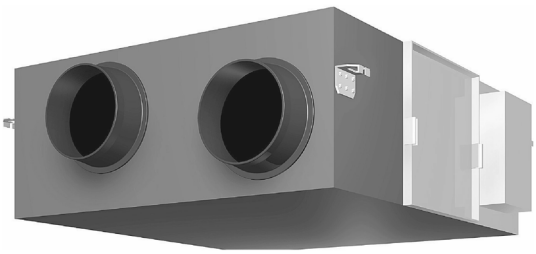
DAIKIN

SiUS711114

Service Manual

Energy Recovery Ventilator



[Applied Models]
VAM 300GVJU
VAM 470GVJU
VAM 600GVJU
VAM1200GVJU

Energy Recovery Ventilator

ED Reference

For items below, please refer to Engineering Data.

No.	Item	ED No.	Page	Remarks
1	Specification	EDUS711116	P. 2	
2	Option List	EDUS711116	P. 49	

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**". ⚠ **Warning** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
  ⚠ **Caution** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. Be sure to observe all the safety caution items described below.
- About the pictograms
  △ This symbol indicates the item for which caution must be exercised.
  The pictogram shows the item to which attention must be paid.
  ◯ This symbol indicates the prohibited action.
  The prohibited item or action is shown in the illustration or near the symbol.
  ● This symbol indicates the action that must be taken, or the instruction.
  The instruction is shown in the illustration 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 Cautions Regarding Safety of Workers

⚠ Warning	
Be sure to disconnect the power cable plug from the plug socket before disassembling the equipment for repair. Working on the equipment that is connected to the power supply may cause an electrical shook. If it is necessary to supply power to the equipment to conduct the repair or inspecting the circuits, do not touch any electrically charged sections of the equipment.	
If the refrigerant gas is discharged during the repair work, do not touch the discharged refrigerant gas. The refrigerant gas may cause frostbite.	
When disconnecting the suction or discharge pipe of the compressor at the welded section, evacuate 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 may cause injury.	
If the refrigerant gas leaks during the repair work, ventilate the area. The refrigerant gas may 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 may 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 may cause an electrical shock or fire.	

Warning	
Be sure to wear a safety helmet, gloves, and a safety belt when working at a high place (more than 6.56 ft.). Insufficient safety measures may cause a falling accident.	
In case of R-410A refrigerant models, be sure to use pipes, flare nuts and tools for the exclusive use of the R-410A refrigerant. The use of materials for R-22 refrigerant models may cause a serious accident such as a damage of refrigerant cycle as well as an equipment failure.	

Caution	
Do not repair the electrical components with wet hands. Working on the equipment with wet hands may cause an electrical shock.	
Do not clean the air conditioner by splashing water. Washing the unit with water may 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.	
Be sure to conduct repair work with appropriate tools. The use of inappropriate tools may cause injury.	
Be sure to check that the refrigerating cycle section has cooled down enough before conducting repair work. Working on the unit when the refrigerating cycle section is hot may cause burns.	
Use the welder in a well-ventilated place. Using the welder in an enclosed room may cause oxygen deficiency.	

1.1.2 Cautions Regarding Safety of Users

Warning	
Be sure to use parts listed in the service parts list of the applicable model and appropriate tools to conduct repair work. Never attempt to modify the equipment. The use of inappropriate parts or tools may cause an electrical shock, excessive heat generation or fire.	
If the power cable and lead wires have scratches or deteriorated, be sure to replace them. Damaged cable and wires may 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 may cause an electrical shock, excessive heat generation or fire.	
Be sure to use an exclusive power circuit for the equipment, and follow the local 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 may cause an electrical shock or fire.	
Be sure to use the specified cable for wiring 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 may cause excessive heat generation or fire.	
When wiring 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 may cause an electrical shock, excessive heat generation or fire.	
Do not damage or modify the power cable. Damaged or modified power cable may cause an electrical shock or fire. Placing heavy items on the power cable, and heating or pulling the power cable may damage the cable.	
Do not mix air or gas other than the specified refrigerant (R-410A / R-22) 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 leaking point and repair it before charging the refrigerant. After charging refrigerant, make sure that there is no refrigerant leak. If the leaking point 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 may generate toxic gases when it contacts flames, such as fan and other heaters, stoves and ranges.	

Warning	
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 may fall and cause injury.	
Check to make sure that the power cable plug is not dirty or loose, then insert the plug into a power outlet securely. If the plug has dust or loose connection, it may cause an electrical shock or fire.	
Be sure to install the product correctly by using the provided standard installation frame. Incorrect use of the installation frame and improper installation may cause the equipment to fall, resulting in injury.	For unitary type only 
Be sure to install the product securely in the installation frame mounted on the window frame. If the unit is not securely mounted, it may fall and cause injury.	For unitary type only 
When replacing the coin battery in the remote controller, be sure to disposed of the old battery to prevent children from swallowing it. If a child swallows the coin battery, see a doctor immediately.	

Caution	
Installation of a leakage breaker is necessary in some cases depending on the conditions of the installation site, to prevent electrical shocks.	
Do not install the equipment in a place where there is a possibility of combustible gas leaks. If the combustible gas leaks and remains around the unit, it may cause a fire.	
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 may cause excessive heat generation, fire or an electrical shock.	
If the installation platform or frame has corroded, replace it. Corroded installation platform or frame may cause the unit to fall, resulting in injury.	
Check the grounding, and repair it if the equipment is not properly grounded. Improper grounding may cause an electrical shock.	

Caution	
Be sure to measure the insulation resistance after the repair, and make sure that the resistance is 1 MΩ or higher. Defective insulation may cause an electrical shock.	
Be sure to check the drainage of the indoor unit after the repair. Defective drainage may cause the water to enter the room and wet the furniture and floor.	
Do not tilt the unit when removing it. The water inside the unit may spill and wet the furniture and floor.	
Be sure to install the packing and seal on the installation frame properly. If the packing and seal are not installed properly, water may enter the room and wet the furniture and floor.	For unitary type only 

1.2 Safety Symbols

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

Icon	Type of Information	Description
Note:	Note	Indicates situations that may result in equipment or property-damage accidents only.
Caution	Caution	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
Warning	Warning	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious 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.

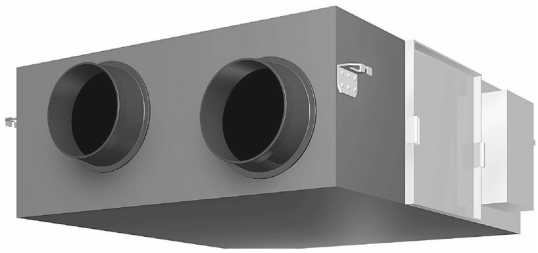
Part 1
General Information

1. Model Names

Type	300	470	600	1200
Model name	VAM300GVJU	VAM470GVJU	VAM600GVJU	VAM1200GVJU

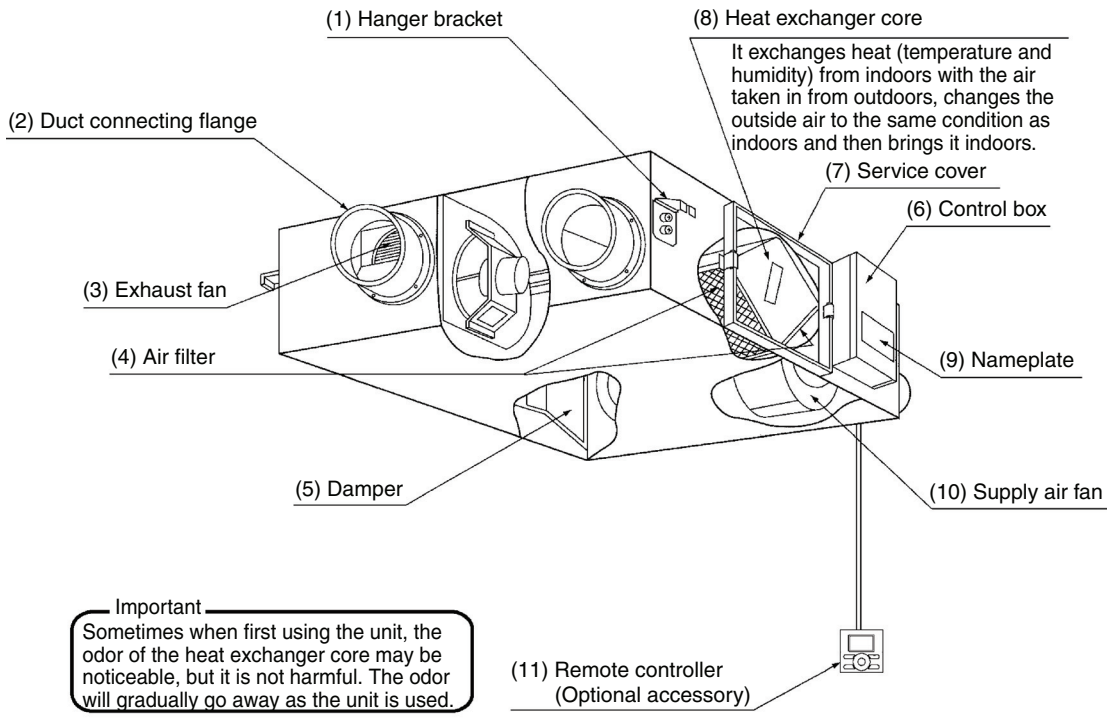
2. External Appearance

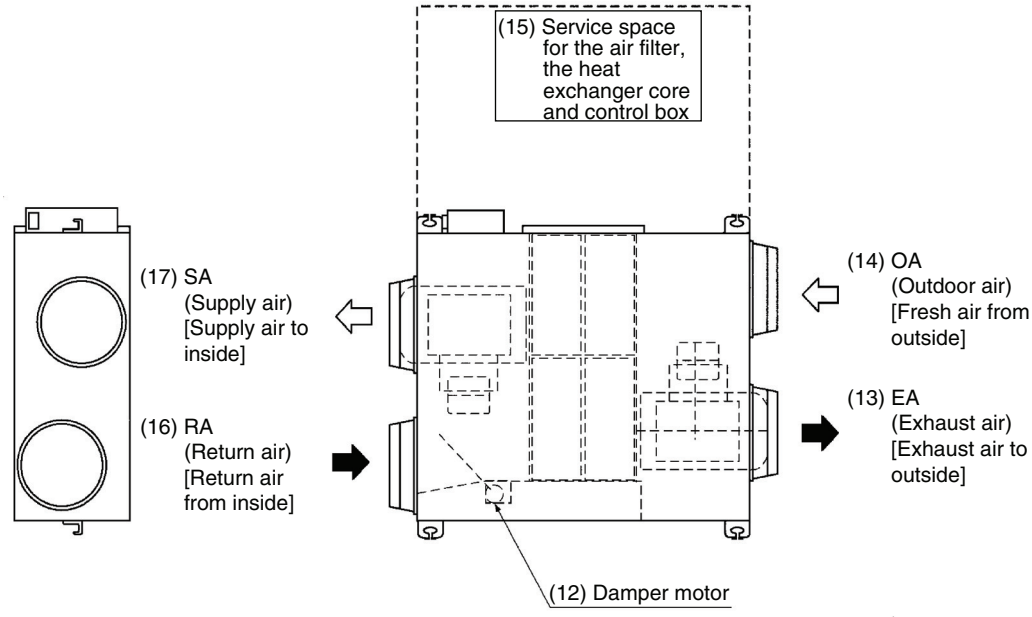
VAM300GVJU
VAM470GVJU
VAM600GVJU
VAM1200GVJU



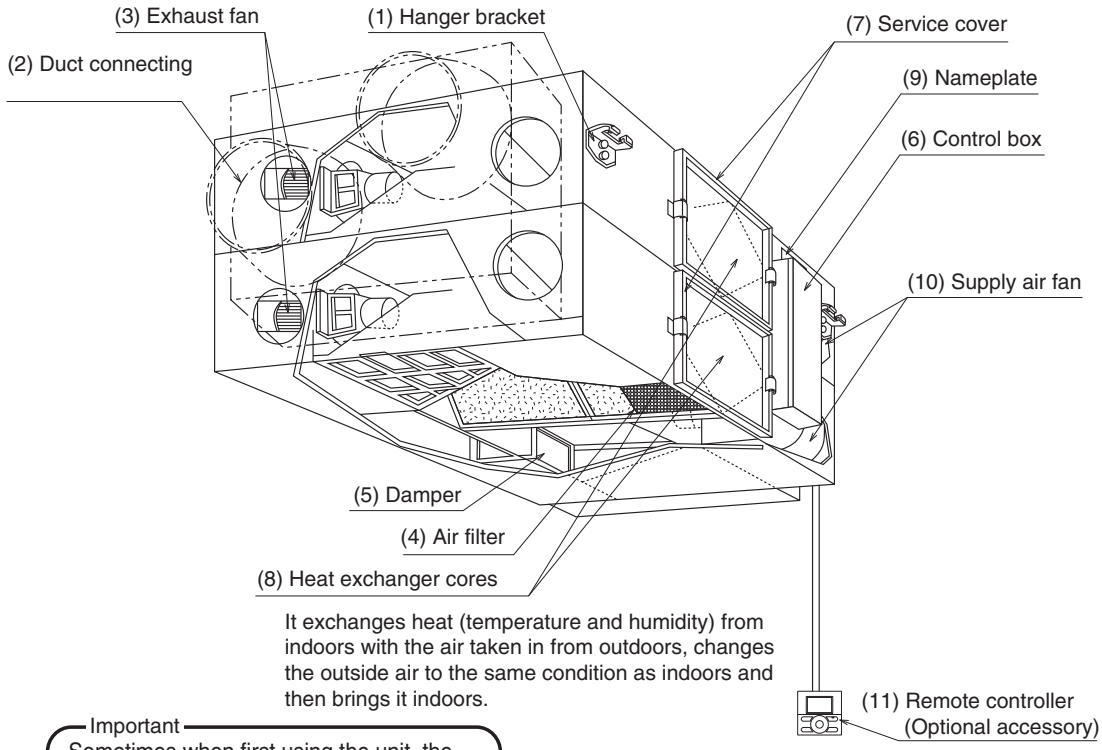
3. Constructions

VAM300GVJU
VAM470GVJU
VAM600GVJU



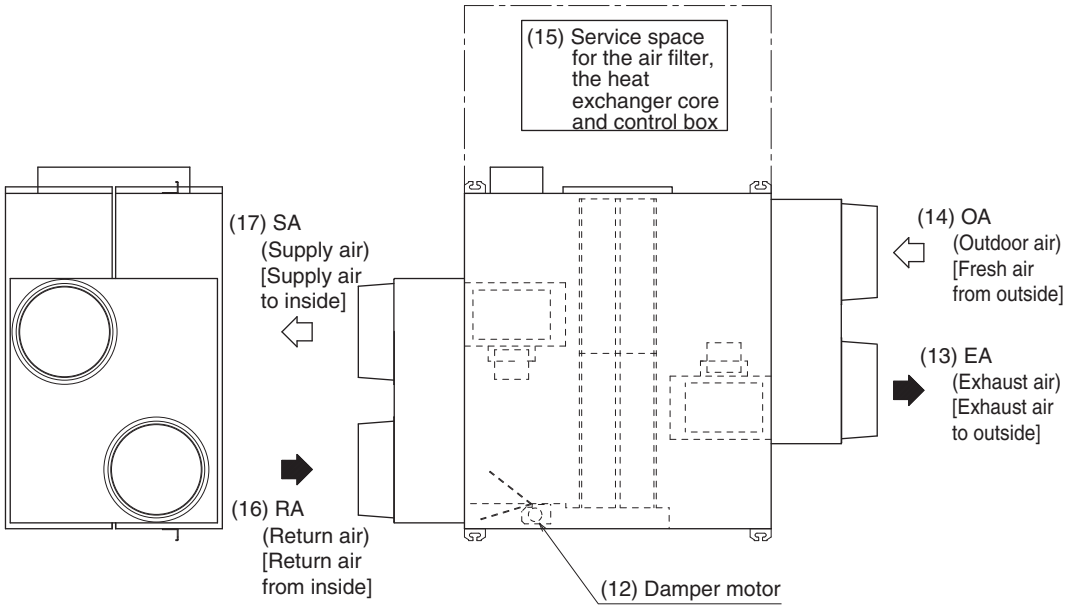


VAM1200GVJU



Important

Sometimes when first using the unit, the odor of the heat exchanger core may be noticeable, but it is not harmful. The odor will gradually go away as the unit is used.



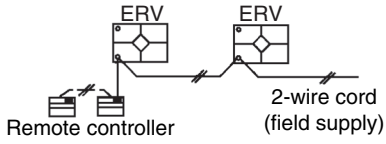
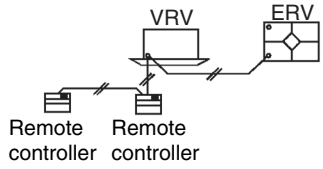
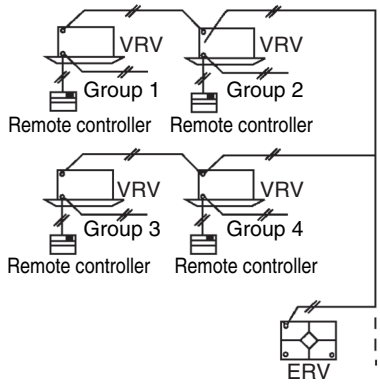
Part 2
Operation

1. Operation

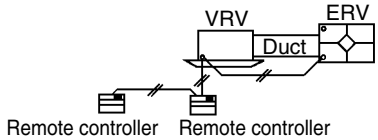
1.1 Explanation for Systems

This product is operated differently depending on the system configuration.
For the operation of the remote controller for indoor unit and centralized control equipment, refer to the instruction manual provided with each unit.

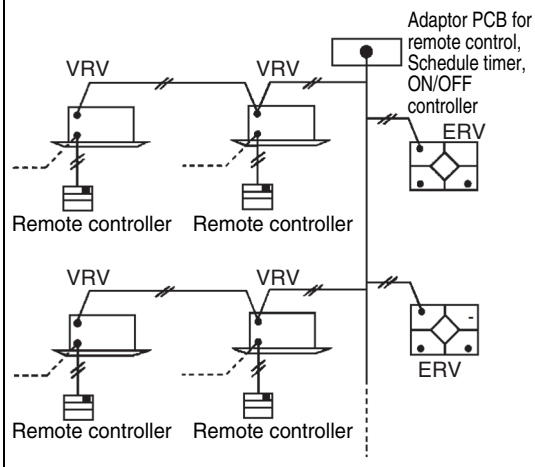
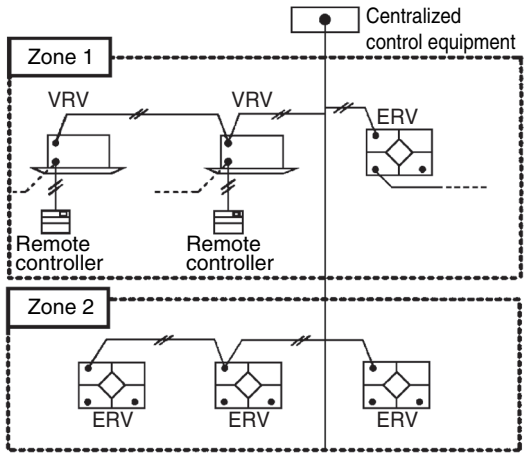
1.1.1 Independent System
Interlocking System with VRV or SkyAir System

SYSTEM			Standard method
Independent system			• Up to 16 units can be controlled with the remote controller. (A system with 2 remote controls can be created in the main/sub setting.) • All ERV operations can be used and indicated. • Operation monitor output and humidifier operation are possible using the Adaptor PCB. • Remote control cord should be field supply. (Maximum cord length: 1640 ft.)
Interlocking system with VRV or SkyAir system	1-group linked operation system		• A combined total of up to 16 air conditioners and the ERV can be controlled. • The ERV mode can be operated independently when air conditioners are not being used. • Using the field setting of the remote controller for air conditioners, various settings such as pre-cool/pre-heat reservation ON/OFF, ventilation rate, ventilation mode, etc.
	Multi-group (2 or more) linked operation system		• Since all VRV units are connected to a single line in view of installation, all VRV units are subjects for operation. • If there are problems operating all VRV units, do not use this system.

Note: (1) Adaptor PCB: KPR50-2; Installation box for adaptor PCB: KRP50-2A90
(2) Operation of 2 or more group is not possible with a direct duct connection as below.
(3) The direct duct connection can also be selected for 1-group linked operation system.

SYSTEM		Standard method
Direct duct connection system		• The ERV operates only when the air conditioner fan is ON. • When the air conditioner is not being used, the ERV can be operated in circulation or ventilation modes. • Other specifications are the same as those of the standard system.

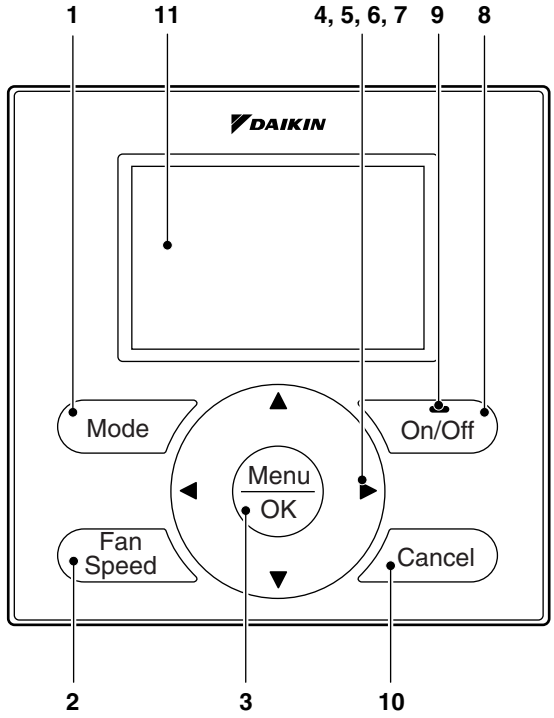
1.1.2 Centralized Control System (VRV System)

<table>
<tr><th colspan="3">SYSTEM</th><th>Standard method</th></tr>
<tr><td rowspan="2">Centralized control system</td><td>“All”/individual control system</td><td> 
</td><td>• Use of the ON/OFF controller, Adaptor PCB for remote control or Schedule timer enables centralized control of the entire system. (maximum of 64 groups)
• The ON/OFF controller can turn ON or OFF the individual units.
• The schedule timer and ON/OFF controller can be used together. However, the Adaptor PCB for remote control cannot be used with another centralized control equipment.</td></tr>
<tr><td>Zone control system</td><td> 
</td><td>• Use of the centralized control equipment enables zone control via the centralized control line. (maximum of 64 zones)
• The centralized control equipment displays the “Filter” indication and abnormality warnings, and enables resetting.
• The centralized control equipment allows ventilation operation for each zone independently.</td></tr>
</table>

Caution (1) Adaptor PCB: KRP50-2, Schedule timer: DST301BA61, ON/OFF controller: DCS301C71, Central remote controller: DCS302C71

1.2 Operating the Energy Recovery Ventilator Using the Remote Controller of the VRV-System Air Conditioner

Remote Controller for VRV
BRC1E71



1. Operation mode selector button
2. Fan speed control button
3. Menu/OK button
4. Up button ▲
5. Down button ▼
6. Right button ▶
7. Left button ◀
8. On/Off button
9. Operation lamp
10. Cancel button
11. LCD (with backlight)

Functions other than basic operation items (i.e., On/Off, Operation mode selector, Fan speed control, and temperature set point) are set from the menu screen.

Note:
- Do not install the remote controller in places exposed to direct sunlight, otherwise the LCD will be damaged.
- Do not pull or twist the remote controller wire, otherwise the remote controller may be damaged.
- Do not use objects with sharp ends to press the buttons on the remote controller, otherwise damage may result.

1. Operation mode selector button
- Press this button to select the operation mode of your preference.
  ∗Available modes vary with the indoor unit model.

2. Fan speed control button
- Press this button to select the fan speed of your preference.
  ∗Available fan speeds vary with the indoor unit model.

3. **Menu/OK button**
   - Used to indicate the main menu.
     For details, refer to the operation manual attached to the remote controller.
   - Used to enter the selected item.
4. **Up button ▲**
   - Used to raise the set point.
   - The item above the current selection will be highlighted.
     (The highlighted items will be scrolled continuously when the button is continuously pressed.)
   - Used to change the selected item.
5. **Down button ▼**
   - Used to lower the set point.
   - The item below the current selection will be highlighted.
     (The highlighted items will be scrolled continuously when the button is continuously pressed.)
   - Used to change the selected item.
6. **Right button ▶**
   - Used to highlight the next items on the right-hand side.
   - Each screen is scrolled in the right-hand direction.
7. **Left button ◀**
   - Used to highlight the next items on the left-hand side.
   - Each screen is scrolled in the left-hand direction.
8. **On/Off button**
   - Press this button and system will start.
   - Press this button again to stop the system.
9. **Operation lamp (Green)**
   - This lamp illuminates solid during normal operation.
   - This lamp blinks if an error occurs.
10. **Cancel button**
    - Used to return to the previous screen.
11. **LCD (with backlight)**
    - The backlight will be illuminated for approximately 30 seconds by pressing any button.
    - If 2 remote controllers are used to control a single indoor unit, only the controller to be accessed first will have backlight functionality.

Part 3
Maintenance

1. Maintenance (for a qualified service person only)

Warning

- **ONLY A QUALIFIED SERVICE PERSON IS ALLOWED TO PERFORM MAINTENANCE.**
- **BEFORE SERVICING TURN OFF ALL POWER SUPPLY.**
- To clean or do maintenance on the ERV, be sure to stop operation and turn the power switch OFF. It may cause electric shock or injury.
- Do not wash the ERV with water.
  Doing so may result in an electric shock.

Caution

- Use gloves when cleaning.
  Cleaning without gloves may cause injury.
- Watch your step.
  Use caution, as this requires working in high places.
- Do not use benzene or thinner to clean the outside surfaces of the unit.
  This may cause cracks, discoloration or machine trouble.

1.1 How to Clean the Air Filter

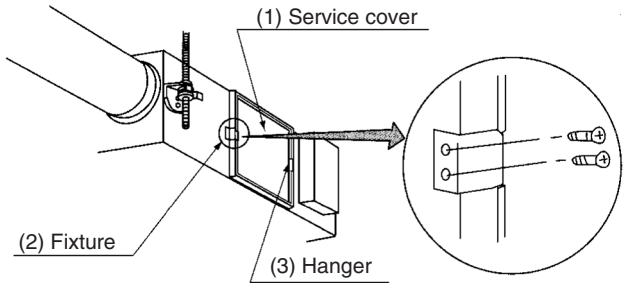
Clean the air filter when the display shows the message “Time to clean filter” at the bottom.
It will display that it will operate for a set amount of time.

■ **CLEANING FREQUENCY**

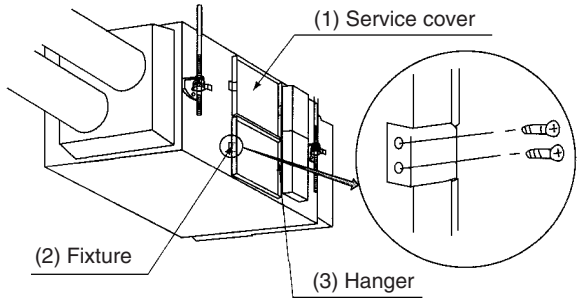
AT LEAST ONCE EVERY YEAR
(FOR GENERAL OFFICE USE)
(CLEAN THE FILTER MORE FREQUENTLY IF NECESSARY.)

- Increase the frequency of cleaning if the unit is installed in a room where the air is extremely contaminated.
- If the dirt becomes impossible to clean, change the air filter (The replacement air filter is optional).
  1. Remove the service cover.
     Go into ceiling through the inspection hatch, remove a fixture of service cover and take it off.

VAM300GVJU ~ 600GVJU

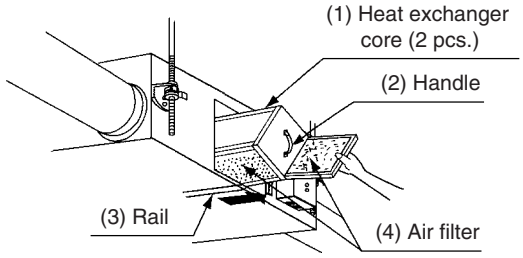


VAM1200GVJU

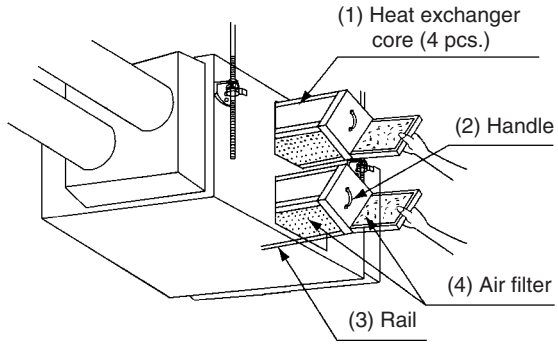


2. Remove the air filter.
   Take out from the heat exchanger cores.

VAM300GVJU ~ 600GVJU



VAM1200GVJU

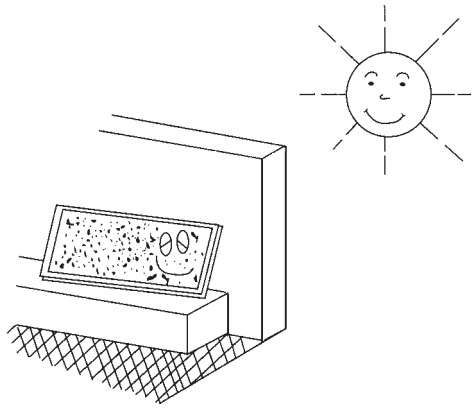


3. Clean the air filter.

Use a vacuum cleaner A) or wash the air filter with water B).
A) Using a vacuum cleaner
B) Washing with water
When the air filter is very dirty, use a soft brush and neutral detergent.
After cleaning, remove water and dry in the shade.

Note:
- Do not wash the air filter with hot water of more than 122°F, as doing so may result in discoloration and/or deformation.
- Do not expose the air filter to fire, as doing so may result in burning.
- Do not use gasoline, thinner or other organic solvents.
  This may cause discoloration or deformation.

4. Fix the air filter.
   If the air filter is washed, remove water completely and allow to dry for 20 to 30 minutes in the shade. When dried completely, install the air filter back in place.



Note:
- Be sure to install the air filter after servicing.
  (Missing air filter causes clogged heat exchanger core.)
  The air filter is an optional item and the replacement is available.

5. Put the service cover back securely in place.

To reset the filter indicator on the remote controller, press Menu/OK button and select “Reset Filter Indicator” on the main menu screen.

∗Consult your dealer if you want to change the time setting for when the filter sign goes on.

Note:
- Do not remove the air filter except when cleaning.
  Breakdown may occur.

1.2 How to Clean the Heat Exchanger Core

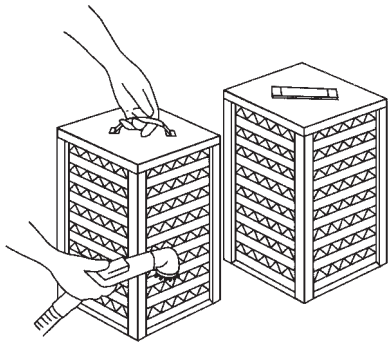
■ **CLEANING FREQUENCY**

AT LEAST ONCE EVERY 2 YEARS
(FOR GENERAL OFFICE USE)
(CLEAN THE CORE MORE FREQUENTLY IF NECESSARY.)

Warning

- **Replace the heat exchanger core if you find that the knob of the heat exchanger core is damaged or is deteriorated when cleaning.**
  There is falling danger.

1. Remove the service cover.
2. Remove the air filter.
3. Take out the heat exchanger cores.
   Pull out the air filter and then pull out the 2 heat exchanger cores.
4. Use a vacuum cleaner to remove dust and foreign objects on the surface of the heat exchanger core.



- Use the vacuum cleaner equipped with a brush on the tip of the suction nozzle.
- Lightly contact the brush on the surface of the heat exchanger core when cleaning.
  (Do not crush the heat exchanger core while cleaning.)

Caution (During Operation)

- Do not clean touching strongly with a vacuum cleaner. This may crush the mesh of the heat exchanger core.
- Never wash the heat exchanger core with water.
- Have your dealer professionally clean the filter if it is very dirty.

5. Put the heat exchanger core on the rail and insert it securely in place.
6. Install the air filter securely in place.
7. Install the service cover securely in place.

Caution

- **Always use the air filter.**
  If the air filter is not used, the heat exchanger core will be clogged, possibly causing poor performance and subsequent failure.

Part 4
Control Functions

1. Control Functions

1.1 List of Control Functions

Classification	Function name	Outline of function
1. Basic functions (functions related to basic performance)	1.1 Ventilation operation control function	Controls supply air fan motor, exhaust air fan motor and damper motor.
	1.2 Abnormality control function	Detects abnormalities in thermistor, damper motor and data transmission to prevent errors.
2. Additional functions	2.1 Ventilation mode changeover function	Operates equipment in selected ventilation mode (total heat exchange, normal, automatic).
	2.2 Automatic ventilation operation function	Selects the most suitable ventilation mode by controlling damper motor according to temperature controller mode, temperature setting and thermistor data.
	2.3 Ventilation capacity changeover function	Operates equipment at set airflow rate.
	2.4 Humidifier operation control function	Controls humidifier output based on temperature controller judgement. **Note 1**
	2.5 Pre-cool/pre-heat function	Prevents equipment operation for a preset time (set time) after air conditioner is turned ON.
	2.6 Fresh-up function	Sets motor tap so that supply air fan airflow rate is larger than exhaust air fan airflow rate.
	2.7 Filter sign function	Stores cumulative operation hour data and turns ON air filter cleaning indicator.
3. System control functions	3.1 Remote controller function	Operates equipment according to instructions from remote controller.
	3.2 Group function	Operates 2 or more units based on instructions from single remote controller.
	3.3 Air conditioner link function	Follows air conditioner ON/OFF instructions.
	3.4 Power ON operation function	Operates equipment when power is turned ON.
	3.5 External link operation function	Turns equipment ON and OFF according to external link terminal signal (no-voltage contact a).
	3.6 Centralized control function	Allows remote control operation by centralized control equipment.
	3.7 Timer function	Turns equipment ON and OFF at set time.
4. Other support functions	4.1 Troubleshooting function	Displays error codes to indicate locations of error.
	4.2 Field setting function	Allows initial setting from LCD remote controller.

Note: **Note 1**
Requires optional humidifier and optional printed circuit board (KRP50-2: Wiring adaptor for remote contact).

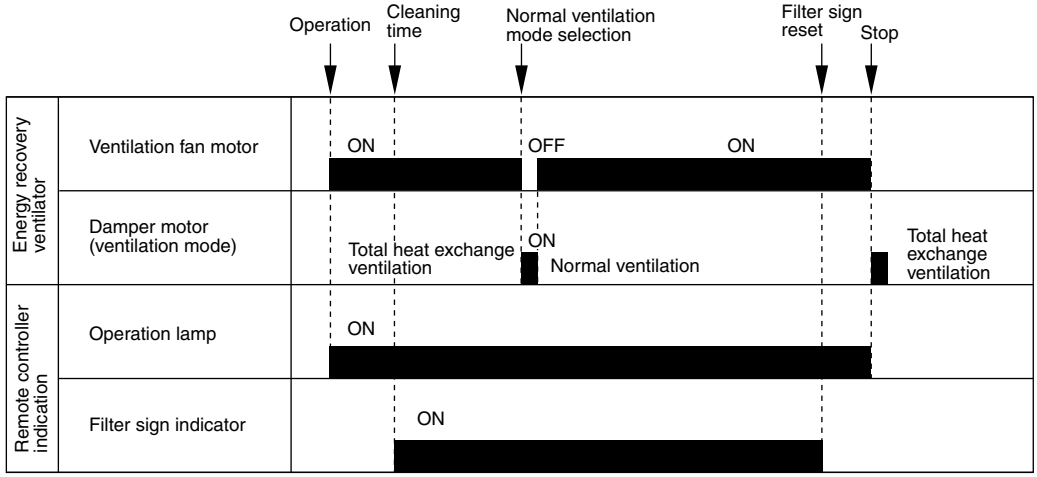
1.2 Explanation of Individual Functions

1.2.1 Ventilation Operation Control

Controls ventilation fan motors (supply and exhaust air fans) and damper motor.

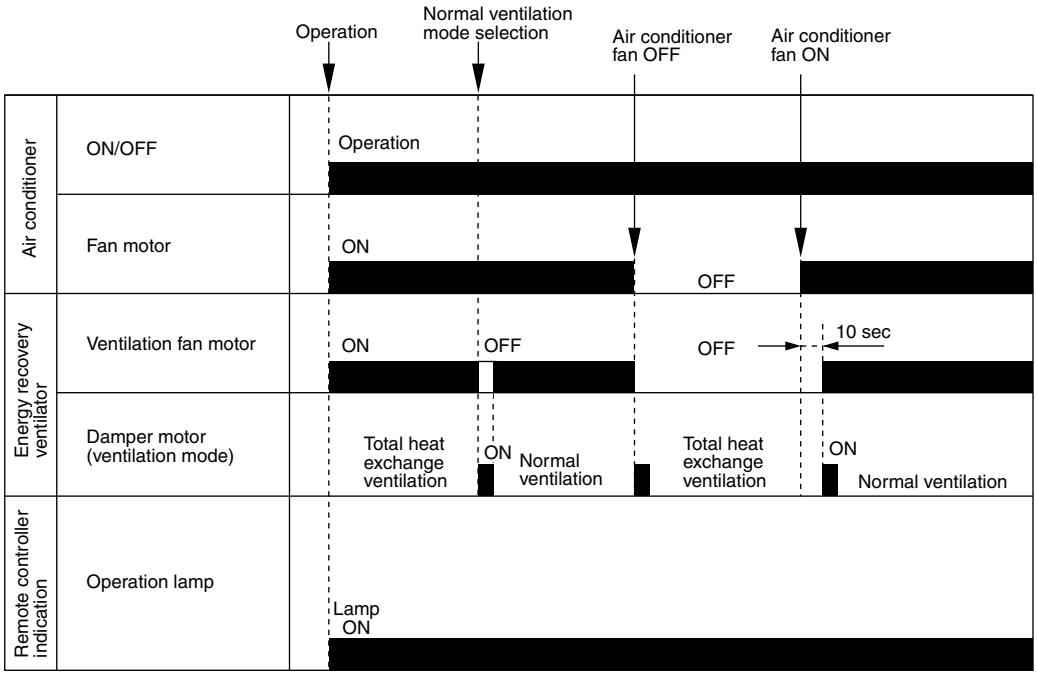
1) Normal operation

Operation chart



2) Direct duct connection with air conditioner

Operation chart

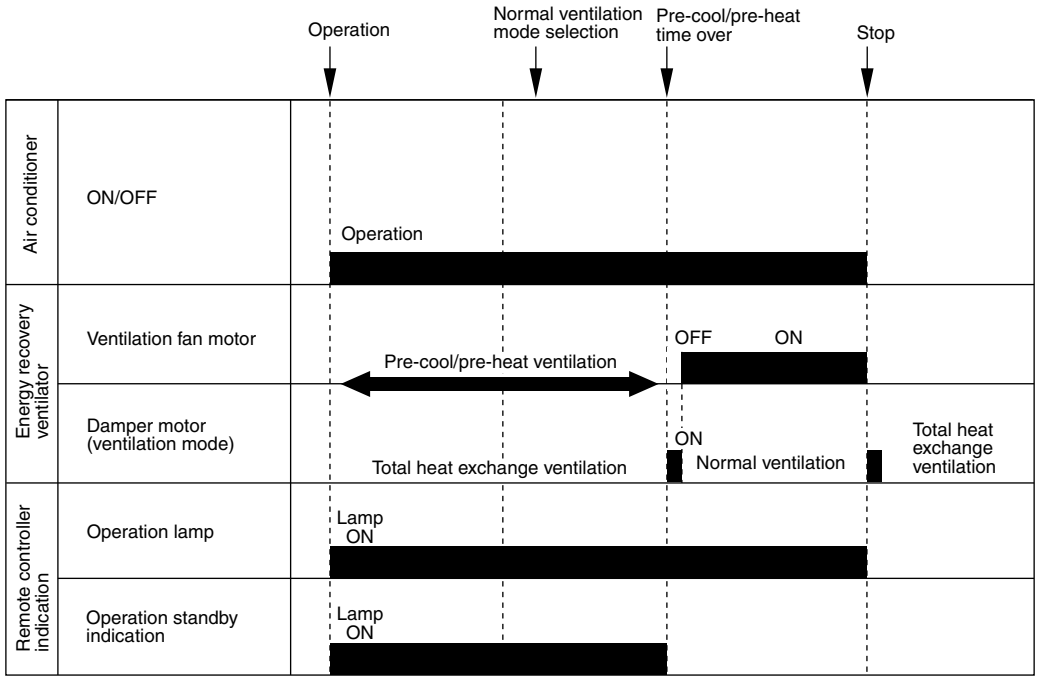


Note: Direct duct connection setting can be made in VRV system or using field setting mode of Energy recovery ventilator LCD remote controller.

1.2.2 Pre-cool/Pre-heat

Pre-cool/pre-heat operations require the following conditions.

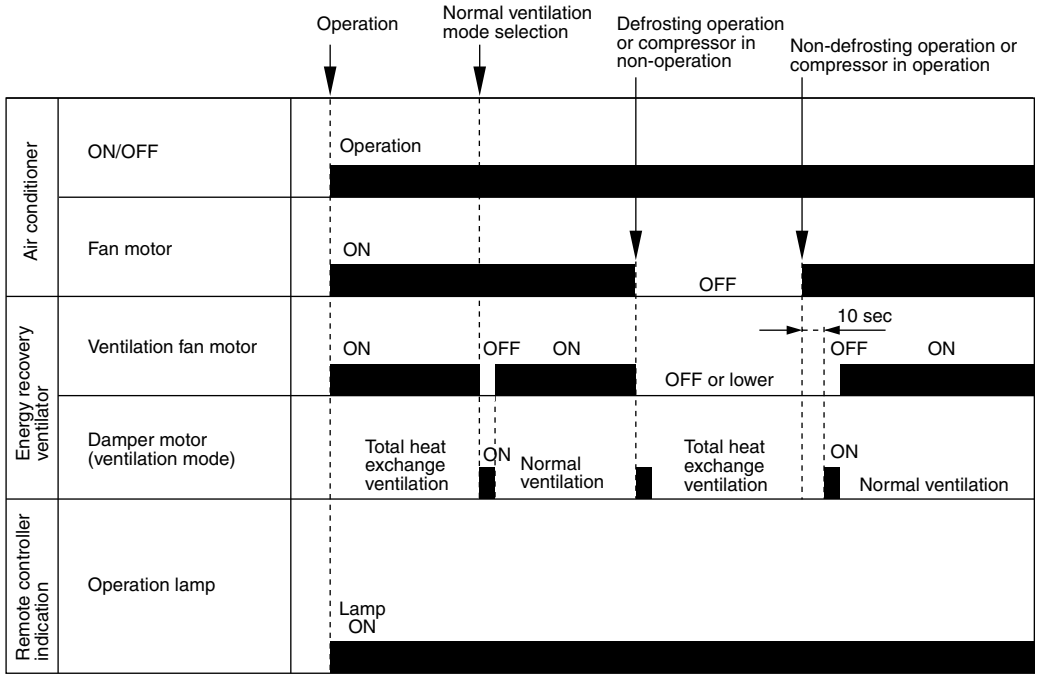
1. System
   Pre-heat operation is possible only in air conditioner linked system (1 group, 2-group link). Check the system first.
2. Energy recovery ventilator setting
   Set Pre-heat ON/OFF to ON.
   Pre-cool/pre-heat On/OFF setting can be made in air conditioner or using field setting mode of LCD remote controller of Energy recovery ventilator. (Pre-cool time can be set between 30 and 60 min., and pre-heat time can be set between 30 and 150 min.)
3. Others
   a) Energy recovery ventilator must be in non-operating condition for 2 consecutive hours or more prior to pre-cool/pre-heat operation.
   b) Temperature control mode of the air conditioner must be set to Cool, Heat or Dry.



Note: Operation standby indication is displayed only on LCD remote controller of Energy recovery ventilator.

1.2.3 Cold Area Mode

Stops or lowers ventilation airflow during defrosting operation and compressor non-operating condition when equipment in heating mode, thus reducing heating load and cold air draft.
Operation chart (in heating operation only)



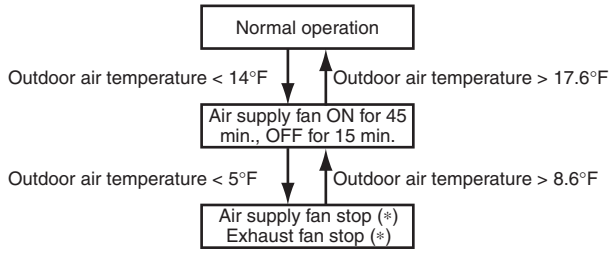
Note: Cold area mode can set using remote controller for air conditioner or field setting mode of LCD remoter controller of Energy recovery ventilator.

Protection Control

Operation Control in Cold Climates

To operate the unit at low outdoor air temperatures, control the air supply fans and the exhaust fans as shown below for equipment protection.

Models applicable to outdoor air temperatures of 5˚F at minimum

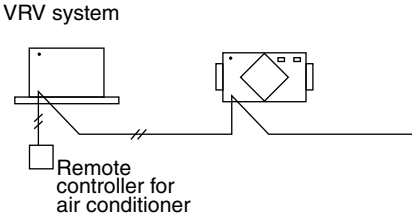


1.2.4 Air Conditioner Link Operation

Link system enables simultaneous ON/OFF operation of Energy recovery ventilator and air conditioner (VRV system, SkyAir).

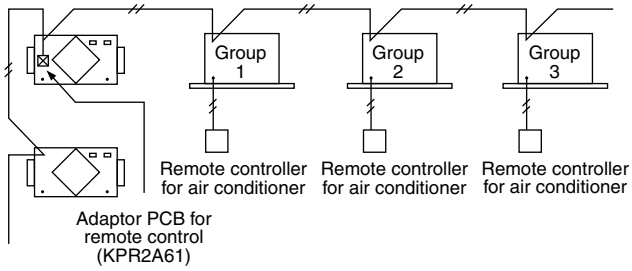
1) 1 group link control

- Allows simultaneous ON/OFF from remote controller for air conditioner.
- Allows independent operation of Energy recovery ventilator from VRV system remote controller during interim periods (not possible when direct duct connection is used).



2) Link control of 2 or more groups (zone link)

- Energy recovery ventilator can be operated when 1 or more air conditioners are operating.
- Allows independent operation of Energy recovery ventilator from VRV-system remote controller during interim periods (direct duct connection is not allowed in this system).



Note: With Super Wiring, units of different outdoor systems can be linked in operation.

1.2.5 Field Setting, Service Mode

1. Field setting
   Used for initial setting of Energy recovery ventilator.
2. Service mode
   Used for confirmation of unit Nos. in the group and reallocation of unit Nos.

List of Settings ▭: Factory setting

Mode No.		FIRST CODE NO.	Description of Setting	SECOND CODE NO. (NOTE 1)					
Group settings	Individual settings			01	02	03	04	05	06
17	27	0	Filter cleaning time setting	Approx. 2500 hours	Approx. 1250 hours	No counting	–	–	–
		1	Night-time free cooling operation start time (after other air conditioners operating together with the unit have been stopped)	OFF	2 hours	4 hours	6 hours	8 hours	–
		2	Pre-cool/pre-heat ON/OFF setting	OFF	ON	–	–	–	–
		3	Pre-cool/pre-heat time setting	30 min.	45 min.	60 min.	–	–	–
		4	Fan speed initial setting	Normal	Extra high	–	–	–	–
		5	Yes/No setting for direct duct connection with VRV system	No duct (Airflow setting)	With duct (fan OFF)	–	–	–	–
			Setting for cold areas (Fan operation selection for heater thermo. OFF)	–	–	No duct		With duct	
						Fan OFF	Fan L	Fan OFF	Fan L
		7	Centralized/individual setting	Centralized	Individual	–	–	–	–
		8	Centralized zone interlock setting	No	Yes	–	–	–	–
		9	Pre-heat time extension setting	0 min.	30 min.	60 min.	90 min.	–	–
18	28	0	External signal JC/J2	Last command	Priority on external input	Priority on operation	–	–	–
		1	Setting for direct Power ON	OFF	ON	–	–	–	–
		2	Auto restart setting	OFF	ON	–	–	–	–
		3	External damper operation	–	–	ON	–	–	–
		4	Indication of ventilation mode/ Not indication	Indication	No Indication	–	–	–	–
		7	Fresh up air supply/exhaust setting	No Indication	No Indication	Indication	Indication	–	–
				Supply	Exhaust	Supply	Exhaust	–	–
		8	External input terminal function selection (between J1 and JC)	Fresh up	Overall alarm	Overall error	Forced OFF	Fan forced OFF	Airflow increase
		9	KRP50-2 output switching selection (between 1 and 3)	Fan ON/OFF	Abnormal	–	–	–	–
19	29	8	Electric heater setting	No delay	No delay	Preceding ON, OFF delay	Preceding ON, OFF delay	–	–
1a	–	0	"Fresh up" ON/OFF setting	OFF	ON	–	–	–	–

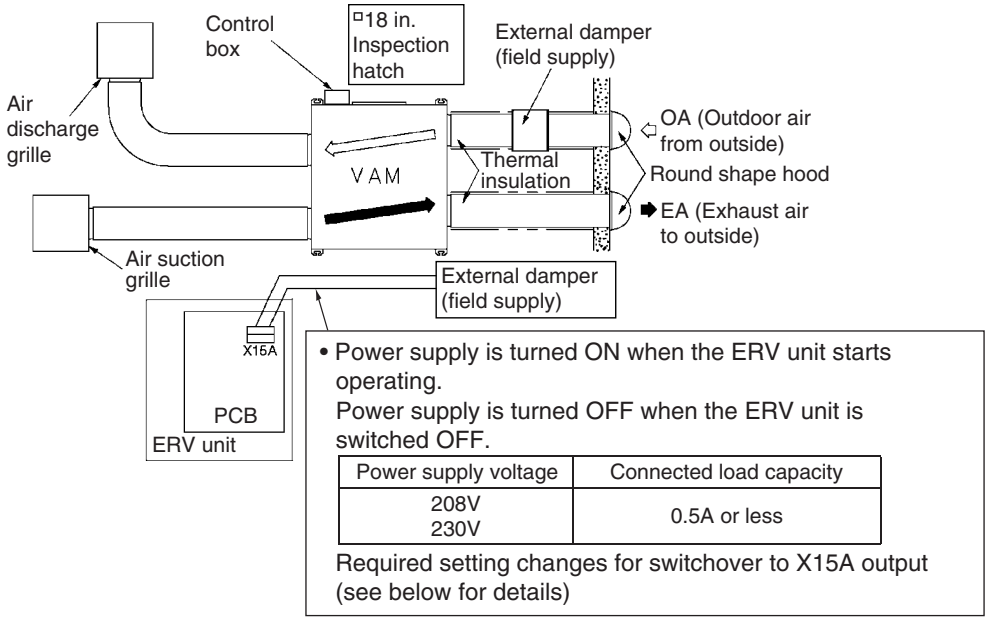
Note:
1. The settings are applied to the entire group, but if the mode No. individual settings is selected, the settings can be applied to individual unit. However, it is only possible to check any changes made to individual setting in individual mode. (For group control, the changes are made but the display remains as it was when shipped from the factory.)
2. Do not set anything not shown above. If the applicable functions are not available, they will not be displayed.
3. Group number setting for centralized controller
   (1) Mode No. 00: Group controller
   (2) Mode No. 30: Individual controller
   * Regarding the setting procedure, refer to the section "Group number setting for centralized control" in the operating manual of either the ON/OFF controller or the central controller.

1.2.6 External Damper Operation (FIELD SUPPLY)

Explanation of Functions

Intake of outdoor air can be prevented when ERV is switched OFF if this damper is incorporated in the system.

1. The PCB of the ERV unit supplies power for an external damper.



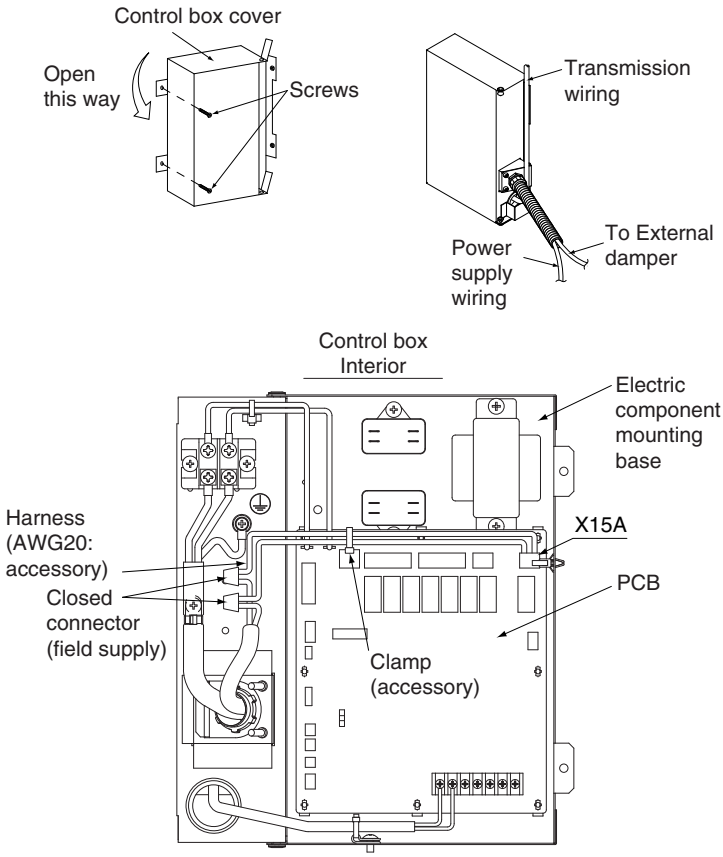
- Power supply is turned ON when the ERV unit starts operating.
  Power supply is turned OFF when the ERV unit is switched OFF.

Power supply voltage	Connected load capacity
208V 230V	0.5A or less

Required setting changes for switchover to X15A output (see below for details)

Essential Wiring

Connect one end of the harness to X15A on the PCB and the other end to the harness leading to the damper via a connector such as a closed connector.



With regard to a closed connector, select one that suits the wire size.
Secure the harness with the other wires by using the clamp.

Essential Setting Changes

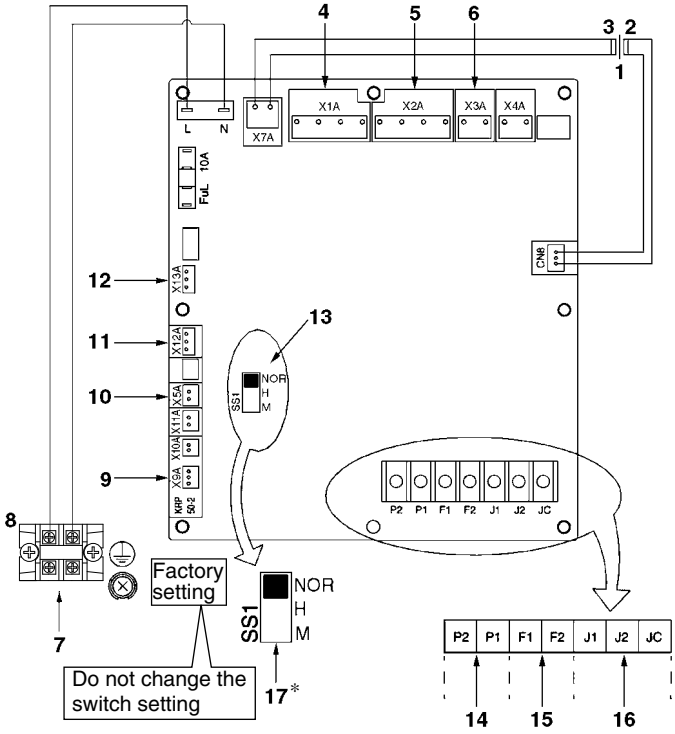
To make the X15A output available, change the field setting by the remote controller as below.
Mode No.: 18 (group control) or 28 (individual control)
FIRST CODE NO.: 3
SECOND CODE NO.: 03

1.3 Layout of switches on PCB

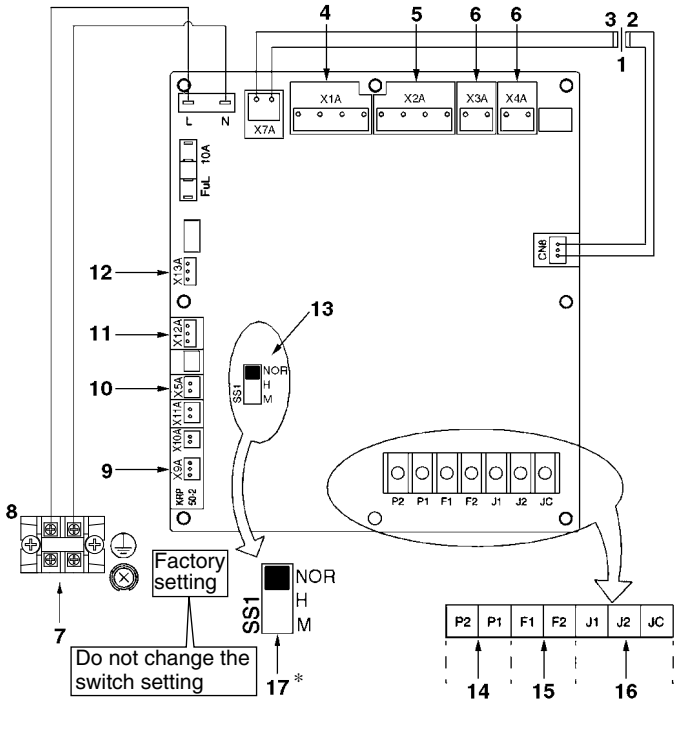
1.3.1 PCB

Layout of switches on PCB

<VAM300GVJU, VAM470GVJU, VAM600GVJU>



<VAM1200GVJU>



1. Transformer
2. Secondary
3. Primary
4. Connector for supply air fan motor
5. Connector for exhaust fan motor
6. Connector for damper motor
7. Power supply
8. Terminal block
9. Connector for KPR50-2
10. Connector for limit switch
11. Connector for indoor air thermistor
12. Connector for outdoor air thermistor
13. Selector switch
14. Terminals for remote controller
15. Terminals for centralized control
16. Terminals for no-voltage external input
17. Factory setting

C: 3P034928-7Q

* SS1 has already been set to “NOR” at factory. The unit will not run if the setting is changed.

1.3.2 Function of main connection terminal

Terminal No.		Contents of function
Power supply	L N TeS1	Single phase 208 – 230 V 60Hz Power supply and ground terminal
Remote controller	P1 P2	Connection terminal for remote controller for Energy recovery ventilator. This terminal is used to receive information of the indoor unit for interlocked operation.
Centralized remote controller	F1 F2	This terminal is used to receive information when centralized controller is connected.
Input from outside	J1 J2 JC	Between terminal no. (J1) ~ (JC) Used for “fresh up operation” by external input. Between terminal no. (J2) ~ (JC) Used for Operation / Stop by external input.

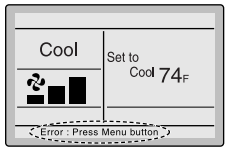
Part 5
Service Diagnosis

1. Troubleshooting

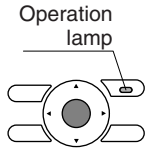
1.1 Error Code Display

Operation

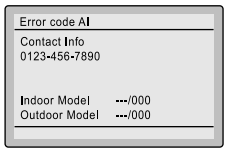
1



- If an error occurs, either one of the following items will blink in the basic screen.
  "Error: Push Menu button"
  * The operation lamp will blink.
  "Warning: Push Menu button"
  * The operation lamp will not blink.
- Press Menu/OK button.



2



- The error code will blink and the service contact and model name or code may appear.
- Notify your Daikin dealer of the Error code and model name or code.

List of error codes of Remote controller of the ERV-system
(The error codes displayed on remote controller are with two digits and not with four digits.)

Error Code	Description	Reference page
60	Overall alarm	29
	Overall error	30
64	Indoor air thermistor error	31
65	Outdoor air thermistor error	32
6A	Damper system error (Alarm)	33
6A	Damper system error (Alarm)	33
88	Dedicated LCD remote controller	36
U5	Transmission error between remote controller and main unit	38
U5	Transmission error (Remote controller)	40
U8	Transmission error between main remote controller and sub remote controller	41
UA	Field setting error	42
UC	Duplication of centralized remote controller	43
UE	Transmission error between the unit and centralized controller	—

■ In case of the error with the code in white letters on the black background in the unit still operates. However, be sure to have it inspected and repaired as soon as possible.

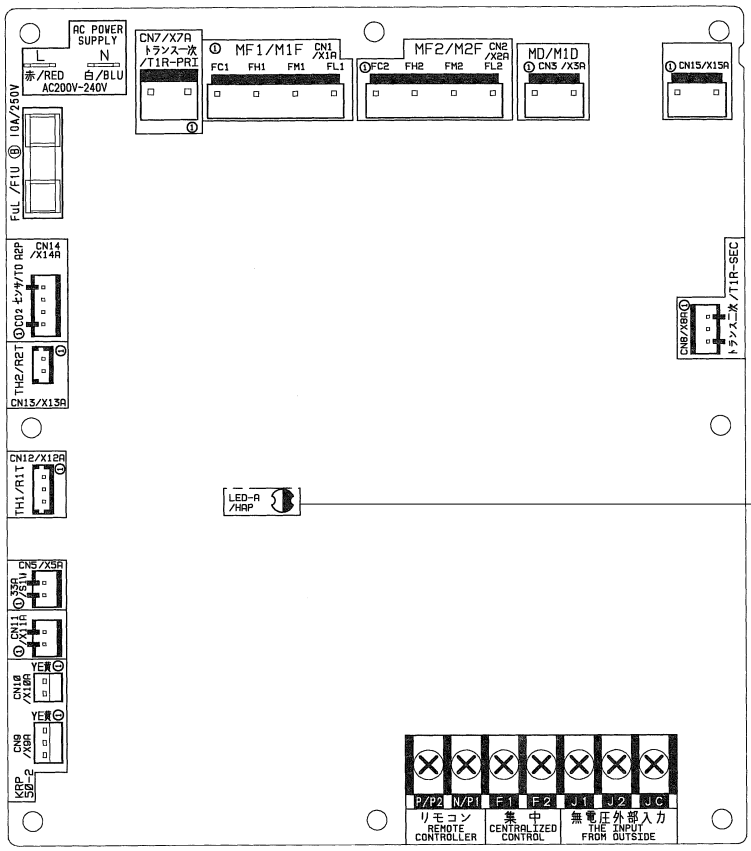
If other than the above error codes are displayed, there is a possibility that the problem in question has occurred with an interlocked air conditioner or outdoor unit. See the operation manuals included with the air conditioners or outdoor units for details.

Note:

If no code is shown on the remote controller display, there is a possibility of following errors.

- The power supply to the unit is off.
- The indoor unit and/or ERV have not been wired for power supply.
- Incorrect wiring for the remote controller, the transmission wiring and/or the FORCED OFF wiring.
- The remote controller wiring is disconnected.
- Incorrect setting the "SS1" switch of PCB.

Main Unit PCB



LED A
(Micro-computer Operation Monitor)

1.2 Overall Alarm

Remote Controller Display

60

Method of Error Detection

Abnormalities are detected based on external input terminals (J1-JC).

Error Decision Conditions

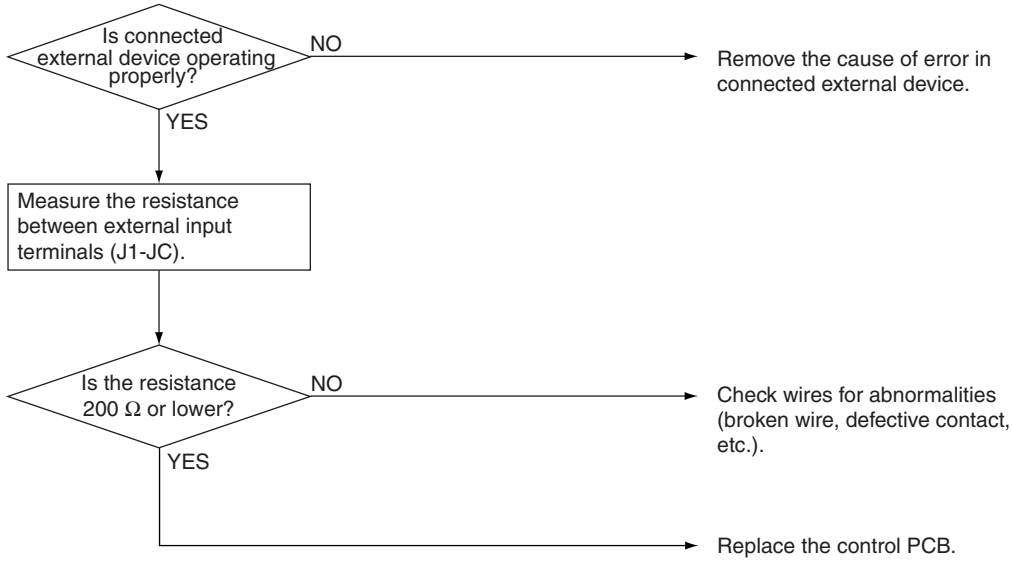
When external input terminal (J1-JC) short-circuit during operation
("Overall Alarm" must be set in field setting mode (∗1)).

Supposed Causes

- Defective external device
- Broken wire
- Defective control PCB

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Note: ∗1: Refer to the field setting mode P.21
{ Mode No. 18
First Code No. 8
Second Code No. 02

1.3 Overall Error

Remote Controller Display

60

Method of Error Detection

Abnormalities are detected based on external input terminals (J1-JC).

Error Decision Conditions

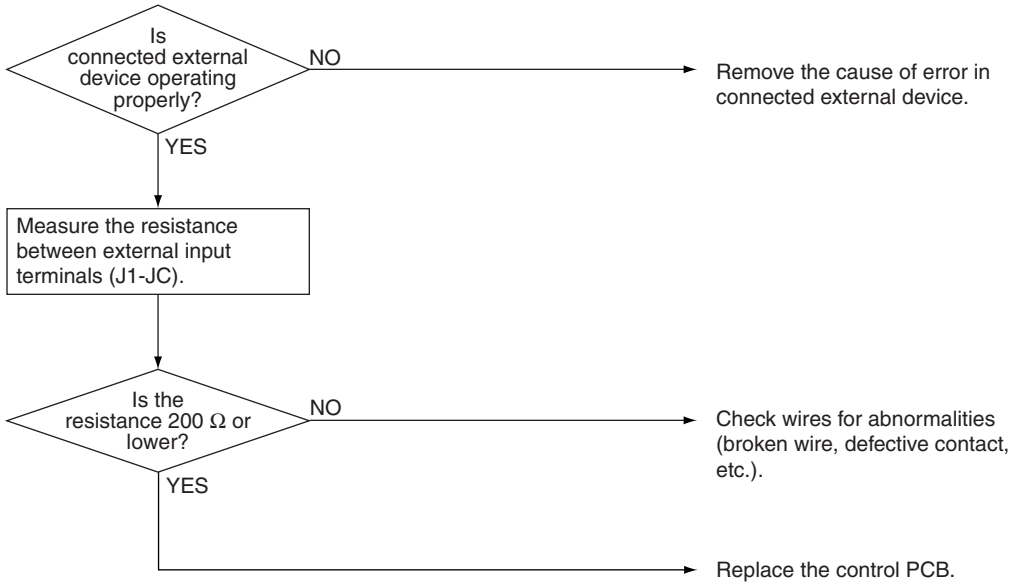
When external input terminal (J1-JC) short-circuit during operation ("Overall Error" must be set in field setting mode (∗1)).

Supposed Causes

- Defective external device
- Broken wire
- Defective control PCB

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Note: ∗1: Refer to the field setting mode P.21
{ Mode No. 18
First Code No. 8
Second Code No. 03

1.4 Indoor Air Thermistor Error

Remote Controller Display

64

Method of Error Detection

Temperature detected by indoor air thermistor is used to detect errors.

Error Decision Conditions

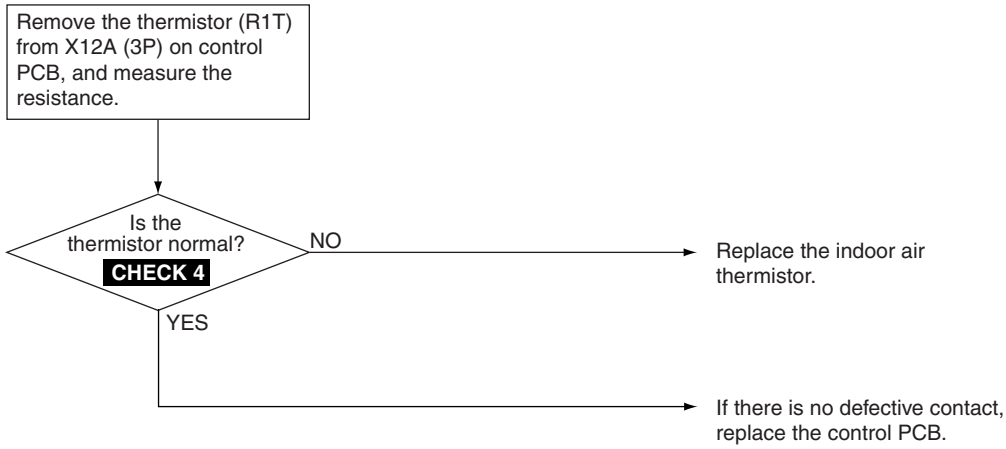
When value detected by indoor air thermistor is -40ºC or below (open circuit) or 70ºC or higher (short circuit).

Supposed Causes

- Defective thermistor
- Broken wire
- Defective control PCB
- Defective contact in connector

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



CHECK 4 Refer to P.52.

1.5 Outdoor Air Thermistor Error

Remote Controller Display

65

Method of Error Detection

Temperature detected by outdoor air thermistor is used to detect errors.

Error Decision Conditions

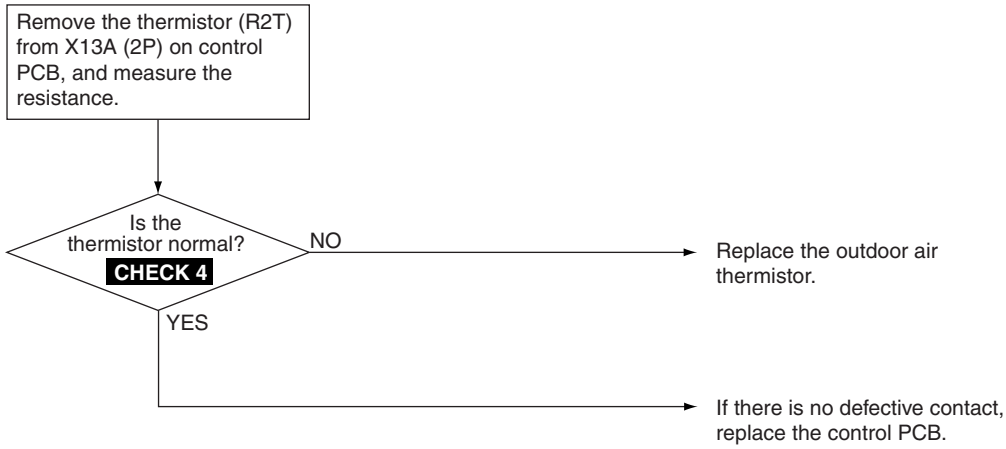
When value detected by outdoor air thermistor is -40ºC or below (open circuit) or 70ºC or higher (short circuit).

Supposed Causes

- Defective thermistor
- Broken wire
- Defective control PCB
- Defective contact in connector

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



CHECK 4 Refer to P.52.

1.6 Damper System Error (Alarm)

Remote Controller Display

69

Method of Error Detection

Measurement of damper motor limit ON/OFF time.

Error Decision Conditions

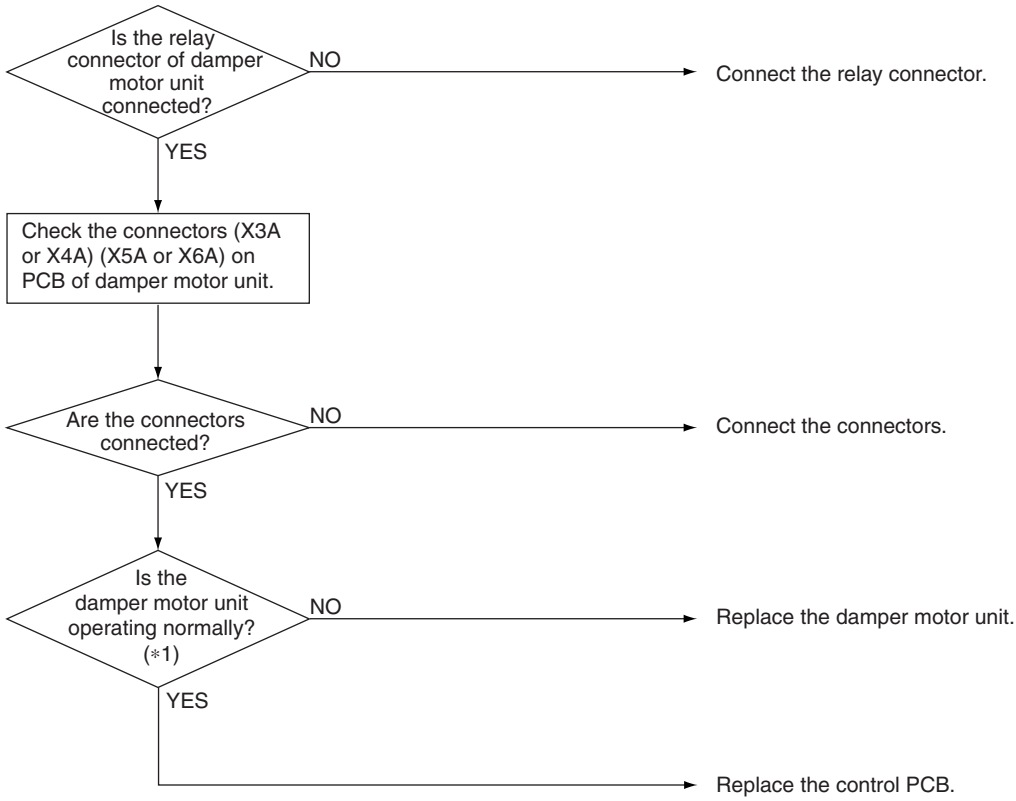
- When damper motor limit switch 1 (or 2) remains ON (or OFF) for more than a certain time duration after ventilation mode is changed.
- When damper motor limit switch 1 (or 2) repeats ON/OFF operations after damper motor 1 (or 2) stops.

Supposed Causes

- Defective damper motor or limit switch
- Broken wire in cable
- Defective contact in connector (including relay connector)
- Defective control PCB

Troubleshooting

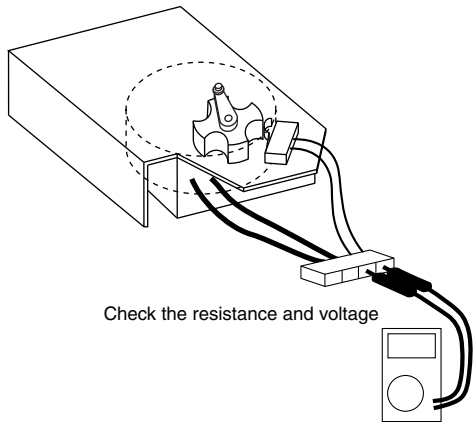
Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Note: ∗1:

- Place tester probes on connectors of limit switch. Move switch by hand and check continuity. If tester indicates 0Ω when limit switch turns ON, and infinity when it turns OFF, limit switch is normal.

- Place tester probes on connectors of damper motor and check the resistance. If tester indicates approx. 17 kΩ in 200V model, damper motor is normal.



1.7 Damper System Error (Alarm)

Remote Controller Display

68

Method of Error Detection

Measurement of damper motor limit switch ON/OFF time and temperatures detected by outdoor and indoor air thermistor.

Error Decision Conditions

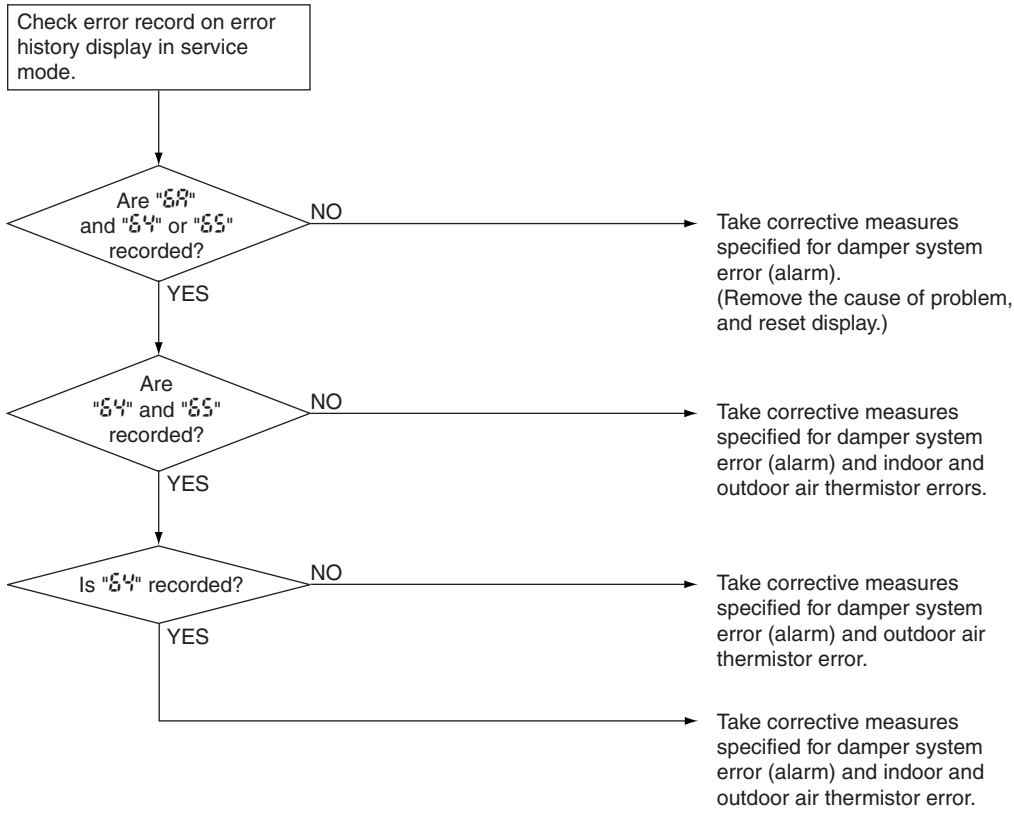
- When damper system error (alarm) and indoor (or outdoor) thermistor error are generated at the same time.
- When damper system error (alarm) occurs and values of indoor and outdoor air thermistor meet frost conditions.

Supposed Causes

- Defective damper motor or limit switch
- Defective indoor air thermistor
- Defective outdoor air thermistor
- Frosting
- Broken wire in cable
- Defective contact in connector (including relay connector)
- Defective control PCB

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



1.8 Dedicated LCD Remote Controller

Remote Controller Display

88

Method of Error Detection

When "88" remains on remote controller display.

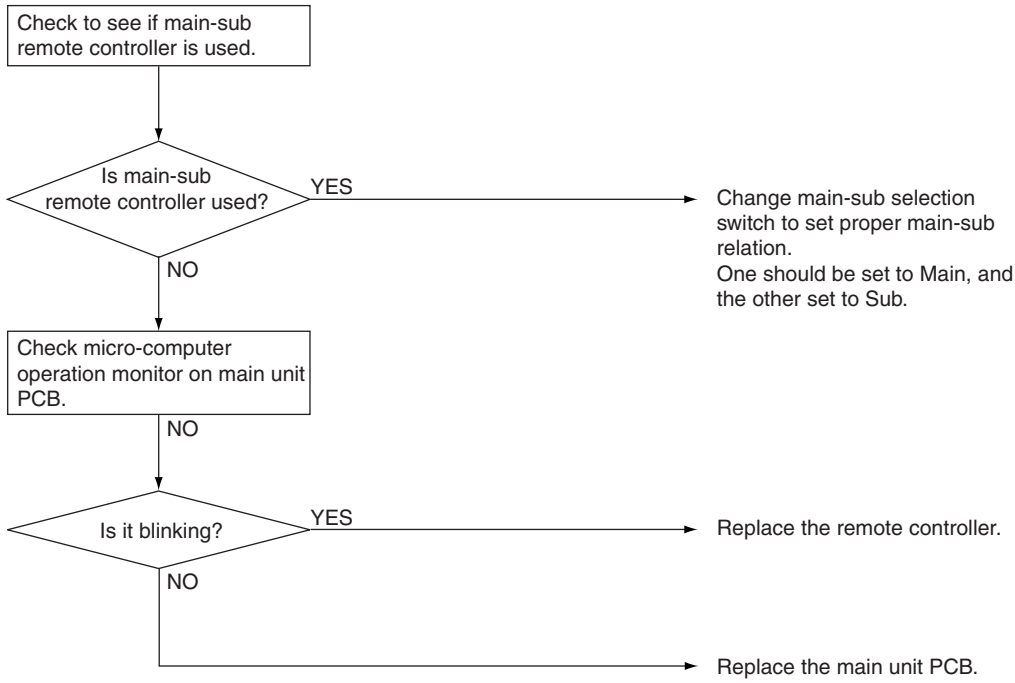
Error Decision Conditions

Supposed Causes

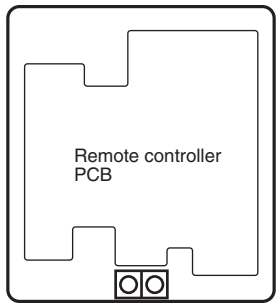
- Main-sub setting of remote controller abnormality
- Defective remote controller PCB
- Defective main unit PCB

Troubleshooting

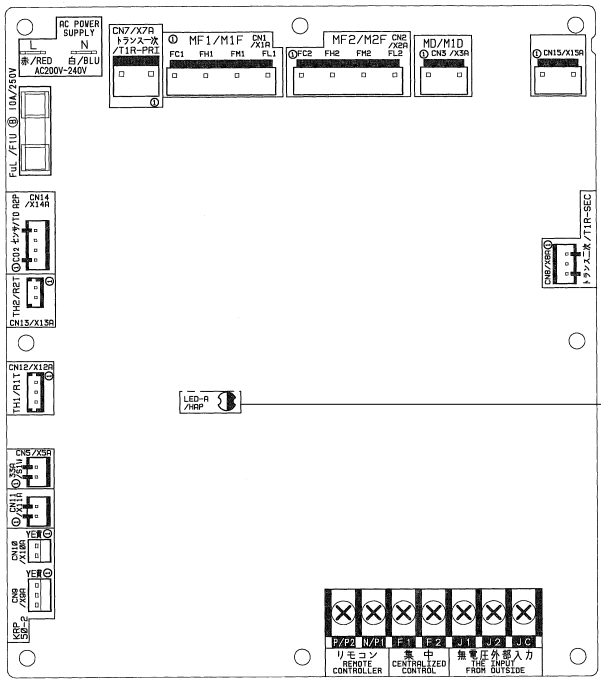
Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Dedicated Remote Controller
<BRC1E71>



Main Unit PCB



- The settings of the BRC1E71 remote controller should be switched while referring to the manual supplied with the remote controller.

1.9 Transmission Error between Remote Controller and Main Unit

Remote Controller Display

U5

Method of Error Detection

Micro-computer checks if data is transmitted properly between main unit and remote controller.

Error Decision Conditions

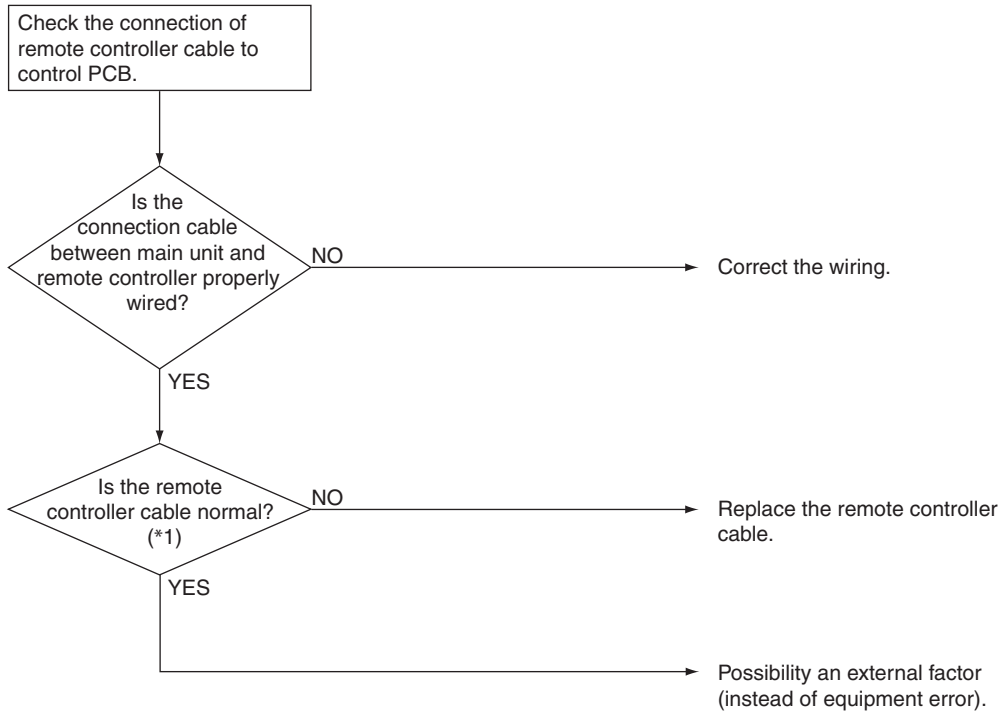
When data transmission is not performed correctly for a certain time period.

Supposed Causes

- Defective connection of remote controller cable
- Defective remote controller cable
- External factor (noise, etc.)

Troubleshooting

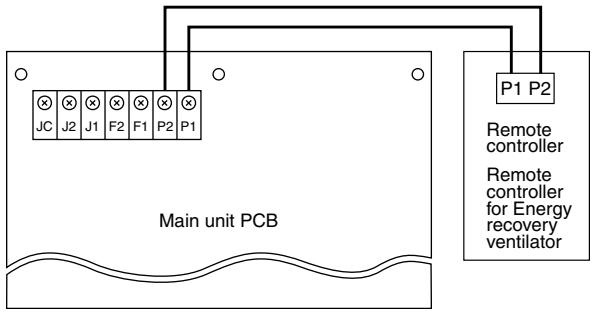
Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Note: ∗1:

1. Use tester to check continuity of remote controller cable.
   - Disconnect cable from main unit PCB and remote controller PCB. Measure the resistance between wires in cable. Resistance should be ∞ MΩ (infinity).
2. Use tester to check voltage on PCB.
   Check with power turned ON.
   - With remote controller cable disconnected, voltage between P1 and P2 on PCB should be approx. 16 VDC. If measured value is not approx. 16 VDC, PCB is defective.

- Connect remote controller cable and disconnect remote controller. Voltage at the end of remote controller cable should be approx. 16 VDC. If measured value is not 16 VDC, remote controller cable is defective.
- Connect remote controller cable and remote controller. Voltage between P1 and P2 on remote controller PCB should be approx. 16 VDC. If measured valued is not 16 VDC, remote controller is defective.



1.10 Transmission Error (Remote Controller)

Remote Controller Display

U5

Method of Error Detection

Micro-computer checks if data is transmitted properly between main unit and remote controller.

Error Decision Conditions

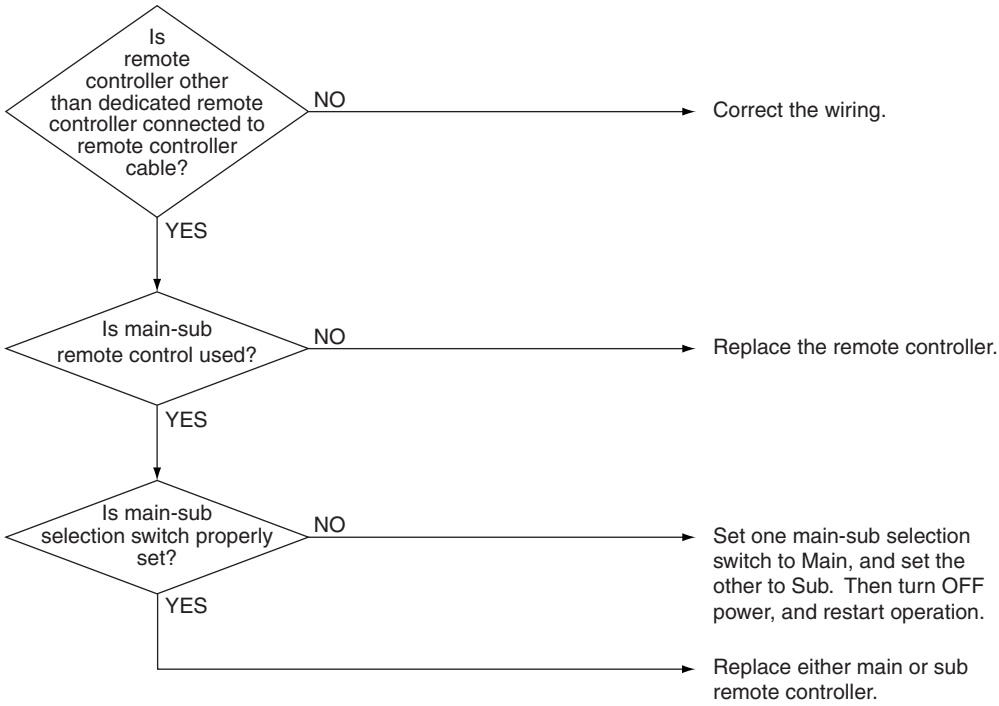
When data transmission is not performed correctly for a certain time period.

Supposed Causes

- Erroneous connection
- Defective remote controller setting
- Defective remote controller

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



1.11 Transmission Error between Main Remote Controller and Sub Remote Controller

Remote Controller Display

U8

Method of Error Detection

Micro-computer checks if data is transmitted properly between main-sub remote controller.

Error Decision Conditions

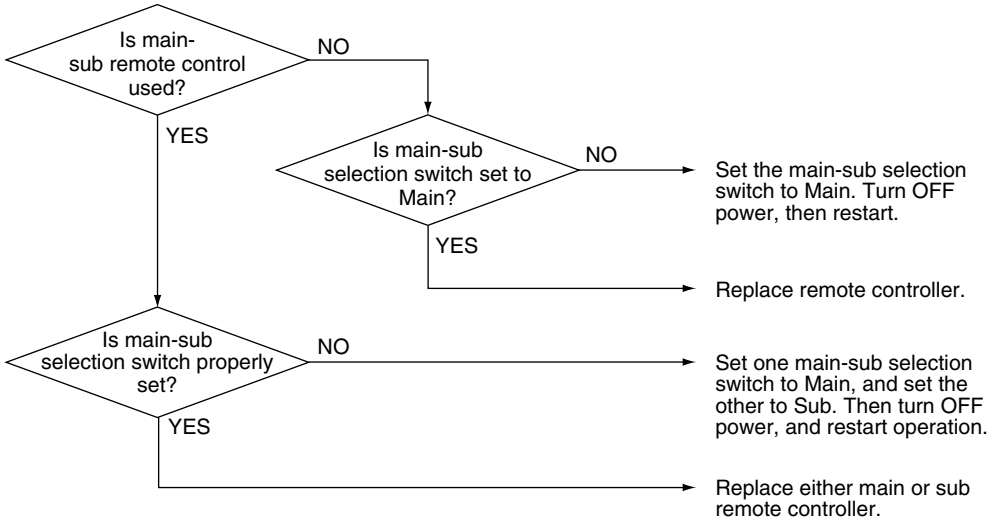
When data transmission is not performed correctly for a certain time period.

Supposed Causes

- Defective remote controller setting
- Defective remote controller

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



1.12 Field Setting Error

Remote Controller Display

U9

Method of Error Detection

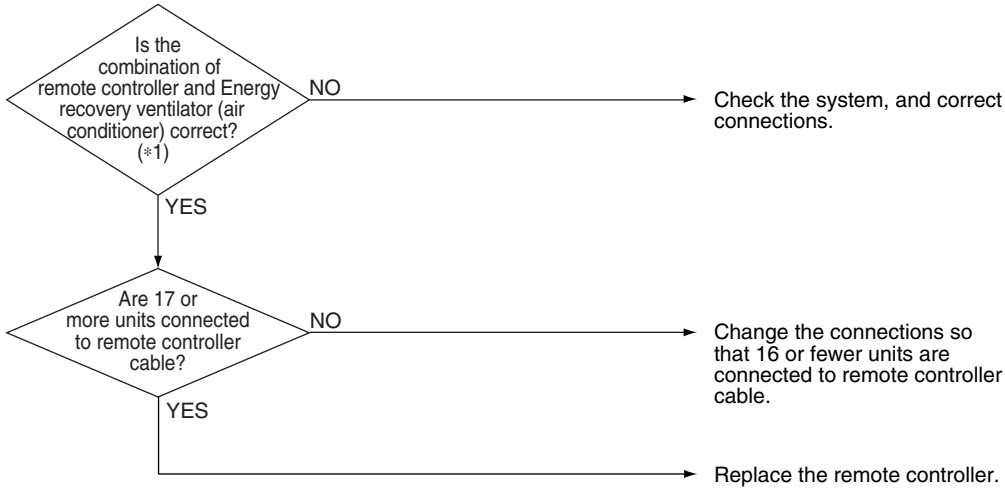
Error Decision Conditions

Supposed Causes

- Defective combination of remote controller
- More than 16 units connected to remote controller cable.
- Defective remote controller

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Note: *1:

Combination-Correct or Wrong

Main body	Remote controller	Correct/Wrong
Energy recovery ventilator only	Energy recovery ventilator	Correct
Energy recovery ventilator only	Air conditioner	Correct
Energy recovery ventilator + air conditioner	Energy recovery ventilator	Wrong
Energy recovery ventilator + air conditioner	Air conditioner	Correct

1.13 Duplication of Centralized Remote Controller

Remote Controller Display

UE

Method of Error Detection

Remote controller micro-computer checks for double-setting of addresses.

Error Decision Conditions

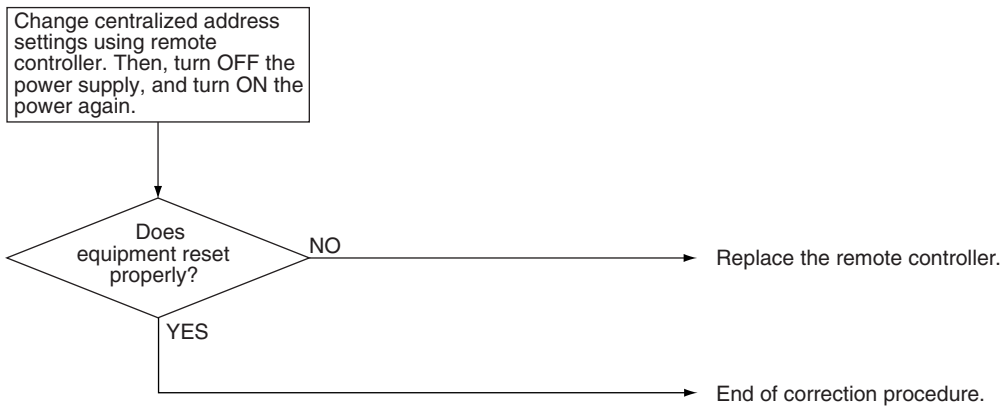
When same address is set to 2 or more units.

Supposed Causes

- Overlapping of centralized control address
- Defective remote control

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



1.14 Main Unit PCB Abnormality

Method of Error Detection

Check micro-computer operation monitor.

Error Decision Conditions

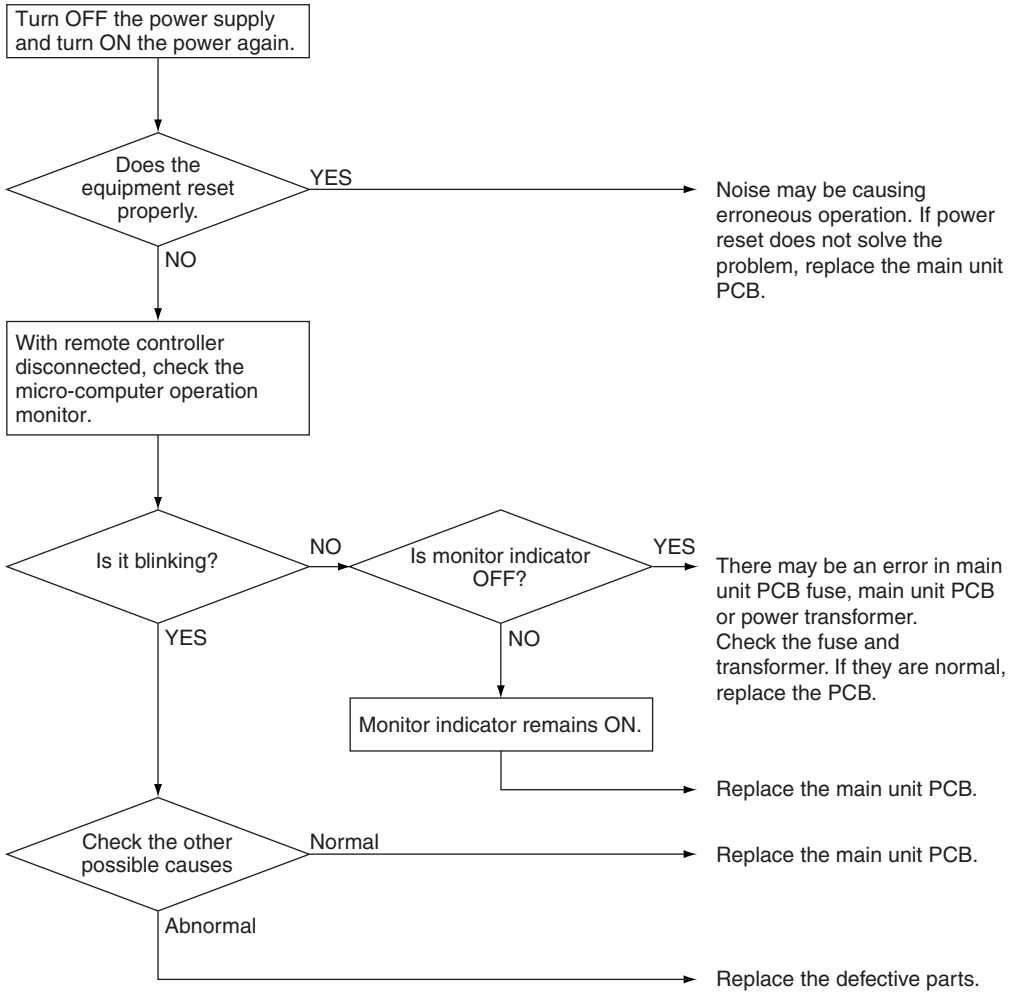
When main unit PCB does not operate.
When communication circuit errors.

Supposed Causes

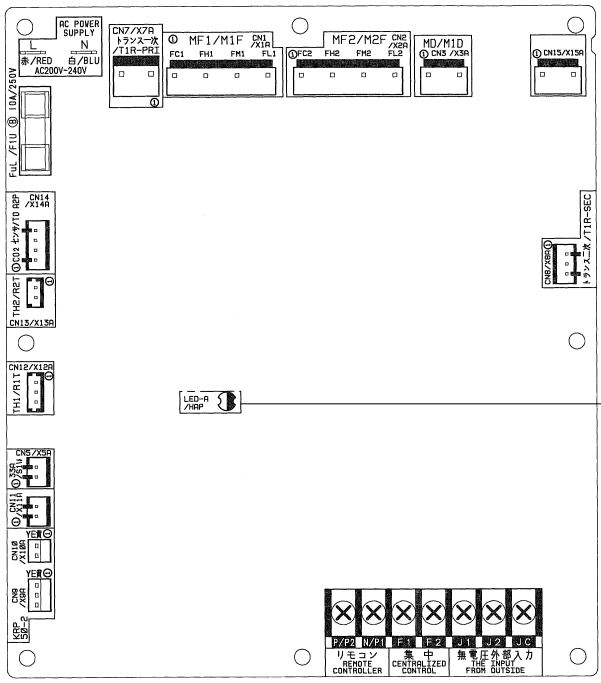
- Defective fuse (10A or more)
- Defective power transformer (275°F or more)
- Noise
- Defective main unit PCB

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Main unit PCB



1.15 Dedicated LCD Remote Controller

When no indication is displayed on remote controller

Method of Error Detection

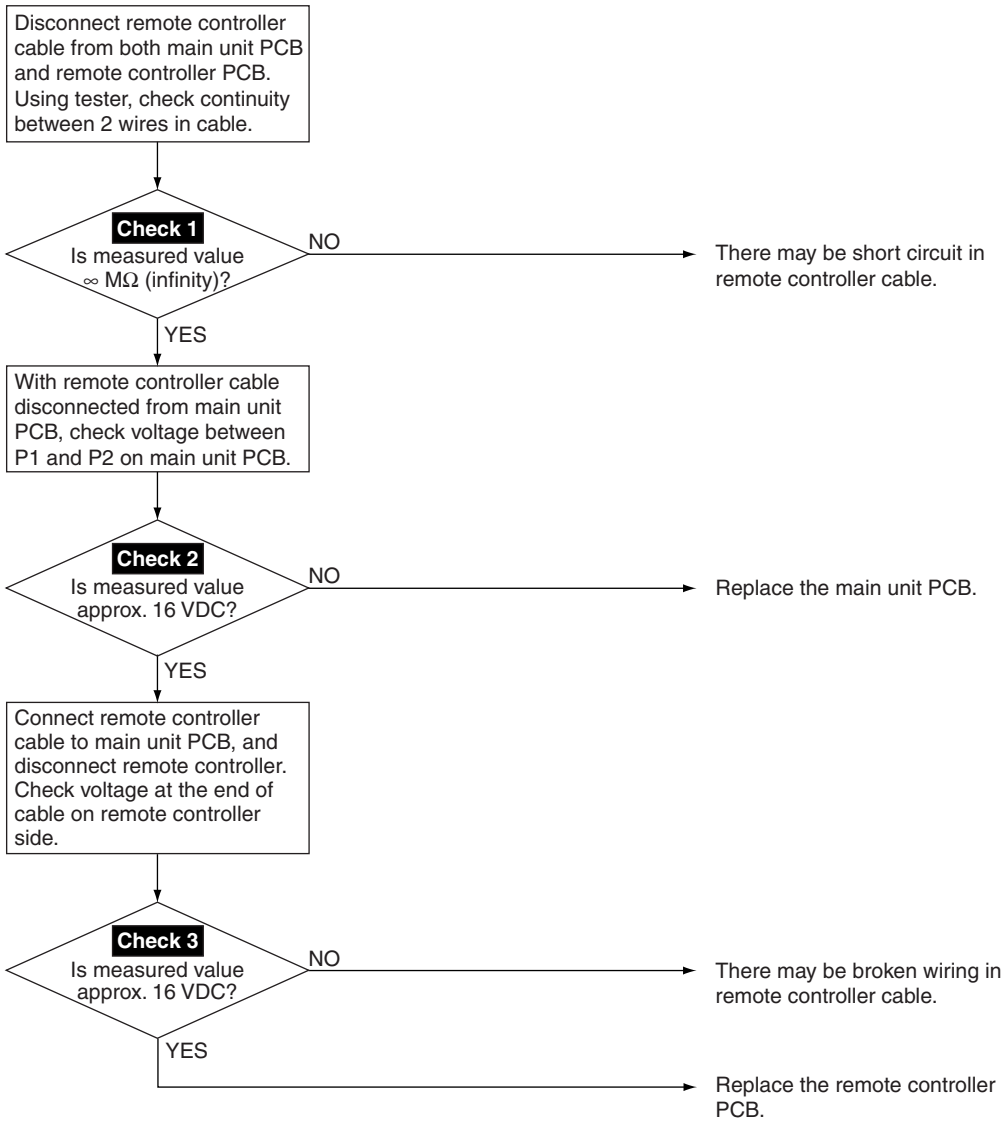
Check to see if remote controller displays indication.

Error Decision Conditions

Supposed Causes

Troubleshooting

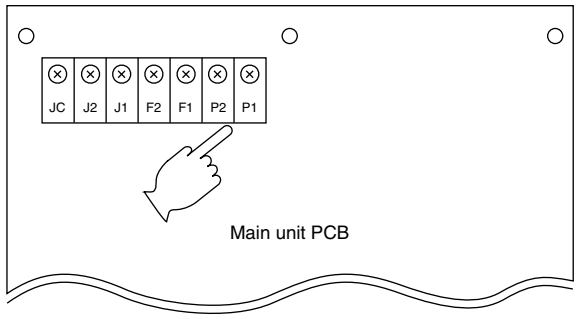
Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



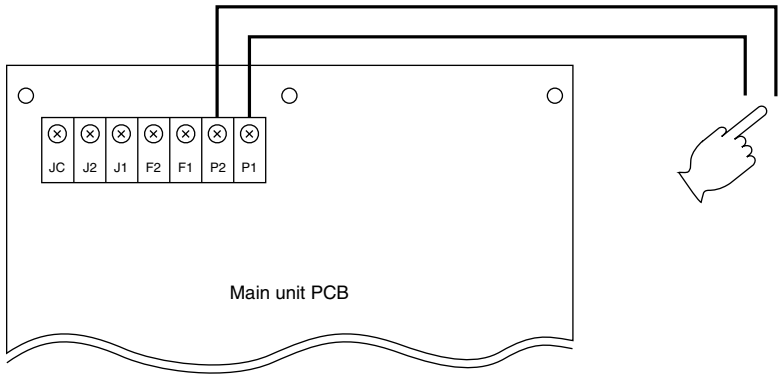
CHECK 1 CHECK 2 CHECK 3 Refer to P.47

1.16 How to Check

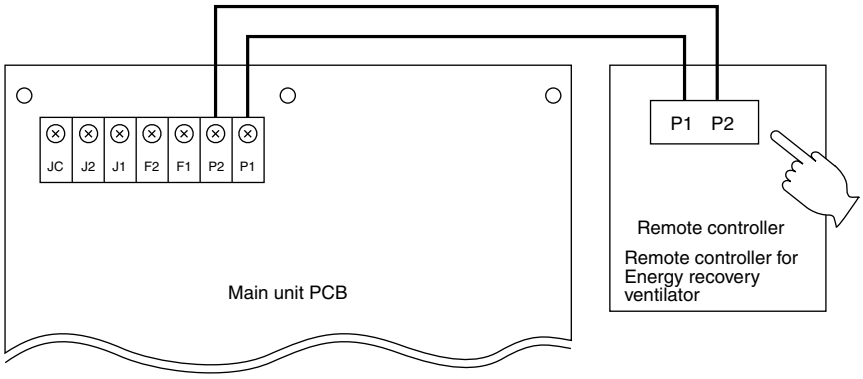
CHECK 1 Dedicated remote controller (Option)



CHECK 2 Dedicated remote controller (Option)



CHECK 3 Dedicated remote controller (Option)



1.17 Thermistor

Method of Error Detection

Remove thermistor and check resistance with tester.

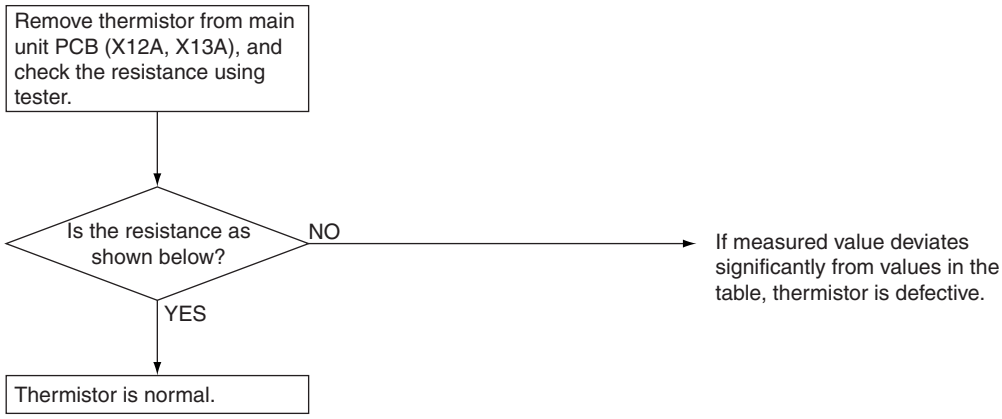
Error Decision Conditions

Supposed Causes

- Defective thermistor
- Broken wire
- Defective control PCB
- Defective contact in connector

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



CHECK 4 Refer to P.52.

1.18 Power Transformer

Method of Error Detection

Check the resistance and voltage with tester, and insulation resistance with megger.

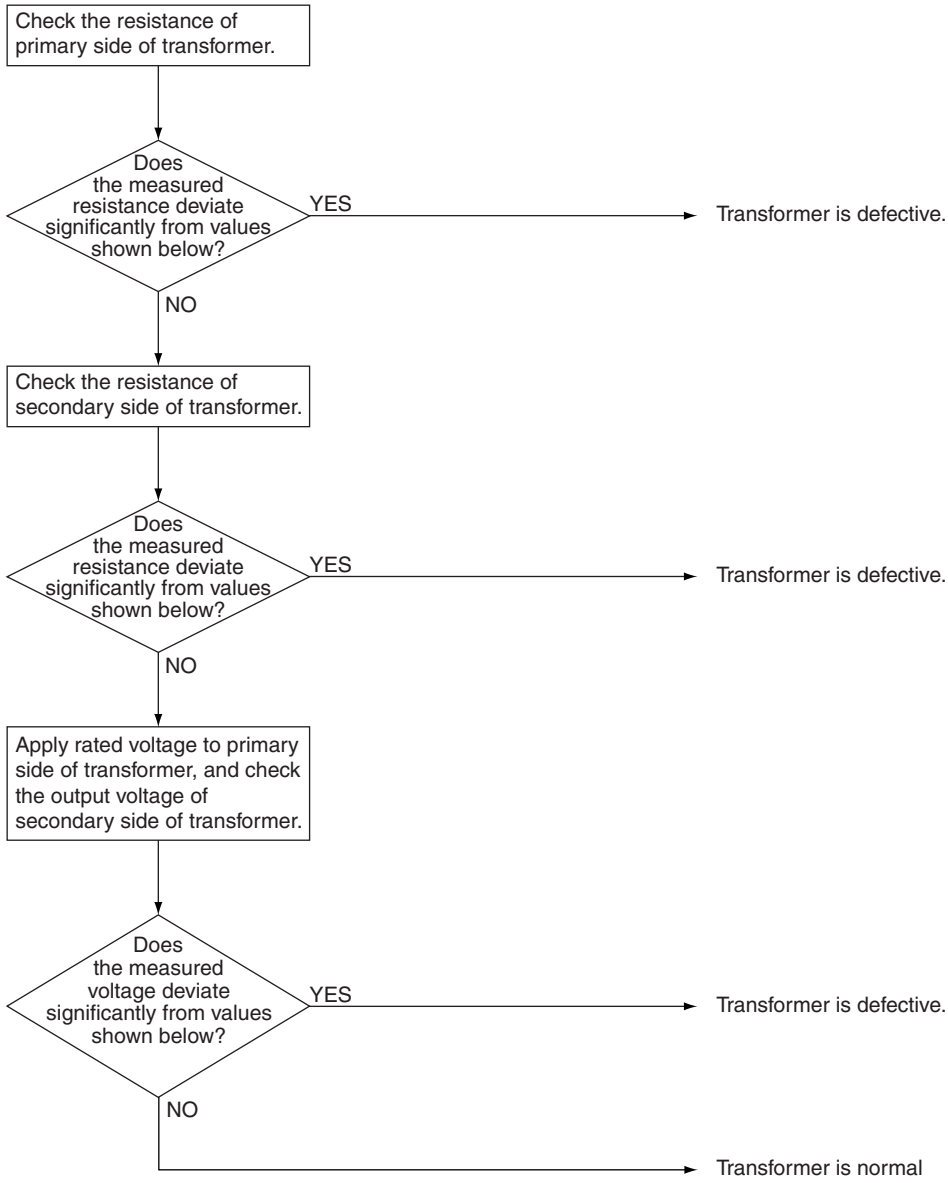
Error Decision Conditions

Supposed Causes

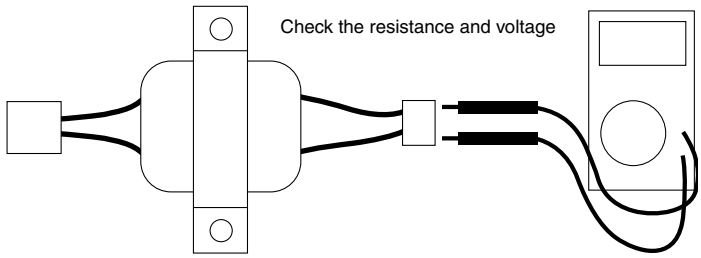
- Defective power transformer (275°F or more)

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



- Resistance of primary side of transformer: approx. 140Ω
- Resistance of secondary side of transformer: approx. 1.9Ω
- Voltage at secondary side of transformer when rated voltage is applied to primary side: approx. 26 VAC
- Insulation resistance between primary side of transformer and case: 100 MΩ or higher
- Insulation resistance between secondary side of transformer and case: 100 MΩ or higher
- Insulation resistance between primary side and secondary side of transformer: 100 MΩ or higher



1.19 Damper Motor

Method of Error Detection

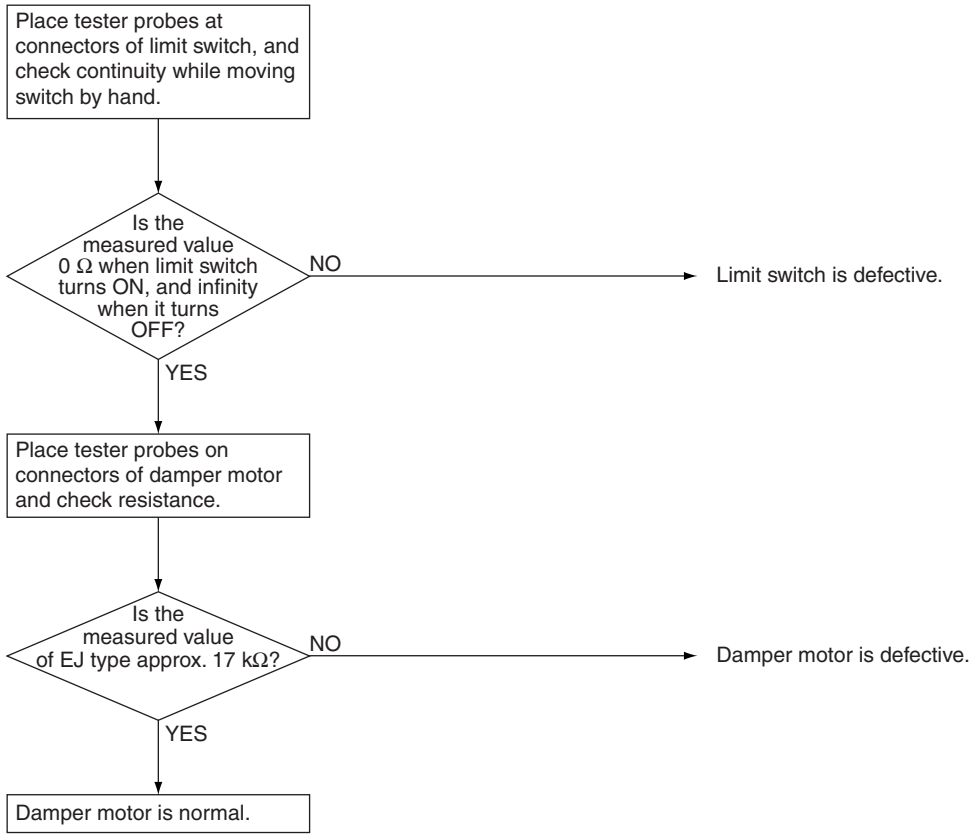
Check the damper motor and limit switch when damper motor does not operate.

Error Decision Conditions

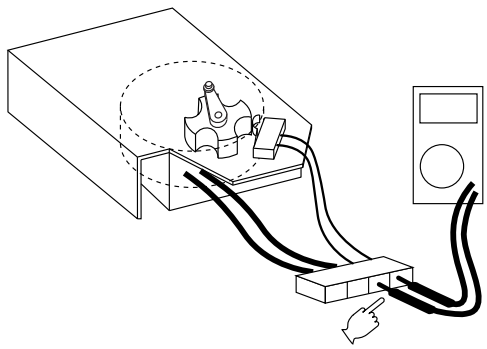
Supposed Causes

Troubleshooting

Caution Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Check the resistance and voltage — DAMPER MOTOR



1.20 Check

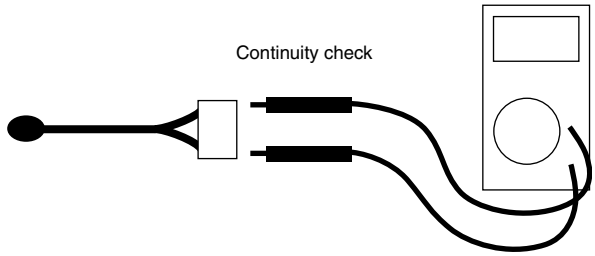
CHECK 4 Thermistor temperature - resistance conversion table

Thermistor temperature	Thermistor resistance	Thermistor temperature	Thermistor resistance
14°F or more	108kΩ or more	72°F	Approx. 23kΩ
23°F	Approx. 85kΩ	75°F	Approx. 21kΩ
32°F	Approx. 66kΩ	79°F	Approx. 19kΩ
41°F	Approx. 51kΩ	82°F	Approx. 18kΩ
50°F	Approx. 40kΩ	86°F	Approx. 16kΩ
57°F	Approx. 33kΩ	95°F	Approx. 13kΩ
61°F	Approx. 30kΩ	122°F or more	7kΩ or less
64°F	Approx. 28kΩ		
68°F	Approx. 25kΩ		

(AD87A001J)

If measured value deviates significantly from above values, thermistor is defective.

Use the tester to check resistance

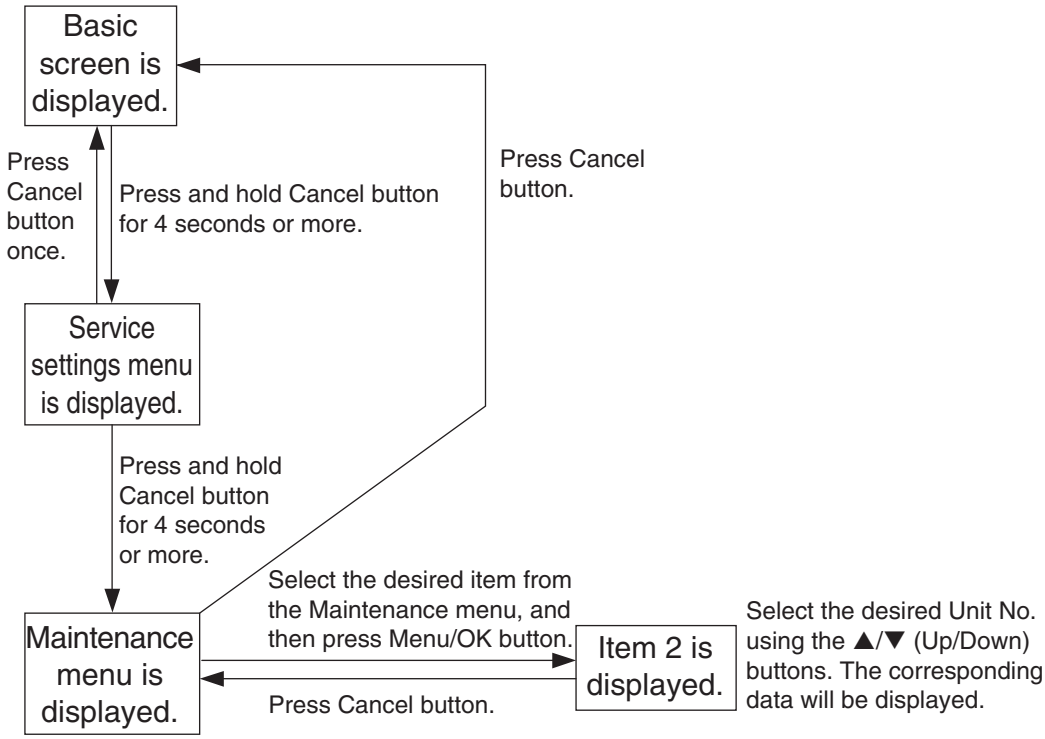


Part 6 Supplementary Explanation

1. Service Mode

1.1 BRC1E71

Operating the remote controller allows service data to be acquired and various services to be set.



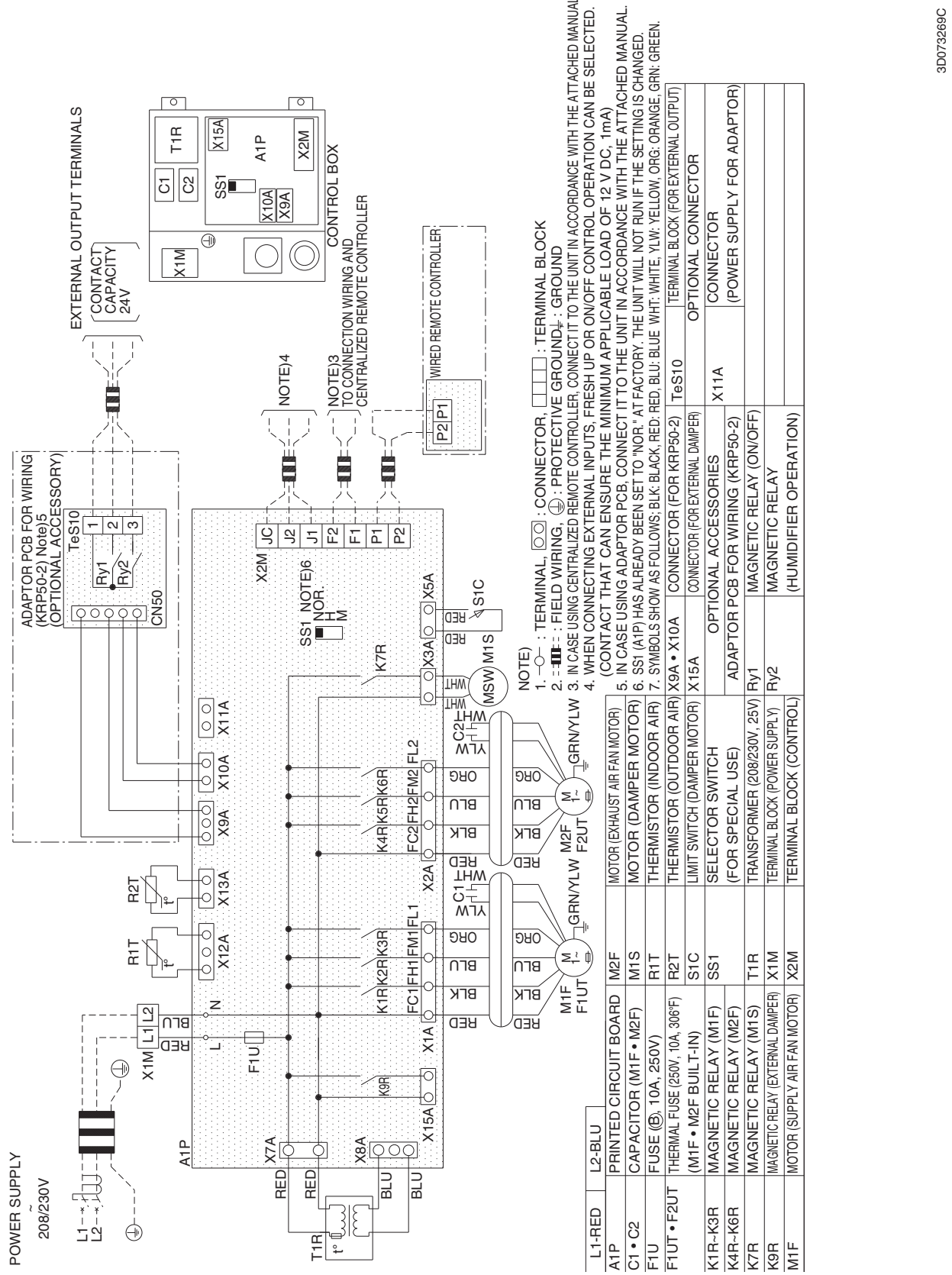
Maintenance Menu	Item 2	Remarks
2.1. Model Name	1. Unit No.	Select the Unit No. you want to check.
	2. Indoor unit	
	3. Outdoor unit	
2.2. Operating Hours	1. Unit No.	Select the Unit No. you want to check.
	2. Indoor unit operating time	All of these are displayed in hours.
	3. Indoor unit fan operation	
	4. Indoor unit energized time	
	5. Outdoor unit operating time	
	6. Outdoor unit fan 1 operation	
	7. Outdoor unit fan 2 operation	
	8. Outdoor comp. 1 operation	
	9. Outdoor comp. 2 operation	
2.3. Indoor Unit Status	1. Unit No.	Select the Unit No. you want to check.
	2. FAN	Fan tap
	3. FLAP	Swing, fixed
	4. Speed	Fan speed (rpm)
	5. EV	Degree that electronic expansion valve is open (pls)
	6. MP	Drain pump ON/OFF
	7. EH	Electric heater ON/OFF
	8. Hu	Humidifier ON/OFF
	9. TBF	Anti-freezing control ON/OFF

Maintenance Menu	Item 2	Remarks	
2.3. Indoor Unit Status	10.FLOAT		
	11.T1/T2		
	12.Unit No.	Select the Unit No. you want to check.	
		SkyAir	VRV
	13.Th1	Suction air thermistor	Suction air thermistor
	14.Th2	Heat exchanger thermistor	Heat exchanger liquid pipe thermistor
	15.Th3	—	Heat exchanger gas pipe thermistor
	16.Th4	Discharge air thermistor	Discharge air thermistor
	17.Th5	—	—
	18.Th6	—	—
2.4. Outdoor Unit Status	1. Unit No.	Select the Unit No. you want to check.	
	2. FAN step	Fan tap	
	3. COMP	Compressor power supply frequency (Hz)	
	4. EV1	Degree that electronic expansion valve is open (pls)	
	5. SV1	Solenoid valve ON/OFF	
		SkyAir	VRV
	6. Th1	Outdoor air thermistor	—
	7. Th2	Heat exchanger thermistor	—
	8. Th3	Discharge pipe thermistor	—
	9. Th4	Heat exchanger deicer thermistor	—
	10.Th5	Heat exchanger gas pipe thermistor	—
	11.Th6	Liquid pipe thermistor	—
2.5. Forced Defrost (SkyAir only)	1. Forced defrost ON	Enables the forced defrost operation.	
	2. Forced defrost OFF	Disables the forced defrost operation.	
2.6. Error Display	1. Display Warning ON	Displays a warning on the screen if an error occurs.	
	2. Display Warning OFF	No warning is displayed.	
	3. Display Error ON	Displays the error on the screen.	
	4. Display Error OFF	Displays neither errors nor warnings.	
2.7. Swap Unit No.	1. Current Unit No.	A unit No. can be transferred to another.	
	2. Transfer Unit No.		
2.8. Addressed Sensor Value	○ Unit No.: 0 - 15	Select the Unit No. you want to check.	
	○ Code 00: 01: 02: 03: 04: 05: 06: 07: 08: 09:	Remote controller thermistor (°F) Suction air thermistor (°F) Heat exchanger liquid pipe thermistor (°F) Heat exchanger gas pipe thermistor (°F) Indoor unit address No. Outdoor unit address No. Branch Selector unit address No. Zone control address No. Cooling/Heating batch address No. Demand/low-noise address No.	
	○ Data	The corresponding data will be displayed, based on the Unit No. and Code selected.	

Part 7
Appendix

1. Wiring Diagram

1.1 VAM300GVJU / VAM470GVJU / VAM600GVJU



L1-RED	L2-BLU				
A1P	PRINTED CIRCUIT BOARD	M2F	MOTOR (EXHAUST AIR FAN MOTOR)		
C1 • C2	CAPACITOR (M1F • M2F)	M1S	MOTOR (DAMPER MOTOR)		
F1U	FUSE (Ⓑ, 10A, 250V)	R1T	THERMISTOR (INDOOR AIR)	X9A • X10A	CONNECTOR (FOR KRP50-2)
F1UT • F2UT	THERMAL FUSE (250V, 10A, 306°F) (M1F • M2F BUILT-IN)	R2T	THERMISTOR (OUTDOOR AIR)	X15A	CONNECTOR (FOR EXTERNAL DAMPER)
		S1C	LIMIT SWITCH (DAMPER MOTOR)	TeS10	TERMINAL BLOCK (FOR EXTERNAL OUTPUT)
K1R~K3R	MAGNETIC RELAY (M1F)	SS1	SELECTOR SWITCH (FOR SPECIAL USE)	X11A	OPTIONAL CONNECTOR
K4R~K6R	MAGNETIC RELAY (M2F)				OPTIONAL ACCESSORIES CONNECTOR (POWER SUPPLY FOR ADAPTOR)
K7R	MAGNETIC RELAY (M1S)	T1R	TRANSFORMER (208/230V, 25V)	Ry1	ADAPTOR PCB FOR WIRING (KRP50-2) MAGNETIC RELAY (ON/OFF)
K9R	MAGNETIC RELAY (EXTERNAL DAMPER)	X1M	TERMINAL BLOCK (POWER SUPPLY)	Ry2	MAGNETIC RELAY (HUMIDIFIER OPERATION)
M1F	MOTOR (SUPPLY AIR FAN MOTOR)	X2M	TERMINAL BLOCK (CONTROL)		

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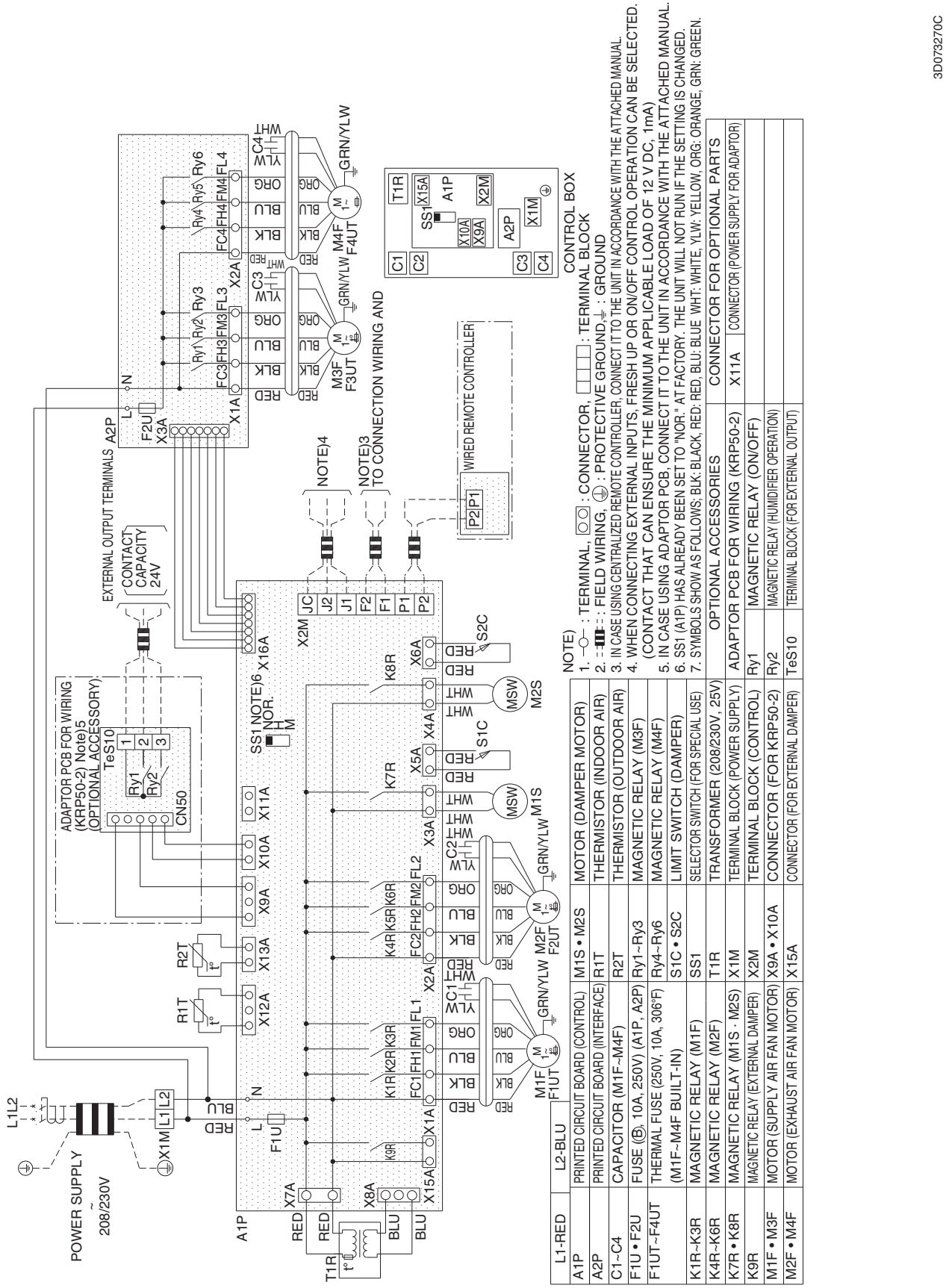
1.2 VAM1200GVJU



NOTE)
1. —○— : TERMINAL, ○○ : CONNECTOR, □□□□ : TERMINAL BLOCK
2. =▮= : FIELD WIRING, ⏚ : PROTECTIVE GROUND, ⏚ : GROUND
3. IN CASE USING CENTRALIZED REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED MANUAL.
4. WHEN CONNECTING EXTERNAL INPUTS, FRESH UP OR ON/OFF CONTROL OPERATION CAN BE SELECTED. (CONTACT THAT CAN ENSURE THE MINIMUM APPLICABLE LOAD OF 12 V DC, 1mA)
5. IN CASE USING ADAPTOR PCB, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED MANUAL.
6. SS1 (A1P) HAS ALREADY BEEN SET TO "NOR." AT FACTORY. THE UNIT WILL NOT RUN IF THE SETTING IS CHANGED.
7. SYMBOLS SHOW AS FOLLOWS; BLK: BLACK, RED: RED, BLU: BLUE WHT: WHITE, YLW: YELLOW, ORG: ORANGE, GRN: GREEN.

L1-RED	L2-BLU		
A1P	PRINTED CIRCUIT BOARD (CONTROL)	M1S • M2S	MOTOR (DAMPER MOTOR)
A2P	PRINTED CIRCUIT BOARD (INTERFACE)	R1T	THERMISTOR (INDOOR AIR)
C1~C4	CAPACITOR (M1F~M4F)	R2T	THERMISTOR (OUTDOOR AIR)
F1U • F2U	FUSE (Ⓑ, 10A, 250V) (A1P, A2P)	Ry1~Ry3	MAGNETIC RELAY (M3F)
F1UT~F4UT	THERMAL FUSE (250V, 10A, 306°F) (M1F~M4F BUILT-IN)	Ry4~Ry6	MAGNETIC RELAY (M4F)
		S1C • S2C	LIMIT SWITCH (DAMPER)
K1R~K3R	MAGNETIC RELAY (M1F)	SS1	SELECTOR SWITCH (FOR SPECIAL USE)
K4R~K6R	MAGNETIC RELAY (M2F)	T1R	TRANSFORMER (208/230V , 25V)
K7R • K8R	MAGNETIC RELAY (M1S · M2S)	X1M	TERMINAL BLOCK (POWER SUPPLY)
K9R	MAGNETIC RELAY (EXTERNAL DAMPER)	X2M	TERMINAL BLOCK (CONTROL)
M1F • M3F	MOTOR (SUPPLY AIR FAN MOTOR)	X9A • X10A	CONNECTOR (FOR KRP50-2)
M2F • M4F	MOTOR (EXHAUST AIR FAN MOTOR)	X15A	CONNECTOR (FOR EXTERNAL DAMPER)

OPTIONAL ACCESSORIES	CONNECTOR FOR OPTIONAL PARTS		
ADAPTOR PCB FOR WIRING (KRP50-2)	X11A	CONNECTOR (POWER SUPPLY FOR ADAPTOR)	
Ry1	MAGNETIC RELAY (ON/OFF)		
Ry2	MAGNETIC RELAY (HUMIDIFIER OPERATION)		
TeS10	TERMINAL BLOCK (FOR EXTERNAL OUTPUT)		

Warning

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

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

C ETL US LISTED
Intertek

Cautions on product corrosion

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

CERTIFIED JQA MANAGEMENT SYSTEM ISO 9001
JMI-0107

Organization:
DAIKIN INDUSTRIES, LTD.
AIR CONDITIONING MANUFACTURING DIVISION

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF COMMERCIAL AIR CONDITIONING, HEATING, COOLING, REFRIGERATING EQUIPMENT, HEATING EQUIPMENT, RESIDENTIAL AIR CONDITIONING EQUIPMENT, HEAT RECLAIM VENTILATION, AIR CLEANING EQUIPMENT, COMPRESSORS AND VALVES.

CERTIFIED JQA MANAGEMENT SYSTEM ISO 9001
JQA-1452

Organization:
DAIKIN INDUSTRIES (THAILAND) LTD.

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF AIR CONDITIONERS AND THE COMPONENTS INCLUDING COMPRESSORS USED FOR THEM

ISO 14001 JACO
EC99J2044

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DAIKIN AC (AMERICAS), INC.
1645 Wallace Drive, Suite 110
Carrollton, TX75006
info@daikinac.com
www.daikinac.com

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