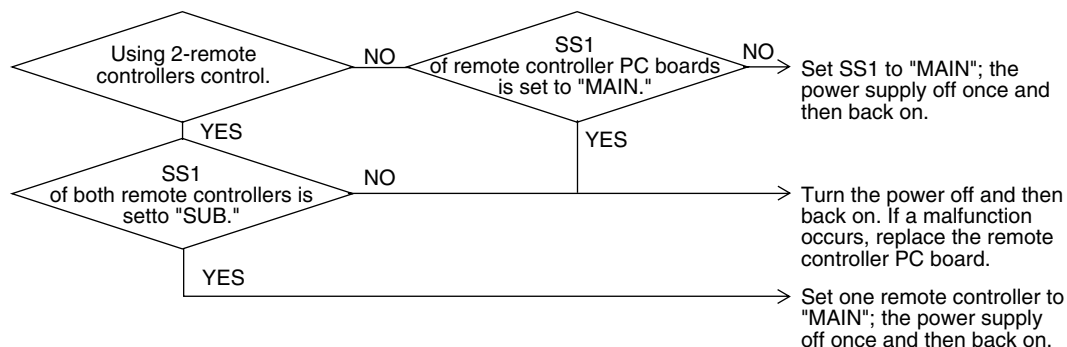
- Malfunction of transmission between main and sub remote controller
- Connection between sub remote controllers
- Defect of remote controller PC board

Troubleshooting



**Caution**

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




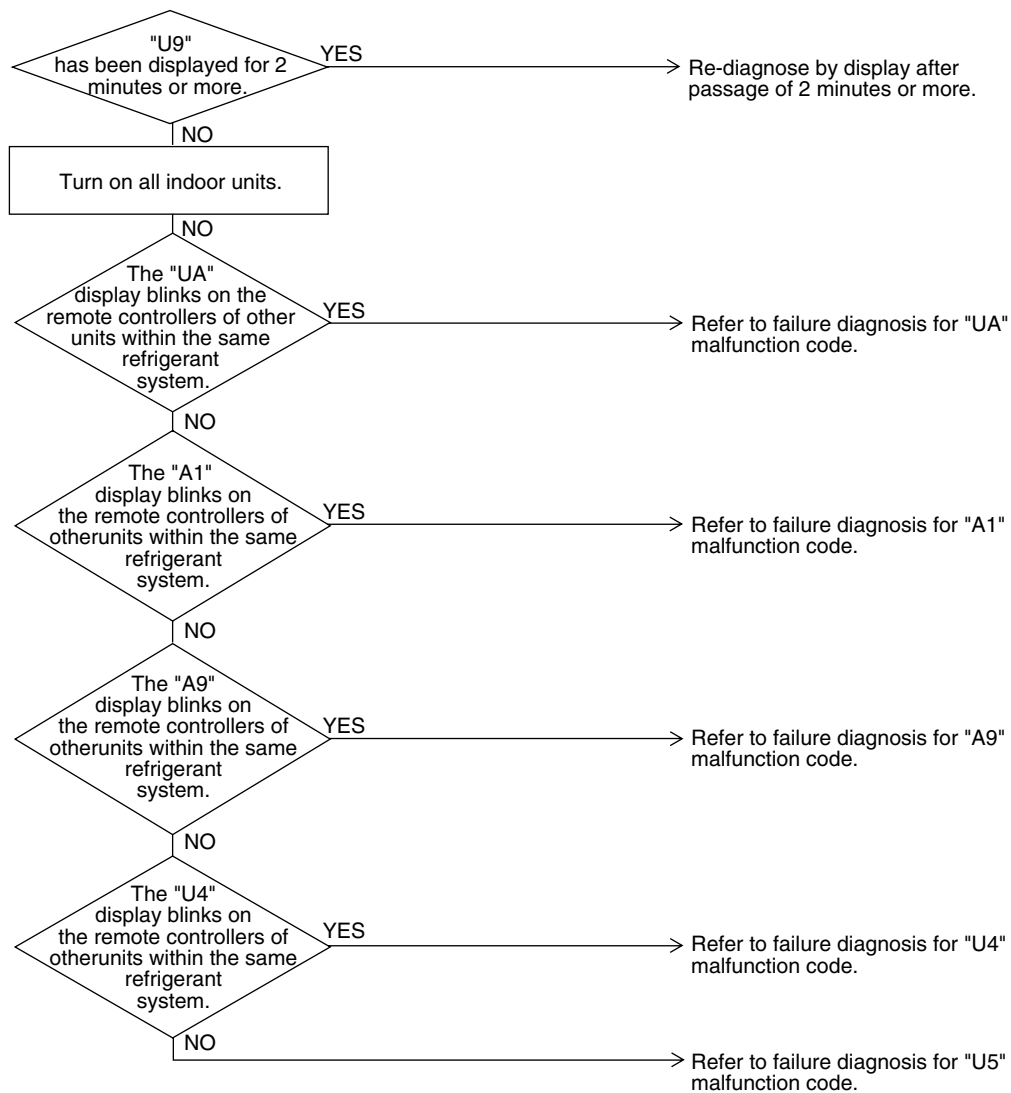
(V2825)

## 2.46 “U9” Malfunction of Transmission Between Indoor and Outdoor Units in the Same System

<b>Remote Controller Display</b>	U9
<b>Applicable Models</b>	All models of indoor units
<b>Method of Malfunction Detection</b>	
<b>Malfunction Decision Conditions</b>	
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Malfunction of transmission within or outside of other system</li> <li>■ Malfunction of electronic expansion valve in indoor unit of other system</li> <li>■ Defect of PC board of indoor unit in other system</li> <li>■ Improper connection of transmission wiring between indoor and outdoor unit</li> </ul>

Troubleshooting

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



(V2826)

## 2.47 “UR” Excessive Number of Indoor Units

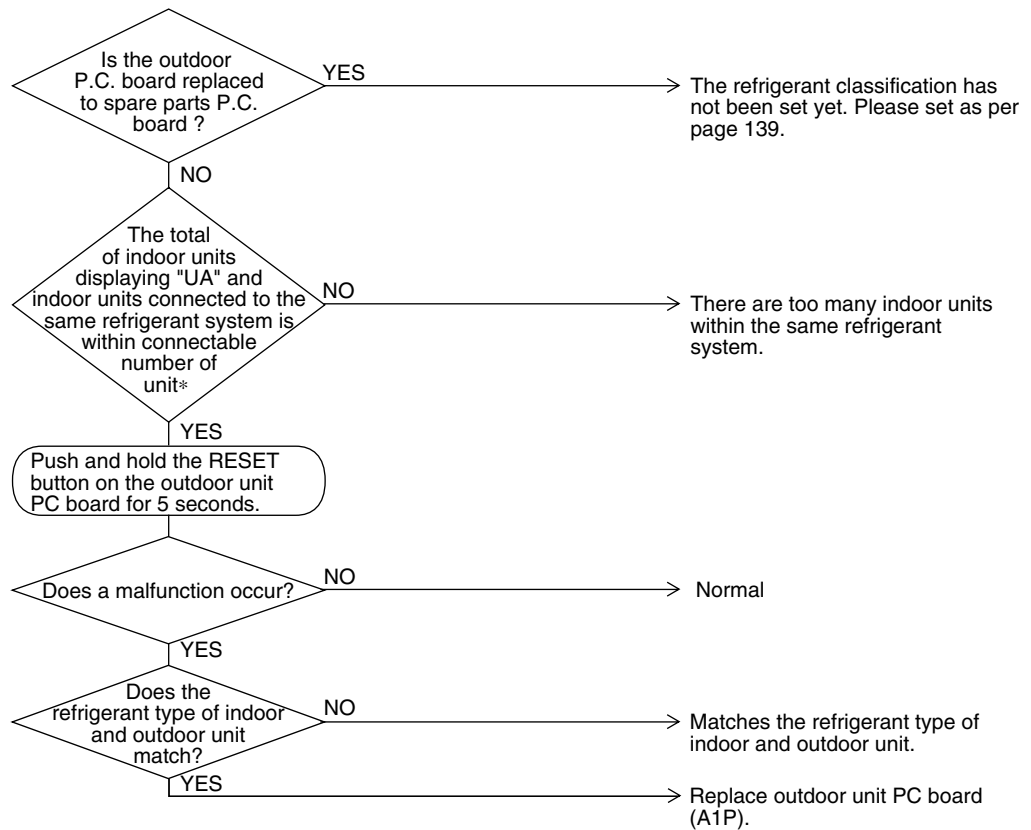
Remote Controller Display	<i>UR</i>
Applicable Models	All models of indoor unit RX(Y)5~48M
Method of Malfunction Detection	
Malfunction Decision Conditions	
Supposed Causes	<ul style="list-style-type: none"> <li>■ Excess of connected indoor units</li> <li>■ Defect of outdoor unit PC board (A1P)</li> <li>■ Mismatching of the refrigerant type of indoor and outdoor unit.</li> <li>■ Setting of outdoor P.C. board was not conducted after replacing to spare parts P.C. board.</li> </ul>

### Troubleshooting



**Caution**

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



(V2827)

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

## 2.48 “UC” Address Duplication of Central Remote Controller

Remote  
Controller  
Display

UC

Applicable  
Models

All models of indoor unit  
Centralized controller

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

Supposed  
Causes

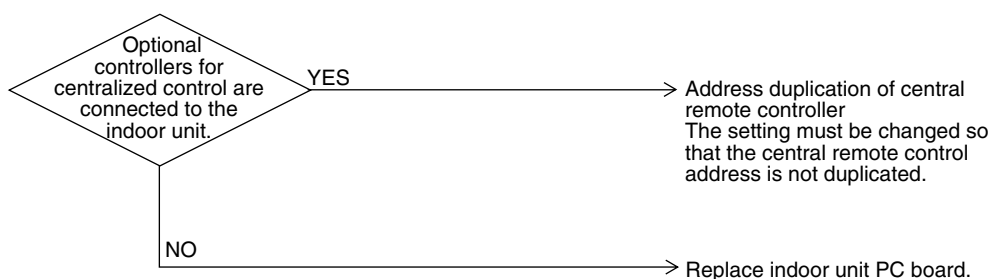
- Address duplication of centralized remote controller
- Defect of indoor unit PC board

Troubleshooting



**Caution**

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



(V2828)

## 2.49 “UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit

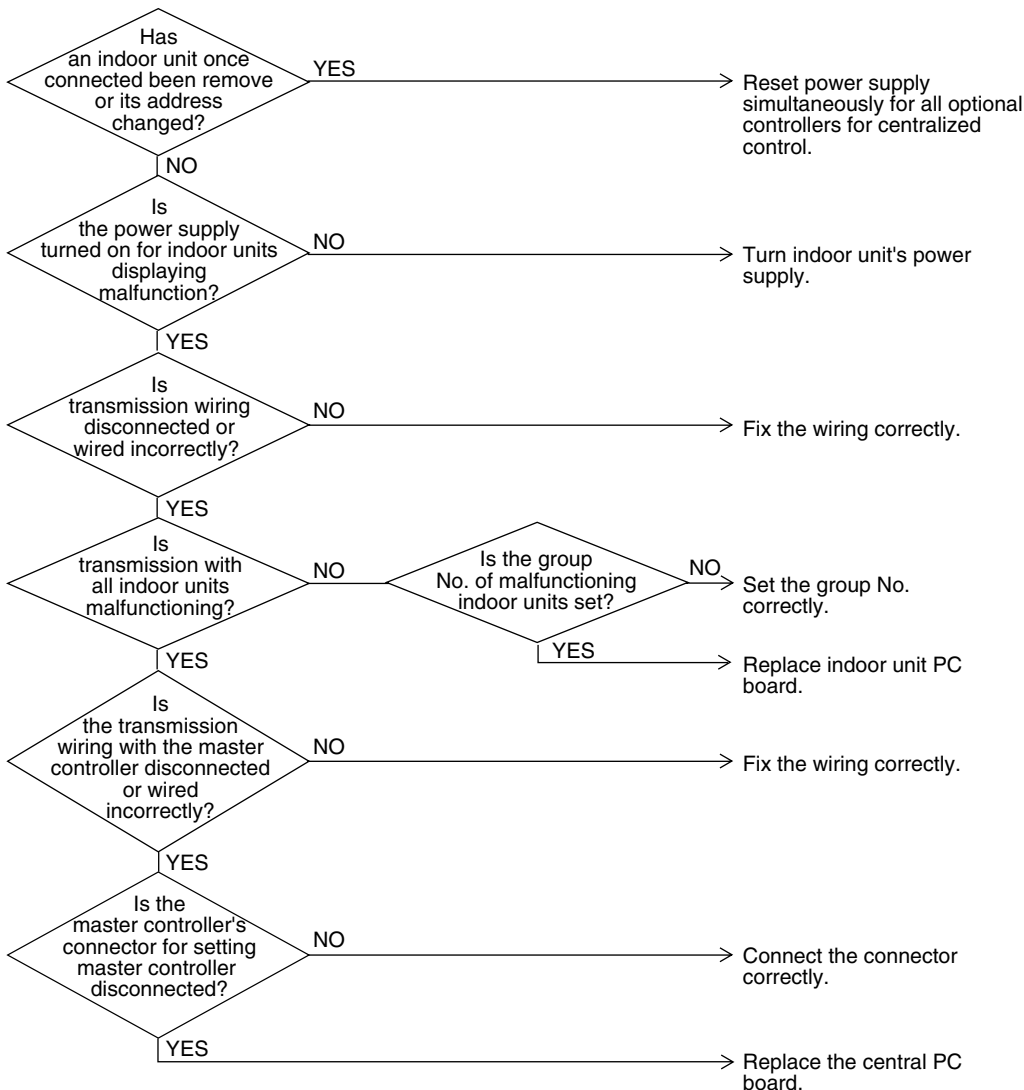
<b>Remote Controller Display</b>	UE
<b>Applicable Models</b>	All models of indoor units Centralized controller
<b>Method of Malfunction Detection</b>	Microcomputer checks if transmission between indoor unit and centralized remote controller is normal.
<b>Malfunction Decision Conditions</b>	When transmission is not carried out normally for a certain amount of time
<b>Supposed Causes</b>	<ul style="list-style-type: none"><li>■ Malfunction of transmission between optional controllers for centralized control and indoor unit</li><li>■ Connector for setting master controller is disconnected.</li><li>■ Failure of PC board for centralized remote controller</li><li>■ Defect of indoor unit PC board</li></ul>

Troubleshooting



**Caution**

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



(V2829)



## 2.50 “UF” Refrigerant System not Set, Incompatible Wiring/Piping

Remote Controller Display

UF

Applicable Models

All models of indoor units  
RX(Y)5~48M

Method of Malfunction Detection

Malfunction Decision Conditions

Supposed Causes

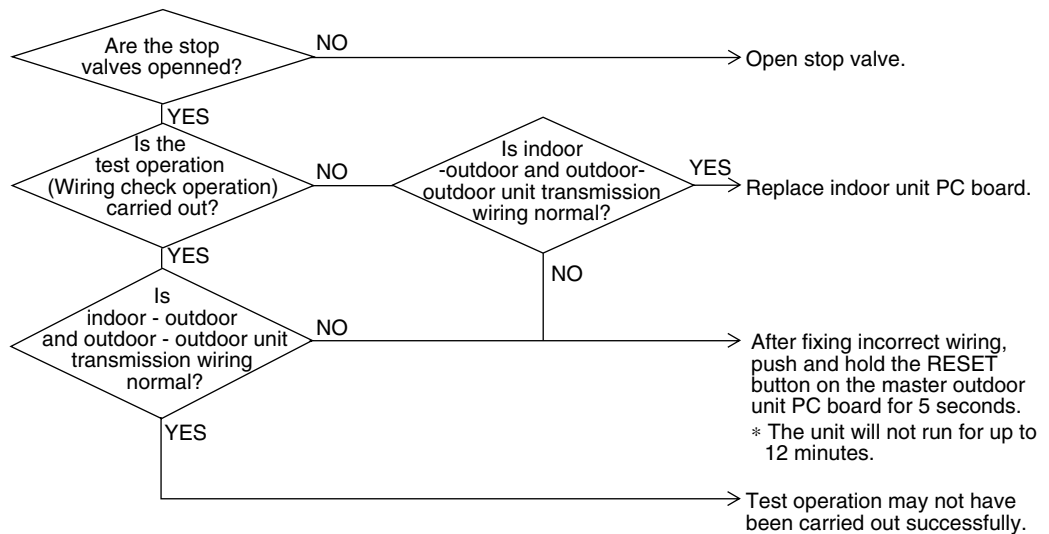
- Improper connection of transmission wiring between outdoor unit and outdoor unit outside control adaptor
- Failure to execute wiring check operation
- Defect of indoor unit PC board

### 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.

## 2.51 "UH" Malfunction of System, Refrigerant System Address Undefined

Remote  
Controller  
Display

UH

Applicable  
Models

All models of indoor units  
RX(Y)5~48M

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

Supposed  
Causes

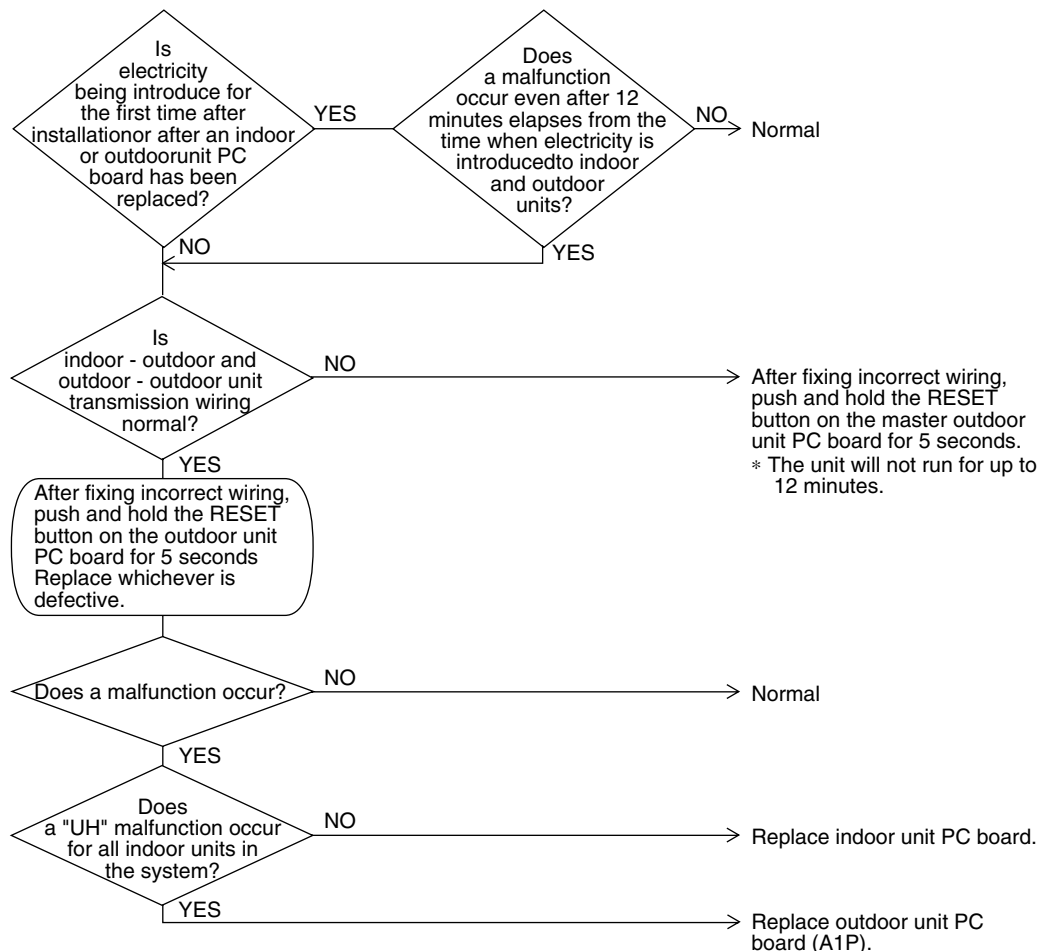
- Improper connection of transmission wiring between outdoor unit and outdoor unit outside control adaptor
- Defect of indoor unit PC board
- Defect of outdoor unit PC board (A1P)

Troubleshooting



**Caution**

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




(V2831)

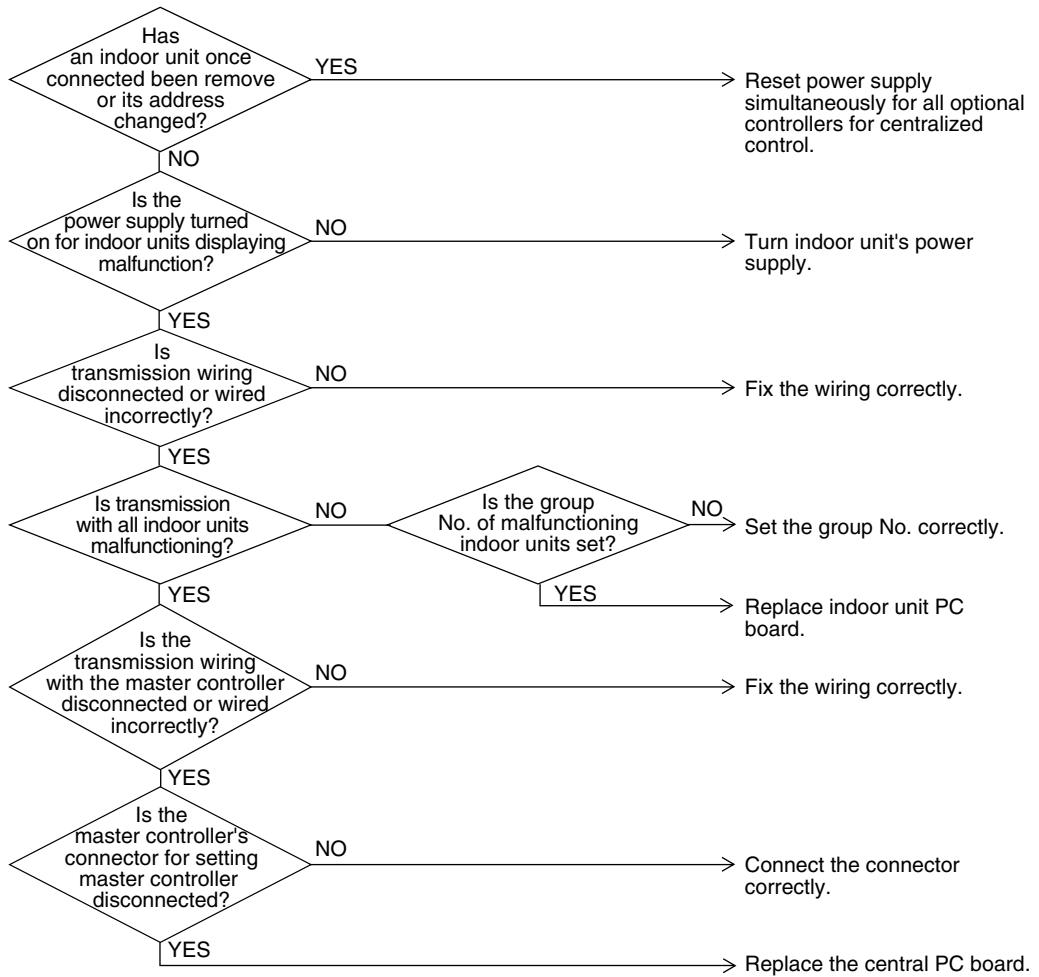
### 3. Troubleshooting (OP: Central Remote Controller)

#### 3.1 “UE” Malfunction of Transmission Between Central Remote Controller and Indoor Unit

Remote Controller Display	UE
Applicable Models	All models of indoor units RX(Y)5~48M
Method of Malfunction Detection	Microcomputer checks if transmission between indoor unit and central remote controller is normal.
Malfunction Decision Conditions	When transmission is not carried out normally for a certain amount of time
Supposed Causes	<ul style="list-style-type: none"> <li>■ Malfunction of transmission between optional controllers for centralized control and indoor unit</li> <li>■ Connector for setting master controller is disconnected.</li> <li>■ Failure of PC board for central remote controller</li> <li>■ Defect of indoor unit PC board</li> </ul>

**Troubleshooting**

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



(V2832)

## 3.2 “M1” PC Board Defect

Remote  
Controller  
Display

M1

Applicable  
Models

Centralized remote controller

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

Supposed  
Causes

- Defect of central remote controller PC board

Troubleshooting

Replace the central remote controller PC board.

### 3.3 “M8” Malfunction of Transmission Between Optional Controllers for Centralized Control

Remote Controller Display

M8

Applicable Models

Centralized remote controller

Method of Malfunction Detection

Malfunction Decision Conditions

Supposed Causes

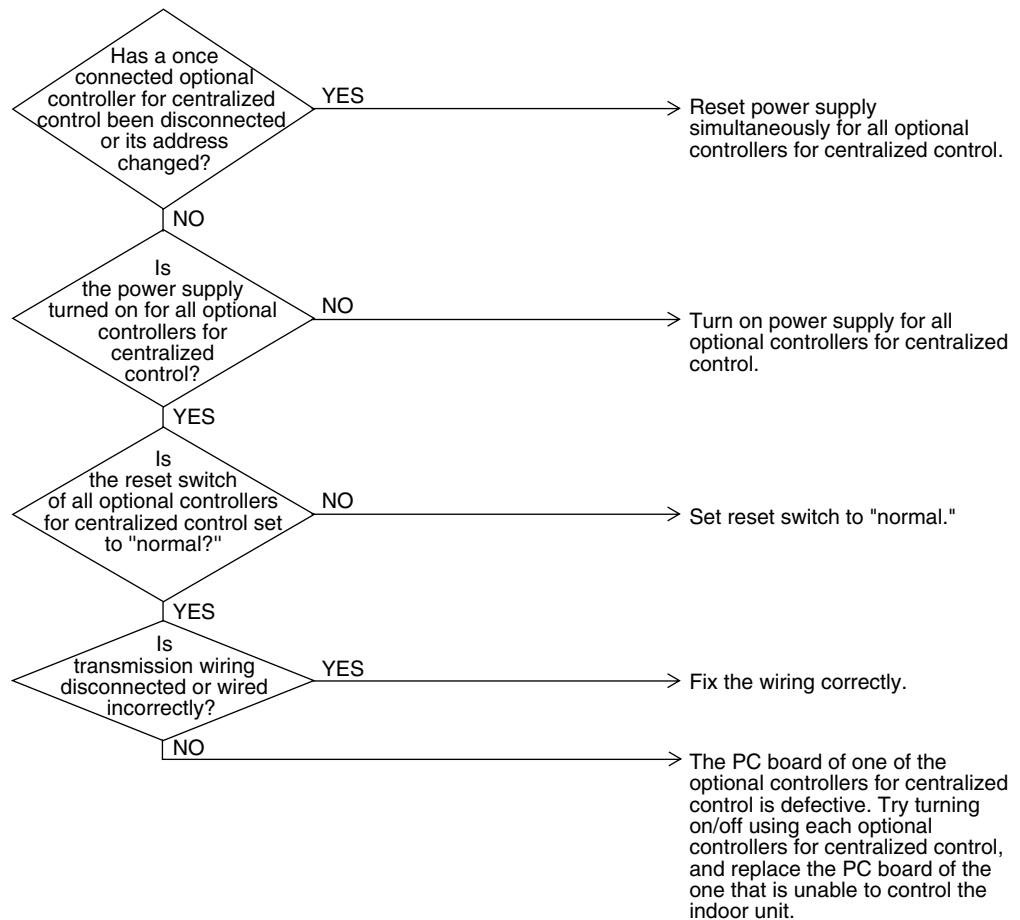
- Malfunction of transmission between optional controllers for centralized control
- Defect of PC board of optional controllers for centralized control

Troubleshooting



**Caution**

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



(V2833)

### 3.4 “MR” Improper Combination of Optional Controllers for Centralized Control

Remote  
Controller  
Display

MR

Applicable  
Models

Centralized remote controller

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

Supposed  
Causes

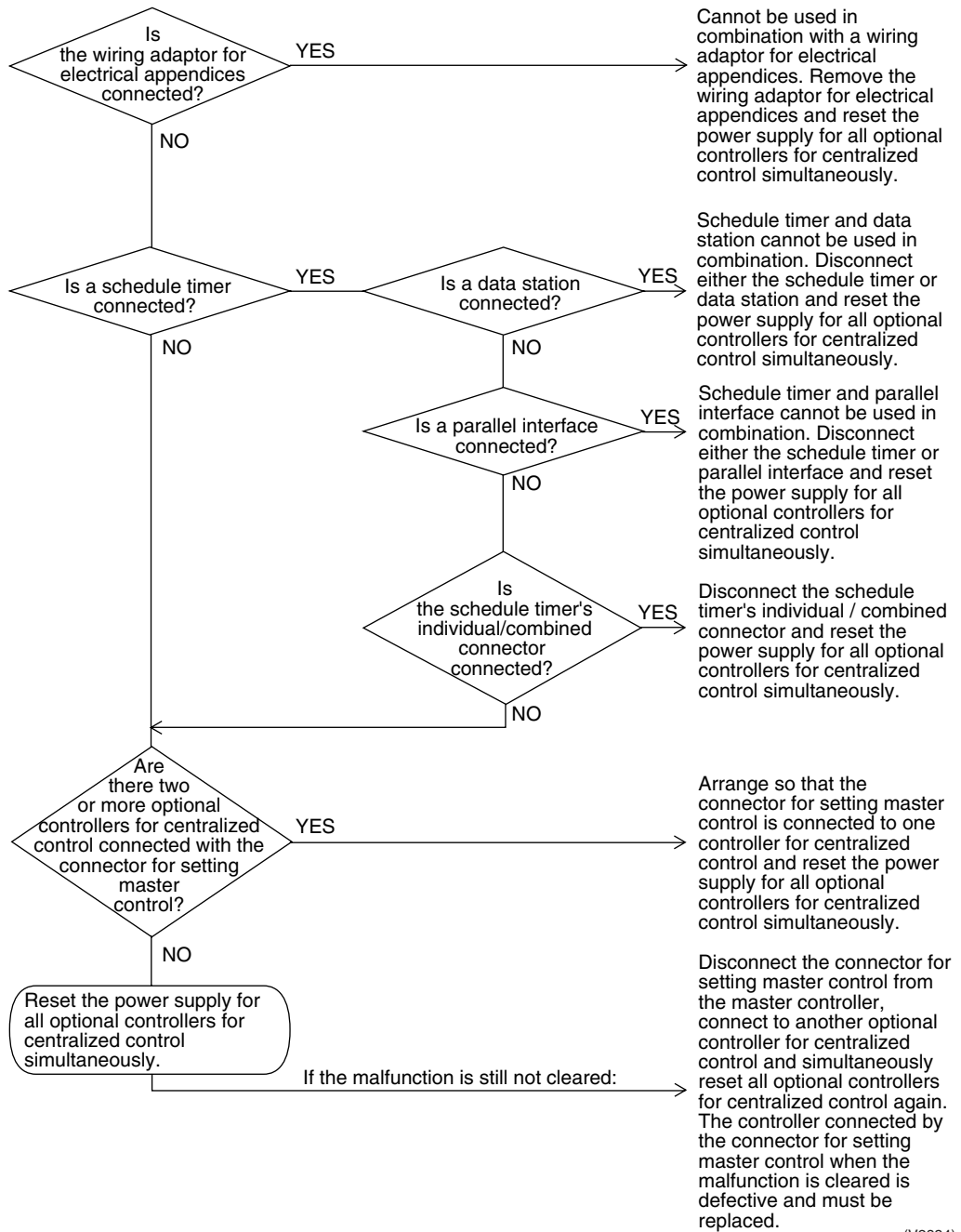
- Improper combination of optional controllers for centralized control
- More than one master controller is connected
- Defect of PC board of optional controller for centralized control

Troubleshooting



**Caution**

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



(V2834)

### 3.5 “MC” Address Duplication, Improper Setting

Remote Controller Display



Applicable Models

Centralized remote controller

Method of Malfunction Detection

Malfunction Decision Conditions

Supposed Causes

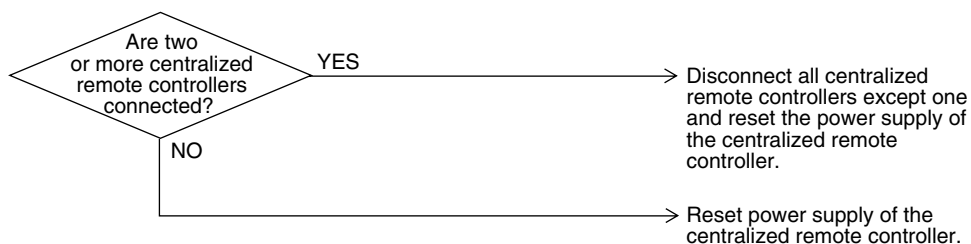
- Address duplication of centralized remote controller

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

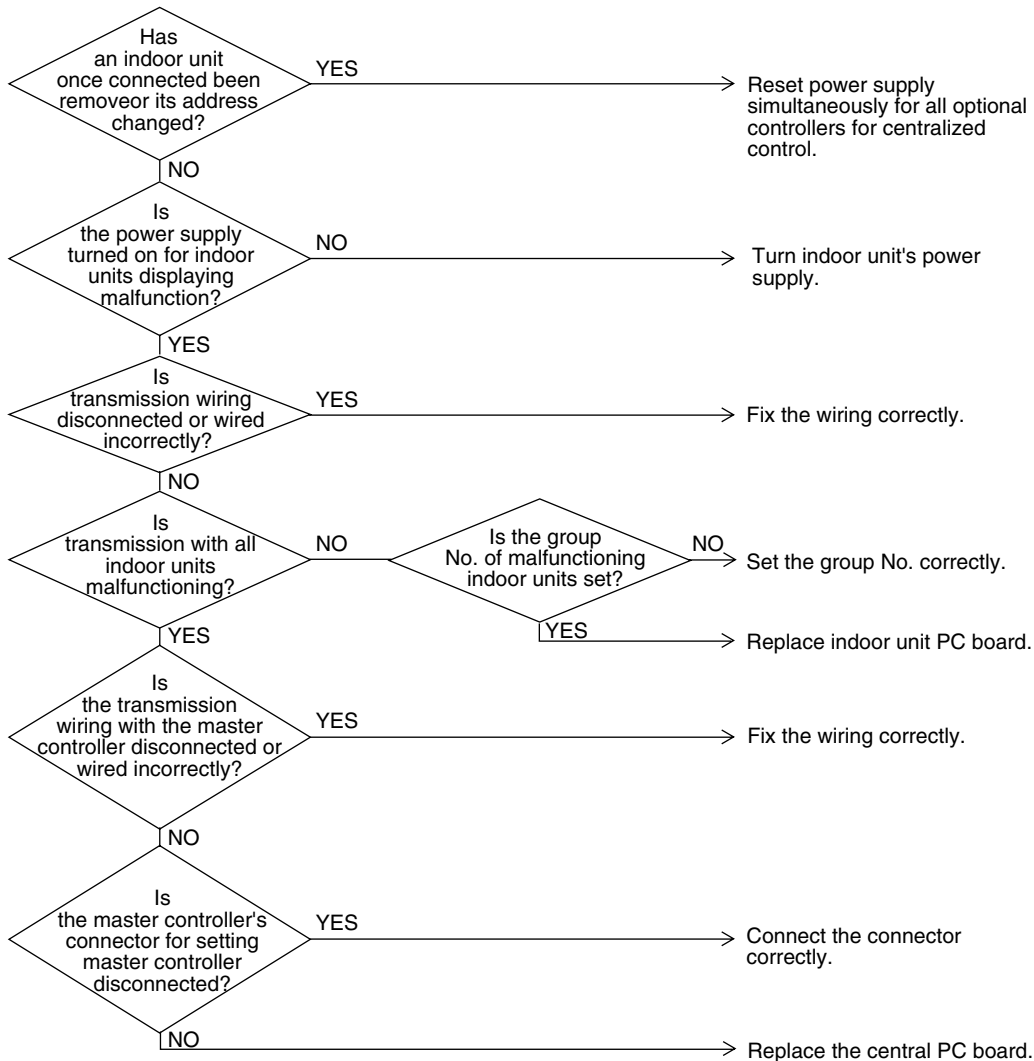
<b>Remote Controller Display</b>	<i>UE</i>
<b>Applicable Models</b>	Schedule timer
<b>Method of Malfunction Detection</b>	Microcomputer checks if transmission between indoor unit and centralized remote controller is normal.
<b>Malfunction Decision Conditions</b>	When transmission is not carried out normally for a certain amount of time
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Malfunction of transmission between central remote controller and indoor unit</li> <li>■ Disconnection of connector for setting master controller (or individual/combined switching connector)</li> <li>■ Defect of schedule timer PC board</li> <li>■ Defect of indoor unit PC board</li> </ul>

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

Malfunction  
Decision  
Conditions

Supposed  
Causes

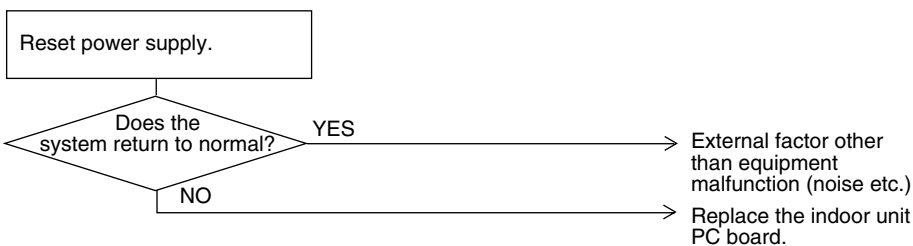
- Defect of schedule timer PC board

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

All models of indoor units, schedule timer

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

Supposed  
Causes

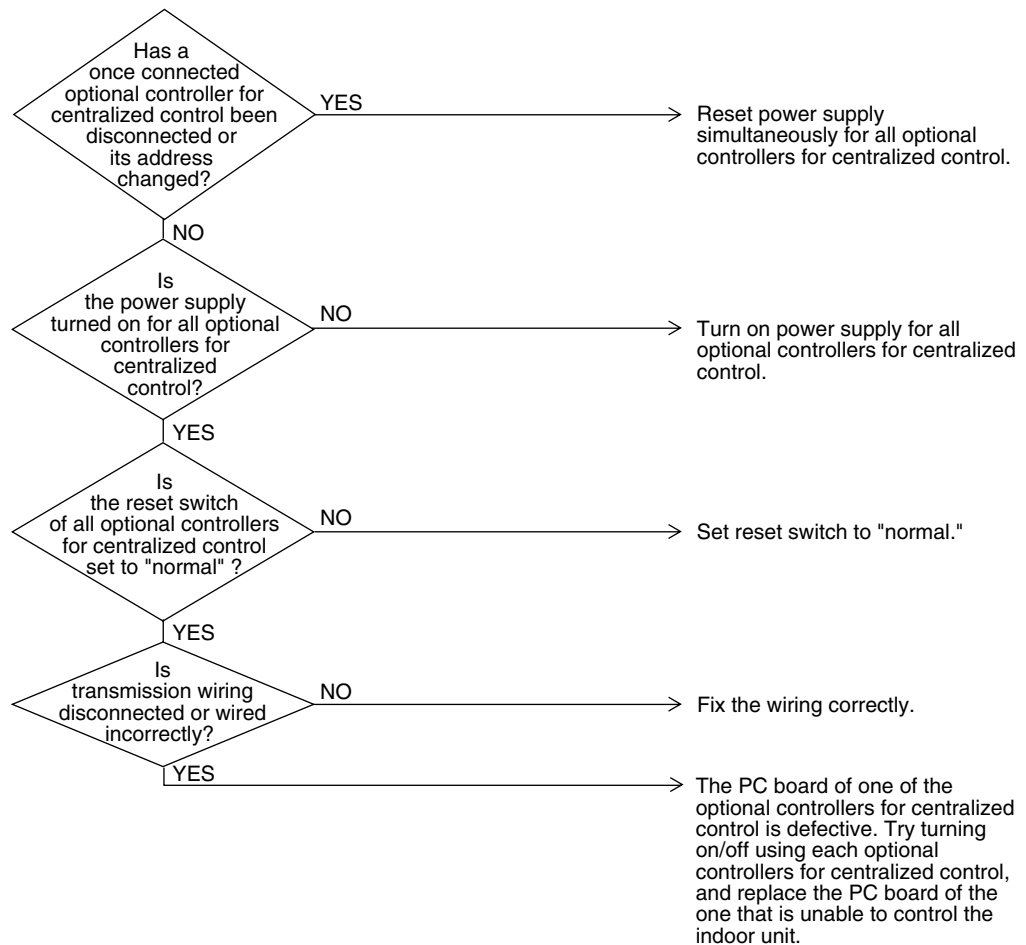
- Malfunction of transmission between optional controllers for centralized control
- Defect of PC board of optional controllers for centralized control

Troubleshooting



**Caution**

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



(V2838)

## 4.4 “MR” Improper Combination of Optional Controllers for Centralized Control

Remote  
Controller  
Display

MR

Applicable  
Models

All models of indoor units, schedule timer

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

Supposed  
Causes

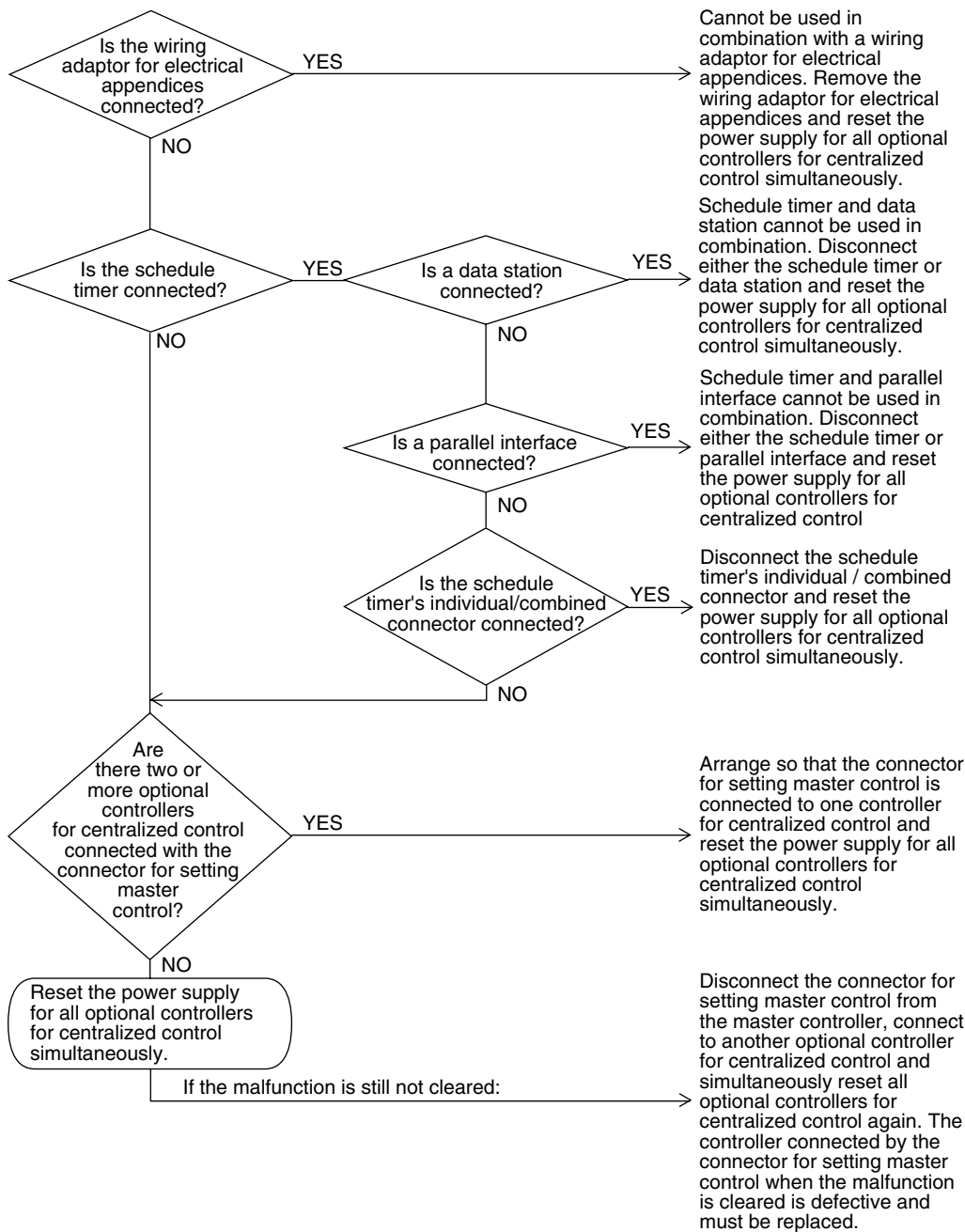
- Improper combination of optional controllers for centralized control
- More than one master controller is connected.
- Defect of PC board of optional controller for centralized control

Troubleshooting



**Caution**

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



## 4.5 “MC” Address Duplication, Improper Setting

Remote  
Controller  
Display

MC

Applicable  
Models

All models of indoor units,  
schedule timer

Method of  
Malfunction  
Detection

Malfunction  
Decision  
Conditions

Supposed  
Causes

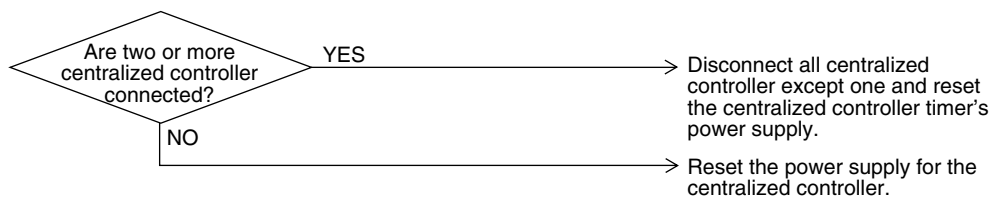
- Address duplication of optional controller for centralized control

Troubleshooting



**Caution**

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



(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****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

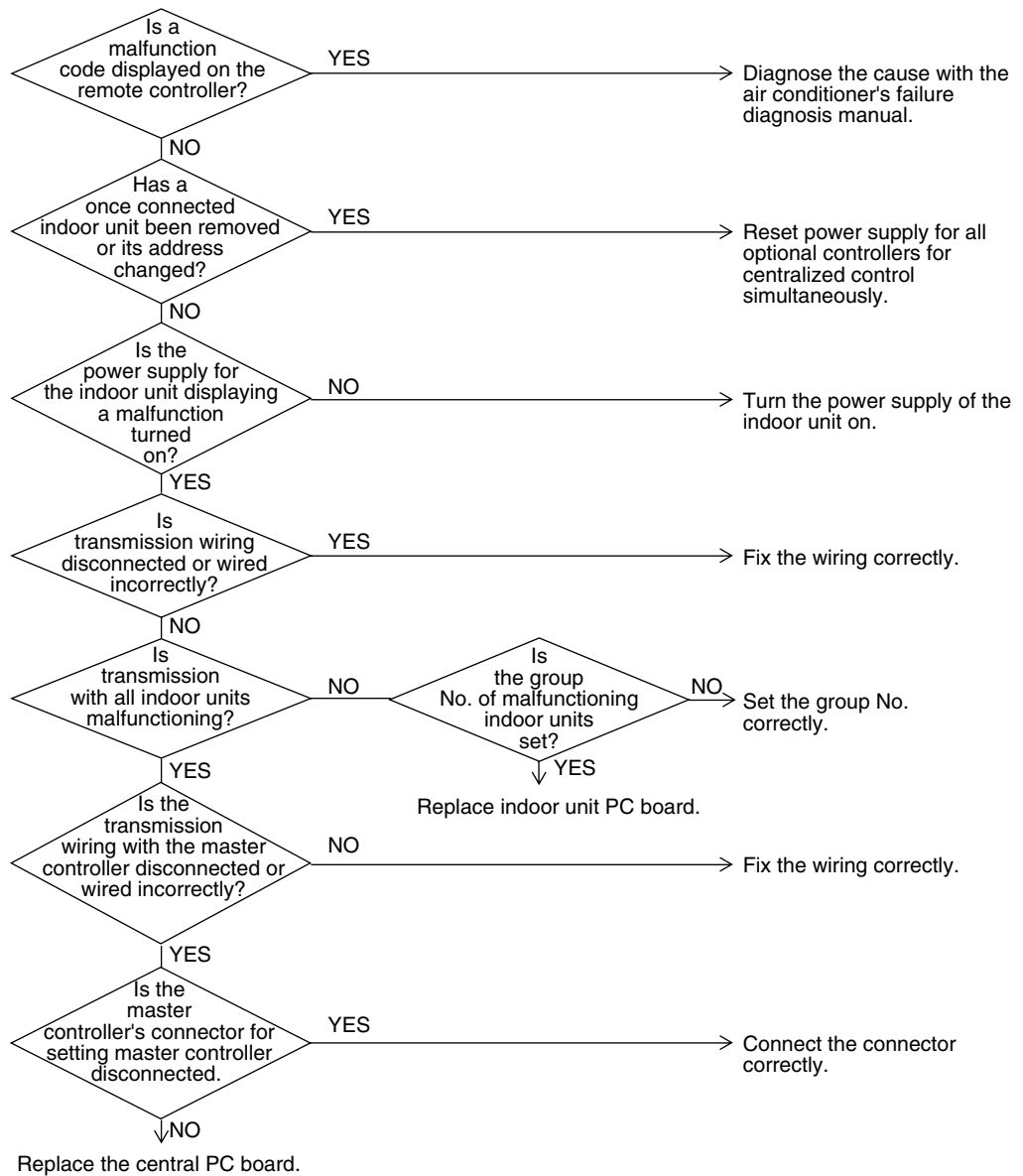


Troubleshooting



**Caution**

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



(V2841)

## 5.2 Display “Under Host Computer Integrate Control” Blinks (Repeats Single Blink)

---

**Remote Controller Display**

“under host computer integrated control” (Repeats single blink)

---

**Applicable Models**

Unified ON/OFF controller  
Central controller, Schedule timer

---

**Method of Malfunction Detection****Malfunction Decision Conditions****Supposed Causes**

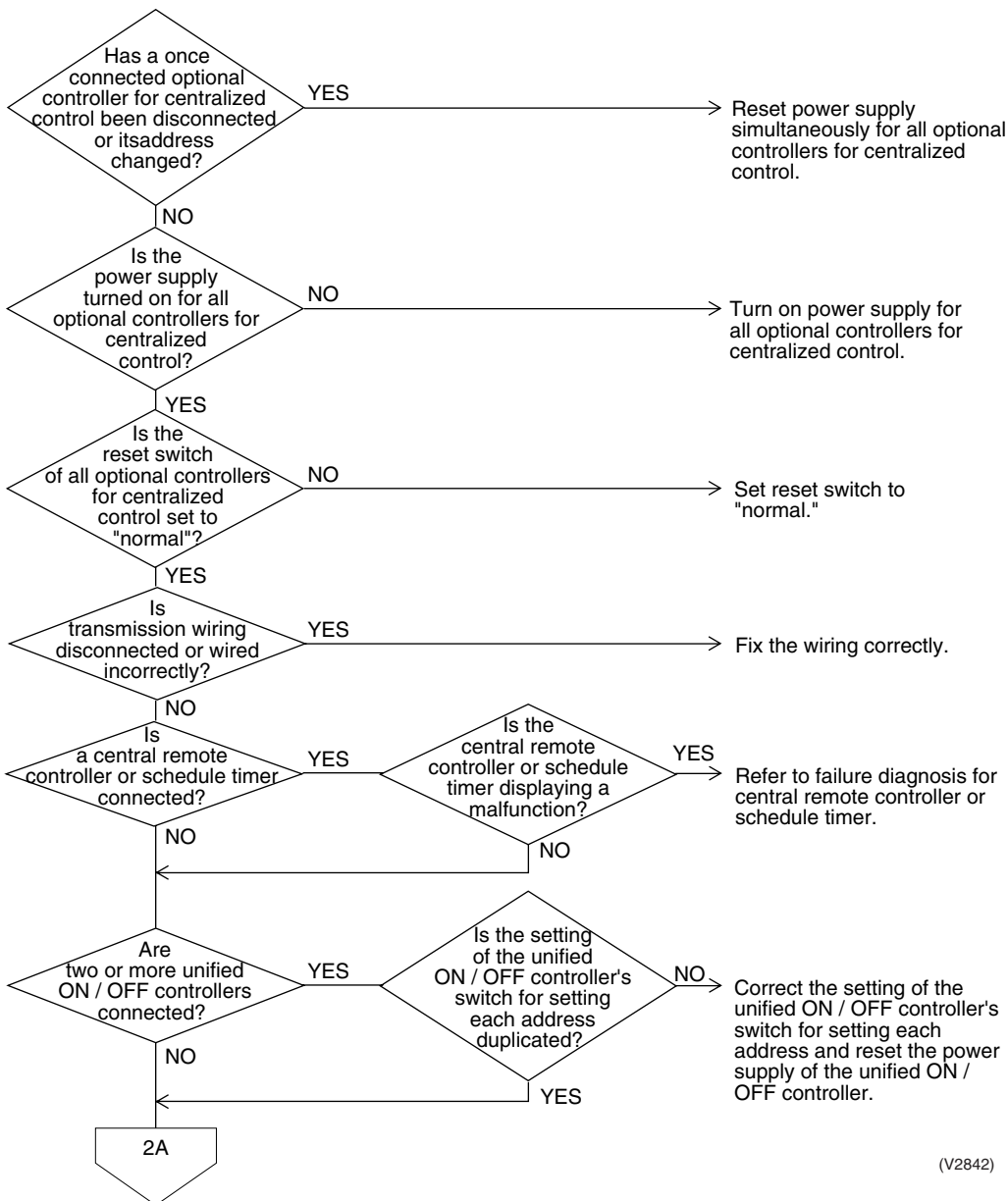
- Address duplication of central remote controller
- Improper combination of optional controllers for centralized control
- Connection of more than one master controller
- Malfunction of transmission between optional controllers for centralized control
- Defect of PC board of optional controllers for centralized control

Troubleshooting

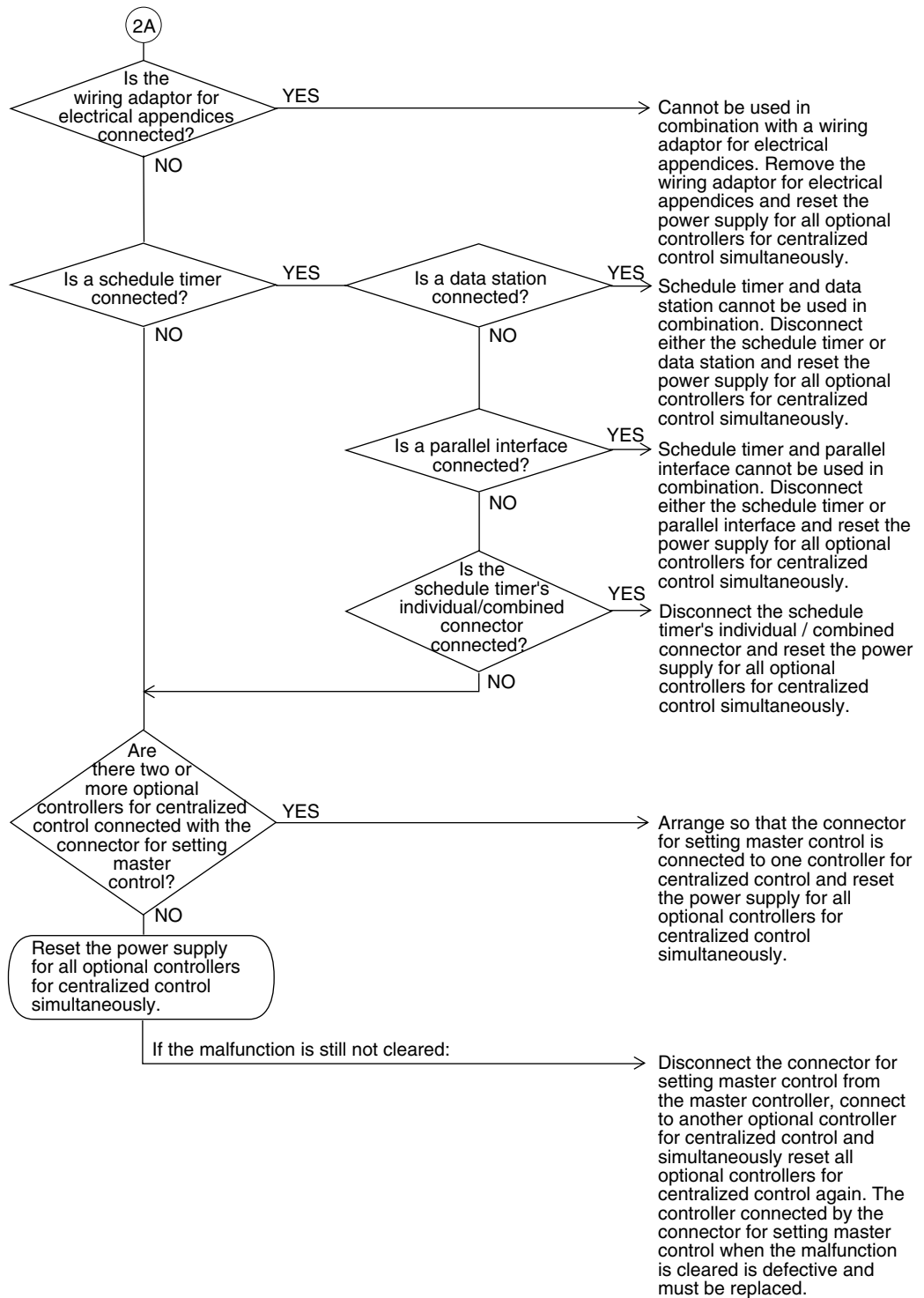


**Caution**

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



(V2842)




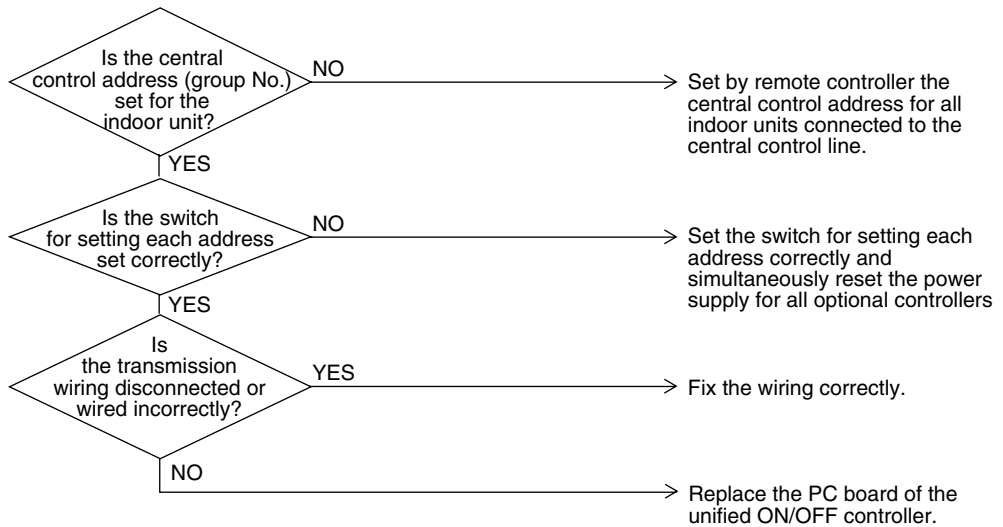
(V2843)

## 5.3 Display “Under Host Computer Integrate Control” Blinks (Repeats Double Blink)

<b>Remote Controller Display</b>	“under host computer integrated control” (Repeats double blink)
<b>Applicable Models</b>	Unified ON/OFF controller
<b>Method of Malfunction Detection</b>	
<b>Malfunction Decision Conditions</b>	
<b>Supposed Causes</b>	<ul style="list-style-type: none"> <li>■ Central control address (group No.) is not set for indoor unit.</li> <li>■ Improper address setting</li> <li>■ Improper wiring of transmission wiring</li> </ul>

### Troubleshooting

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

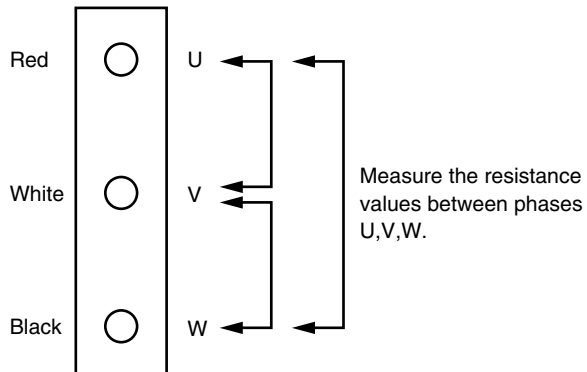


(V2844)

**Check No. 8****Check on connector of fan motor (Power supply cable)**

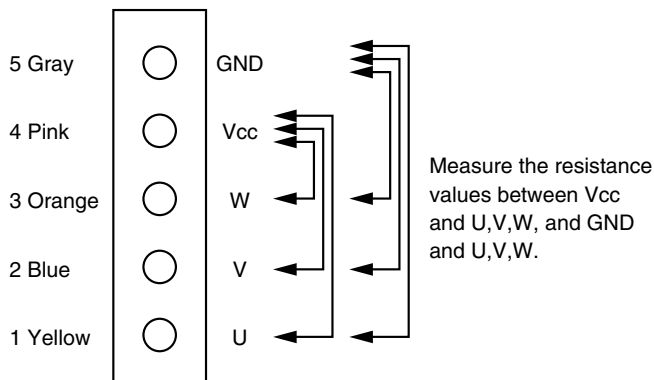
(1) Turn off the power supply.

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  $\pm 20\%$ , while connector or relay connector is disconnected.

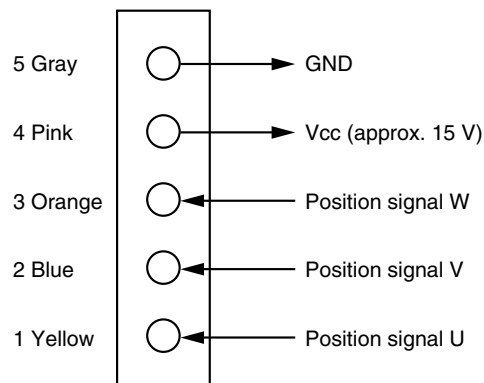


**Check No. 12**

**Check on pulse input of position signal of fan inverter PCB**

- (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 PCB → Replacing the PCB  
 The conditions (4) do not appear → Faulty hall IC → Replacing fan motor of outdoor unit



# Part 7

## Replacement procedure for INV compressor, VRV II RX(Y)5M to 48M

1. Replacement procedure for INV compressor, VRV II RX(Y)5M-48M .....	262
1.1 Replacement procedure .....	262



# 1. Replacement procedure for INV compressor, VRV II RX(Y)5M-48M

## 1.1 Replacement procedure

- (1) Collect the refrigerant by using refrigerant recovery unit.  
(Since the setting on outdoor unit PCB is required for refrigerant recovery, refer to the warning plate "Precautions in service work" attached on the switch box cover.)
- (2) Remove the sound insulator mat covering the faulty compressor, and disconnect the power cable from terminal board of the compressor.
- (3) Disconnect the brazing sections of suction pipe and discharge pipe by using brazing torch after the refrigerant has been collected completely.
- (4) Pinch the oil pressure equalizing pipe of the faulty compressor at the lower part of the brazed joint as shown in figure 1, and cut it between the pinched section and brazed joint in order to prevent residual oil from discharging.
- (5) Remove three bolts at cushion rubber section to take out the faulty compressor outside the unit.
- (6) Check that no oil remains in the oil pressure equalizing pipe as shown in figure 2, then remove the cut pipe from the brazed joint with brazing torch.
- (7) Install the new compressor in the unit.  
(Be sure to insert the cushion rubbers before tightening the fixing bolts of compressor.)
- (8) Remove the rubber caps put on the suction and discharge pipe of the new compressor to release the sealing nitrogen gas.  
(Take note that oil may spout due to the pipe inside pressure if the plug put on the equalizing seat is removed before removing of rubber cap.)
- (9) Remove the plug put on the equalizing seat of the new compressor.
- (10) Install the outlet pipe on the equalizing seat of the new compressor.
- (11) Braze the equalizing seat outlet pipe to the oil pressure equalizing pipe with brazing torch.  
\* Since an O-ring is put in the equalizing seat, be sure to maintain the parts around O-ring in cool.
- (12) Braze the suction and discharge pipe with brazing torch to the compressor.
- (13) Conduct air tight test to check the piping system is free from leakage.
- (14) Connect power cable to the terminal board of compressor and cover the compressor with sound insulator mat.
- (15) Conduct vacuum drying.  
(Since the setting on outdoor unit PCB is required for vacuum drying, refer to the warning plate "Precautions in service work" attached on the switch box cover.)
- (16) Charge refrigerant after the completion of vacuum drying, and check the function of compressor with cooling or heating operation.

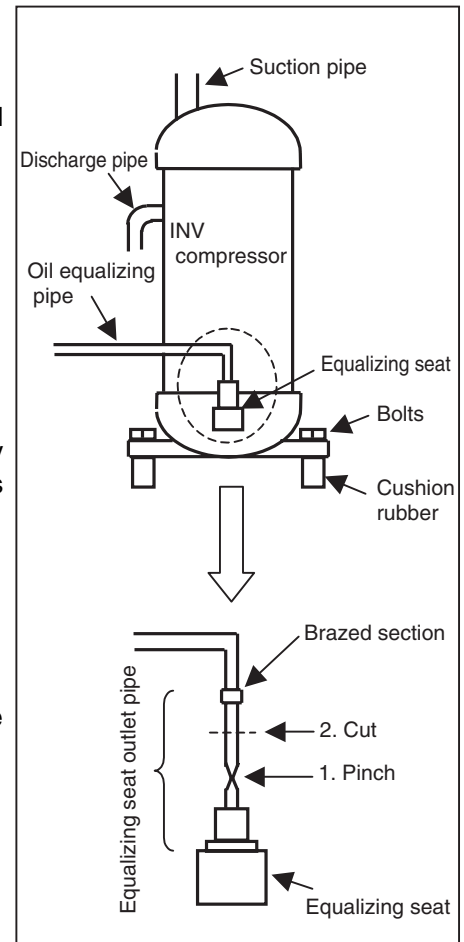


Fig. 1

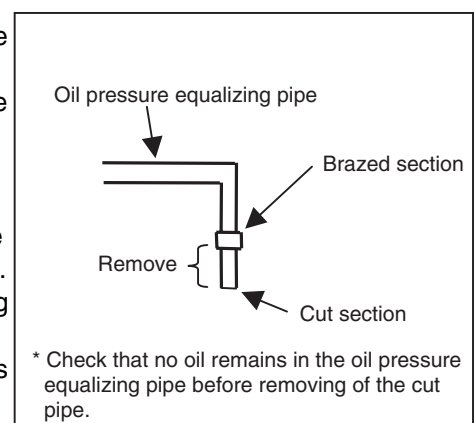


Fig. 2

# Part 8

## Appendix

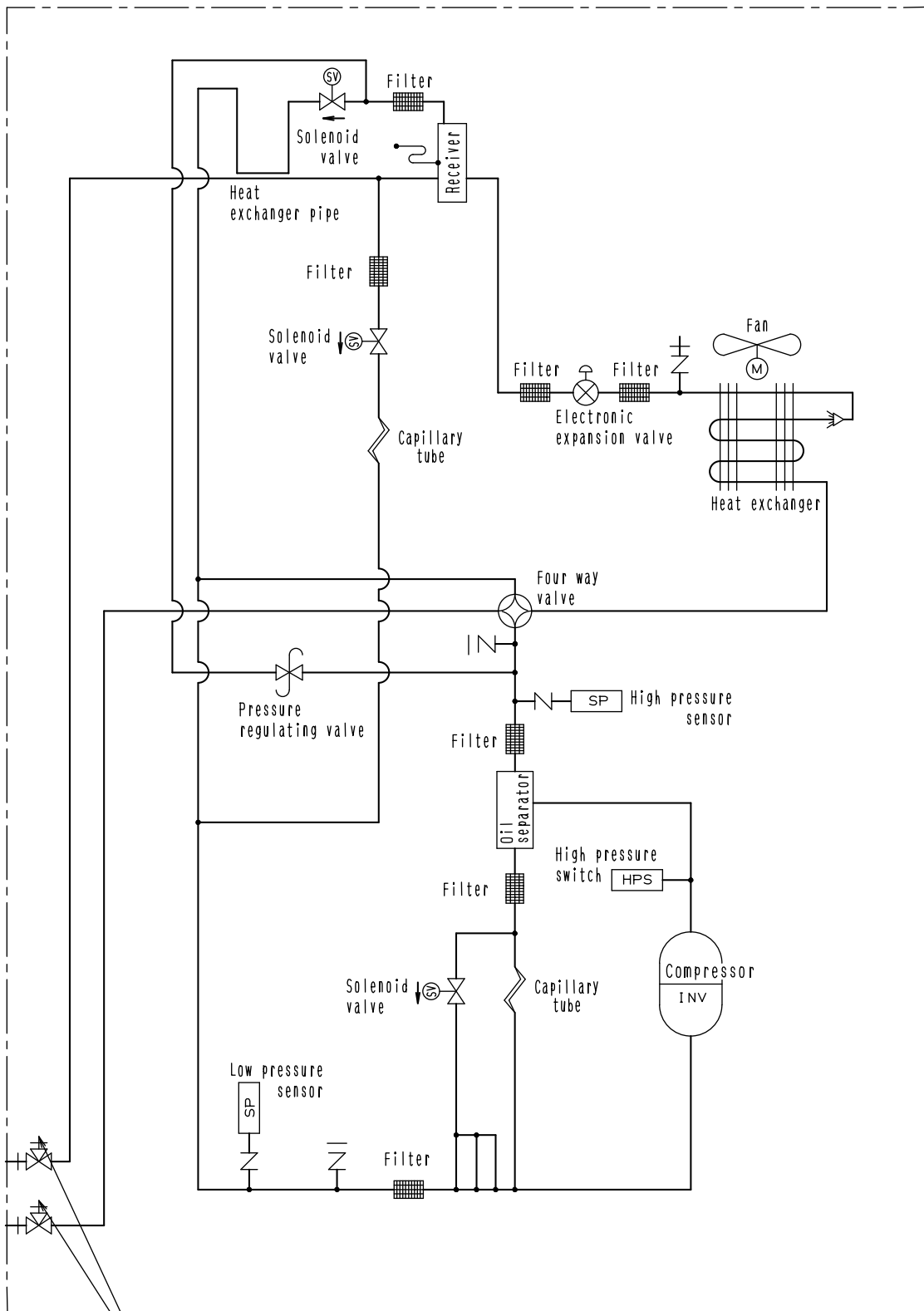
1. Piping Diagrams.....	264
1.1 Outdoor Unit.....	264
1.2 Indoor Unit.....	270
2. Wiring Diagrams for Reference.....	271
2.1 Outdoor Unit.....	271
2.2 Field Wiring.....	280
2.3 Indoor Unit.....	286
3. List of Electrical and Functional Parts.....	298
3.1 Outdoor Unit.....	298
3.2 Indoor Side.....	306
4. Option List.....	311
4.1 Option List of Controllers.....	311
4.2 Option Lists (Outdoor Unit).....	313
5. Piping Installation Point.....	314
5.1 Piping Installation Point.....	314
5.2 The Example of A Wrong Pattern.....	315
6. Selection of Pipe Size, Joints and Header.....	316
6.1 RXY5MY1, RXY8MY1, RXY10MY1, RXY12MY1, RXY14MY1, RXY16MY1.....	316
6.2 RXY18MY1, RXY20MY1, RXY22MY1, RXY24MY1, RXY26MY1, RXY28MY1, RXY30MY1, RXY32MY1, RXY34MY1, RXY36MY1, RXY38MY1, RXY40MY1, RXY42MY1, RXY44MY1, RXY46MY1, RXY48MY1.....	318
7. Thermistor Resistance / Temperature Characteristics.....	321
8. Pressure Sensor.....	323
9. Method of Replacing The Inverter's Power Transistors and Diode Modules.....	324

# 1. Piping Diagrams

## 1.1 Outdoor Unit

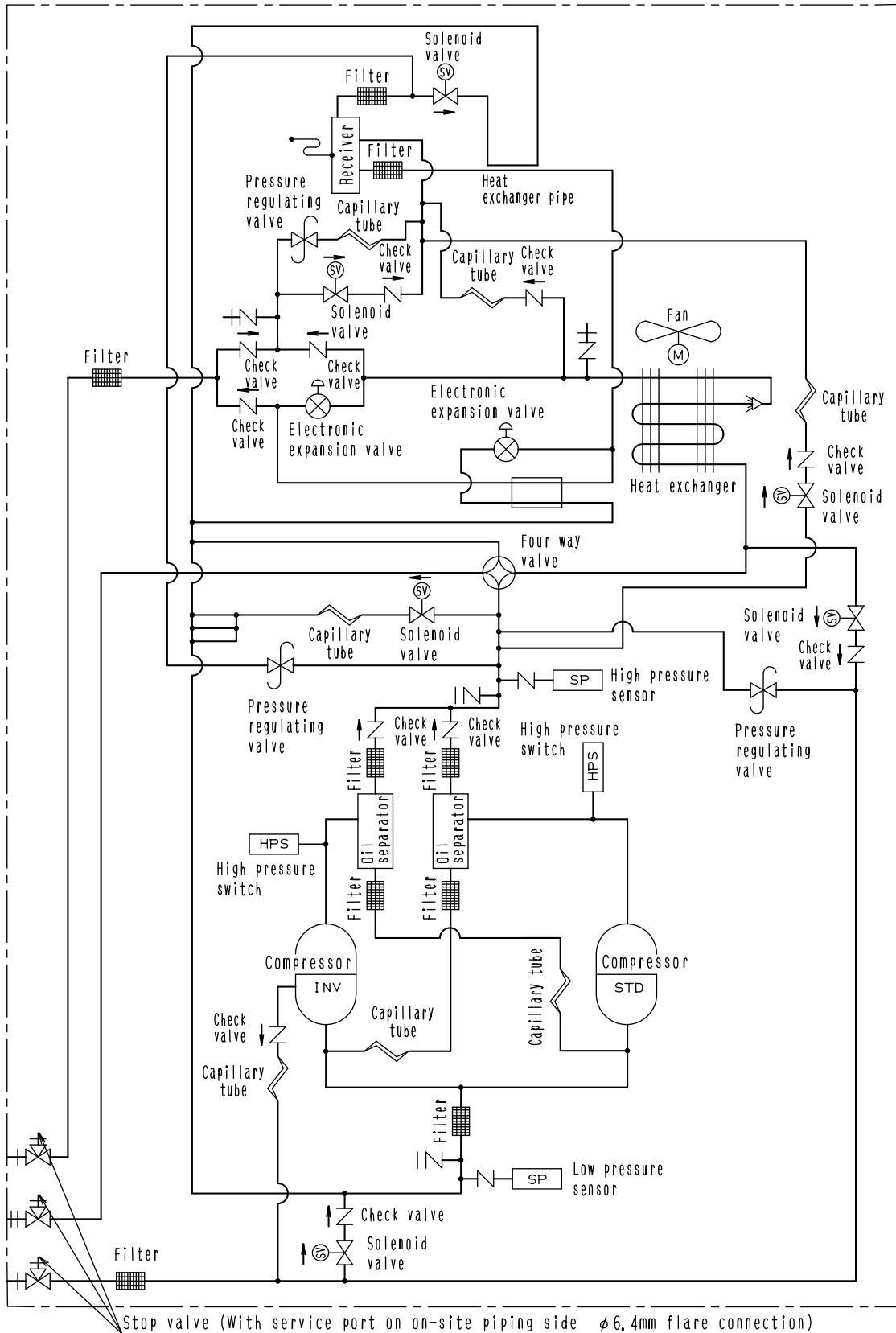
### 1.1.1 Heat Pump

RXY5M



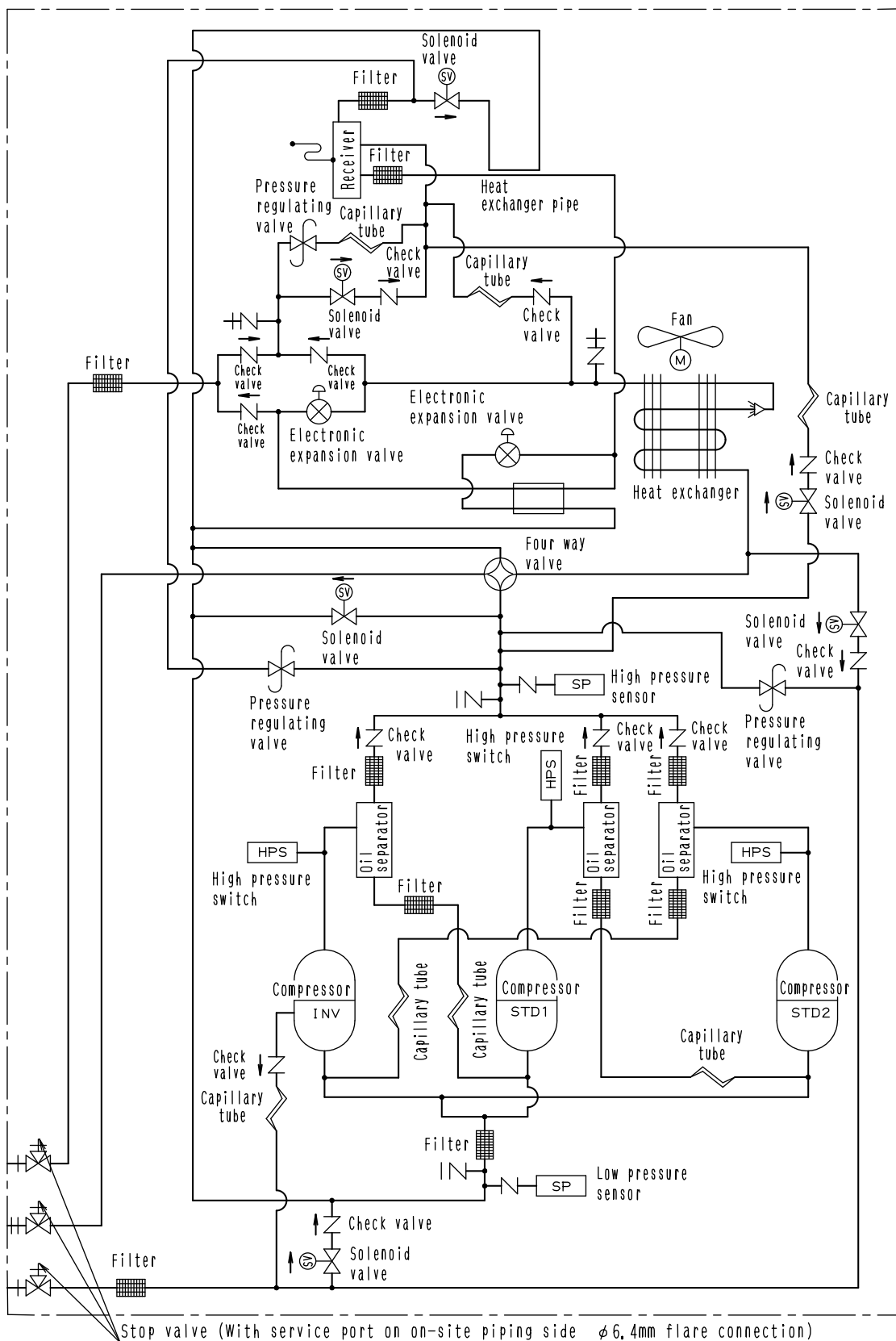
Stop valve (With service port on on-site piping side  $\phi$  6.4mm flare connection)

RXY8M  
RXY10M  
RXY12M



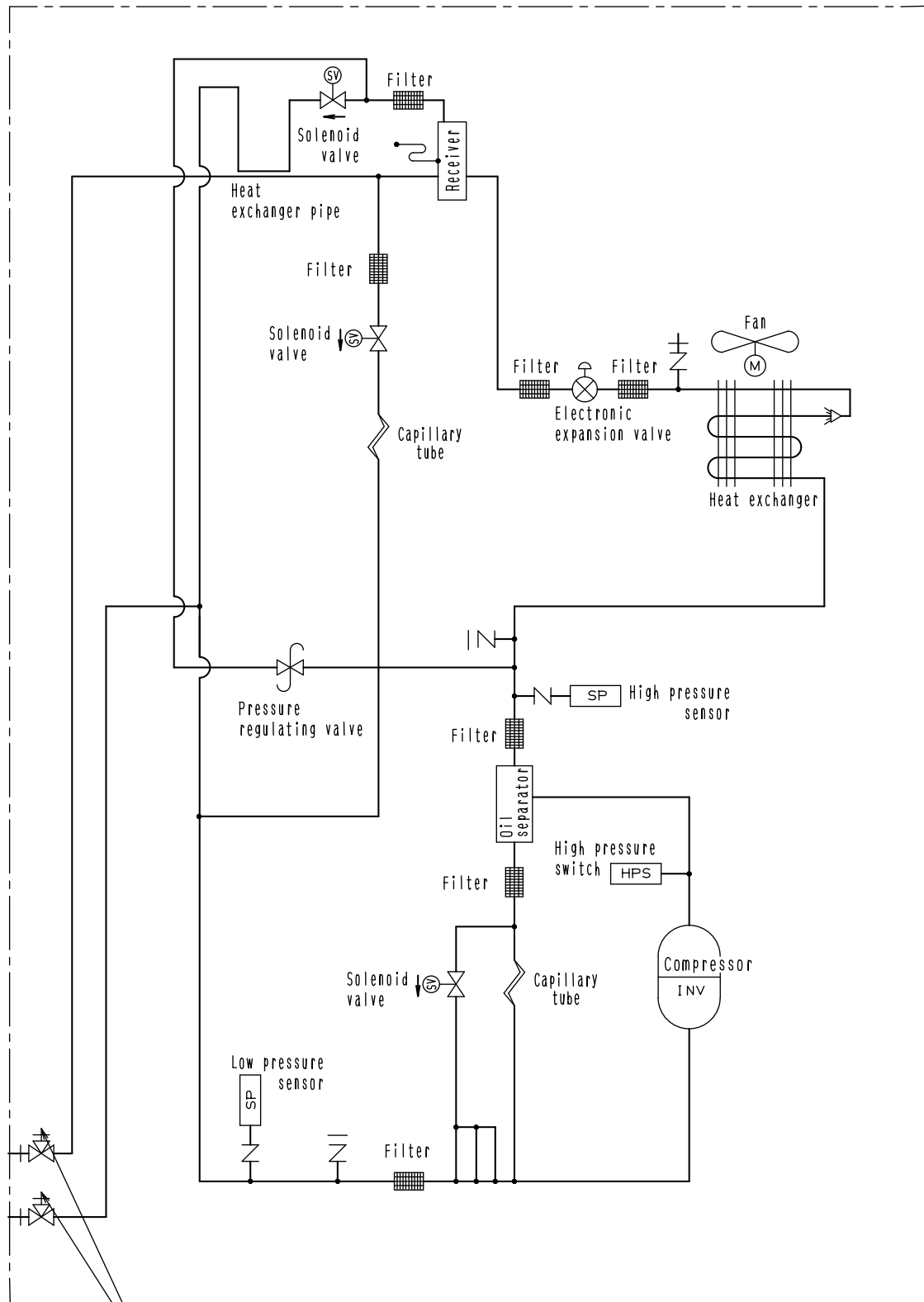
4D041236

RXY14M  
RXY16M



## 1.1.2 Cooling Only

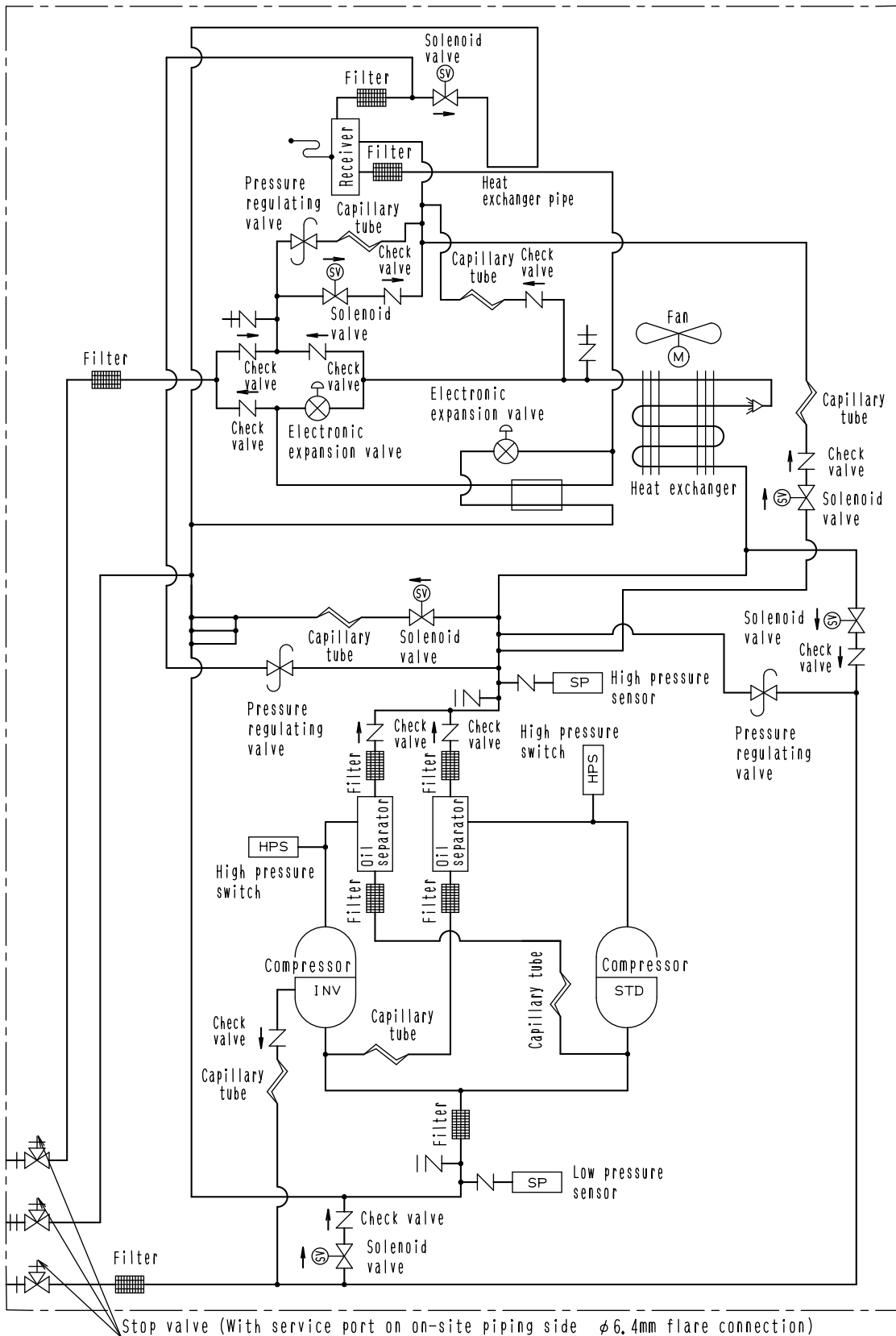
RX5M



Stop valve (With service port on on-site piping side  $\phi$  6.4mm flare connection)

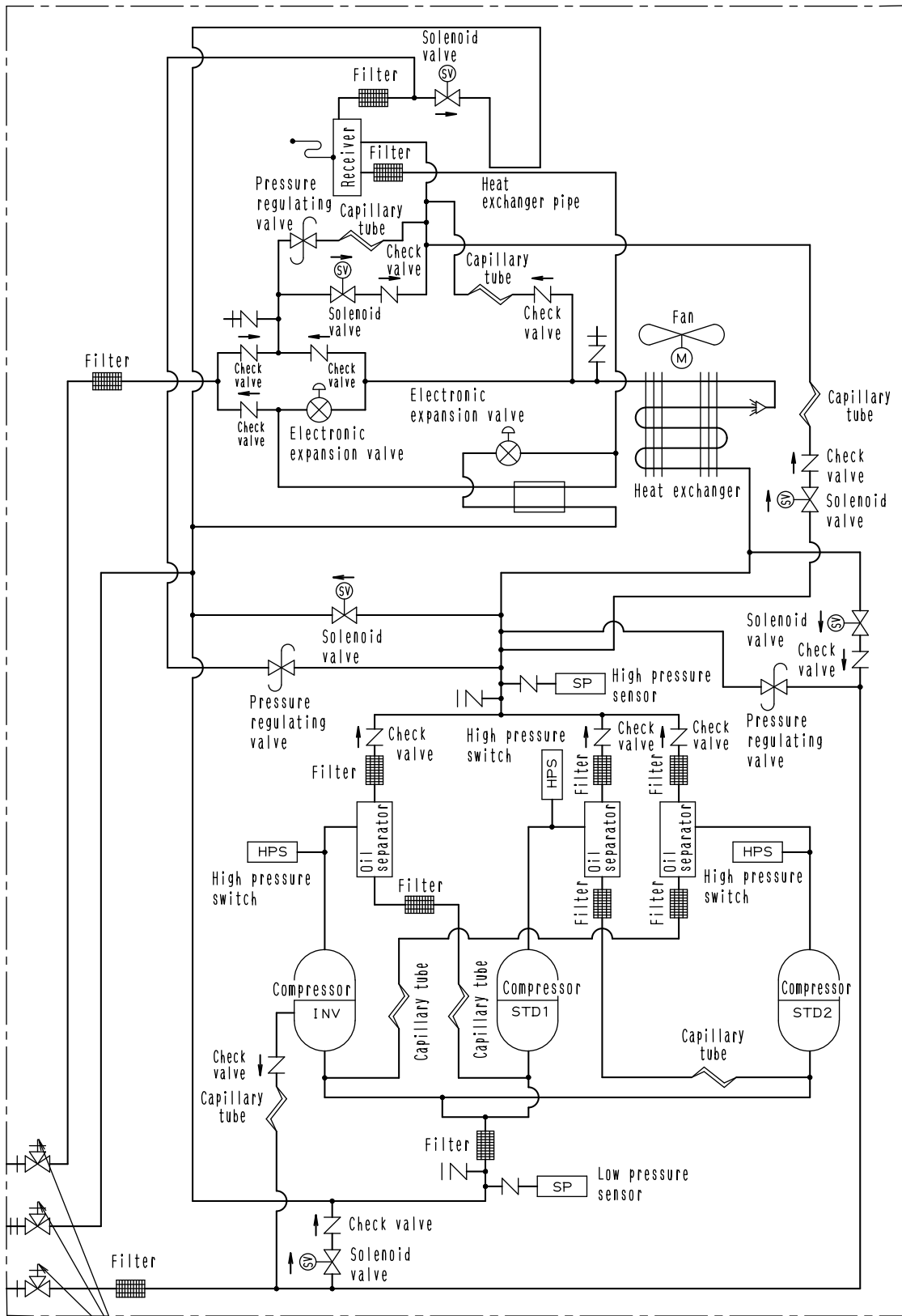
4D041808

RX8M  
RX10M  
RX12M



4D041809

RX14M  
RX16M

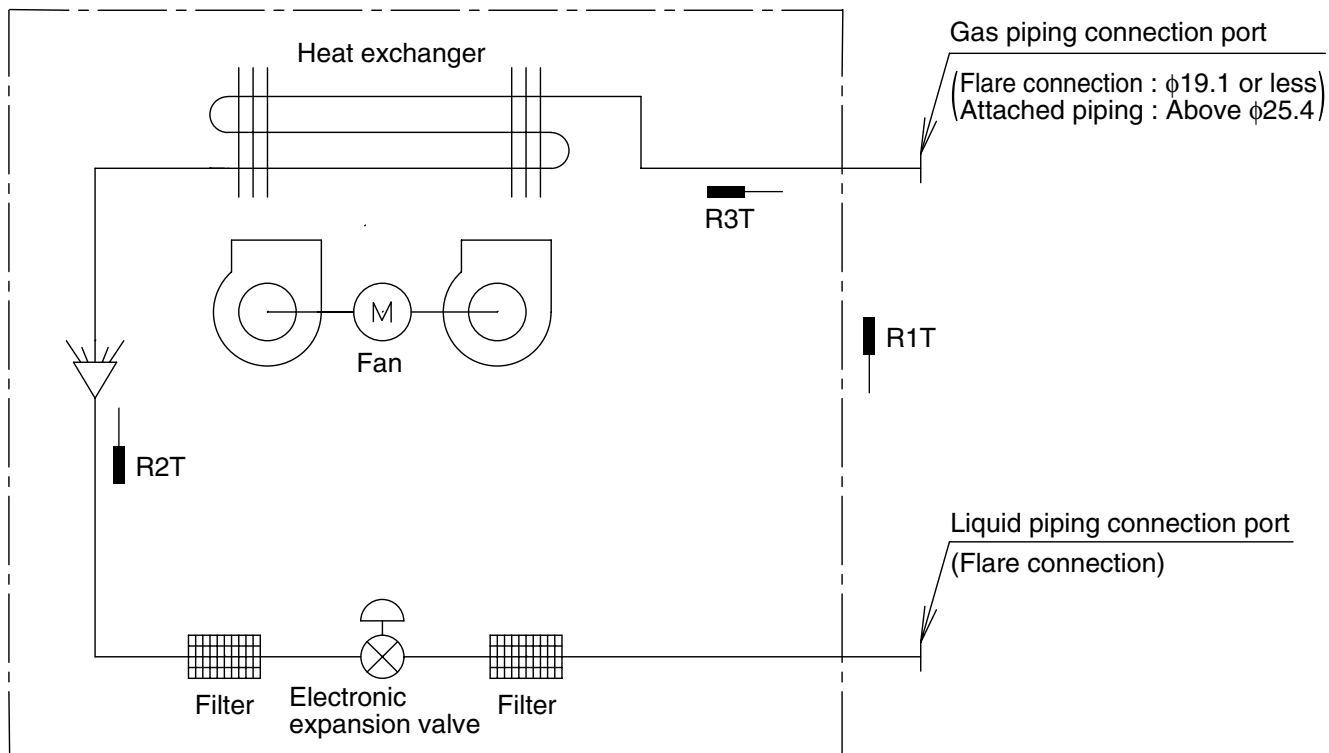


Stop valve (With service port on on-site piping side  $\phi 6,4\text{mm}$  flare connection)



# 1.2 Indoor Unit

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



DU220-602D

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

(mm)

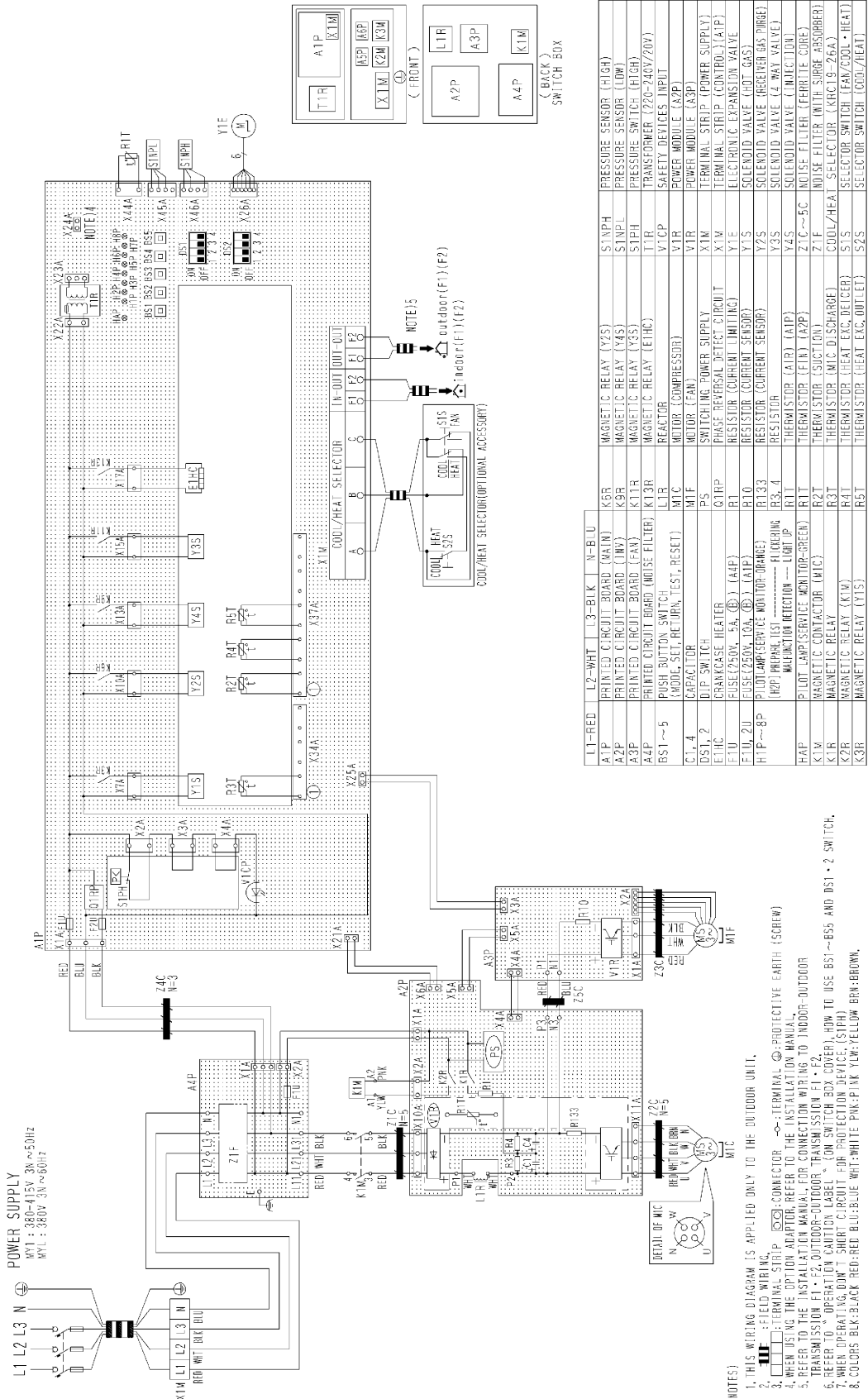
Capacity	GAS	Liquid
20 / 25 / 32 / 40 L	φ12.7	φ6.4
50 / 63 / 80 L	φ15.9	φ9.5
100 / 125 L	φ19.1	φ9.5
200 L	φ25.4	φ12.7
250 L	φ28.6	φ12.7

# 2. Wiring Diagrams for Reference

## 2.1 Outdoor Unit

### 2.1.1 Heat Pump

RXY5MY1, RXY5MYL



L1-RED	L2-WHT	L3-BLK	N-BLU	PE	PRINTED CIRCUIT BOARD (MIM)	C5R	MAGNETIC RELAY (Y2S)	S1NPH	PRESSURE SENSOR (HIGH)
A1P	A2P	A3P	A4P	B5T~5	PRINTED CIRCUIT BOARD (LIM)	C9P	MAGNETIC RELAY (Y4S)	S1NPL	PRESSURE SENSOR (LOW)
C1, 4	D5T, 2	E1TC	F1U, 2U	H1P~8P	PRINTED CIRCUIT BOARD (FAN)	K1TR	MAGNETIC RELAY (Y3S)	S1PH	PRESSURE SWITCH (HIGH)
HAP	K1W	K1R	K2P	L1R	PRINTED CIRCUIT BOARD (MOTISE FILTER)	K1JR	MAGNETIC RELAY (Y1C)	T1R	TRANSFORMER (220-240V/70V)
M1C	R1T	R2T	R3T	R4T	PUSH BUTTON SWITCH (MODE, SET, RETURN, TEST, RESET)	L1R	REACTOR	V1CP	SAFETY DEVICES INPUT
S1S	S2S	S3S	S4S	S5S	CAPACITOR	M1C	MOTOR (COMPRESSOR)	V1R	POWER MODULE (A2P)
T1R	T2R	T3R	T4R	T5R	DIP SWITCH	PS	MOTOR (FAN)	V1R	POWER MODULE (A3P)
Y1S	Y2S	Y3S	Y4S	Y5S	CRANKCASE HEATER	G1RP	SWITCHING POWER SUPPLY	X1M	TERMINAL STRIP (POWER SUPPLY)
Z1C	Z2C	Z3C	Z4C	Z5C	FUSE(250V, 5A, @) (A4P)	R1	PHASE REVERSAL DETECT CIRCUIT	X1M	TERMINAL STRIP (CONTROL)(A1P)
Z6C	Z7C	Z8C	Z9C	Z10C	FUSE(250V, 5A, @) (A1P)	R10	RESISTOR (CURRENT LIMITING)	Y1E	ELECTRONIC EXPANSION VALVE
Z11C	Z12C	Z13C	Z14C	Z15C	PLOT LAMP/SERVICE MONITOR (BANK)	R133	RESISTOR (CURRENT SENSOR)	Y1S	SOLENOID VALVE (HOT GAS)
Z16C	Z17C	Z18C	Z19C	Z20C	HP PREPARE TEST	R3, 4	RESISTOR	Y2S	SOLENOID VALVE (RECEIVER GAS PURGE)
Z21C	Z22C	Z23C	Z24C	Z25C	FLUORING	R11	RESISTOR (E.V.A)(A2P)	Y3S	SOLENOID VALVE (4 WAY VALVE)
Z26C	Z27C	Z28C	Z29C	Z30C	MAGNETIC DETECTION	R11	THERMISTOR (E.V.A)(A2P)	Y4S	SOLENOID VALVE (FUNCTION)
Z31C	Z32C	Z33C	Z34C	Z35C	PILOT LAMP/SERVICE MONITOR (GREEN)	R11	THERMISTOR (E.V.A)(A2P)	Z1C~5C	NOISE-FILTER (ELECTRIC CORD)
Z36C	Z37C	Z38C	Z39C	Z40C	MAGNETIC CONTACTOR (MVC)	R2T	THERMISTOR (SUCTION)	Z1F	NOISE-FILTER (WITH SURGE ABSORBER)
Z41C	Z42C	Z43C	Z44C	Z45C	MAGNETIC RELAY (K1M)	R3T	THERMISTOR (MTC DISCHARGE)	Z1R	COOL/HEAT SELECTOR (KRC19-26A)
Z46C	Z47C	Z48C	Z49C	Z50C	MAGNETIC RELAY (K1M)	R4T	THERMISTOR (HEAT EXC. DETECTOR)	S1S	SELECTOR SWITCH (FRAN/COOL+HEAT)
Z51C	Z52C	Z53C	Z54C	Z55C	MAGNETIC RELAY (Y1S)	R5T	THERMISTOR (HEAT EXC. OUTLET)	S2S	SELECTOR SWITCH (COOL/HEAT)

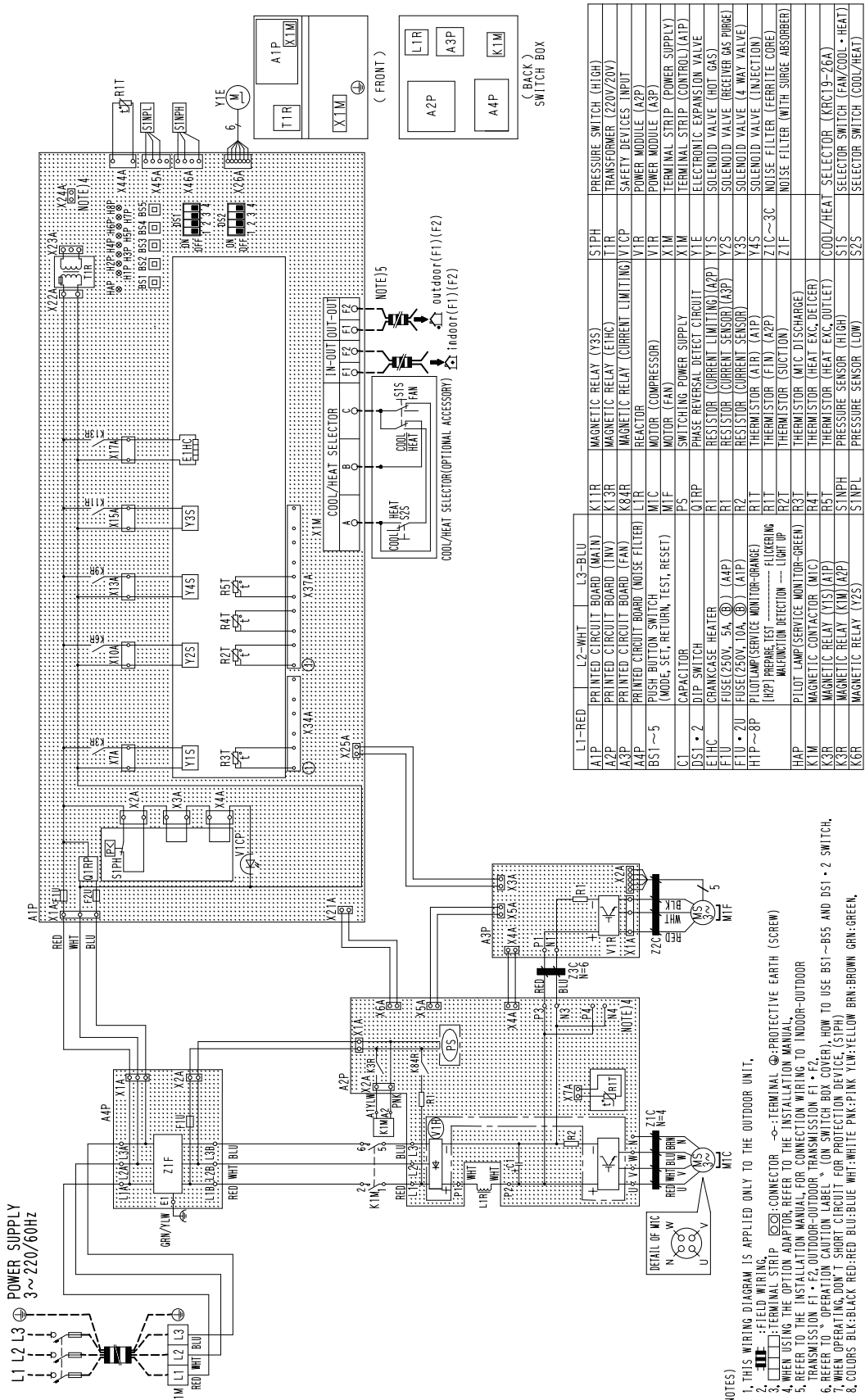
- NOTES)
1. THIS WIRING DIAGRAM IS APPLIED ONLY TO THE OUTDOOR UNIT.
  2. FIELD WIRING.
  3. TERMINAL STRIP. (C) CONNECTOR. (O) PROTECTIVE EARTH (SCREW)
  4. WHEN USING THE OPTION ADAPTOR, REFER TO THE INSTALLATION MANUAL.
  5. REFER TO THE INSTALLATION MANUAL FOR CONNECTION WIRING TO INDOOR-OUTDOOR TRANSMISSION E1-E2 OUTDOOR-OUTDOOR TRANSMISSION E1-E2.
  6. REFER TO "OPERATING CAUTION LABEL" (ON SWITCH BOX COVER) HOW TO USE B5T~B5S AND D5T1-2 SWITCH.
  7. WHEN OPERATING DON'T SHORT CIRCUIT FOR PROTECTION SERVICE (S1PH)
  8. COLORS: BLK:BLACK; RED:RED; BLU:BLUE; WHT:WHITE; PAK:PAK; YLW:YELLOW; BRN:BRN.

3D041456B





RXY5MTL



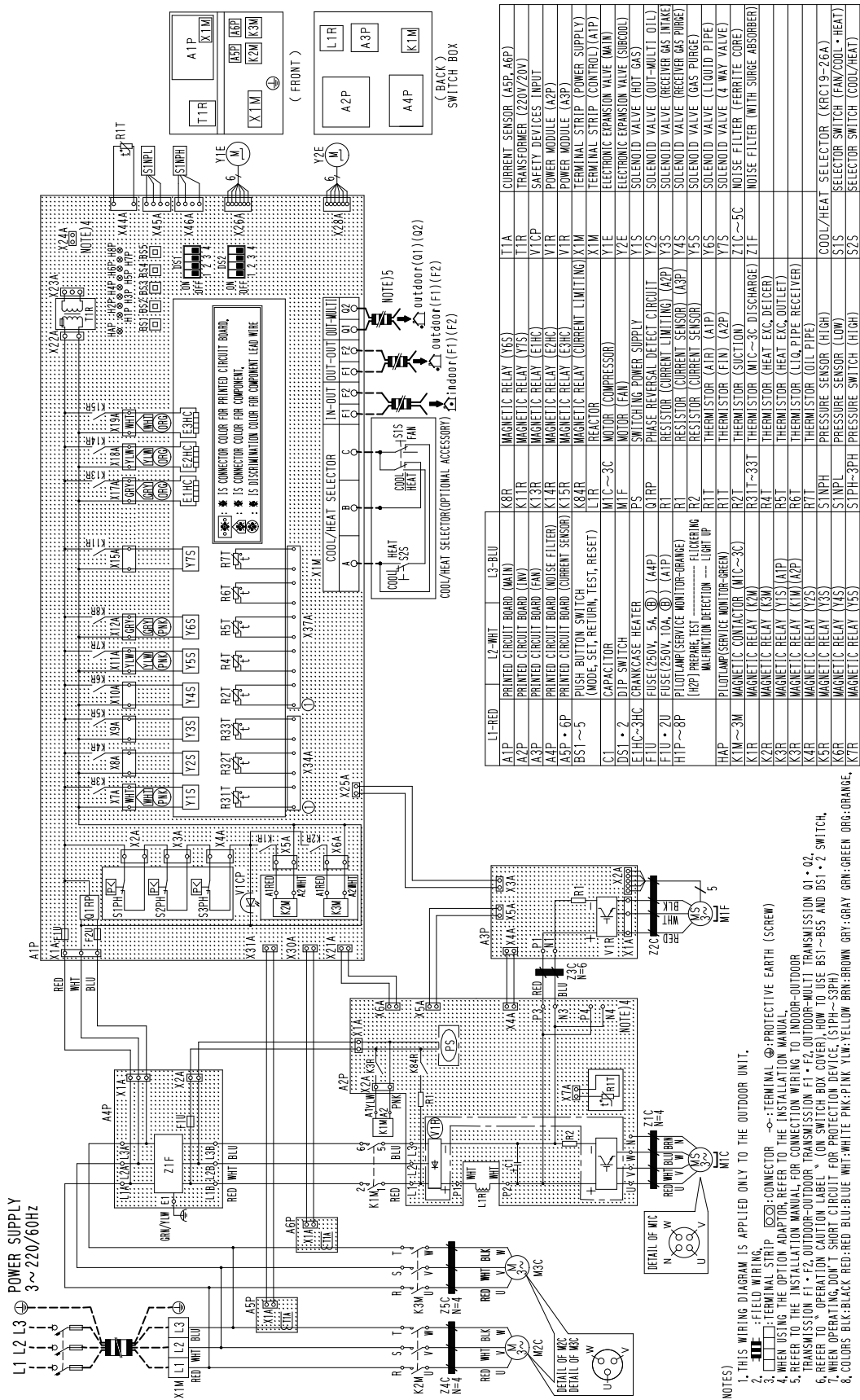
L1-RED	L2-WHT	L3-BLU	S1PH	PRESSURE SWITCH (HIGH)
A1P	K1R	MAGNETIC RELAY (Y3S)	T1R	TRANSFORMER (220V/20V)
A2P	K1T	MAGNETIC RELAY (ETHC)	V1CP	SAFETY DEVICES INPUT
A3P	K84R	MAGNETIC RELAY (CURRENT LIMITING)	V1R	POWER MODULE (A2P)
A4P	L1R	REACTOR	V1M	POWER MODULE (A3P)
B51~5	M1C	MOTOR COMPRESSOR	X1M	TERMINAL STRIP (POWER SUPPLY)
C1	M1F	MOTOR FAN	X1M	TERMINAL STRIP (CONTROL)(A1P)
DS1 • 2	Q1RP	SWITCHING POWER SUPPLY	Y1E	ELECTRONIC EXPANSION VALVE
E1HC	R1	PHASE REVERSAL DETECT CIRCUIT	Y1S	SOLENOID VALVE (HOT GAS)
F1U	R1	RESISTOR (CURRENT LIMITING)(A2P)	Y2S	SOLENOID VALVE (RECEIVER GAS PURGE)
F1U • 2U	R2	RESISTOR (CURRENT SENSOR)	Y3S	SOLENOID VALVE (4 WAY VALVE)
H1P ~ 8P	R1T	PILOT LAMP SERVICE MONITOR (ORANGE)	Y4S	SOLENOID VALVE (INJECTION)
HAP	R2T	PILOT LAMP SERVICE MONITOR (GREEN)	Z1C~3C	NOISE FILTER (FERRITE CORE)
K1M	R3T	PILOT LAMP SERVICE MONITOR (RED)	Z1F	NOISE FILTER (WITH SURGE ABSORBER)
K3R	R4T	MAGNETIC CONTACTOR (M1C)		
K3R	R5T	MAGNETIC RELAY (Y1S)(A1P)		
K6R	S1PH	MAGNETIC RELAY (K1M)(A2P)		
	S1P	MAGNETIC RELAY (Y2S)		
	S2S	PRESSURE SENSOR (LOW)		
	S2S	PRESSURE SENSOR (HIGH)		
	S2S	SELECTOR SWITCH (FAN/COOL + HEAT)		
	S2S	SELECTOR SWITCH (COOL/HEAT)		

- NOTES
1. THIS WIRING DIAGRAM IS APPLIED ONLY TO THE OUTDOOR UNIT.
  2. : TERMINAL STRIP
  3. : TERMINAL STRIP WITH SCREW
  4. WHEN USING THE OPTION ADAPTOR REFER TO THE INSTALLATION MANUAL.
  5. REFER TO THE INSTALLATION MANUAL FOR CONNECTION WIRING TO INDOOR-OUTDOOR TRANSMISSION F1 • F2.
  6. REFER TO THE OPERATING CAUTION LABEL (ON SWITCH BOX COVER) HOW TO USE B51~B55 AND DS1 • 2 SWITCH.
  7. WHEN OPERATING, DON'T SHORT CIRCUIT FOR PROTECTION DEVICE (S1PH)
  8. COLORS: BLK:BLACK, RED:RED, BLU:BLUE, WHT:WHITE, PKK:PAK, YEM:YELLOW, BRN:BROWN, GRN:GREEN.

3D041828



RXY14MTL  
RXY16MTL



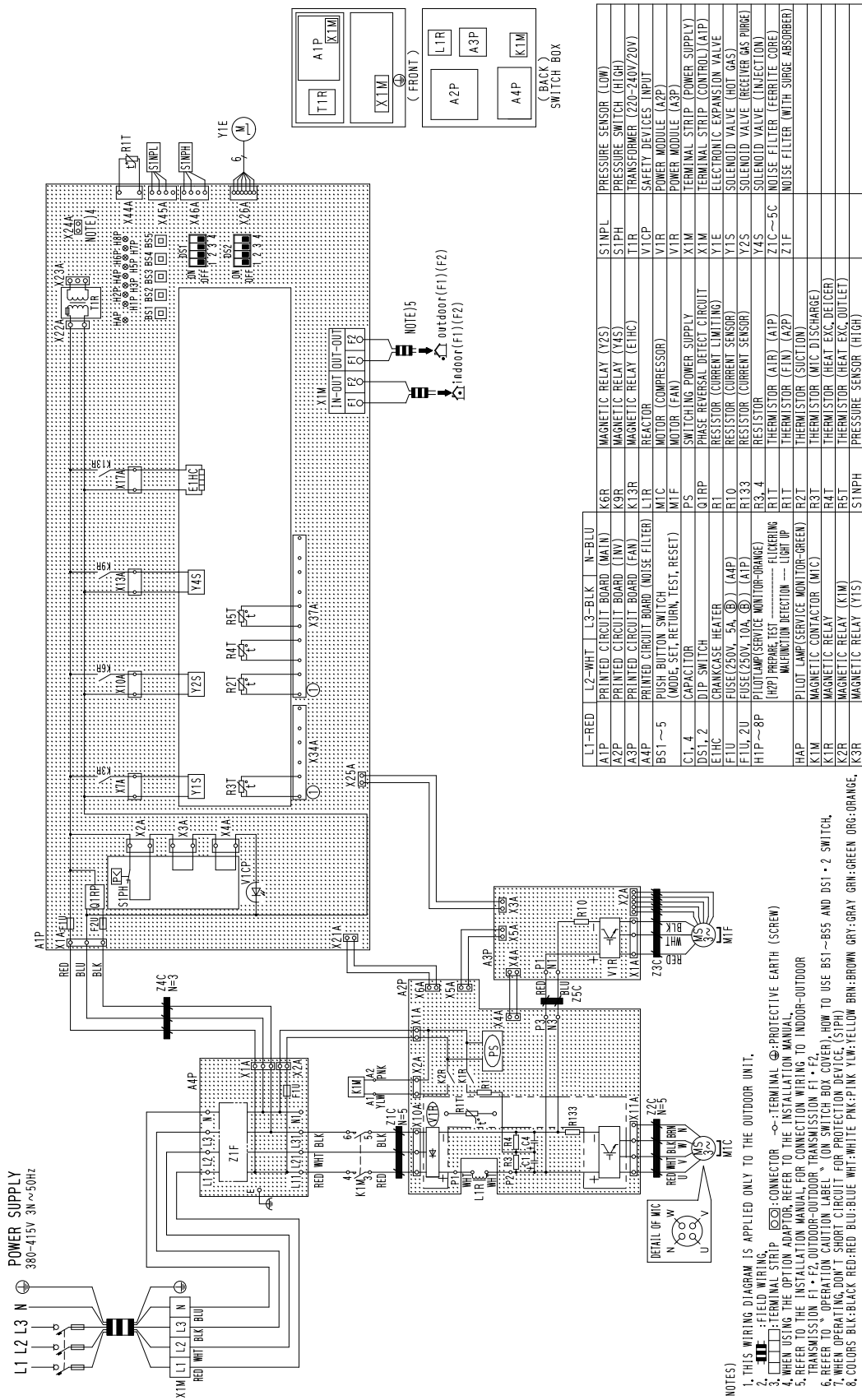
3D041830

- NOTES
1. THIS WIRING DIAGRAM IS APPLIED ONLY TO THE OUTDOOR UNIT.
  2. TERMINAL STRIP
  3. FIELD WIRING
  4. TERMINAL STRIP WITH PROTECTIVE EARTH (SCREW)
  5. WHEN USING THE OPTION ADAPTOR REFER TO THE INSTALLATION MANUAL
  6. REFER TO THE INSTALLATION MANUAL FOR CONNECTION WIRING TO INDOOR-OUTDOOR TRANSMISSION F1-F2, OUTDOOR-OUTDOOR TRANSMISSION F1-F2, OUTDOOR-MULTI TRANSMISSION 01-02
  7. REFER TO OPERATION CAUTION LABEL (ON SWITCH BOX COVER) HOW TO USE BS1~BS5 AND DS1~2 SWITCH.
  8. WHEN OPERATING, DON'T SHORT CIRCUIT FOR PROTECTION DEVICE (S1PH~S3PH)
  9. COLORS: BLK:BLACK, RED:RED, BLU:BLUE, WHI:WHITE, PK:PK, PNK:YELW, YLW:YELLOW, BRN:BRWN, GR:GRAY, GRN:GRN, ORG:ORANGE, KTR

L1-RED	L2-WHT	L3-BLU	MAGNETIC RELAY (V6S)	T1A	CURRENT SENSOR (ASP, A6P)
A1P	PRINTED CIRCUIT BOARD (MAIN)	K8R	MAGNETIC RELAY (Y7S)	T1R	TRANSFORMER (220V/20V)
A2P	PRINTED CIRCUIT BOARD (FW)	K13R	MAGNETIC RELAY (E1HC)	V1CP	SAFETY DEVICES INPUT
A3P	PRINTED CIRCUIT BOARD (NOISE FILTER)	K14R	MAGNETIC RELAY (E2HC)	V1R	POWER MODULE (A2P)
A4P	PRINTED CIRCUIT BOARD (NOISE FILTER)	K15R	MAGNETIC RELAY (E3HC)	V1R	POWER MODULE (A3P)
ASP • 6P	PUSH BUTTON SWITCH (MODE, SET, RETURN, TEST, RESET)	K84R	MAGNETIC RELAY (CURRENT LIMITING)	X1M	TERMINAL STRIP (POWER SUPPLY)
BS1~5	DIP SWITCH	L1R	REACTOR	X1M	TERMINAL STRIP (CONTROL/A1P)
C1	CAPACITOR	MTC~3C	MOTOR COMPRESSOR	Y1E	ELECTRONIC EXPANSION VALVE (MAIN)
DS1 • 2	DIP SWITCH	MTF	MOTOR (FAN)	Y2E	ELECTRONIC EXPANSION VALVE (SUBCOOL)
E1HC~3HC	CRANKCASE HEATER	PS	PHASE REVERSAL DEFECT CIRCUIT	Y2S	SOLENOID VALVE (HOT GAS)
F1U • 2U	FUSE (250V, 5A, ②) (A4P)	Q1RP	RECUISOR (CURRENT LIMITING) (A2P)	Y3S	SOLENOID VALVE (OUT-MULTI, O1L)
F1U • 2U	FUSE (250V, 10A, ②) (A1P)	R1	RECUISOR (CURRENT SENSOR) (ASP)	Y4S	SOLENOID VALVE (RECEIVER GAS MAKE)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R1	RECUISOR (CURRENT SENSOR) (ASP)	Y4S	SOLENOID VALVE (RECEIVER GAS PURGE)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	Y5S	SOLENOID VALVE (GAS PURGE)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	Y6S	SOLENOID VALVE (LIQUID PIPE)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	Y7S	SOLENOID VALVE (4 WAY VALVE)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	Z1C ~ 5C	NOISE FILTER (FERRITE CORE)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	Z1F	NOISE FILTER (WITH SURGE ABSORBER)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	R4T	THERMISTOR (HEAT EXC. DELCER)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	R5T	THERMISTOR (HEAT EXC. OUTLET)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	R6T	THERMISTOR (LIQ. PIPE RECEIVER)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	R7T	THERMISTOR (OIL PIPE)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	S1NPH	COOL/HEAT SELECTOR (KRC 9~26A)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	S1NPL	SELECTOR SWITCH (FAN/COOL • HEAT)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	S1S	SELECTOR SWITCH (COOL/HEAT)
H1P ~ 8P	PILLOW SERVICE MONITOR (ORANGE)	R2	RECUISOR (CURRENT SENSOR)	S1S2S	SELECTOR SWITCH (COOL/HEAT)

## 2.1.2 Cooling Only

RX5MY1



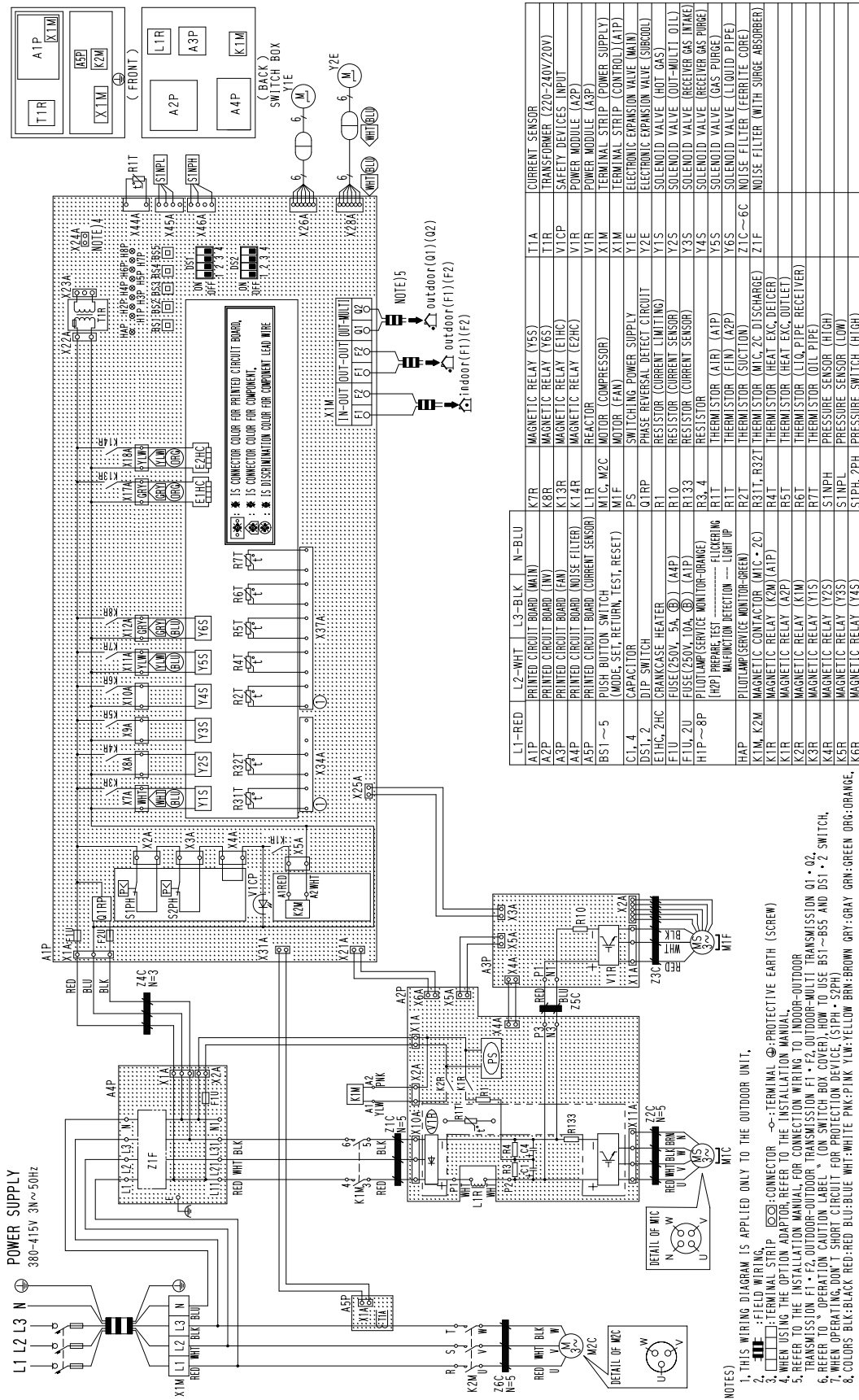
L1-RED	L2-WHT	L3-BLK	N-BLU	K6R	MAGNETIC RELAY (Y2S)	S1NPL	PRESSURE SENSOR (LOW)
A1P	PRINTED CIRCUIT BOARD (MAIN)	K9R	MAGNETIC RELAY (Y4S)	S1PH	MAGNETIC RELAY (HIGH)	S1PH	PRESSURE SWITCH (HIGH)
A2P	PRINTED CIRCUIT BOARD (INV)	K13R	MAGNETIC RELAY (EHC)	T1R	MAGNETIC RELAY (EHC)	T1R	TRANSFORMER (220-240V/20V)
A3P	PRINTED CIRCUIT BOARD (FAN)	L1R	REACTOR	V1CP	SAFETY DEVICES INPUT	V1CP	SAFETY DEVICES INPUT
B51~5	PUSH BUTTON SWITCH (NOISE FILTER)	M1C	MOTOR (COMPRESSOR)	V1R	POWER MODULE (A2P)	V1R	POWER MODULE (A2P)
C1-4	CAPACITOR	M1F	MOTOR (FAN)	V1R	POWER MODULE (A3P)	V1R	POWER MODULE (A3P)
DS1-2	DIP SWITCH	PS	SWITCHING POWER SUPPLY	X1M	TERMINAL STRIP (POWER SUPPLY)	X1M	TERMINAL STRIP (POWER SUPPLY)
E1HC	CHANGECASE HEATER	Q1RP	PHASE REVERSAL DETECT. CIRCUIT	X1M	TERMINAL STRIP (CONTROL)(A1P)	X1M	TERMINAL STRIP (CONTROL)(A1P)
F1U	FUSE (250V, 5A, ⊕) (A4P)	R10	RESISTOR (CURRENT LIMITING)	Y1E	ELECTRONIC EXPANSION VALVE	Y1E	ELECTRONIC EXPANSION VALVE
F1U, 2U	FUSE (250V, 5A, ⊕) (A1P)	R10	RESISTOR (CURRENT SENSOR)	Y2S	SOLENOID VALVE (HOT GAS)	Y2S	SOLENOID VALVE (HOT GAS)
H1P ~8P	PILOT LAMP/SERVICE MONITOR-ORANGE)	R3, 4	RESISTOR	R3, 4	SOLENOID VALVE (RECEIVER GAS PURGE)	R3, 4	SOLENOID VALVE (RECEIVER GAS PURGE)
HAP	PLOT LAMP/SERVICE MONITOR-GREEN)	R11	FLICKERING WARMING TEST	R11	SOLENOID VALVE (INJECTION)	R11	SOLENOID VALVE (INJECTION)
K1M	MAGNETIC CONTACTOR (M1C)	R21	FLICKERING WARMING TEST	R21	NOISE FILTER (FERRITE CORE)	R21	NOISE FILTER (FERRITE CORE)
K1R	MAGNETIC RELAY (M1C)	R22	FLICKERING WARMING TEST	R22	NOISE FILTER (WITH SURGE ABSORBER)	R22	NOISE FILTER (WITH SURGE ABSORBER)
K2R	MAGNETIC RELAY (K1M)	R31	FLICKERING WARMING TEST	R31		R31	
K3R	MAGNETIC RELAY (Y1S)	R41	FLICKERING WARMING TEST	R41		R41	
		R51	FLICKERING WARMING TEST	R51		R51	
		S1NPH	FLICKERING WARMING TEST	S1NPH		S1NPH	

- NOTES)
1. THIS WIRING DIAGRAM IS APPLIED ONLY TO THE OUTDOOR UNIT.
  2. : TERMINAL STRIP
  3. : FIELD WIRING
  4. WHEN USING THE OPTION ADAPTOR, REFER TO THE INSTALLATION MANUAL, FOR CONNECTION WIRING TO INDOOR-OUTDOOR TRANSMISSION F1 • F2.
  5. REFER TO THE INSTALLATION MANUAL, FOR CONNECTION WIRING TO INDOOR-OUTDOOR TRANSMISSION F1 • F2.
  6. REFER TO OPERATION CAUTION LABEL \* (ON SWITCH BOX COVER), HOW TO USE B51 ~ B55 AND DS1 • 2 SWITCH.
  7. WHEN OPERATING, DON'T SHORT CIRCUIT FOR PROTECTION DEVICE, (S1PH)
  8. COLORS: BLK:BLACK RED:RED BLU:BLUE WHT:WHITE PNK:PINK YLM:YELLOW BRN:BRWN GRY:GRAY GRN:GREEN ORG:ORANGE.

3D041805



RX8MY1  
RX10MY1  
RX12MY1

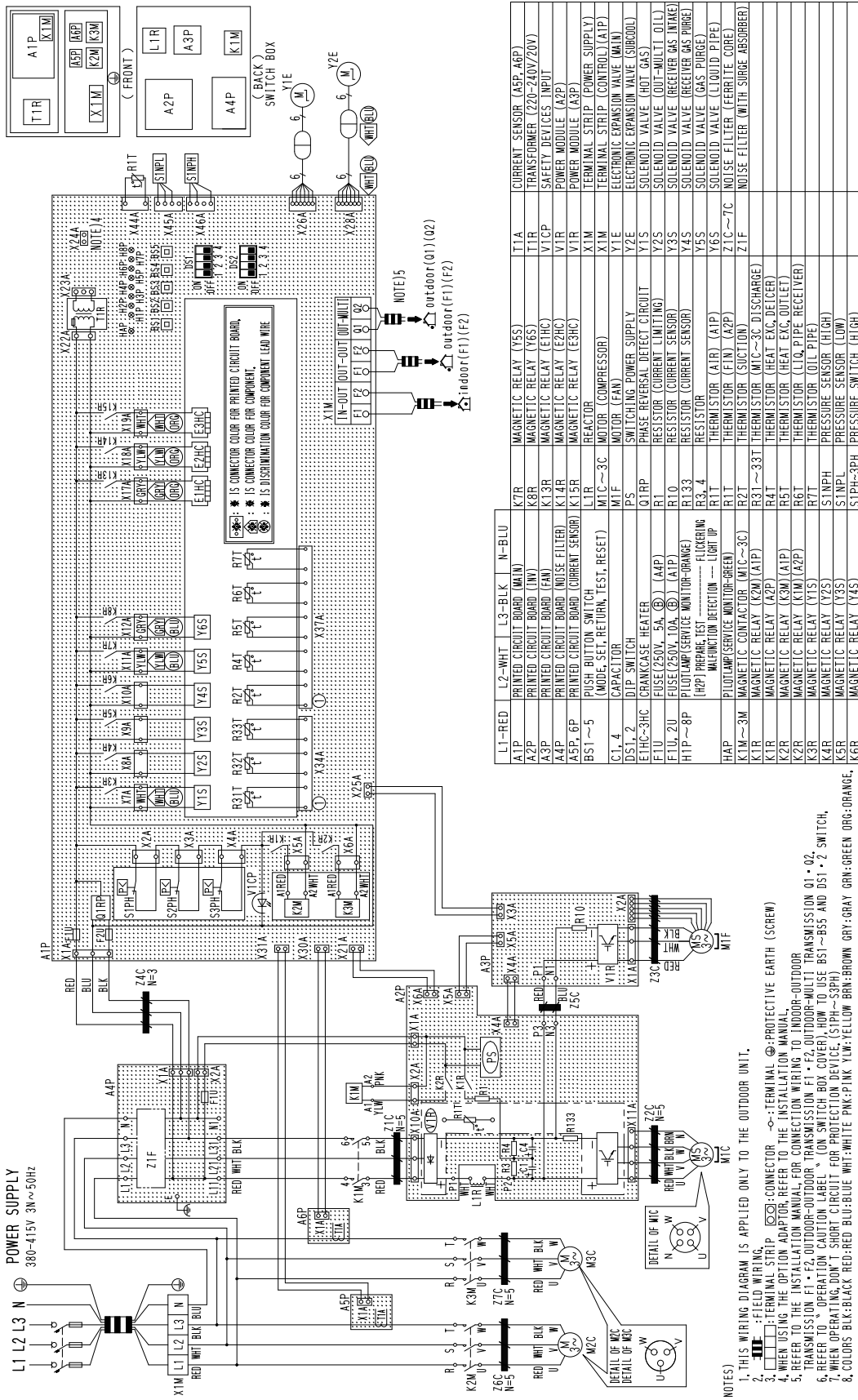


A1P	L1-RED	L2-WHT	L3-BLK	N-BLU	K7R	MAGNETIC RELAY (Y5S)	T1A	CURRENT SENSOR
A2P	PRINTED CIRCUIT BOARD (MAIN)	PRINTED CIRCUIT BOARD (LAMP)	PRINTED CIRCUIT BOARD (FAN)	PRINTED CIRCUIT BOARD (NOISE FILTER)	K8R	MAGNETIC RELAY (Y6S)	T1R	TRANSFORMER (220-240V/20V)
A3P	PRINTED CIRCUIT BOARD (MODE, SET, RETURN, TEST, RESET)	PUSH BUTTON SWITCH	DIP SWITCH	FUSE (250V, 5A, Ⓟ) (A4P)	K13R	MAGNETIC RELAY (E1HC)	T1CP	SAFETY DEVICES (LAMP)
A4P	PRINTED CIRCUIT BOARD (CURRENT SENSOR)	PILOT LAMP (SERVICE MONITOR-ORANGE)	FLOUNDERING	PILOT LAMP (SERVICE MONITOR-BROWN)	K14R	MAGNETIC RELAY (E2HC)	V1R	POWER MODULE (A2P)
B5T~5	MODE, SET, RETURN, TEST, RESET	FLOUNDERING	PILOT LAMP (SERVICE MONITOR-ORANGE)	PILOT LAMP (SERVICE MONITOR-BROWN)	L1R	REACTOR	V1R	POWER MODULE (A3P)
C1, 4	CAPACITOR	PILOT LAMP (SERVICE MONITOR-ORANGE)	PILOT LAMP (SERVICE MONITOR-BROWN)	PILOT LAMP (SERVICE MONITOR-ORANGE)	M1C, M2C	MOTOR (COMPRESSOR)	X1M	TERMINAL STRIP (POWER SUPPLY)
E1HG, ZHC	PILOT LAMP (SERVICE MONITOR-ORANGE)	PILOT LAMP (SERVICE MONITOR-ORANGE)	PILOT LAMP (SERVICE MONITOR-BROWN)	PILOT LAMP (SERVICE MONITOR-ORANGE)	M1F	MOTOR (FAN)	X1M	TERMINAL STRIP (CONTROL) (A1P)
F1U, 2U	FUSE (250V, 10A, Ⓟ) (A1P)	FUSE (250V, 5A, Ⓟ) (A4P)	FUSE (250V, 10A, Ⓟ) (A1P)	FUSE (250V, 5A, Ⓟ) (A4P)	Q1RP	PHASE REVERSAL DETECT CIRCUIT	Y1E	ELECTRONIC EXPANSION VALVE (MAIN)
H1P~8P	HOP PREPARE TEST	FLOUNDERING	PILOT LAMP (SERVICE MONITOR-ORANGE)	PILOT LAMP (SERVICE MONITOR-BROWN)	R1	RESISTOR (CURRENT LIMITING)	Y2E	ELECTRONIC EXPANSION VALVE (SUBCOOL)
H4P	HOP PREPARE TEST	FLOUNDERING	PILOT LAMP (SERVICE MONITOR-ORANGE)	PILOT LAMP (SERVICE MONITOR-BROWN)	R10	RESISTOR (CURRENT SENSOR)	Y1S	SOLENOID VALVE (HOT GAS)
K1M, K2M	MAGNETIC CONTACTOR (M1C, ZC)	MAGNETIC CONTACTOR (M1C, ZC)	MAGNETIC CONTACTOR (M1C, ZC)	MAGNETIC CONTACTOR (M1C, ZC)	R133	RESISTOR (CURRENT SENSOR)	Y3S	SOLENOID VALVE (OUT-MULTI OIL)
K1R	MAGNETIC RELAY (K2M) (A1P)	MAGNETIC RELAY (K2M) (A1P)	MAGNETIC RELAY (K2M) (A1P)	MAGNETIC RELAY (K2M) (A1P)	R3, 4	RESISTOR	Y4S	SOLENOID VALVE (RECEIVER GAS INTAKE)
K2R	MAGNETIC RELAY (K1M)	MAGNETIC RELAY (K1M)	MAGNETIC RELAY (K1M)	MAGNETIC RELAY (K1M)	R11T	RESISTOR	Y5S	SOLENOID VALVE (RECEIVER GAS PURGE)
K3R	MAGNETIC RELAY (Y1S)	MAGNETIC RELAY (Y1S)	MAGNETIC RELAY (Y1S)	MAGNETIC RELAY (Y1S)	R2T	RESISTOR (SUCTION)	Y6S	SOLENOID VALVE (LIQUID PIPE)
K4R	MAGNETIC RELAY (Y2S)	MAGNETIC RELAY (Y2S)	MAGNETIC RELAY (Y2S)	MAGNETIC RELAY (Y2S)	R3T, R32T	THERMISTOR (M1C, ZC) (DISCHARGE)	Z1C~6C	NOISE FILTER (FERRITE CORE)
K5R	MAGNETIC RELAY (Y3S)	MAGNETIC RELAY (Y3S)	MAGNETIC RELAY (Y3S)	MAGNETIC RELAY (Y3S)	R4T	THERMISTOR (HEAT EXC. DETECTOR)	Z1F	NOISE FILTER (WITH SURGE ABSORBER)
K6R	MAGNETIC RELAY (Y4S)	MAGNETIC RELAY (Y4S)	MAGNETIC RELAY (Y4S)	MAGNETIC RELAY (Y4S)	R5T	THERMISTOR (HEAT EXC. DETECTOR)		
					R6T	THERMISTOR (LIQ. PIPE RECEIVER)		
					R7T	THERMISTOR (OIL PIPE)		
					S1NPH	PRESSURE SENSOR (HIGH)		
					S1NPL	PRESSURE SENSOR (LOW)		
					S1PH, 2PH	PRESSURE SWITCH (HIGH)		

- NOTES)
1. THIS WIRING DIAGRAM IS APPLIED ONLY TO THE OUTDOOR UNIT.
  2. [Symbol] : FIELD WIRING.
  3. [Symbol] : TERMINAL STRIP.
  4. [Symbol] : TERMINAL ADAPTOR. REFER TO THE INSTALLATION MANUAL.
  5. REFER TO THE INSTALLATION MANUAL FOR CONNECTION WIRING TO INDOOR-OUTDOOR TRANSMISSION FI • FZ, OUTDOOR-OUTDOOR, (ON SWITCH BOX COVER), HOW TO USE B5T~B5S AND DST • Z SWITCH.
  6. REFER TO OPERATION CAUTION LABEL (ON SWITCH BOX COVER), HOW TO USE B5T~B5S AND DST • Z SWITCH.
  7. WIRE OPERATING DON'T SHORT CIRCUIT FOR PROTECTION DEVICE (S1PH • S2PH).
  8. COLORS: BLK:BLACK RED:RED BLU:BLUE WHT:WHITE Pnk:PNK YLW:YELLOW BRN:BROWN GRAY:GRAY GRN:GREEN ORG:ORANGE.

3D041806

RX14MY1  
RX16MY1



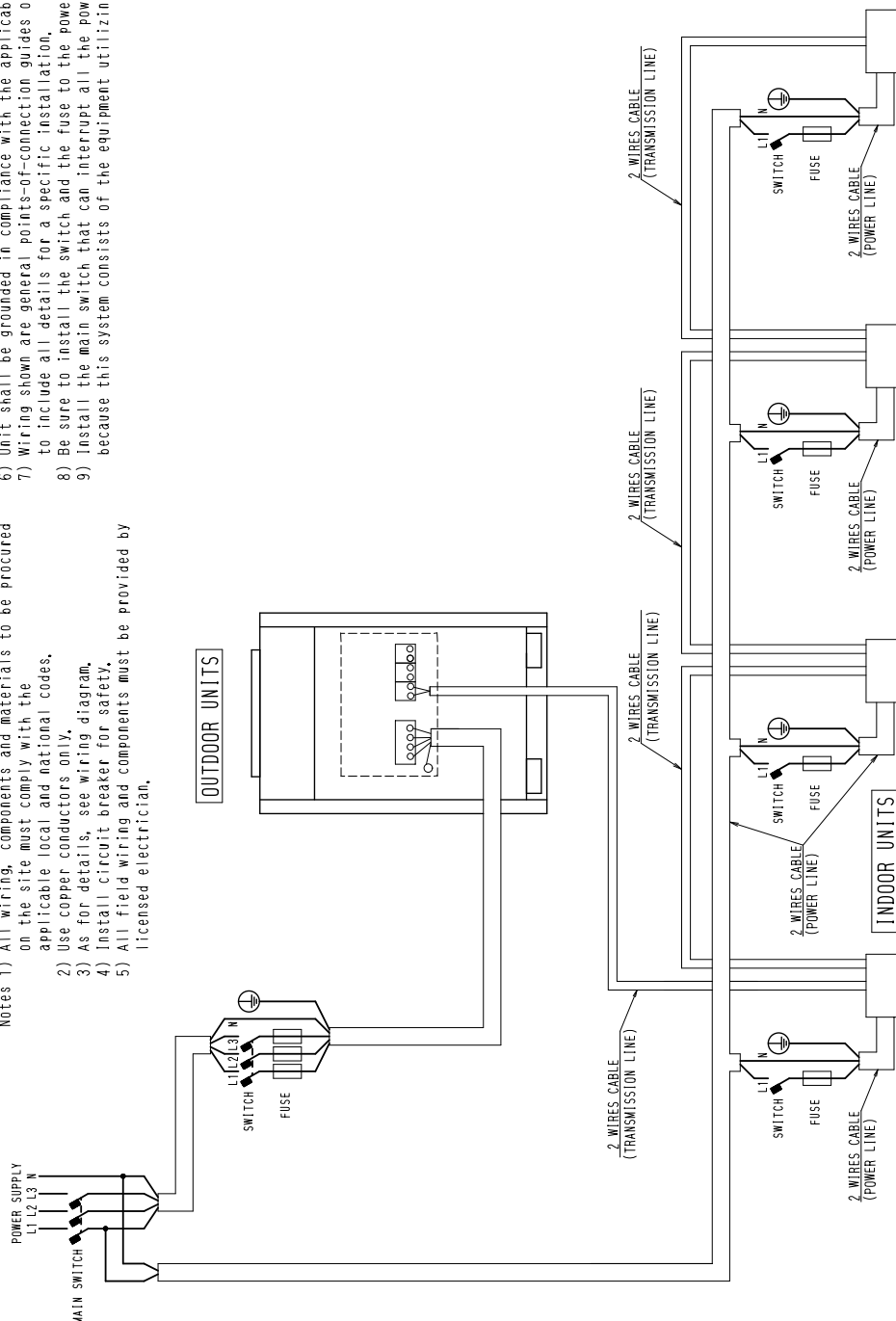
## 2.2 Field Wiring

### 2.2.1 50Hz / 60Hz

RX(Y)5, 8, 10, 12, 14, 16MY1

RX(Y)5, 8, 10, 12, 14, 16MYL

- Notes
- 1) All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
  - 2) Use copper conductors on V.
  - 3) As for details, see wiring diagram.
  - 4) Install circuit breaker for safety.
  - 5) All field wiring and components must be provided by licensed electrician.
  - 6) Unit shall be grounded in compliance with the applicable local and national codes.
  - 7) Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
  - 8) Be sure to install the switch and the fuse to the power line of each equipment.
  - 9) Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.



3D040746A  
3D041987

RX(Y)18, 20, 22, 24, 26, 28, 32MY1

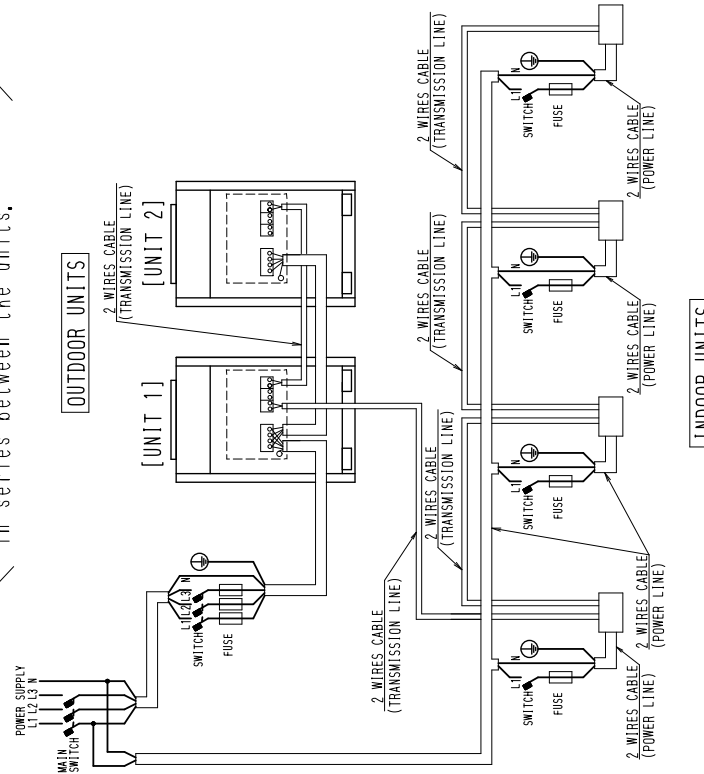
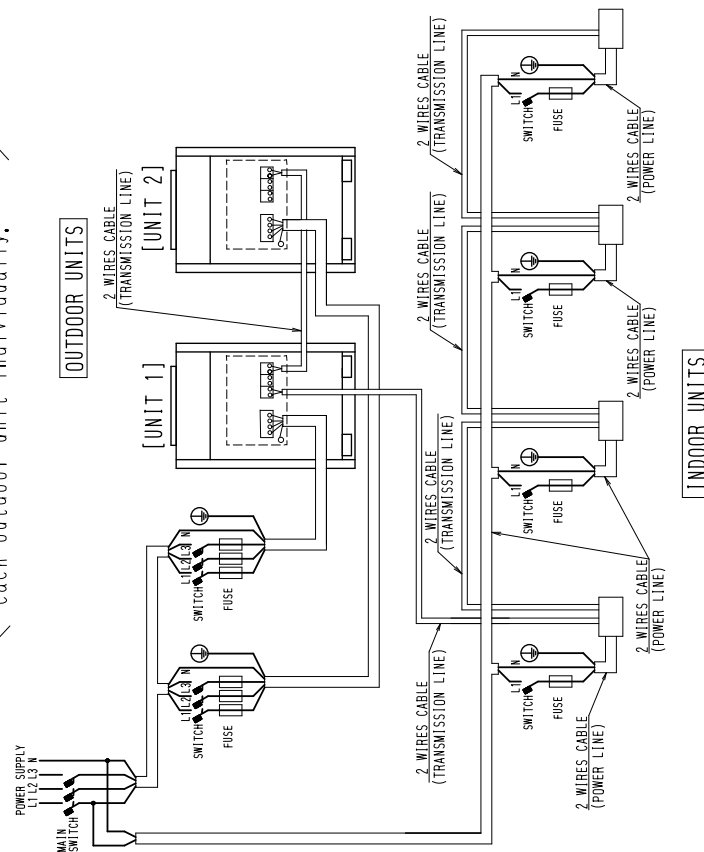
RX(Y)18, 20, 22, 24, 26, 28, 32MYL

- Notes 1) All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.  
 2) Use copper conductors only.  
 3) As for details, see wiring diagram.  
 4) Install circuit breaker for safety.  
 5) All field wiring and components must be provided by licensed electrician.
- 6) Unit shall be grounded in compliance with the applicable local and national codes.  
 7) Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.  
 8) Be sure to install the switch and the fuse to the power line of each equipment.  
 9) Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.  
 10) The capacity of UNIT1 must be larger than UNIT2 when the power source is connected in series between the units.

- Notes 1) All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.  
 2) Use copper conductors only.  
 3) As for details, see wiring diagram.  
 4) Install circuit breaker for safety.  
 5) All field wiring and components must be provided by licensed electrician.

When the power source is supplied to each outdoor unit individually.

When the power source is connected in series between the units.



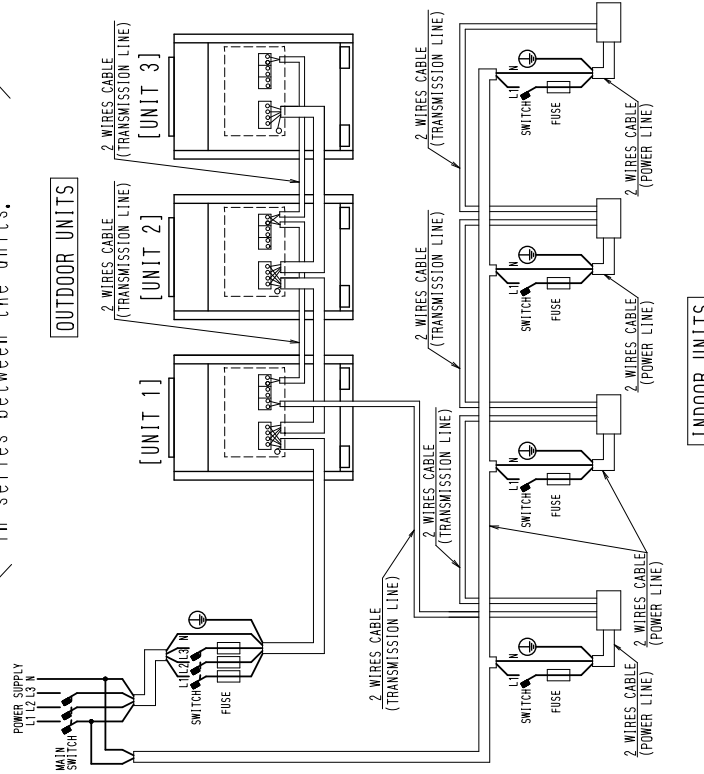
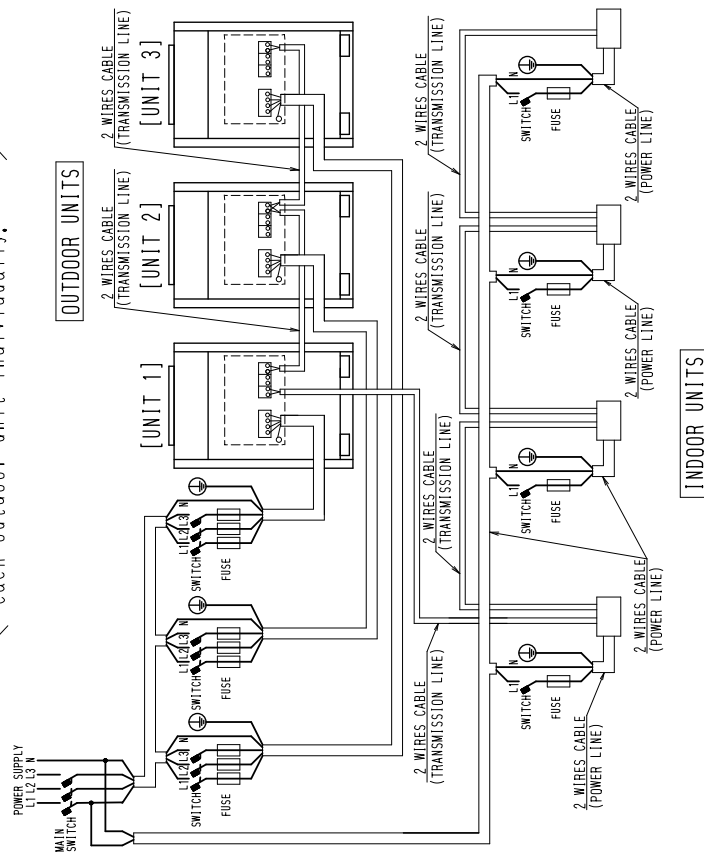
RX(Y)34, 36, 38, 40, 42, 44, 46, 48MY1

RX(Y)34, 36, 38, 40, 42, 44, 46, 48MYL

- Notes 1) All wiring, components and materials to be procured on the site must comply with the applicable local and national codes, 2) Use copper conductors only, 3) As for details, see wiring diagram, 4) Install circuit breaker for safety, 5) All field wiring and components must be provided by licensed electrician.
- 6) Unit shall be grounded in compliance with the applicable local and national codes, 7) Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation, 8) Be sure to install the switch and the fuse to the power line of each equipment, 9) Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources, 10) When the power source is connected in series between the units, comply with the following conditions:  
The capacity of UNIT1 must be larger than UNIT2,  
The capacity of UNIT2 must be larger than UNIT3.

When the power source is supplied to each outdoor unit individually.

When the power source is connected in series between the units.



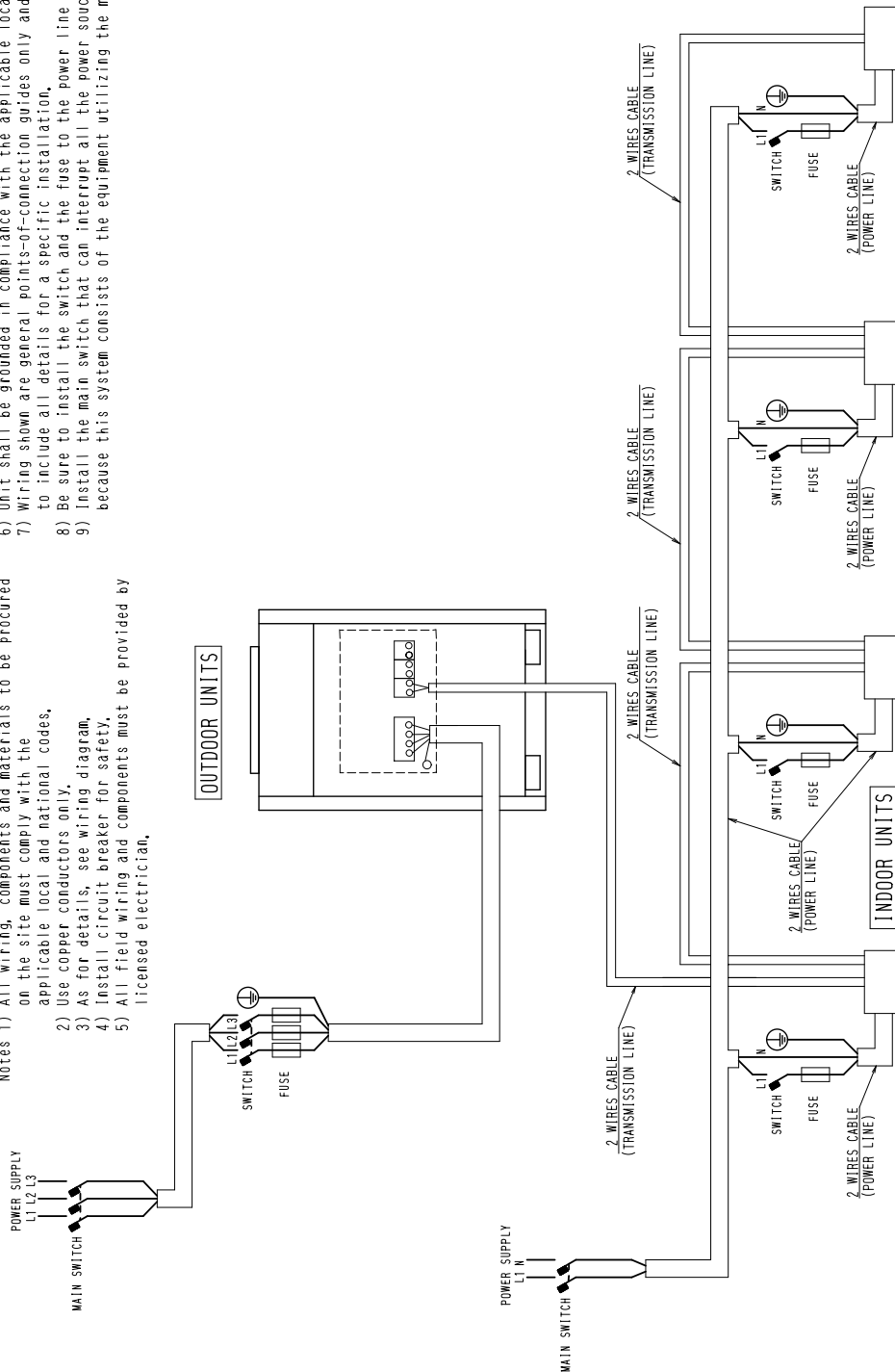
3D040748A  
3D041989

## 2.2.2 60Hz

### RXY5, 8, 10, 12, 14, 16MTL

- 6) Unit shall be grounded in compliance with the applicable local and national codes.
- 7) Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
- 8) Be sure to install the switch and the fuse to the power line of each equipment.
- 9) Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.

- Notes 1) All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
- 2) Use copper conductors only.
- 3) As for details, see wiring diagram.
- 4) Install circuit breaker for safety.
- 5) All field wiring and components must be provided by licensed electrician.

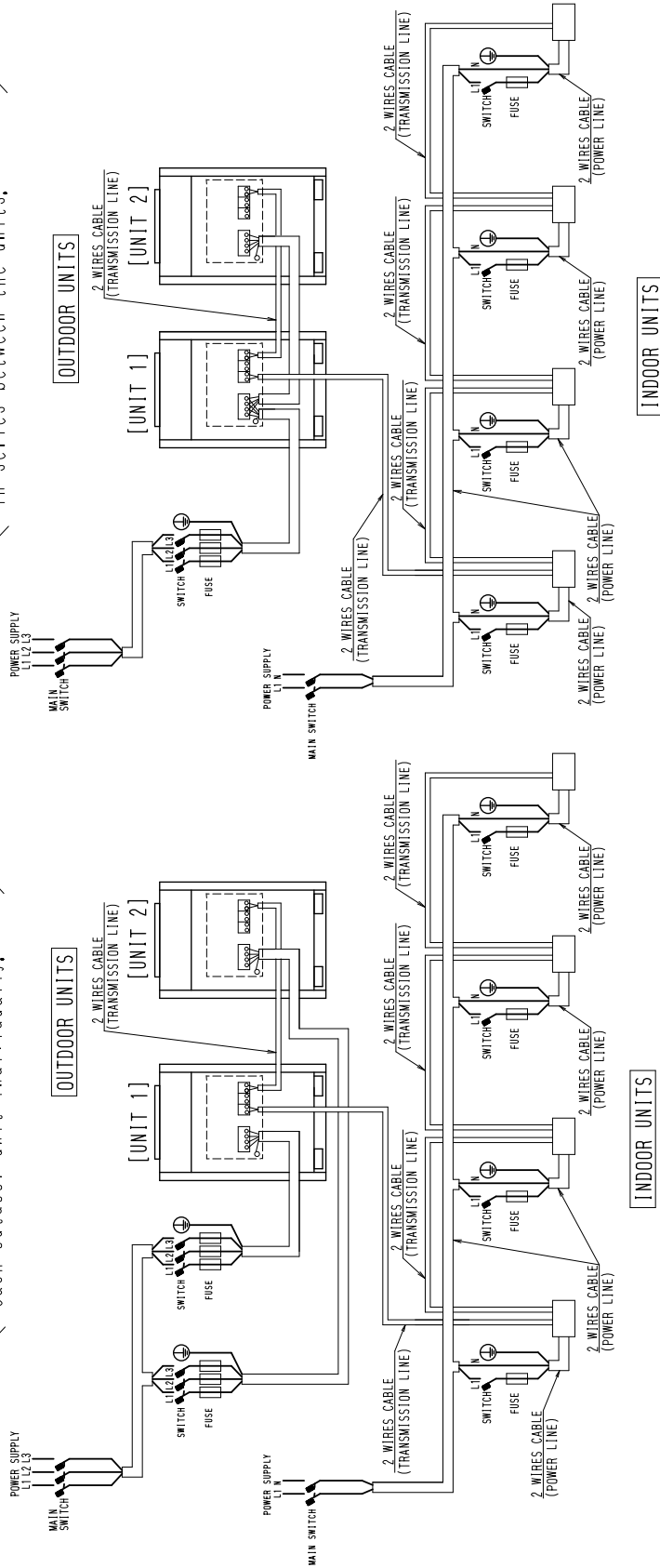


RXY18, 20, 22, 24, 26, 28, 30, 32MTL

- Notes 1) All wiring, components and materials to be procured on the site must comply with the applicable local and national codes, to include all details for a specific installation.
- 2) Use copper conductors only.
- 3) As for details, see wiring diagram.
- 4) Install circuit breaker for safety.
- 5) All field wiring and components must be provided by licensed electrician.
- 6) Unit shall be grounded in compliance with the applicable local and national codes.
- 7) Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
- 8) Be sure to install the switch and the fuse to the power line of each equipment.
- 9) Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
- 10) The capacity of UNIT1 must be larger than UNIT2 when the power source is connected in series between the units.

When the power source is supplied to each outdoor unit individually.

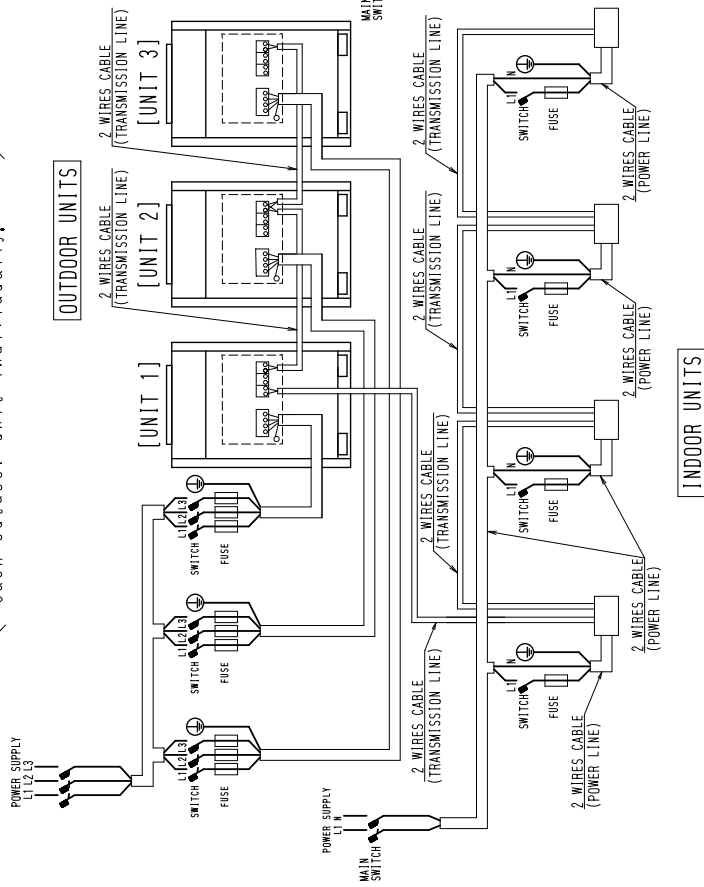
When the power source is connected in series between the units.



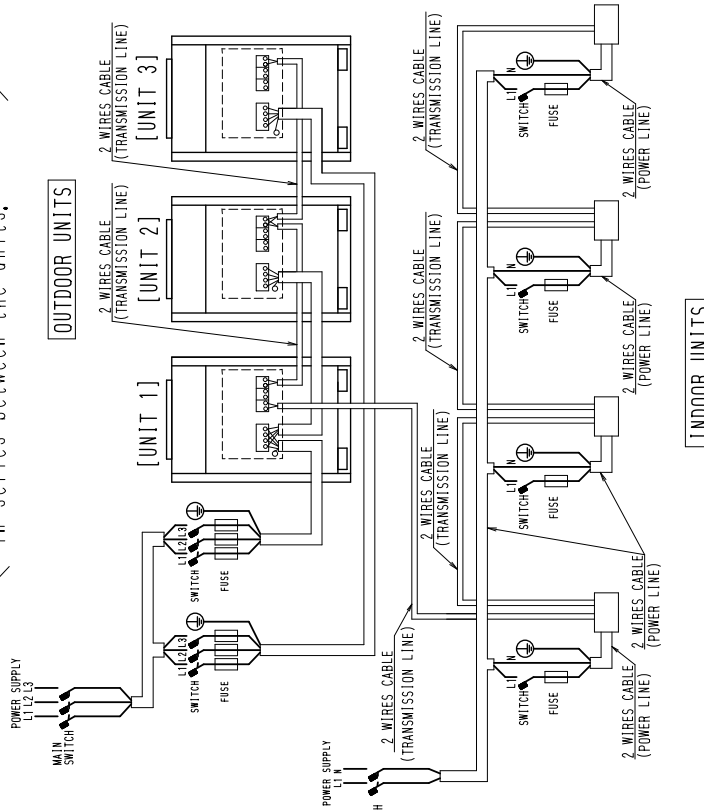
RXY34, 36, 38, 40, 42, 44, 46, 48MTL

- Notes 1) All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
- 2) Use copper conductors only.
- 3) As for details, see wiring diagram.
- 4) Install circuit breaker for safety.
- 5) All field wiring and components must be provided by licensed electrician.
- 6) Unit shall be grounded in compliance with the applicable local and national codes.
- 7) Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
- 8) Be sure to install the switch and the fuse to the power line of each equipment.
- 9) Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
- 10) When the power source is connected in series between the units, comply with the following conditions:  
The capacity of UNIT1 must be larger than UNIT2.  
Three outdoor units cannot be connected.

When the power source is supplied to each outdoor unit individually,



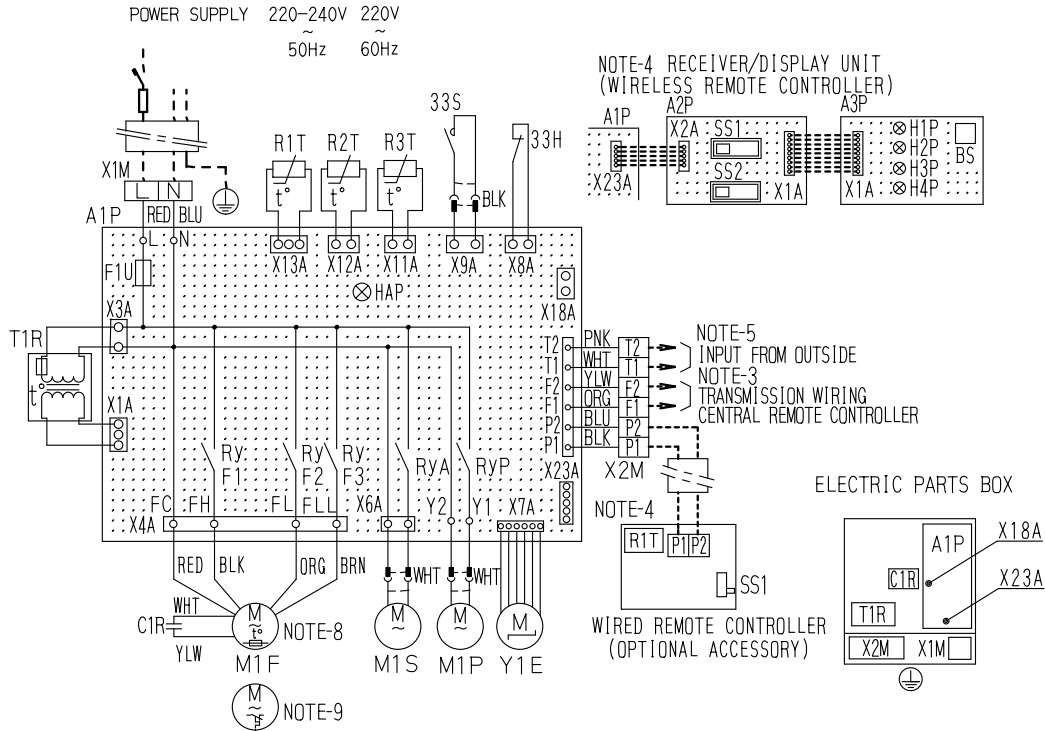
When the power source is connected in series between the units,





## 2.3 Indoor Unit

FXC 20L / 25L / 32L / 63LVE

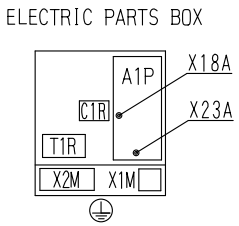
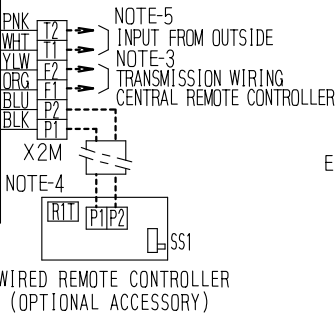
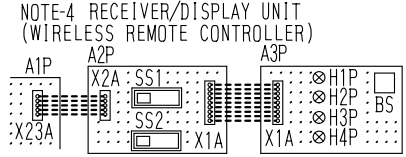
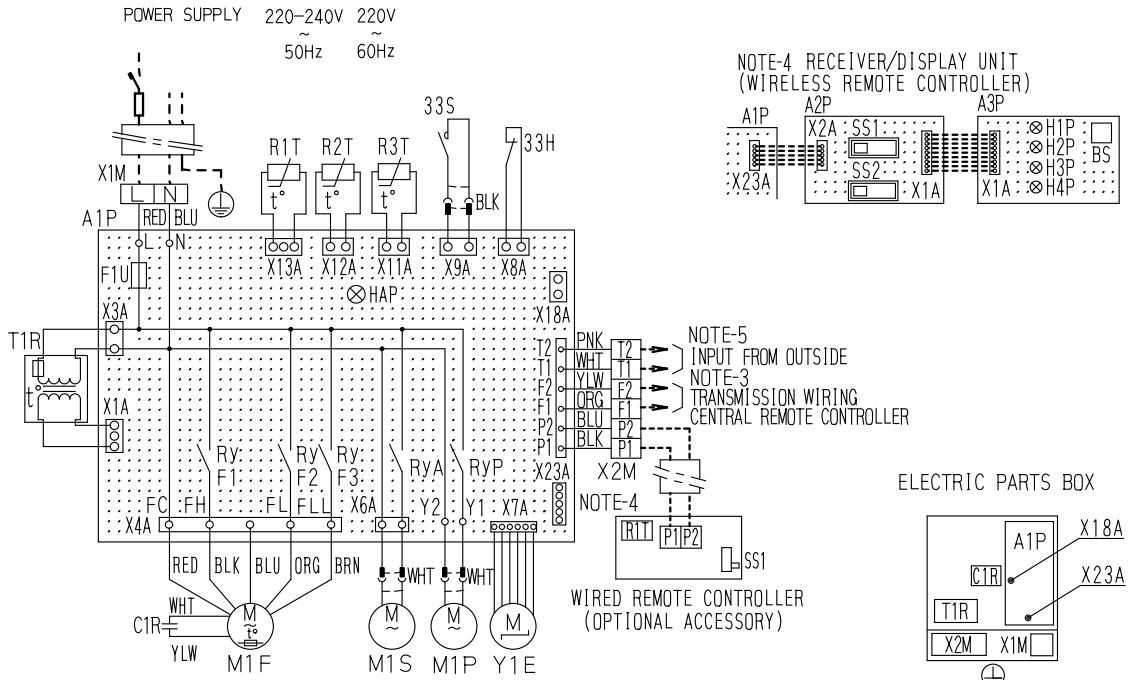


33H	FLOAT SWITCH	M1S	MOTOR (SWING FLAP)	WIRED REMOTE CONTROLLER	H3P	LIGHT EMISSION DIODE (FILTER SIGN-RED)	
33S	LIMIT SWITCH (SWING FLAP)	M1P	MOTOR(DRAIN PUMP)	R1T	THERMISTOR(AIR)	H4P	LIGHT EMISSION DIODE (DEFROST-ORANGE)
A1P	PRINTED CIRCUIT BOARD	Q1F	THERMO SWITCH(130V) (MIF EMBEDDED)(NOTE-9)	SS1	SELECTOR SWITCH (MAIN/SUB)	SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
C1R	CAPACITOR(M1F)	R1T	THERMISTOR(AIR)	RECEIVER/DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)	SS1	SELECTOR SWITCH (MAIN/SUB)	
F1T	THERMAL FUSE(152V) (MIF EMBEDDED)(NOTE-8)	R2T-3T	THERMISTOR(COIL)	A2P	PRINTED CIRCUIT BOARD	SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
F1U	FUSE(250V, 5A, ①) OR F10T 250V	RYA	MAGNETIC RELAY(M1S)	A3P	PRINTED CIRCUIT BOARD	BS	PUSH BUTTON(ON/OFF) CONNECTOR FOR OPTIONAL PARTS
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	RYB	MAGNETIC RELAY(M1P)	H1P	LIGHT EMISSION DIODE (ON-RED)	X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTRICAL APPENDICES)
M1F	MOTOR(INDOOR FAN)	T1R	TRANSFORMER(220-240V/22V)	H2P	LIGHT EMISSION DIODE (TIMER-GREEN)	X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)
L	RED	Y1E	ELECTRONIC EXPANSION VALVE				
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

FXC 40L / 50L / 80L / 125LVE

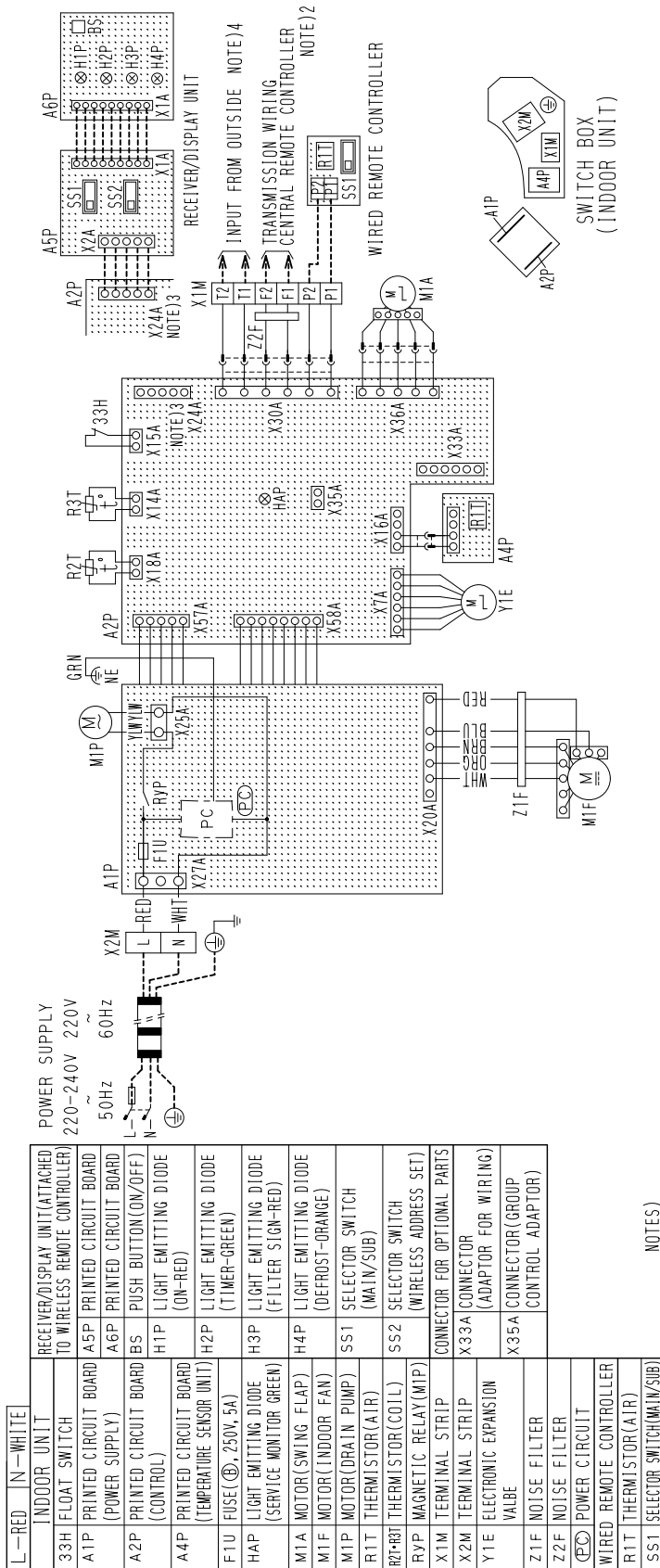


33H	FLOAT SWITCH	RYA	MAGNETIC RELAY(M1S)	H1P	LIGHT EMISSION DIODE (ON-RED)
33S	LIMIT SWITCH (SWING FLAP)	RyF1-3	MAGNETIC RELAY(M1F)	H2P	LIGHT EMISSION DIODE (FILTER SIGN-RED)
A1P	PRINTED CIRCUIT BOARD	T1R	TRANSFORMER(220-240V/22V)	H3P	LIGHT EMISSION DIODE (TIMER-GREEN)
C1R	CAPACITOR(M1F)	X2M	TERMINAL STRIP(POWER)	H4P	LIGHT EMISSION DIODE (DEFROST-ORANGE)
F1T	THERMAL FUSE(152%) (M1F EMBEDDED)	Y1E	ELECTRONIC EXPANSION VALVE	SS1	SELECTOR SWITCH (MAIN/SUB)
F1U	FUSE(250V, 5A, ⊕) OR F10T 250V	R1T	THERMISTOR(A1R)	SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
HAP	LIGHT EMISSION DIODE (SERVICE MONITOR-GREEN)	SS1	SELECTOR SWITCH (MAIN/SUB)	X18A	CONNECTOR FOR OPTIONAL PARTS
M1F	MOTOR (INDOOR FAN)	RECEIVER/DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)		X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTRICAL APPENDICES)
M1S	MOTOR (SWING FLAP)	A2P	PRINTED CIRCUIT BOARD	X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)
M1P	MOTOR(DRAIN PUMP)	A3P	PRINTED CIRCUIT BOARD		
R1T	THERMISTOR(A1R)	BS	PUSH BUTTON(ON/OFF)		
R2T-3T	THERMISTOR(COIL)				
L-RED	N-BLUE				

- NOTES) 1. : TERMINAL : 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.

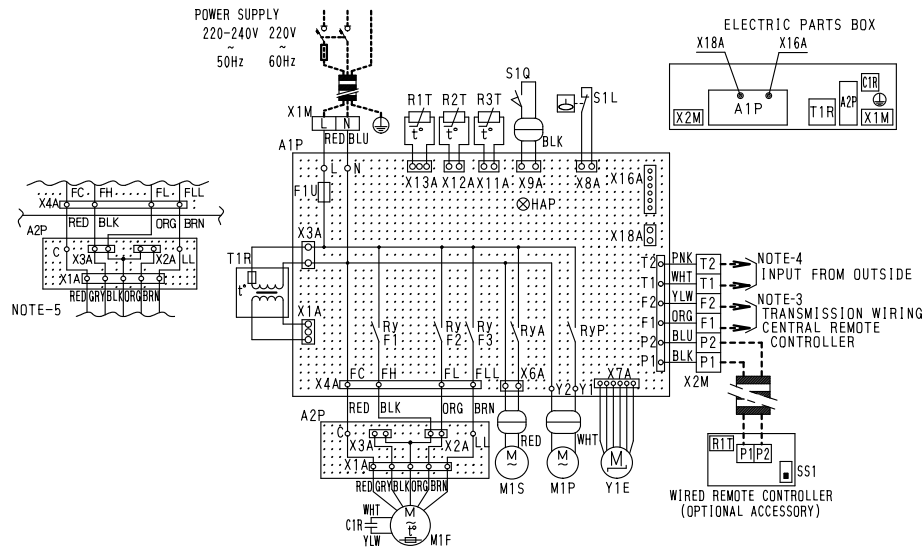
3D034121

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



3D033829A

FXK 25L / 32L / 40L / 63LVE

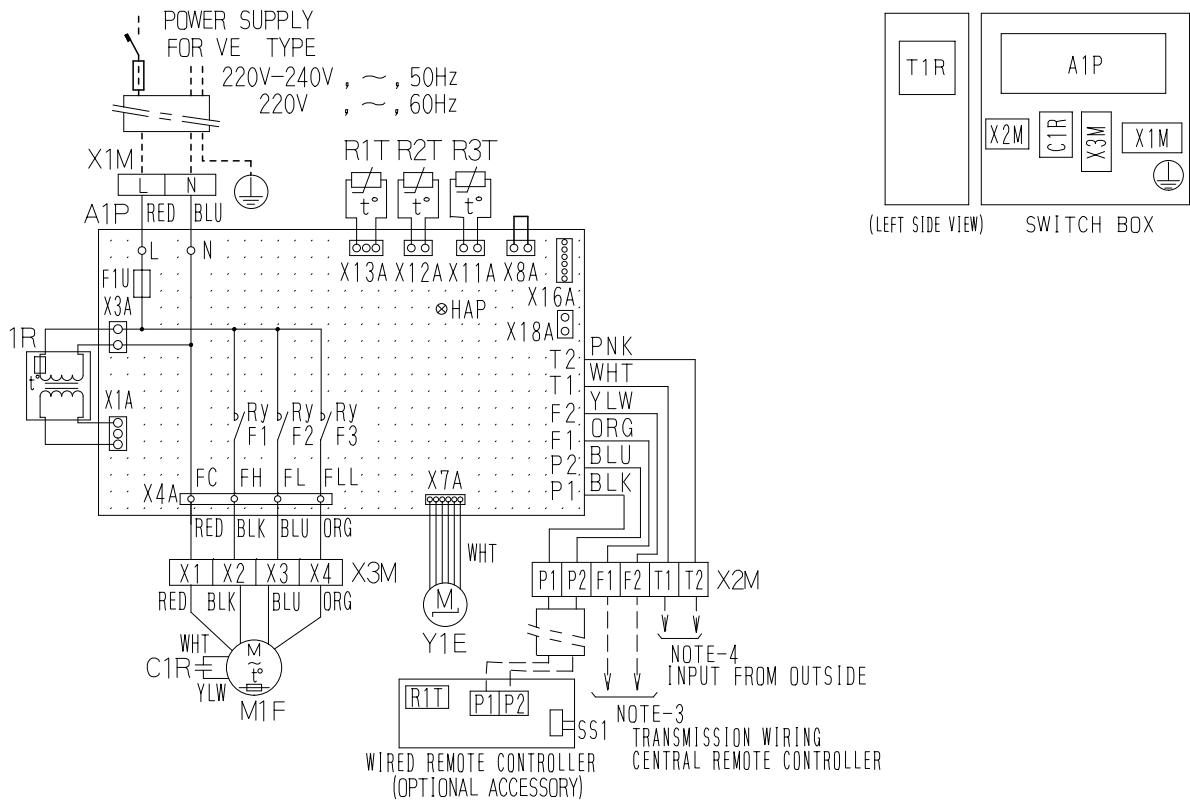


A1P	PRINTED CIRCUIT BOARD	RYA	MAGNETIC RELAY(M1S)
A2P	TERMINAL BOARD	RYF1-3	MAGNETIC RELAY(M1F)
C1R	CAPACITOR (M1F)	RYP	MAGNETIC RELAY(M1P)
F1T	THERMAL FUSE(105%) (M1F EMBEDDED)	S1L	FLOAT SWITCH
F1U	FUSE(250V, 5A, ⊕) OR F5T 250V	T1R	TRANSFORMER(220-240V/22V)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	X1M	TERMINAL STRIP(POWER)
M1F	MOTOR (INDOOR FAN)	X2M	TERMINAL STRIP(CONTROL)
M1P	MOTOR (DRAIN PUMP)	Y1E	ELECTRONIC EXPANSTION VALVE
M1S	MOTOR (SWING FLAP)		WIRED REMOTE CONTROLLER
R1T	THERMISTOR(AIR)		
R2T-3T	THERMISTOR(COIL)		

- NOTES) 1. □□□□ : TERMINAL BLOCK, ⊙ ⊙ , D : 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.

3D035466

FXD20KAVE / 25KAVE / 32KAVE / 40KAVE / 50KAVE / 63KAVE

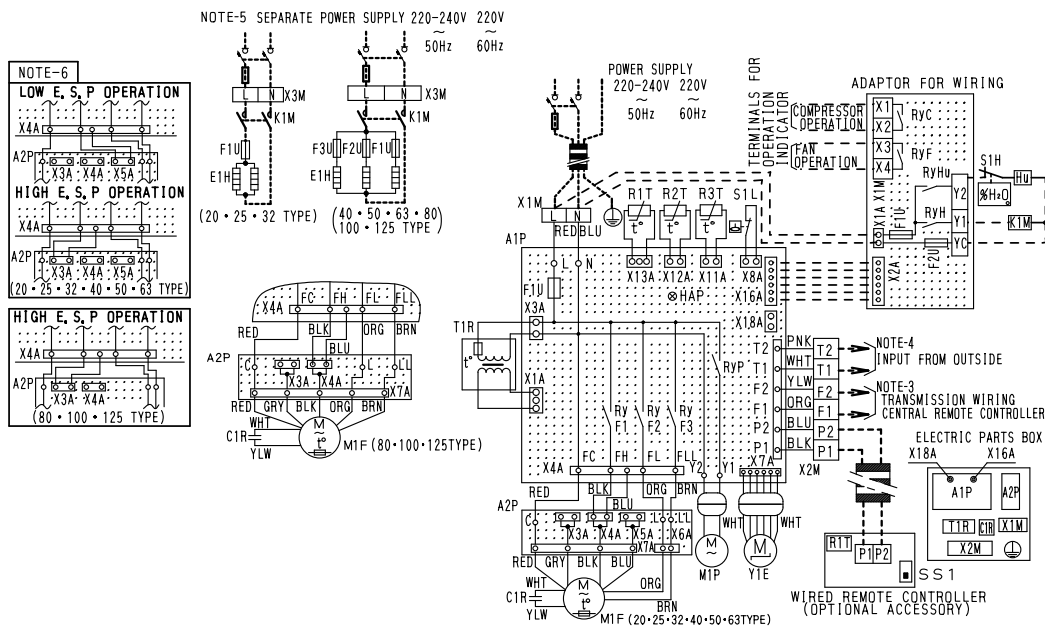


A1P	PRINTED CIRCUIT BOARD
C1R	CAPACITOR (M1F)
F1T	THERMAL FUSE (M1F EMBEDDED) (135±5°C:OFF, 95±15°C:ON)
F1U	FUSE (250V,10A)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)
M1F	MOTOR (INDOOR FAN)
R1T	THERMISTOR(AIR)
R2T·3T	THERMISTOR(COIL)
RyF1-3	MAGNETIC RELAY(M1F)
T1R	TRANSFORMER(220-240V/22V)
X1M	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)

- |      |             |     |                    |
|------|-------------|-----|--------------------|
| □□□□ | : TERMINAL  | —○— | : WIRE CLAMP       |
| ○    | : CONNECTOR | □   | : JUMPER CONNECTOR |
- : FIELD WIRING
- IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
- 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.
- SYMBOLS SHOW AS FOLLOWS,  
(PNK:PINK WHT:WHITE YLW:YELLOW  
ORG:ORANGE BLU:BLUE BLK:BLACK  
RED:RED BRN:BROWN)
- USE COPPER CONDUCTORS ONLY.

FXS 20L / 25L / 32L / 40L / 50L / 63L / 80L / 100L / 125LVE

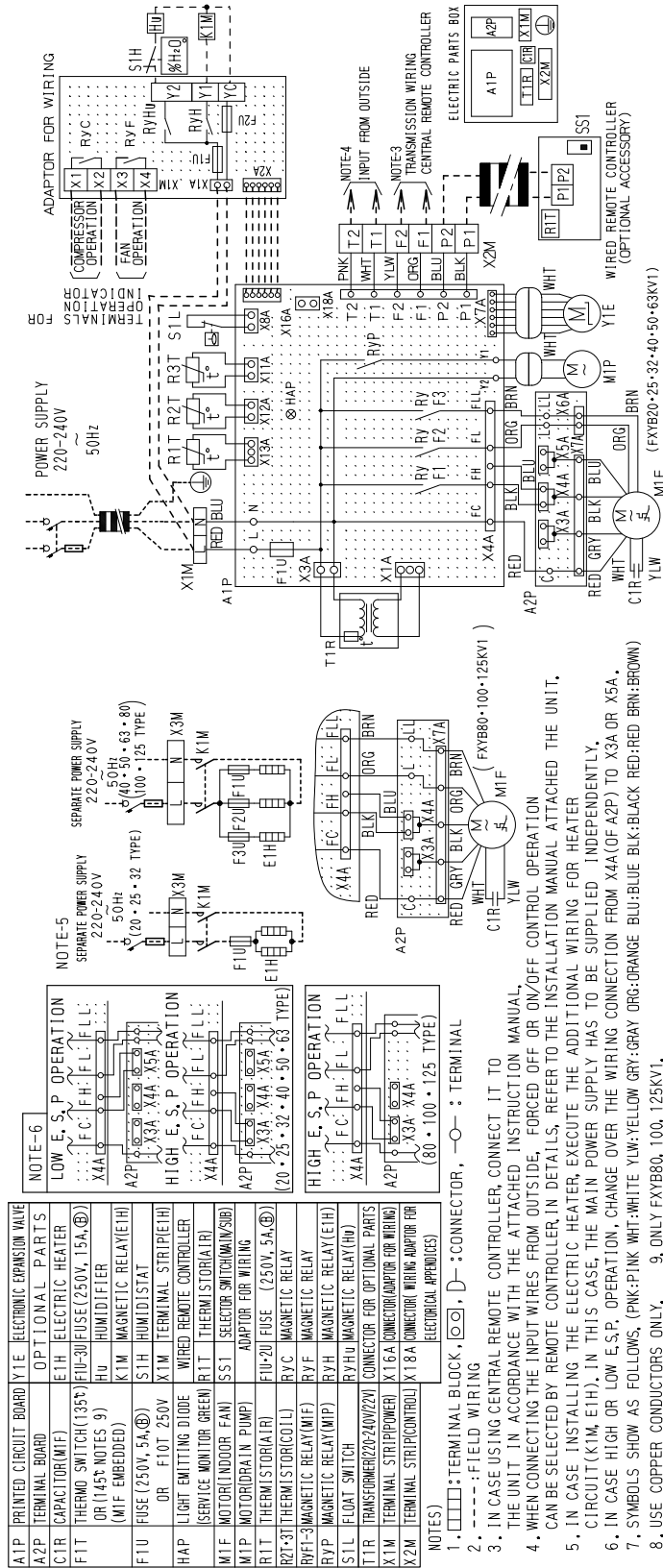


- NOTES)
1. [ ] : TERMINAL BLOCK, [ ] : CONNECTOR, [ ] : TERMINAL
  2. --- : FIELD WIRING
  3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
  4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION 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°C) (M1F EMBEDDED)	Hu	HUMIDIFIER
F1U	FUSE(250V, 10A, Ⓞ) OR F1OT 250V	E1H	ELECTRIC HEATER
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR GREEN)	K1M	MAGNETIC RELAY(E1H)
M1F	MOTOR(INDOOR FAN)	S1H	HUMIDISTAT
M1P	MOTOR(DRAIN PUMP)	X3M	TERMINAL STRIP(E1H)
R1T	THERMISTOR(A1R)		WIRED REMOTE CONTROLLER
R2T-3T	THERMISTOR(COIL)	R1T	THERMISTOR(A1R)
RVF1-3	MAGNETIC RELAY(M1F)	SS1	SELECTOR SWITCH(MAIN/SUB)
RVP	MAGNETIC RELAY(M1P)		ADAPTOR FOR WIRING
S1L	FLOAT SWITCH	F1U-2U	FUSE(250V, 5A, Ⓞ)
T1R	TRANSFORMER(220-240V/22V)	RVC	MAGNETIC RELAY
X1M	TERMINAL STRIP(POWER)	RVF	MAGNETIC RELAY
X2M	TERMINAL STRIP(CONTROL)	RVH	MAGNETIC RELAY(E1H)
		RvHu	MAGNETIC RELAY(Hu)
		X16A	CONNECTOR(ADAPTOR FOR WIRING)
		X18A	CONNECTOR(ADAPTOR FOR WIRING)
			ELECTRICAL APPENDICES

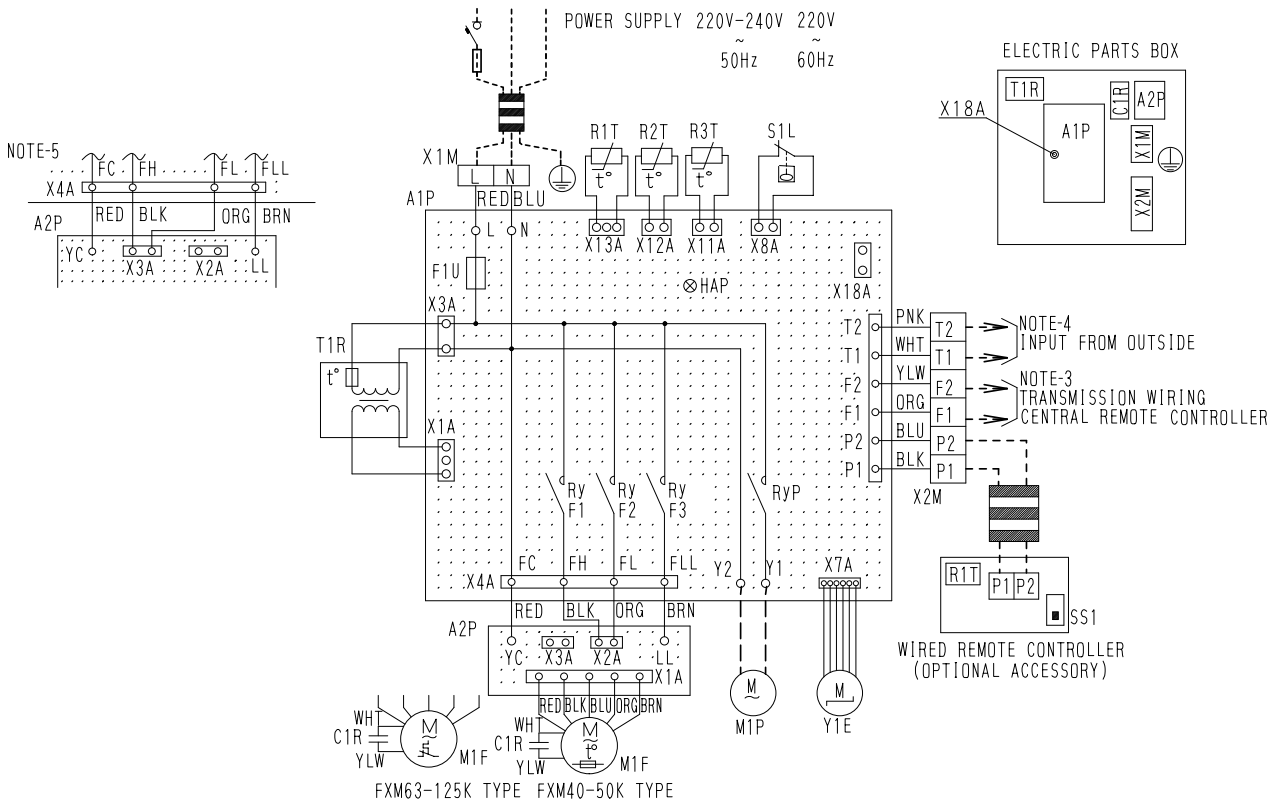
3D035467

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



3D037591C

FXM 40L / 50L / 63L / 80L / 100L / 125LVE



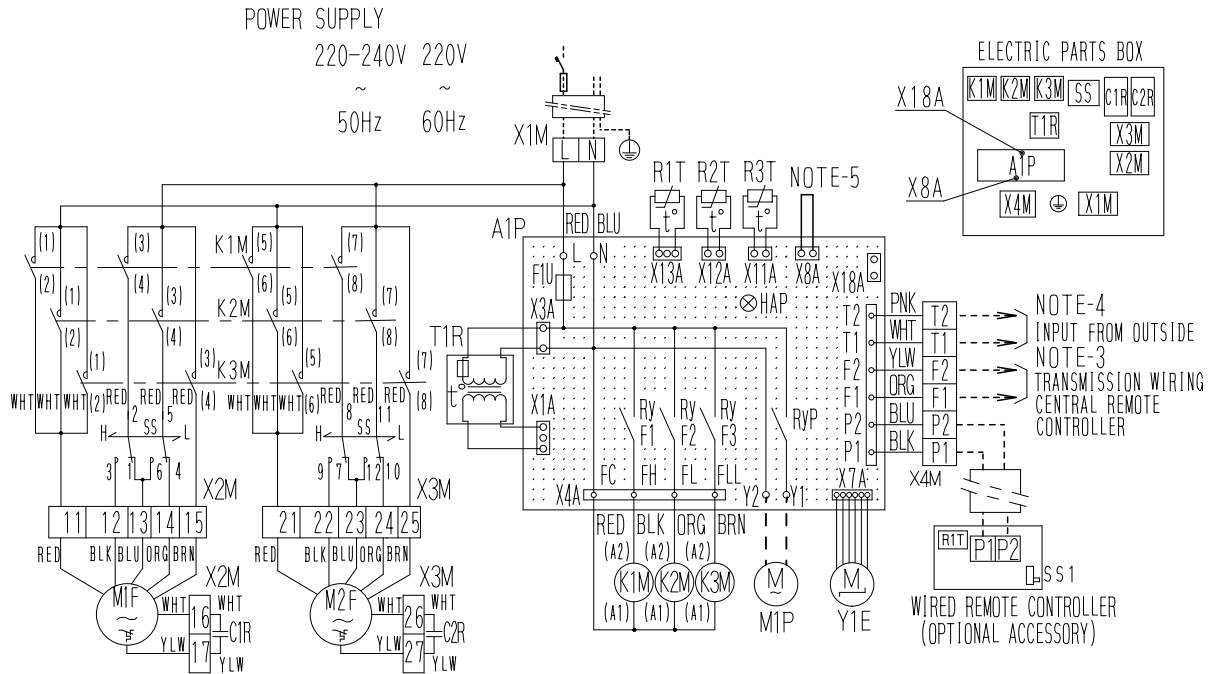
A 1 P	PRINTED CIRCUIT BOARD	R2T·3T	THERMISTOR(COIL)	CONNECTOR FOR OPTIONAL PARTS
A 2 P	TERMINAL BOARD	RyF1-3	MAGNETIC RELAY(M1F)	X 1 8 A
C 1 R	CAPACITOR(M1F)	RyP	MAGNETIC RELAY(M1P)	CONNECTOR(WIRING ADAPTOR FOR ELECTRICAL APPENDICES)
F 1 T	THERMAL FUSE(153℃) (M1F BUILT-IN ONLY40·50TYPE))	S 1 L	FLOAT SWITCH	
F 1 U	FUSE (250V, 10A, ⓑ) OR F10T 250V	T 1 R	TRANSFORMER(220-240V/22V)	
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	X 1 M	TERMINAL STRIP(POWER)	
M 1 F	MOTOR(INDOOR FAN)	X 2 M	TERMINAL STRIP(CONTROL)	
Q 1 F	THERMO SWITCH (M1F BUILT-IN ONLY63-125TYPE)	Y 1 E	ELECTRONIC EXPANSION VALVE	
R 1 T	THERMISTOR(AIR)	OPTIONAL PARTS		
		M 1 P	MOTOR (DRAIN PUMP)	
		WIRED REMOTE CONTROLLER		
		SS 1	SELECTOR SWITCH (MAIN/SUB)	
		R 1 T	THERMISTOR(AIR)	

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. 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.



FXM 200L / 250LVE



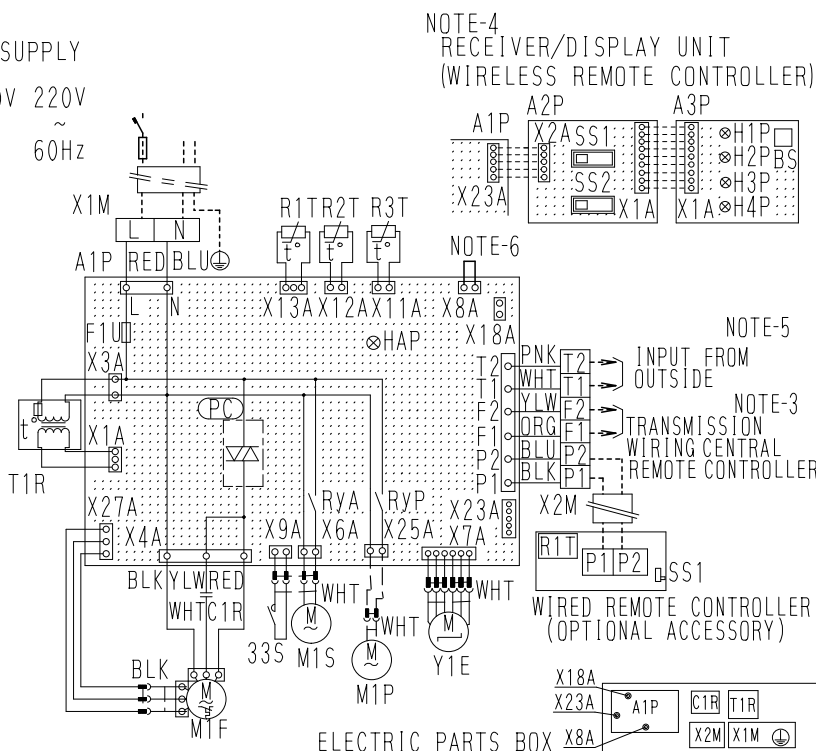
NOTES)

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	RYF1-F3	MAGNETIC RELAY(M1F·2F)
C1R·2R	CAPACITOR (M1F·2F)	RYP	MAGNETIC RELAY(M1P)
F1U	FUSE (250V, 10A, (B)) OR F10T 250V	SS	SELECTOR SWITCH (STATIC PRESSURE)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	T1R	TRANSFORMER(220-240V/22V)
K1M	MAGNETIC CONTACTOR(M1F·2F)	X1M	TERMINAL STRIP(POWER)
K2M	MAGNETIC CONTACTOR(M1F·2F)	X2M-4M	TERMINAL STRIP(CONTROL)
K3M	MAGNETIC CONTACTOR(M1F·2F)	Y1E	ELECTRONIC EXPANSION VALVE
M1F·2F	MOTOR (INDOOR FAN)		OPTIONAL PARTS
Q1F	THERMO SWITCH (M1F·2F EMBEDDED)	M1P	MOTOR (DRAIN PUMP)
R1T	THERMISTOR(AIR)		WIRED REMOTE CONTROLLER
R2T·3T	THERMISTOR(COIL)	R1T	THERMISTOR(AIR)
L-RED	N-BLUE	SS1	SELECTOR SWITCH(MAIN/SUB)
			CONNECTOR FOR OPTIONAL PARTS
		X8A	CONNECTOR(FLOAT SWITCH)
		X18A	CONNECTOR(WIRING ADAPTOR FOR ELECTORICAL APPENDICES)

FXH 32L / 63L / 100LVE

POWER SUPPLY  
220-240V 220V  
50Hz 60Hz



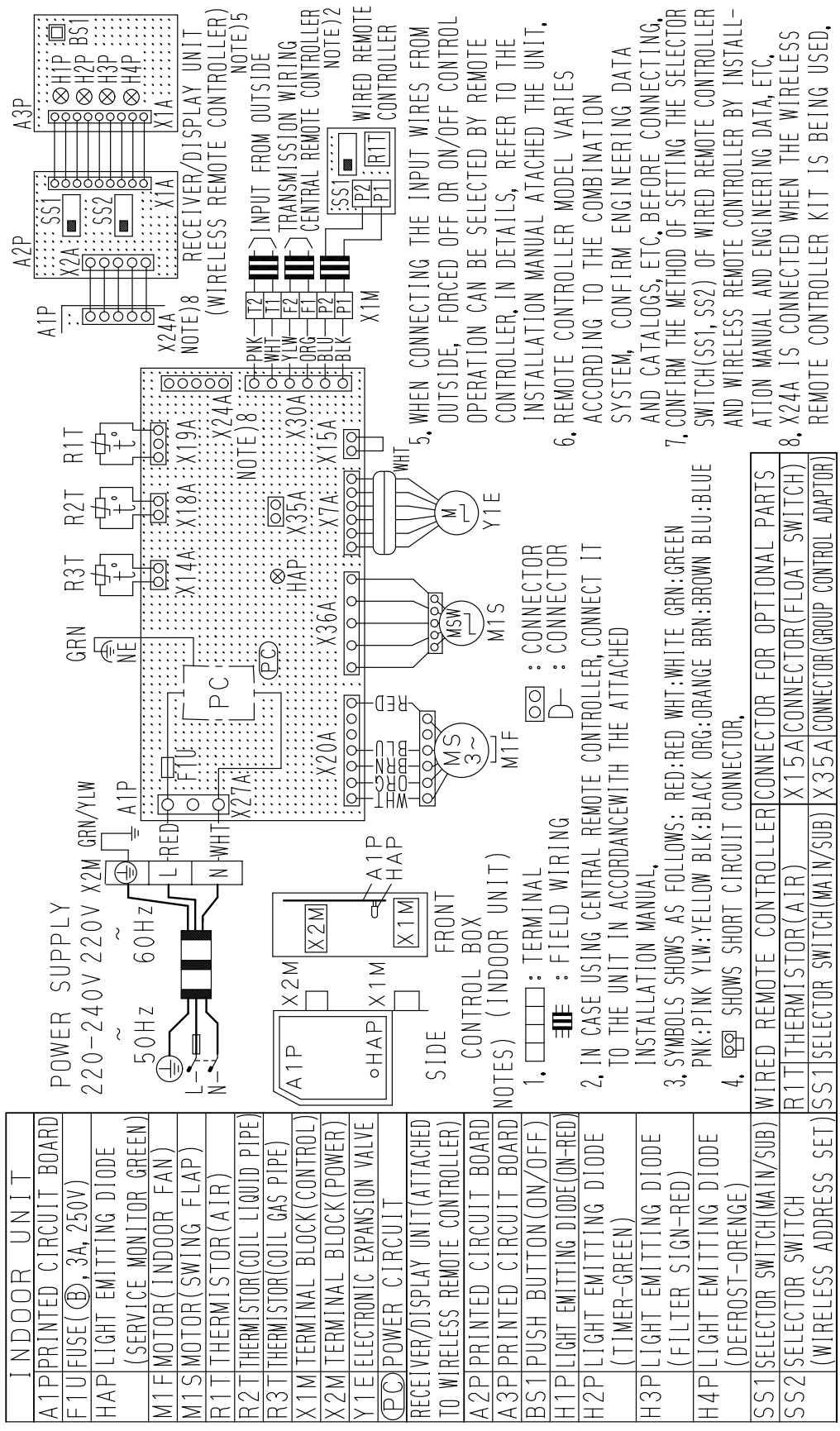
33S	LIMIT SWITCH (SWING FLAP)	H3P	LIGHT EMITTING DIODE (FILTER SIGN-RED)
A1P	PRINTED CIRCUIT BOARD	H4P	LIGHT EMITTING DIODE (DEFROST-ORANGE)
C1R	CAPACITOR (M1F)	SS1	SELECTOR SWITCH (MAIN/SUB)
F1U	FUSE(250V,5A)OR F10T 250V	SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)		CONNECTOR FOR OPTIONAL PARTS
M1F	MOTOR (INDOOR FAN)	X8A	CONNECTOR(FLOAT SWITCH)
M1S	MOTOR (SWING FLAP)	X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTRICAL APPENDICES )
Q1F	THERMO SWITCH (M1F EMBEDDED)	X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)
R1T	THERMISTOR (AIR)		
R2T	THERMISTOR (COIL LIQUID)		
R3T	THERMISTOR (COIL GAS)		
RYA	MAGNETIC RELAY (M1S)		
RYP	MAGNETIC RELAY (M1P)		
T1R	TRANSFORMER (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)		

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.

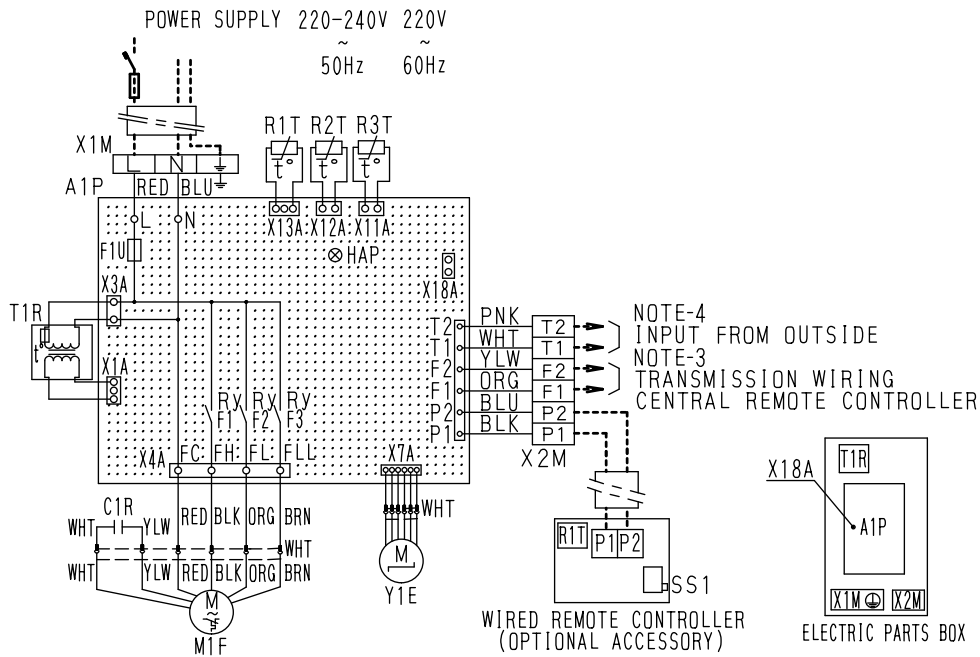
3D034052A

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



3D034206A

**FXL 20L / 25L / 32L / 40L / 50L / 63LVE**  
**FXN 20L / 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
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)		R1T THERMISTOR(AIR) SS1 SELECTOR SWITCH(MAIN/SUB)
M1F	MOTOR (INDOOR FAN)	X18A	CONNECTOR FOR OPTIONAL PARTS CONNECTOR/WIRING ADAPTOR FOR ELECTORICAL APPENDICES)
Q1F	THERMO SWITCH (M1F EMBEDDED)		
R1T	THERMISTOR(AIR)		
R2T-3T	THERMISTOR(COIL)		
RVF1-3	MAGNETIC RELAY(M1F)		
T1R	TRANSFOMER(220-240V/22V)		
X1M	TERMINAL STRIP(POWER)		
	L-RED		N-BLUE

## 3. List of Electrical and Functional Parts

### 3.1 Outdoor Unit

#### 3.1.1 RXY5~16MY1

Item	Name		Symbol	Model		
				RXY5MY1	RXY8MY1	RXY10MY1
Compressor	Inverter	Type	M1C	JT1FBVDKYR 3.2kW	JT1FBVDKTYR 1.2kW	JT1FBVDKTYR 2.7kW
		Output				
	STD.1	Type	M2C	—	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW
		Output				
	STD.2	Type	M3C	—		
		Output				
	Crankcase heater (INV)		E1HC	240V 33W		
Crankcase heater (STD.1)		E2HC	—	240V 33W		
Crankcase heater (STD.2)		E3HC	—			
OC protection device for STD compressor		—	—	13A		
Fan motor	Motor		M1F	0.35kw	0.75kw	
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	2000pls	PI control	
		Heating				
	Electronic expansion valve (Subcool)	Cooling	Y2E	—	PI control	
		Heating			0pls	
	Solenoid valve (Hot gas)		Y1S	TEV1620DQ2	VPV-603D	
	Solenoid valve (External multi oil)		Y2S	—	TEV1620DQ2	
	Solenoid valve (Receiver gas charge)		Y3S	—	TEV1620DQ2	
	Solenoid valve (Receiver gas discharge)	Y4S	—	VPV-603D		
		Y2S	TEV1620DQ2	—		
	Solenoid valve (Injection)		Y4S	TEV1620DQ2	—	
	Solenoid valve (Non-operating unit gas discharge)		Y5S	—	TEV1620DQ2	
	Solenoid valve (Non-operating unit liquid pipe close)		Y6S	—	VPV-803DQ50	
	4 way valve	Y3S	VT3101C	—		
Y7S		—	VHV-0404			
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	
	Pressure switch (STD2)		S3PH	—		
	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 PCB	For fin	R1T	3.5 to 360Ω		
	Main PCB	For outdoor air	R1T	3.5 to 360Ω		
		For suction pipe	R2T	3.5 to 360Ω		
		For discharge pipe (INV)	R3T	3.5 to 400Ω	—	
			R31T	—	3.5 to 400Ω	
		For discharge pipe (STD.1)	R32T	—	3.5 to 400Ω	
		For discharge pipe (STD.2)	R33T	—		
		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		

Item	Name		Symbol	Model		
				RXY12MY1	RXY14MY1	RXY16MY1
Compressor	Inverter	Type	M1C	JT1FBVDKTYR 4.2kW	JT1FBVDKTYR 2.0kW	JT1FBVDKTYR 3.0kW
		Output				
	STD.1	Type	M2C	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW
		Output				
	STD.2	Type	M3C	—	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW
		Output				
	Crankcase heater (INV)		E1HC	240V 33W		
Crankcase heater (STD.1)		E2HC	240V 33W			
Crankcase heater (STD.2)		E3HC	—	240V 33W		
OC protection device for STD compressor		—	13A			
Fan motor	Motor		M1F	0.75kw		
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	0pls		
		Heating		PI control		
	Electronic expansion valve (Subcool)	Cooling	Y2E	PI control		
		Heating		0pls		
	Solenoid valve (Hot gas)		Y1S	VPV-603D	TEV1620DQ2	
	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		
4 way valve		Y7S	VHV0404	VT60100		
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/-0.15MPa OFF : 1.9±0.15MPa		
	Pressure switch (STD2)		S3PH	—	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 PCB	For fin	R1T	3.5 to 360Ω		
	Main PCB	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 discharge pipe (STD.2)	R33T	—	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		

## 3.1.2 RXY5~16MYL

Item	Name		Symbol	Model			
				RXY5MYL	RXY8MYL	RXY10MYL	
Compressor	Inverter	Type	M1C	JT1FBVDKYR 3.2kW	JT1FBVDKTYR 1.2kW	JT1FBVDKTYR 2.7kW	
		Output					
	STD.1	Type	M2C	—	JT170FBKYH 4.5kW	JT170FBKYH 4.5kW	
		Output					
	STD.2	Type	M3C	—			
		Output					
	Crankcase heater (INV)			E1HC	200V 33W		
	Crankcase heater (STD.1)			E2HC	—	200V 33W	
Crankcase heater (STD.2)			E3HC	—			
OC protection device for STD compressor			—	—	13A		
Fan motor	Motor		M1F	0.35kw	0.75kw		
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	2000pls	PI control		
		Heating					
	Electronic expansion valve (Subcool)	Cooling	Y2E	—	PI control		
		Heating			0pls		
	Solenoid valve (Hot gas)		Y1S	TEV1620DQ2	—		
	Solenoid valve (External multi oil)		Y2S	—	TEV1620DQ2		
	Solenoid valve (Receiver gas charge)		Y3S	—	TEV1620DQ2		
	Solenoid valve (Receiver gas discharge)	Y4S	—	VPV-603D			
		Y2S	TEV1620DQ2	—			
	Solenoid valve (Injection)		Y4S	—			
	Solenoid valve (Non-operating unit gas discharge)		Y5S	—	TEV1620DQ2		
	Solenoid valve (Non-operating unit liquid pipe close)		Y6S	—	VPV-803DQ50		
	4 way valve	Y3S	VT3101C	—			
		Y7S	—	VHV-0404			
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		
	Pressure switch (STD2)		S3PH	—			
	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 PCB	For fin	R1T	3.5 to 360Ω			
	Main PCB	For outdoor air	R1T	3.5 to 360Ω			
		For suction pipe	R2T	3.5 to 360Ω			
		For discharge pipe (INV)	R3T	3.5 to 400Ω	—		
			R31T	—	3.5 to 400Ω		
		For discharge pipe (STD.1)	R32T	—	3.5 to 400Ω		
		For discharge pipe (STD.2)	R33T	—			
		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			

Item	Name		Symbol	Model		
				RXY12MYL	RXY14MYL	RXY16MYL
Compressor	Inverter	Type	M1C	JT1FBVDKTYR 4.2kW	JT1FBVDKTYR 2.0kW	JT1FBVDKTYR 3.0kW
		Output				
	STD.1	Type	M2C	JT170FBKYH 4.5kW	JT170FBKYH 4.5kW	JT170FBKYH 4.5kW
		Output				
	STD.2	Type	M3C	—	JT170FBKYH 4.5kW	JT170FBKYH 4.5kW
		Output				
	Crankcase heater (INV)		E1HC	200V 33W		
Crankcase heater (STD.1)		E2HC	200V 33W			
Crankcase heater (STD.2)		E3HC	—	200V 33W		
OC protection device for STD compressor		—	13A			
Fan motor	Motor		M1F	0.75kw		
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	0pls		
		Heating		PI control		
	Electronic expansion valve (Subcool)	Cooling	Y2E	PI control		
		Heating		0pls		
	Solenoid valve (Hot gas)		Y1S	TEV1620DQ2		
	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		
4 way valve		Y7S	VHV0404	VT60100		
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		
	Pressure switch (STD2)		S3PH	—	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 PCB	For fin	R1T	3.5 to 360Ω		
	Main PCB	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 discharge pipe (STD.2)	R33T	—	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		



## 3.1.3 RXY5~16MTL

Item	Name		Symbol	Model			
				RXY5MTL	RXY8MTL	RXY10MTL	
Compressor	Inverter	Type	M1C	JT100FBVD 3.2kW	JT100FBVDKT 1.2kW	JT100FBVDKT 2.7kW	
		Output					
	STD.1	Type	M2C	—	JT170FBK 4.5kW	JT170FBK 4.5kW	
		Output					
	STD.2	Type	M3C	—			
		Output					
	Crankcase heater (INV)			E1HC	200V 33W		
	Crankcase heater (STD.1)			E2HC	—	200V 33W	
Crankcase heater (STD.2)			E3HC	—			
OC protection device for STD compressor			—	—	25A		
Fan motor	Motor		M1F	0.35kw	0.80kw		
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	2000pls	PI control		
		Heating					
	Electronic expansion valve (Subcool)	Cooling	Y2E	—	PI control		
		Heating			0pls		
	Solenoid valve (Hot gas)		Y1S	TEV1620DQ2	VPV-603D		
	Solenoid valve (External multi oil)		Y2S	—	TEV1620DQ2		
	Solenoid valve (Receiver gas charge)		Y3S	—	TEV1620DQ2		
	Solenoid valve (Receiver gas discharge)	Y4S	—	VPV-603D			
		Y2S	TEV1620DQ2	—			
	Solenoid valve (Injection)		Y4S	TEV1620DQ2	—		
	Solenoid valve (Non-operating unit gas discharge)		Y5S	—	TEV1620DQ2		
	Solenoid valve (Non-operating unit liquid pipe close)		Y6S	—	VPV-803DQ50		
	4 way valve	Y3S	VT3101C	—			
		Y7S	—	VHV-0404			
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		
	Pressure switch (STD2)		S3PH	—			
	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 PCB	For fin	R1T	3.5 to 360Ω			
	Main PCB	For outdoor air	R1T	3.5 to 360Ω			
		For suction pipe	R2T	3.5 to 360Ω			
		For discharge pipe (INV)	R3T	3.5 to 400Ω	—		
			R31T	—	3.5 to 400Ω		
		For discharge pipe (STD.1)	R32T	—	3.5 to 400Ω		
		For discharge pipe (STD.2)	R33T	—			
		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			

Item	Name		Symbol	Model		
				RXY12MTL	RXY14MTL	RXY16MTL
Compressor	Inverter	Type	M1C	JT100FBVDKT 4.2kW	JT100FBVDKT 2.0kW	JT100FBVDKT 3.0kW
		Output				
	STD.1	Type	M2C	JT170FBK 4.5kW	JT170FBK 4.5kW	JT170FBK 4.5kW
		Output				
	STD.2	Type	M3C	—	JT170FBK 4.5kW	JT170FBK 4.5kW
		Output				
	Crankcase heater (INV)		E1HC	200V 33W		
Crankcase heater (STD.1)		E2HC	200V 33W			
Crankcase heater (STD.2)		E3HC	—	200V 33W		
OC protection device for STD compressor		—	25A			
Fan motor	Motor		M1F	0.80kw		
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	0pls		
		Heating		PI control		
	Electronic expansion valve (Subcool)	Cooling	Y2E	PI control		
		Heating		0pls		
	Solenoid valve (Hot gas)		Y1S	VPV-603D	TEV1620DQ2	
	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		
4 way valve		Y7S	VHV-0404	VT60100		
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		
	Pressure switch (STD2)		S3PH	—	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 PCB	For fin	R1T	3.5 to 360Ω		
	Main PCB	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 discharge pipe (STD.2)	R33T	—	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		

## 3.1.4 RX5~16MY1

Item	Name		Symbol	Model		
				RX5MY1	RX8MY1	RX10MY1
Compressor	Inverter	Type	M1C	JT1FBVDKYR 3.2kW	JT1FBVDKTYR 1.2kW	JT1FBVDKTYR 2.7kW
		Output				
	STD.1	Type	M2C	—	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW
		Output				
	STD.2	Type	M3C	—		
		Output				
	Crankcase heater (INV)			E1HC	240V 33W	
	Crankcase heater (STD.1)			E2HC	—	240V 33W
Crankcase heater (STD.2)			E3HC	—		
OC protection device for STD compressor			—	—	13A	
Fan motor	Motor		M1F	0.35kw	0.75kw	
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	1400pls	PI control	
		Heating				
	Electronic expansion valve (Subcool)	Cooling	Y2E	—	PI control	
		Heating			0pls	
	Solenoid valve (Hot gas)		Y1S	TEV1620DQ2	VPV-603D	
	Solenoid valve (External multi oil)		Y2S	—	TEV1620DQ2	
	Solenoid valve (Receiver gas charge)	Y3S	—	TEV1620DQ2		
		Y2S	TEV1620DQ2	—		
	Solenoid valve (Receiver gas discharge)		Y4S	—	VPV-603D	
	Solenoid valve (Injection)		Y4S	TEV1620DQ2	—	
	Solenoid valve (Non-operating unit gas discharge)		Y5S	—	TEV1620DQ2	
	Solenoid valve (Non-operating unit liquid pipe close)		Y6S	—	VPV-803DQ50	
	4 way valve		Y7S	—	—	
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	
	Pressure switch (STD2)		S3PH	—		
	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 PCB	For fin	R1T	3.5 to 360Ω		
		Main PCB	For outdoor air	R1T	3.5 to 360Ω	
	For suction pipe		R2T	3.5 to 360Ω		
	For discharge pipe (INV)		R3T	3.5 to 400Ω	—	
			R31T	—	3.5 to 400Ω	
	For discharge pipe (STD.1)		R32T	—	3.5 to 400Ω	
	For discharge pipe (STD.2)		R33T	—		
	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		

Item	Name		Symbol	Model		
				RX12MY1	RX14MY1	RX16MY1
Compressor	Inverter	Type	M1C	JT1FBVDKTYR 4.2kW	JT1FBVDKTYR 2.0kW	JT1FBVDKTYR 3.0kW
		Output				
	STD.1	Type	M2C	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW
		Output				
	STD.2	Type	M3C	—	JT170FBKYE 4.5kW	JT170FBKYE 4.5kW
		Output				
	Crankcase heater (INV)		E1HC	240V 33W		
Crankcase heater (STD.1)		E2HC	240V 33W			
Crankcase heater (STD.2)		E3HC	—	240V 33W		
OC protection device for STD compressor		—	13A			
Fan motor	Motor		M1F	0.75kw		
Functional parts	Electronic expansion valve (Main)	Cooling	Y1E	0pls		
		Heating		PI control		
	Electronic expansion valve (Subcool)	Cooling	Y2E	PI control		
		Heating		0pls		
	Solenoid valve (Hot gas)		Y1S	VPV-603D	TEV1620DQ2	
	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		
4 way valve		Y7S	—			
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		
	Pressure switch (STD2)		S3PH	—	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 PCB	For fin	R1T	3.5 to 360Ω		
	Main PCB	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 discharge pipe (STD.2)	R33T	—	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 Side

### 3.2.1 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		BRC1A61								Option
	Wireless Remote Controller		H/P BRC7E61W, 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 PCB A4P or wired remote controller								
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-5 $\phi$ 8 L1000 20k $\Omega$ (25°C)								
	Thermistor (Heat Exchanger)	R2T	ST8602A-5 $\phi$ 6 L1000 20k $\Omega$ (25°C)								
Others	Float Switch	S1L	FS-0211B								
	Fuse	F1U	250V 5A $\phi$ 5.2								
	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		BRC1A61								Option
	Wireless Remote Controller		H/P BRC7C62, C/O BRC7C67								Option
Motors	Fan Motor	M1F	AC 220~240V 50Hz								
			1 $\phi$ 10W	1 $\phi$ 15W	1 $\phi$ 25W	1 $\phi$ 30W	1 $\phi$ 50W	1 $\phi$ 85W	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 $\phi$ 4 L1250 20k $\Omega$ (25°C)								
	Thermistor (for Heat Exchanger High Temp.)	R3T	ST8605-6 $\phi$ 8 L1250 20k $\Omega$ (25°C)								
	Thermistor (Heat Exchanger)	R2T	ST8602A-5 $\phi$ 6 L1000 20k $\Omega$ (25°C)								
Others	Float Switch	S1L	FS-0211B								
	Fuse	F1U	250V 5A $\phi$ 5.2								
	Transformer	T1R	TR22H21R8								

Parts Name		Symbol	Model				Remark
			FXK 25LVE	FXK 32LVE	FXK 40LVE	FXK 63LVE	
Remote Controller	Wired Remote Controller		BRC1A61				Option
	Wireless Remote Controller		H/P BRC4C61, 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
			FXYD20 KAVE	FXYD25 KAVE	FXYD32 KAVE	FXYD40 KAVE	FXYD50 KAVE	FXYD63 KAVE	
Remote Controller	Wired Remote Controller		BRC1A62						Option
	Wireless Remote Controller		H/P BRC4C62, 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		BRC1A62									Option
	Wireless Remote Controller		H/P BRC4C62, 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
			FXVB 20KV1	FXVB 25KV1	FXVB 32KV1	FXVB 40KV1	FXVB 50KV1	FXVB 63KV1	FXVB 80KV1	FXVB 100KV1	FXVB 125KV1	
Remote Controller	Wired Remote Controller		BRC1A62									Option
	Wireless Remote Controller		H/P BRC4C62, 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		BRC1A62									Option
	Wireless Remote Controller		H/P BRC4C62, 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		BRC1A61			Option
	Wireless Controller		H/P BRC7E63W, 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	
Remote Controller	Wired Remote Controller		BRC1A61					Option
	Wireless Remote Controller		H/P BRC7E618, 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	
Remote Controller	Wired Remote Controller		BRC1A62					Option
	Wireless Remote Controller		H/P BRC4C62, C/O BRC4C64					
Motors	Fan Motor	M1F	AC 220~240V 50Hz					
			1φ15W	1φ25W	1φ35W			
	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	
Remote Controller	Wired Remote Controller		BRC1A62					Option
	Wireless Remote Controller		H/P BRC4C62, C/O BRC4C64					
Motors	Fan Motor	M1F	AC 220~240V 50Hz					
			1φ15W	1φ25W	1φ35W			
	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	FXYD-KA	FXS-L	FXYB-K	FXM-L	FXH-L	FXA-L	FXL-L FXN-L
1	Remote controller	Wireless	H/P	BRC7C62	BRC7E61W	BRC4C61	BRC4C62			BRC7E63W	BRC7E618	BRC4C62
			C/O	BRC7C67	BRC7E65	BRC4C63	BRC4C64			BRC7E66	BRC7E619	BRC4C64
		Wired	BRC1A61			BRC1A62			BRC1A61			BRC1A62
2	Set back time clock	BRC15A61										
3	Simplified remote controller	—			BRC2A51			—			BRC2A51	
4	Remote controller for hotel use	—			BRC3A61			—			BRC3A61	
5	Adaptor for wiring	★KRP1B61	★KRP1B59	KRP1B61			KRP1B3	—		KRP1B61		
6-1	Wiring adaptor for electrical appendices (1)	★KRP2A61	★KRP2A62	KRP2A61			★KRP2A62	★KRP2A61	KRP2A61			
6-2	Wiring adaptor for electrical appendices (2)	★KRP4A51	★KRP4A53	KRP4A51			★KRP4A52	★KRP4A51	KRP4A51			
7	Remote sensor	KRCS01-1	KRCS01-1									
8	Installation box for adaptor PCB	Note 2, 3 KRP1B96	Note 2, 3 KRP1D98	—	Note 4 KRP1B100	Note 4 KRP4A91	—			Note 3 KRP1C93	Note 2, 3 KRP4A93	—
9	Central remote controller	DCS302B61										
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			★DTA104A62	★DTA104A61	DTA104A61			

#### Note

1. Installation box (No.8) is necessary for each adaptor marked H.
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.

#### Various PC Boards

No.	Part name	Model No.	Function
1	Adaptor for wiring	KRP1B61 KRP1B59 KRP1B3	■ PC board when equipped with auxiliary electric heater in the indoor unit.
2	DIII-NET Expander Adaptor	DTA109A51	■ Up to 1024 units can be centrally controlled in 64 different groups. ■ Wiring restrictions (max. length: 1000m, total wiring length: 2000m, max. number of branches: 16) apply to each adaptor.

#### System Configuration

No.	Part name	Model No.	Function
1	Central remote controller	DCS302B61	■ 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	DCS301B61	■ 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	DST301B61	■ 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 H adaptor must be procured on site.

## Building management system

No.	Part name		Model No.	Function		
1	intelligent Touch Controller	Without PPD	DCS601B51	Air-Conditioning management system that can be controlled by a compact all-in-one unit. PPD: Power Proportional Distribution function New Functions: • Auto cool/heat change-over • Temperature limitation • Multilingual (English, French, German, Spanish, Italian, or Chinese)		
		With PPD	DCS601B51 DCS002B51			
1-1	Electrical box with earth terminal (4blocks)		KJB411A	■ Wall embedded switch box.		
2	intelligent Manager ECO 21	Number of units to be connected	128 units	DAM602A52	Air conditioner management system (featuring minimized engineering) that can be controlled by personal computers.	
			192 units	DAM602A53		
			256 units	DAM602A51		
			512 units	DAM602A51x2		
			768 units	DAM602A51x3		
			1024 units	DAM602A51x4		
3	Communication Line	BACnet Gateway		DMS502A51	Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through BACnet communications.	
4		DMS-IF (for use in LON WORKS® networks)		DMS504B51	Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through LON WORKS® communication.	
5		Optional DIII board		DAM411A1	Expansion kit, installed on the BACnet Gateway (DMS502A51), to provide 3 more DIII-NET communication ports. Not usable independently.	
6		Optional Di board		DAM412A1	Expansion kit, installed on the BACnet Gateway (DMS502A51), to provide 16 more wattmeter pulse input points. Not usable independently.	
7		Optional DIII Ai unit		DAM101A51	Analog input for "sliding temperature" function (to reduce cold shock).	
8		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.
9				Temperature measurement units	DPF201A52	■ Enables temperature measurement output for 4 groups; 0-5VDC.
10	Temperature setting units			DPF201A53	■ Enables temperature setting input for 16 groups; 0-5VDC.	
11	Unification adaptor for computerized control		DCS302A52	■ Interface between the central monitoring board and central control units		
12-1	Wiring adaptor for electrical appendices (1)		KRP2A61, 62	■ Simultaneously controls air-conditioning control computer and up to 64 groups of indoor units.		
12-2	Wiring adaptor for electrical appendices (2)		KRP4A51-53	■ 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.)		DTA104A61, 62	■ Cooling/Heating mode change over. Demand control and Low noise control are available between the plural outdoor units.		

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

## 4.2 Option Lists (Outdoor Unit)

### RXY5 ~ 16MY1, YL, TL (E), RX5 ~ 10MY1 (E)

Optional accessories		RXY5MY1, YL, TL RX5MY1	RXY5MY1E, YLE, TLE RX5MY1E	RXY8MY1, YL, TL RXY10MY1, YL, TL RX8MY1 RX10MY1	RXY8MY1E, YLE, TLE RXY10MY1E, YLE, TLE RX8MY1E RX10MY1E	RXY12MY1, YL, TL RXY14MY1, YL, TL RXY16MY1, YL, TL RX12MY1 RX14MY1 RX16MY1	RXY12MY1E, YLE, TLE RXY14MY1E, YLE, TLE RXY16MY1E, YLE, TLE RX12MY1E RX14MY1E RX16MY1E
Cool/Heat Selector		KRC19-26A (For Heat Pump)					
Fixing box		KJB111A					
Distributive Piping	Refnet header	KHRJ26K11H, KHRJ26K17H (MAX. 4 branch) (MAX. 8 branch)		KHRJ26K11H, KHRJ26K17H (MAX. 4 branch) (MAX. 8 branch) KHRJ26K18H, KHRJ26K37H (MAX. 6 branch) (MAX. 8 branch)		KHRJ26K11H, KHRJ26K17H, (MAX. 4 branch) (MAX. 8 branch) KHRJ26K18H (MAX. 6 branch) KHRJ26K37H, KHRJ26K40H (MAX. 8 branch) (MAX. 8 branch)	
	Refnet joint	KHRJ26K11T, KHRJ26K17T		KHRJ26K11T, KHRJ26K17T KHRJ26K18T, KHRJ26K37T		KHRJ26K11T, KHRJ26K17T, KHRJ26K18T, KHRJ26K37T, KHRJ26K40T	
Pipe size reducer		—					
Central drain pan kit		KWC26B160	KWC26B160E	KWC26B280	KWC26B280E	KWC26B450	KWC26B450E

3D039850  
3D041582

### RXY18 ~ 32MY1, YL, TL (E), RX18 ~ 32MY1 (E)

Optional accessories		RXY18MY1, YL, TL RXY20MY1, YL, TL RX18MY1 RX20MY1	RXY18MY1E, YLE, TLE RXY20MY1E, YLE, TLE RX18MY1E RX20MY1E	RXY22MY1, YL, TL RX22MY1	RXY22MY1E, YLE, TLE RX22MY1E	RXY24MY1, YL, TL RXY26MY1, YL, TL RX24MY1 RX26MY1	RXY24MY1E, YLE, TLE RXY26MY1E, YLE, TLE RX24MY1E RX26MY1E	RXY28MY1, YL, TL RXY30MY1, YL, TL RXY32MY1, YL, TL RX28MY1 RX30MY1 RX32MY1	RXY28MY1E, YLE, TLE RXY30MY1E, YLE, TLE RXY32MY1E, YLE, TLE RX28MY1E RX30MY1E RX32MY1E
Cool/Heat Selector		KRC19-26A (For Heat Pump)							
Fixing box		KJB111A							
Distributive Piping	Refnet header	KHRJ26K11H, KHRJ26K17H, KHRJ26K18H, KHRJ26K37H, KHRJ26K40H (MAX. 4 branch) (MAX. 8 branch) (MAX. 6 branch) (MAX. 8 branch) (MAX. 8 branch)							
	Refnet joint	KHRJ26K11T, KHRJ26K17T, KHRJ26K18T, KHRJ26K37T, KHRJ26K40T				KHRJ26K11T, KHRJ26K17T, KHRJ26K18T, KHRJ26K37T, KHRJ26K40T, KHRJ26K75T			
	Outdoor unit multi connection piping kit	BHF22M90							
Pipe size reducer		KHRJ26K40TP, KHRJ26K40HP				KHRJ26K40TP, KHRJ26K75TP, KHRJ26K40HP			
Central drain pan kit		KWC26B280x2	KWC26B280E x2	KWC26B280 KWC26B450	KWC26B280E KWC26B450E	KWC26B280 KWC26B450	KWC26B280E KWC26B450E	KWC26B450x2	KWC26B450E x2

3D039851  
3D041583

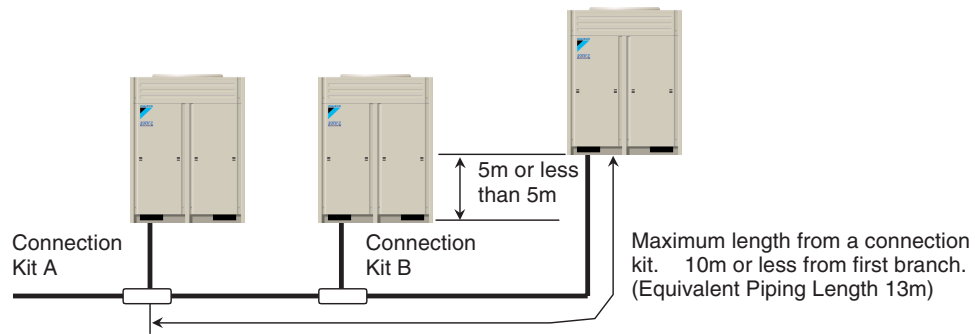
### RXY34 ~ 48MY1, YL, TL (E), RX34 ~ 48MY1 (E)

Optional accessories		RXY34MY1, YL, TL RX34MY1	RXY34MY1E, YLE, TLE RX34MY1E	RXY36MY1, YL, TL RX36MY1	RXY36MY1E, YLE, TLE RX36MY1E	RXY38MY1, YL, TL RXY40MY1, YL, TL RXY42MY1, YL, TL RX38MY1 RX40MY1 RX42MY1	RXY38MY1E, YLE, TLE RXY40MY1E, YLE, TLE RXY42MY1E, YLE, TLE RX38MY1E RX40MY1E RX42MY1E	RXY44MY1, YL, TL RXY46MY1, YL, TL RXY48MY1, YL, TL RX44MY1 RX46MY1 RX48MY1	RXY44MY1E, YLE, TLE RXY46MY1E, YLE, TLE RXY48MY1E, YLE, TLE RX44MY1E RX46MY1E RX48MY1E
Cool/Heat Selector		KRC19-26A (For Heat Pump)							
Fixing box		KJB111A							
Distributive Piping	Refnet header	KHRJ26K11H, KHRJ26K17H, KHRJ26K18H, KHRJ26K37H, KHRJ26K40H (MAX. 4 branch) (MAX. 8 branch) (MAX. 6 branch) (MAX. 8 branch) (MAX. 8 branch)							
	Refnet joint	KHRJ26K11T, KHRJ26K17T, KHRJ26K18T, KHRJ26K37T, KHRJ26K40T, KHRJ26K75T							
	Outdoor unit multi connection piping kit	BHF22M135							
Pipe size reducer		KHRJ26K40TP, KHRJ26K75TP KHRJ26K40HP		KHRJ26K40TP, KHRJ26K75TP, KHRJ26K76TP, KHRJ26K40HP					
Central drain pan kit		KWC26B280x2 KWC26B450	KWC26B280E x2 KWC26B450E	KWC26B280x2 KWC26B450	KWC26B280E x2 KWC26B450E	KWC26B280 KWC26B450x2	KWC26B280E KWC26B450E x2	KWC26B450x3	KWC26B450E x3

3D039852  
3D041584

# 5. Piping Installation Point

## 5.1 Piping Installation Point



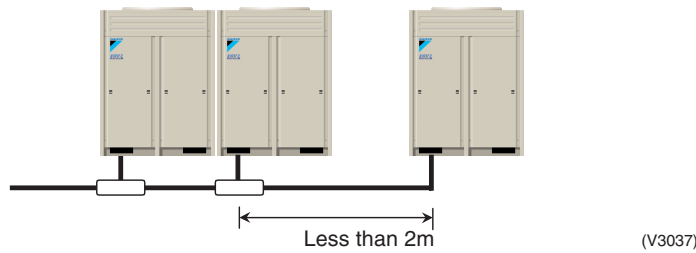
Since there is a possibility that oil may be collected on a stop machine side, install piping between outdoor units to go to level or go up to an outdoor unit, and to make a slope.

(V3036)

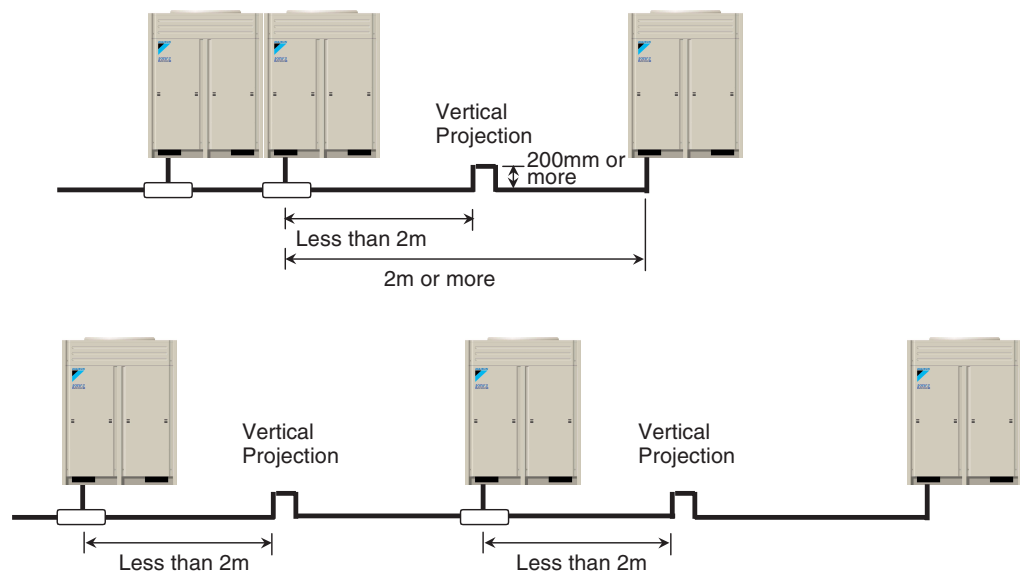
The projection part between multi connection piping kits

When the piping length between the multi connection kits or between multi connection kit and outdoor unit is 2m or more, prepare a vertical projection part (200mm or more as shown below) only on the gas pipe line location less than 2m from multi connection kit.

In the case of 2m or less

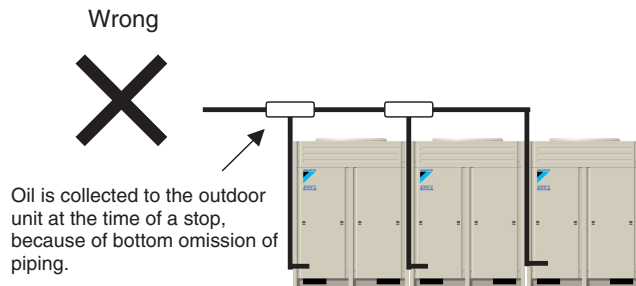


In the case of 2m or more

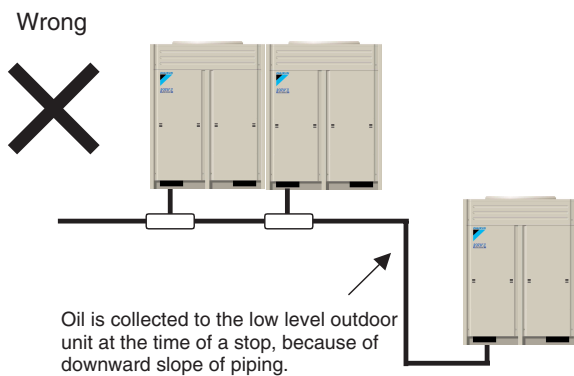


(V3038)

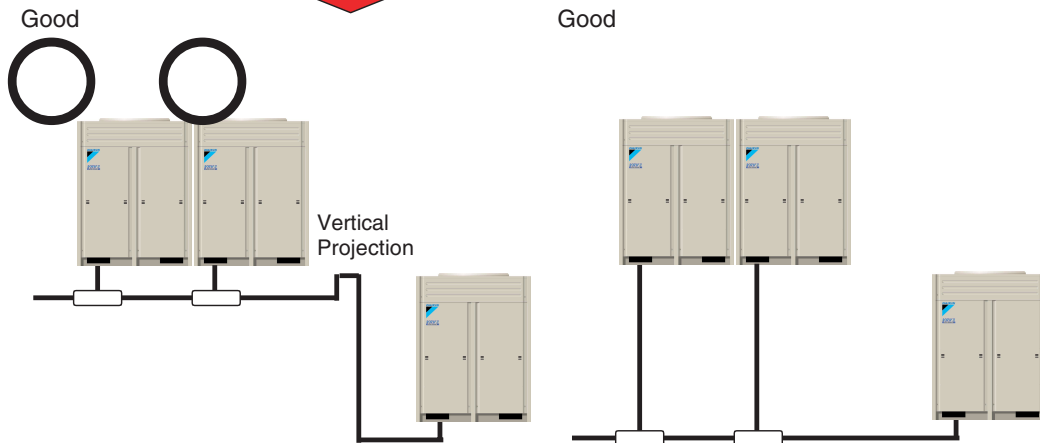
## 5.2 The Example of A Wrong Pattern



(V3039)



The example of installation on which oil is not collected.



(V3040)

Max. allowable Piping Length	Outdoor Unit - Multi Connection Piping Kit	Actual piping length 10m or less, equivalent length 13m or less
	Multi Connection Piping Kit - Indoor Unit	Actual piping length 150m or less, equivalent length 175m or less, the total extension 300m or less
	REFNET Joint - Indoor Unit	Actual piping length 40m or less
Allowable Level Difference	Outdoor Unit - Outdoor Unit	5m or less
	Outdoor Unit - Indoor Unit	50m or less (when an outdoor unit is lower than indoor units : 40m or less)
	Indoor Unit - Indoor Unit	15m or less

## 6. Selection of Pipe Size, Joints and Header

### 6.1 RXY5MY1, RXY8MY1, RXY10MY1, RXY12MY1, RXY14MY1, RXY16MY1

#### 6.1.1 How to select the REFNET Joint

##### How to select the REFNET Joint

Select the REFNET Joint from the following table when using REFNET Joints at the first branch counted from the outdoor unit side.

(Ex. : REFNET Joint A)

Outdoor Unit	REFNET Joints (Kit Name)
RXY5MY1	KHRJ26K18T
RXY8,10MY1	KHRJ26K37T
RXY12-16MY1	KHRJ26K40T+KHRJ26K40TP (Pipe Size Reducer)

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
330≤x<640	KHRJ26K40T+KHRJ26K40TP (Pipe Size Reducer)
640≤x<900	KHRJ26K75T+KHRJ26K75TP (Pipe Size Reducer)

#### 6.1.2 How to select pipe size

Between outdoor unit and uppermost stream REFNET Joint.

Pipe size connected to outdoor unit.

Outdoor Unit	Gas	Liquid
RXY5M	φ19.1	φ9.5
RXY8, 10MY1	φ28.6	φ12.7
RXY12-16MY1	φ34.9	φ15.9

##### Piping Material

Select the piping material to be used from the next table according to piping size.

Piping Size (O / D)	Temper grade of Material
φ19.1 or less	O
φ22.2 or more	1 / 2H or H

#### 6.1.3 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
330≤x<640	KHRJ26K40H+KHRJ26K40HP (Pipe Size Reducer)

### 6.1.4 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
330≤x<480	φ15.9	φ34.9
480≤x<640	φ19.1	φ34.9
≥640	φ19.1	φ41.3

### 6.1.5 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

### 6.1.6 The piping minimum thickness

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

Size	R22	
	Material	Minimum thickness t (mm)
φ6.4	O	0.8
φ9.5	O	0.8
φ12.7	O	0.8
φ15.9	O	1.0
φ19.1	O	1.0
φ22.2	1/2H	1.0
φ25.4	1/2H	1.2
φ28.6	1/2H	1.2
φ34.9	1/2H	1.3
φ41.3	1/2H	1.7
φ54.1	1/2H	1.7



## 6.2 RXY18MY1, RXY20MY1, RXY22MY1, RXY24MY1, RXY26MY1, RXY28MY1, RXY30MY1, RXY32MY1, RXY34MY1, RXY36MY1, RXY38MY1, RXY40MY1, RXY42MY1, RXY44MY1, RXY46MY1, RXY48MY1

### 6.2.1 How to select the REFNET Joint

#### How to select the REFNET Joint

Select the REFNET Joint from the following table. When using REFNET Joints at the first branch counted from the outdoor unit side.

(Ex. : REFNET Joint A)

Outdoor Unit	REFNET Joint(Kit Name)
RXY18-24MY1	KHRJ26K40T+KHRJ26K40TP (Pipe Size Reducer)
RXY26-34MY1	KHRJ26K75T+KHRJ26K75TP (Pipe Size Reducer)
RXY36-48MY1	KHRJ26K75T+KHRJ26K76TP (Pipe Size Reducer)

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
330≤x<640	KHRJ26K40T+KHRJ26K40TP (Pipe Size Reducer)
640≤x<900	KHRJ26K75T+KHRJ26K75TP (Pipe Size Reducer)
≥900	KHRJ26K75T+KHRJ26K76TP (Pipe Size Reducer)

### 6.2.2 How to select pipe size

#### Main Piping (Between Multi connection piping kit and REFNET Joint)

Select the proper ones based on the following table :

Outdoor Unit	Gas	Liquid
RXY18MY1	φ34.9	φ19.1
RXY20MY1		
RXY22MY1		
RXY24MY1	φ41.3	φ22.2
RXY26MY1		
RXY28MY1		
RXY30MY1		
RXY32MY1		
RXY34MY1		
RXY36MY1	φ54.1	
RXY38MY1		
RXY40MY1		
RXY42MY1		
RXY44MY1		
RXY46MY1		
RXY48MY1		

#### Piping Material

Select the piping material to be used from the next table according to piping size.

Piping Size (O / D)	Temper grade of Material
φ19.1 or less	O
φ22.2 or more	1 / 2H or H

### 6.2.3 How to select the REFNET header

Select the proper branch kit model based on the total capacity index of indoor units installed after the header using the following table.

Total capacity index	REFNET Header (Kit Name)
<100	KHRJ26K11H
100≤x<160	KHRJ26K18H
160≤x<330	KHRJ26K37H
330≤x<640	KHRJ26K40H+KHRJ26K40HP (Pipe Size Reducer)

- Branching is impossible between refnet header and indoor unit.
- For systems with a total capacity of 640 and over, connect a refnet joint branch.

### 6.2.4 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 be larger than main piping size.

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
330≤x<480	φ15.9	φ34.9
480≤x<640	φ19.1	φ34.9
640≤x<880	φ19.1	φ41.3
≥900	φ22.2	φ54.1

### 6.2.5 Piping between the multi connection piping kit

Select the proper pipe size using the following table based on the total capacity index of outdoor units connected upper stream.

Total capacity index of outdoor units connected to upper stream	Gas	Liquid	Oil
Less than RXY22MY1	φ34.9	φ19.1	φ6.4
RXY24MY1	φ41.3		
RXY26MY1 or more~ Less than RXY32MY1		φ22.2	

### 6.2.6 Outdoor Unit Multi Connection Piping Kit

Select the piping kit according to the No. of outdoor units

No. of outdoor units	Multi Connection Piping Kit
2 units	BHF22M90
3 units	BHF22M135

### 6.2.7 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

## 6.2.8 Piping between outdoor Unit and Multi Connection Piping Kit

Pipe size for direct connection to outdoor unit must be the same as the connection size of outdoor unit.

Outdoor Units	Gas	Liquid	Oil
RXY8, 10MY1	φ28.6	φ12.7	φ6.4
RXY12-16MY1	φ34.9	φ15.9	

## 6.2.9 The piping minimum thickness

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

Size	R22	
	Material	Minimum thickness t (mm)
φ6.4	O	0.8
φ9.5	O	0.8
φ12.7	O	0.8
φ15.9	O	1.0
φ19.1	O	1.0
φ22.2	1/2H	1.0
φ25.4	1/2H	1.2
φ28.6	1/2H	1.2
φ34.9	1/2H	1.3
φ41.3	1/2H	1.7
φ54.1	1/2H	1.7

## 7. 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

## 8. Pressure Sensor

High Pressure  $P_H = (V_H - 0.5) \times 0.98$

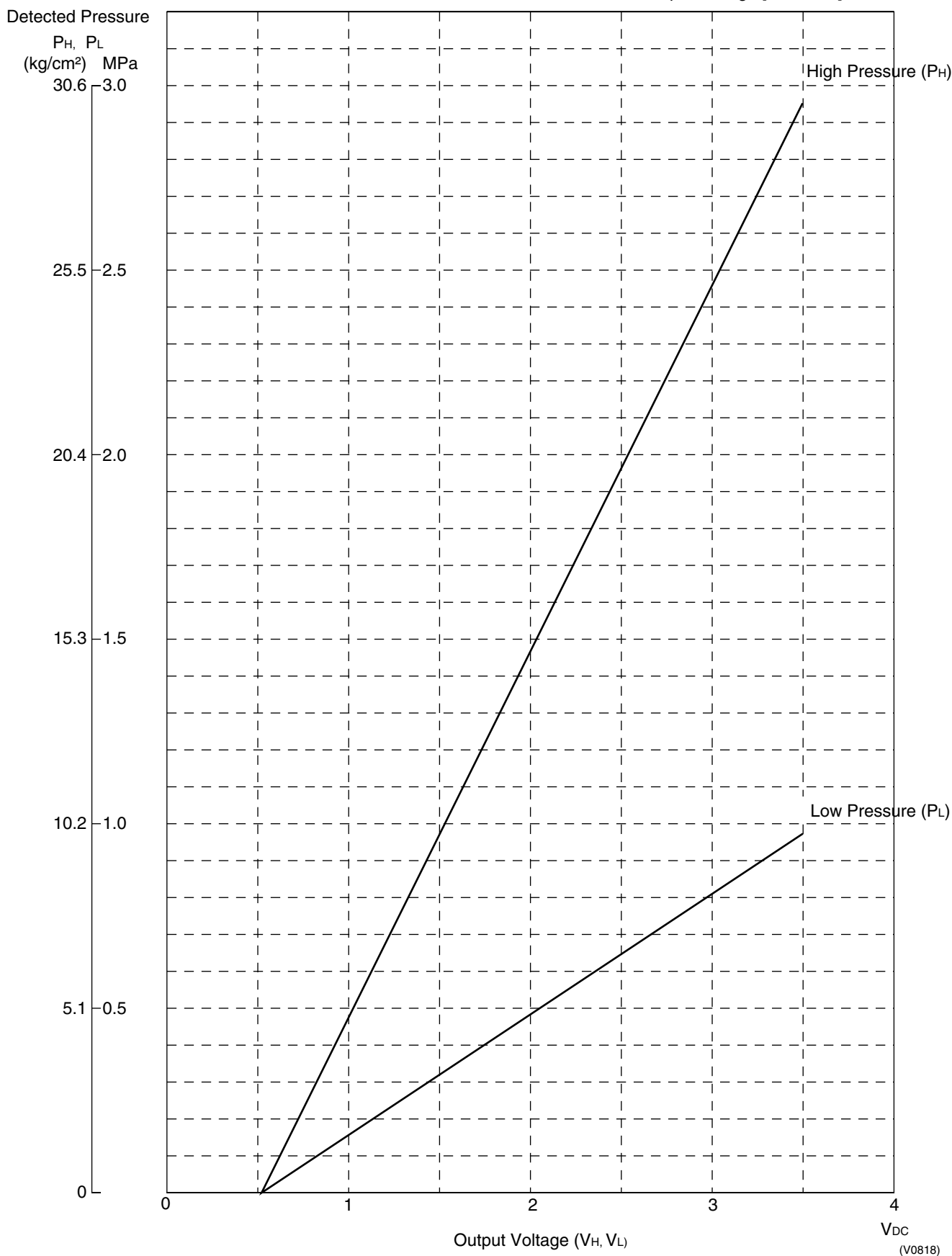
Low Pressure  $P_L = (V_L - 0.5) \times \frac{0.98}{3}$

$P_H$  : Detected Pressure [High Side] MPa

$P_L$  : Detected Pressure [Low Side] MPa

$V_H$  : Output Voltage [High Side] V<sub>DC</sub>

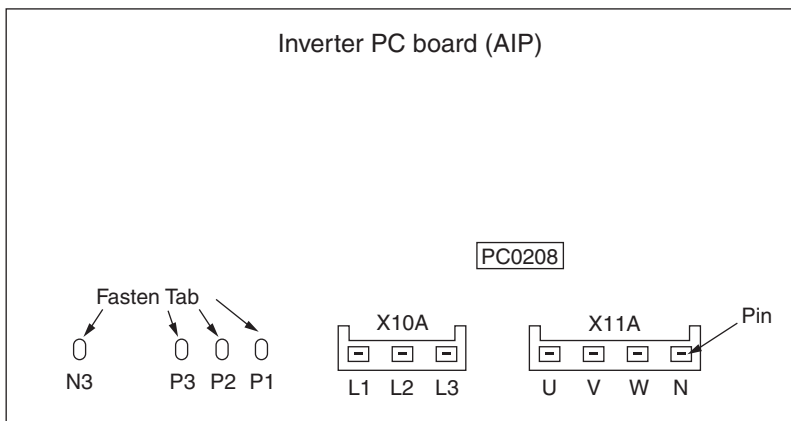
$V_L$  : Output Voltage [Low Side] V<sub>DC</sub>



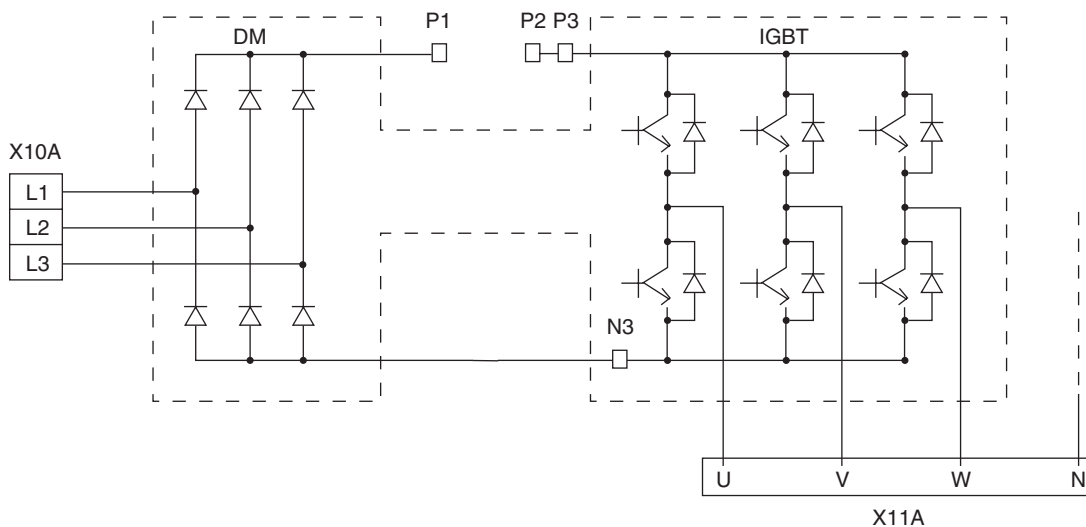
# 9. Method of Replacing The Inverter's Power Transistors and Diode Modules

## 9.1 Method of Replacing The Inverter's Power Transistors and Diode Modules

Inverter P.C.Board



Electronic circuit

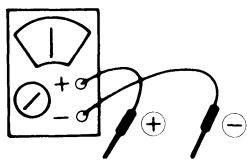


(V2895)

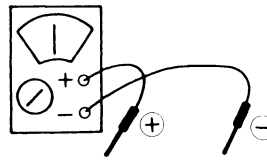
[Decision according to continuity check by analog tester]

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

### Power Transistor IGBT (On Inverter PC Board)



P3	-	U	Continuity	} ✘
∕	-	V	∕	
∕	-	W	∕	
∕	-	N	(Approx. 100kΩ)	
U	-	P3	Approx. 4kΩ → ∞	
V	-	∕	∕	
W	-	∕	∕	
N	-	∕	(Approx. 160kΩ)	



N3	-	U	Approx. 4kΩ → ∞
∕	-	V	∕
∕	-	W	∕
∕	-	N	(Approx. 250kΩ)
U	-	N3	Continuity
V	-	∕	} ✘
W	-	∕	
N	-	∕	
			(Approx. 100kΩ)

\*In the case of continuity, the resistance must be the same for all phases.

(V2896)

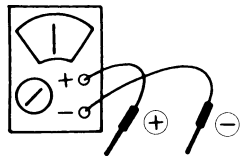
#### (Decision)

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

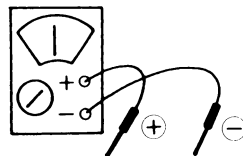


**Note:** If using a digital tester, ∞ and continuity may be reversed.

### Diode Module



P1	-	L1	Continuity
P1	-	L2	∕
P1	-	L3	∕
L1	-	P1	∞
L2	-	P1	∞
L3	-	P1	∞



N3	-	L1	∞
∕	-	L2	∞
∕	-	L3	∞
L1	-	N3	Continuity
L2	-	∕	∕
L3	-	∕	∕

(V2897)

#### (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

<b>A</b>		<b>E</b>	
A0 .....	178	E1 .....	193
A1 .....	179	E3 .....	194
A3 .....	180	E4 .....	195
A6 .....	182	E5 .....	196
A7 .....	183	E6 .....	197
A9 .....	185	E7 .....	198
Abnormal Discharge Pipe Temperature .....	202	E9 .....	200
Abnormal Outdoor Fan Motor Signal .....	204	Electronic Expansion Valve PI Control .....	94
Actuation of High Pressure Switch .....	194	Emergency Operation .....	111
Actuation of Low Pressure Sensor .....	195	Error of External Protection Device .....	178
Address Duplication of		Excessive Number of Indoor Units .....	234
Central Remote Controller .....	235		
Address Duplication, Improper Setting .....	245, 252	<b>F</b>	
AF .....	187	F3 .....	202
Air Flow Direction Setting .....	133	F6 .....	203
AJ .....	188	Fan Motor (M1F) Lock, Overload .....	182
Applicable range of Field setting .....	131	Field Setting .....	127
Auto restart after power failure reset .....	132	Field Setting from Outdoor Unit .....	139
		Filter Sign Setting .....	132
<b>B</b>		Freeze Prevention .....	119
Basic Control .....	87	Functional Parts Layout	
		RXY14, 16M .....	72
<b>C</b>		RXY5M .....	70
C4 .....	189	RXY8, 10, 12M .....	71
C5 .....	190		
C9 .....	191	<b>H</b>	
Centralized Control Group No. Setting .....	135	H7 .....	204
Check No. 12 .....	260	H9 .....	205
Check No. 8 .....	259	Heating operation prohibition .....	113
Check No. 9 .....	259	High Pressure Protection Control .....	105
Check Operation .....	123		
Check Operation not executed .....	225	<b>I</b>	
CJ .....	192	Improper Combination of Optional Controllers for	
Compressor Motor Lock .....	196	Centralized Control .....	243, 250
Compressor PI Control .....	88	Inverter Compressor Abnormal .....	214
Contents of Control Modes .....	137	Inverter Current Abnormal .....	215
Cool/Heat Mode Switching .....	148	Inverter Over-Ripple Protection .....	219
Cooling Operation Fan Control .....	95	Inverter Protection Control .....	108
Crankcase Heater Control .....	109	Inverter Start up Error .....	216
Current Sensor Malfunction .....	206		
		<b>J</b>	
<b>D</b>		J2 .....	206
Defrosting Operation (H / P model only) .....	99	J3 .....	207
Demand Operation .....	113	J5 .....	208
Detailed Explanation of Setting Modes .....	132	J6 .....	209
Discharge Pipe Protection Control .....	107	J9 .....	210
Display "Under Host Computer Integrate Control"		JA .....	211
Blinks (Repeats Double Blink) .....	258	JC .....	212
Display "Under Host Computer Integrate Control"			
Blinks (Repeats Single Blink) .....	255	<b>L</b>	
Drain Level above Limit .....	187	L4 .....	213
Drain Pump Control .....	114	L5 .....	214
		L8 .....	215
		L9 .....	216

LC .....	217	Malfunction of Transmission Between	
List of Electrical and Functional Parts .....	298	Outdoor Units .....	229
Indoor Unit .....	306	Malfunction of Transmission Between Remote	
Outdoor Unit .....	298	Controller and Indoor Unit .....	228
Louver Control for Preventing Ceiling Dirt .....	116	MC .....	245, 252
Low Pressure Drop Due to Refrigerant Shortage or		Method of Replacing The Inverter's Power Transistors	
Electronic Expansion Valve Failure .....	221	and Diode Modules .....	324
Low Pressure Protection Control .....	106		
<b>M</b>		<b>O</b>	
M1 .....	241, 248	Oil Return Operation .....	97
M8 .....	242, 249	Operation Lamp Blinks .....	253
MA .....	243, 250	Operation Mode .....	86
Malfunction code indication		Operation When Power is Turned On .....	125
by outdoor unit PCB .....	176	Option List .....	311
Malfunction of Capacity Determination Device .....	188	Other Control .....	110
Malfunction of Discharge Pipe Thermistor		Outdoor Unit PC Board Layout .....	126
(R31~33T) .....	207	Outdoor Unit Rotation .....	110
Malfunction of Drain Level			
Control System (33H) .....	180	<b>P</b>	
Malfunction of High Pressure Sensor .....	211	P1 .....	219
Malfunction of Inverter Radiating Fin		P4 .....	220
Temperature Rise .....	213	PC Board Defect .....	179, 193, 241, 248
Malfunction of Inverter Radiating Fin		Piping Installation Point .....	314
Temperature Rise Sensor .....	220	The Example of A Wrong Pattern .....	315
Malfunction of Low Pressure Sensor .....	212	Power Supply Insufficient or	
Malfunction of Moving Part of		Instantaneous Failure .....	223
Electronic Expansion Valve (20E) .....	185	Pressure Equalization prior to Startup .....	104
Malfunction of Moving Part of		Pressure Sensor .....	323
Electronic Expansion Valve (Y1E, Y2E) .....	200	Protection Control .....	105
Malfunction of Outdoor Unit Fan Motor .....	198	Pump-down Residual Operation .....	100
Malfunction of Receiver Gas Pipe			
Thermistor (R5T) .....	210	<b>R</b>	
Malfunction of Swing Flap Motor (MA) .....	183	Refrigerant Circuit	
Malfunction of System, Refrigerant		RXY14, 16M .....	68
System Address Undefined .....	239	RXY5M .....	64
Malfunction of Thermistor (R1T) for Suction Air ...	191	RXY8, 10, 12M .....	66
Malfunction of Thermistor (R2T)		Refrigerant Flow for Each Operation Mode .....	73
for Heat Exchanger .....	189	RXY14, 16M .....	81
Malfunction of Thermistor (R2T)		RXY5M .....	73
for Suction Pipe .....	208	RXY8, 10, 12M .....	77
Malfunction of Thermistor (R3T) for Gas Pipes ....	190	Refrigerant Overcharged .....	203
Malfunction of Thermistor (R4T) for		Refrigerant System not Set, Incompatible Wiring/	
Outdoor Unit Heat Exchanger .....	209	Piping .....	238
Malfunction of Thermistor for		Replacement procedure for INV compressor, VRV II	
Outdoor Air (R1T) .....	205	RX(Y)5M-48M .....	262
Malfunction of Thermostat Sensor in Remote		Restart Standby .....	101
Controller .....	192	Reverse Phase, Open Phase .....	222
Malfunction of Transmission Between Central			
Remote Controller and		<b>S</b>	
Indoor Unit .....	236, 240, 246	Selection of Pipe Size, Joints and Header .....	316
Malfunction of Transmission Between Indoor and		Setting by dip switches .....	139
Outdoor Units in the Same System .....	232	Setting by pushbutton switches .....	139
Malfunction of Transmission Between		Setting Contents and Code No. ....	130
Indoor Units .....	226	Setting of Low Noise Operation and Demand	
Malfunction of Transmission Between Inverter and		Operation .....	153
Control PC Board .....	217	Setting of Refrigerant Additional Charging	
Malfunction of Transmission Between Master and		Operation .....	159
Slave Remote Controllers .....	231	Setting of Refrigerant Recovery Mode .....	160
Malfunction of Transmission Between Optional		Setting of Vacuuming Mode .....	161
Controllers for Centralized Control .....	242, 249	Special Control .....	96
		Specifications .....	8

Indoor Units .....	41
Outdoor Units .....	8
Standard Compressor Motor Overcurrent/Lock ...	197
Startup Control .....	96
STD Compressor Overload Protection .....	109
Stopping Operation .....	102

**T**

Test Operation .....	122
Procedure and Outline .....	122
Thermistor Resistance / Temperature	
Characteristics .....	321
Thermostat Sensor in Remote Controller .....	117
Troubleshooting (OP	
Central Remote Controller) .....	240
Schedule Timer) .....	246
Unified ON/OFF Controller) .....	253

**U**

U0 .....	221
U1 .....	222
U2 .....	223
U3 .....	225
U4 .....	226
U5 .....	228
U7 .....	229
U8 .....	231
U9 .....	232
UA .....	234
UC .....	235
UE .....	236, 240, 246
UF .....	238
UH .....	239
Ultra-Long-Life Filter Sign Setting .....	132



# Drawings & Flow Charts

<b>A</b>		
Abnormal Discharge Pipe Temperature .....	202	
Abnormal Outdoor Fan Motor Signal .....	204	
Actuation of High Pressure Switch .....	194	
Actuation of Low Pressure Sensor .....	195	
Additional refrigerant charge total flow .....	159	
Address Duplication of Central Remote Controller .....	235	
Address Duplication, Improper Setting .....	245, 252	
<b>C</b>		
Centralized Control Group No. Setting		
BRC1A Type .....	135	
BRC7C Type .....	135	
Group No. Setting Example .....	136	
Check No. 12 .....	260	
Check No. 8 .....	259	
Check No. 9 .....	259	
Check Operation .....	123	
Check Operation not executed .....	225	
Check work prior to turn power supply on .....	122	
Compressor Motor Lock .....	196	
Contents of Control Modes		
How to Select Operation Mode .....	138	
Current Sensor Malfunction .....	206	
<b>D</b>		
Display "Under Host Computer Integrate Control"		
Blinks (Repeats Double Blink) .....	258	
Display "Under Host Computer Integrate Control"		
Blinks (Repeats Single Blink) .....	255	
Display of sensor and address data .....	172	
Drain Level above Limit .....	187	
Drain Pump Control		
When the Float Switch is Tripped and "AF" is Displayed on the Remote Controller .....	115	
When the Float Switch is Tripped During Cooling OFF by Thermostat .....	114	
When the Float Switch is Tripped During Heating Operation .....	115	
When the Float Switch is Tripped While the Cooling Thermostat is ON .....	114	
<b>E</b>		
Error of External Protection Device .....	178	
Excessive Number of Indoor Units .....	234	
<b>F</b>		
Fan Motor (M1F) Lock, Overload .....	182	
Field Setting From Outdoor Unit		
Mode changing procedure .....	140	
Setting by pushbutton switches .....	139	
Field Setting from Outdoor Unit		
Setting by dip switches .....	139	
Field Wiring		
FXA20L / 25L / 32L / 40L / 50L / 63LVE .....	296	
FXC 20L / 25L / 32L / 63LVE .....	286	
FXC 40L / 50L / 80L / 125LVE .....	287	
FXF25L / 32L / 40L / 50L / 63L / 80L / 100L / 125LVE .....	288	
FXH 32L / 63L / 100LVE .....	295	
FXK 25L / 32L / 40L / 63LVE .....	289	
FXL 20L / 25L / 32L / 40L / 50L / 63LVE .....	297	
FXM 200L / 250LVE .....	294	
FXM 40L / 50L / 63L / 80L / 100L / 125LVE .....	293	
FXN 20L / 25L / 32L / 40L / 50L / 63LVE .....	297	
FXS 20L / 25L / 32L / 40L / 50L / 63L / 80L / 100L / 125LVE .....	291	
FXYB20K / 25K / 32K / 40K / 50K / 63K / 80K / 100K / 125KV1 .....	292	
FXYD20KAVE / 25KAVE / 32KAVE / 40KAVE / 50KAVE / 63KAVE .....	290	
RX(Y)18, 20, 22, 24, 26, 28, 32MY1 .....	281	
RX(Y)18, 20, 22, 24, 26, 28, 32MYL .....	281	
RX(Y)34, 36, 38, 40, 42, 44, 46, 48MY1 .....	282	
RX(Y)34, 36, 38, 40, 42, 44, 46, 48MYL .....	282	
RX(Y)5, 8, 10, 12, 14, 16MY1 .....	280	
RX(Y)5, 8, 10, 12, 14, 16MYL .....	280	
RXY18, 20, 22, 24, 26, 28, 30, 32MTL .....	284	
RXY34, 36, 38, 40, 42, 44, 46, 48MTL .....	285	
RXY5, 8, 10, 12, 14, 16MTL .....	283	
Forced fan ON .....	172	
Freeze Prevention .....	119	
Functional Parts Layout		
RXY14, 16M .....	72	
RXY5M .....	70	
RXY8, 10, 12M .....	71	
<b>H</b>		
How to Enter the Service Mode .....	171	
<b>I</b>		
Improper Combination of Optional Controllers for Centralized Control .....	243, 250	
Individual setting .....	172	
Inverter Compressor Abnormal .....	214	
Inverter Current Abnormal .....	215	
Inverter Over-Ripple Protection .....	219	
Inverter Start up Error .....	216	
<b>L</b>		
Low Pressure Drop Due to Refrigerant Shortage or Electronic Expansion Valve Failure .....	221	
<b>M</b>		
Malfunction hysteresis display .....	172	
Malfunction of Capacity Determination Device .....	188	

Malfunction of Discharge Pipe Thermistor (R31~33T).....	207	Piping Diagrams	
Malfunction of Drain Level Control System (33H).....	180	FXC, FXF, FXK, FXYD, FXS, FXYB, FXM, FXH, FXA, FXL, FXN.....	270
Malfunction of High Pressure Sensor.....	211	RX14M RX16M.....	269
Malfunction of Inverter Radiating Fin Temperature Rise.....	213	RX5M.....	267
Malfunction of Inverter Radiating Fin Temperature Rise Sensor.....	220	RX8M RX10M RX12M.....	268
Malfunction of Low Pressure Sensor.....	212	RXY14M RXY16M.....	266
Malfunction of Moving Part of Electronic Expansion Valve (20E).....	185	RXY5M.....	264
Malfunction of Moving Part of Electronic Expansion Valve (Y1E, Y2E).....	200	RXY8M RXY10M RXY12M.....	265
Malfunction of Outdoor Unit Fan Motor.....	198	Piping Installation Point.....	314
Malfunction of Receiver Gas Pipe Thermistor (R5T).....	210	The Example of A Wrong Pattern.....	315
Malfunction of Swing Flap Motor (MA).....	183	Power Supply Insufficient or Instantaneous Failure.....	223
Malfunction of System, Refrigerant System Address Undefined.....	239	Pressure Sensor.....	323
Malfunction of Thermistor (R1T) for Suction Air....	191	<b>R</b>	
Malfunction of Thermistor (R2T) for Heat Exchanger.....	189	Refrigerant Circuit	
Malfunction of Thermistor (R2T) for Suction Pipe.....	208	RXY14, 16M.....	68
Malfunction of Thermistor (R3T) for Gas Pipes.....	190	RXY5M.....	64
Malfunction of Thermistor (R4T) for Outdoor Unit Heat Exchanger.....	209	RXY8, 10, 12M.....	66
Malfunction of Thermistor for Outdoor Air (R1T)....	205	Refrigerant Flow for Each Operation Mode.....	73
Malfunction of Thermostat Sensor in Remote Controller.....	192	RXY14, 16M.....	81
Malfunction of Transmission Between Central Remote Controller and Indoor Unit.....	236, 240, 246	RXY5M.....	73
Malfunction of Transmission Between Indoor and Outdoor Units in the Same System.....	232	RXY8, 10, 12M.....	77
Malfunction of Transmission Between Indoor Units.....	226	Refrigerant Overcharged.....	203
Malfunction of Transmission Between Inverter and Control PC Board.....	217	Refrigerant System not Set, Incompatible Wiring/ Piping.....	238
Malfunction of Transmission Between Master and Slave Remote Controllers.....	231	Remote Controller Self-Diagnosis Function.....	173
Malfunction of Transmission Between Optional Controllers for Centralized Control.....	242, 249	Replacement procedure for INV compressor, VRV II RX(Y)5M-48M.....	262
Malfunction of Transmission Between Outdoor Units.....	229	Reverse Phase, Open Phase.....	222
Malfunction of Transmission Between Remote Controller and Indoor Unit.....	228	<b>S</b>	
Method of Replacing The Inverter's Power Transistors and Diode Modules.....	324	Self-diagnosis by Wired Remote Controller.....	166
Diode Module.....	325	Setting of Air Flow Direction Adjustment Range.....	134
Power Transistor IGBT (On Inverter PC Board).....	325	Setting of Demand Operation Image of operation in the case of A.....	156
<b>O</b>		Image of operation in the case of A and B....	156
Operation Lamp Blinks.....	253	Image of operation in the case of B.....	156
Outdoor Unit PC Board Layout.....	126	Setting of Low Noise Operation Image of operation in the case of A.....	154
<b>P</b>		Image of operation in the case of A, B.....	154
PC Board Defect.....	179, 193, 241, 248	Image of operation in the case of B.....	154
		Simplified Remote Controller.....	129
		Standard Compressor Motor Overcurrent/Lock ...	197
		<b>T</b>	
		Thermostat Sensor in Remote Controller	
		Cooling.....	117
		Heating.....	118
		Turn power on.....	122
		<b>U</b>	
		Unit No. transfer.....	172
		<b>W</b>	
		Wired Remote Controller.....	127
		Wireless Remote Controller - Indoor Unit.....	128
		Wiring Diagrams for Reference RX14MY1 RX16MY1.....	279

RX8MY1 RX10MY1 RX12MY1.....	278
RXY14MTL RXY16MTL .....	276
RXY14MY1, RXY14MYL RXY16MY1, RXY16MYL.....	273
RXY5MTL .....	274
RXY5MY1, RXY5MYL .....	271
RXY8MTL RXY10MTL RXY12MTL.....	275
RXY8MY1, RXY8MYL RXY10MY1, RXY10MYL RXY12MY1, RXY12MYL .....	272
Wiring Diagrams for ReferenceRX5MY1 .....	277





**DAIKIN INDUSTRIES, LTD.**

Head office:

Umeda Center Bldg., 4-12, Nakazaki-Nishi 2-chome,  
Kita-ku, Osaka, 530-8323 Japan

Tokyo office:

Shinjuku Sumitomo Bldg., 6-1 Nishi-Shinjuku  
2-chome, Shinjuku-ku, Tokyo, 163-0235 Japan

**DAIKIN EUROPE NV**

Zandvoordestraat 300, B-8400 Oostende, Belgium

---

● For further improvement, specifications or designs are subject to change without prior notice.