

## **OPERATION MANUAL**

# Total Heat Exchanger Heat Reclaim Ventilator

### **MODELS**

(Ceiling-mounted Duct type)

VAM150HVE

VAM250HVE

VAM350HVE

**VAM500HVE** 

VAM650HVE

VAM800HVE

VAM1000HVE

VAM1500HVE

VAM2000HVE









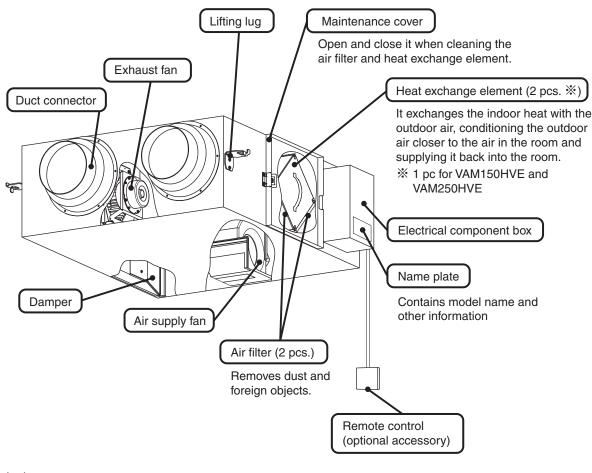
### **Heat Reclaim Ventilator**

Before using the DAIKIN Heat Reclaim Ventilator, be sure to read this operation manual thoroughly. If you have any problems or there is a malfunction, please refer to this operation manual.

Please keep this manual for your future reference whenever you do not understand how to use it when something is wrong with the unit during the operation.

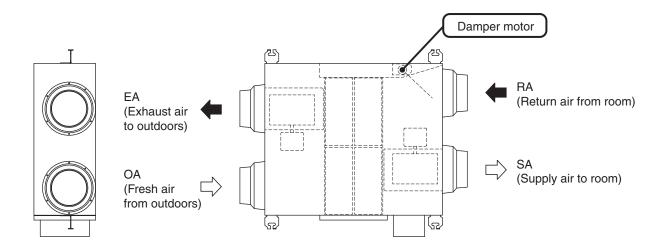
## MODELS VAM150HVE VAM250HVE VAM350HVE VAM500HVE VAM650HVE VAM800HVE VAM1000HVE

### Name of Parts



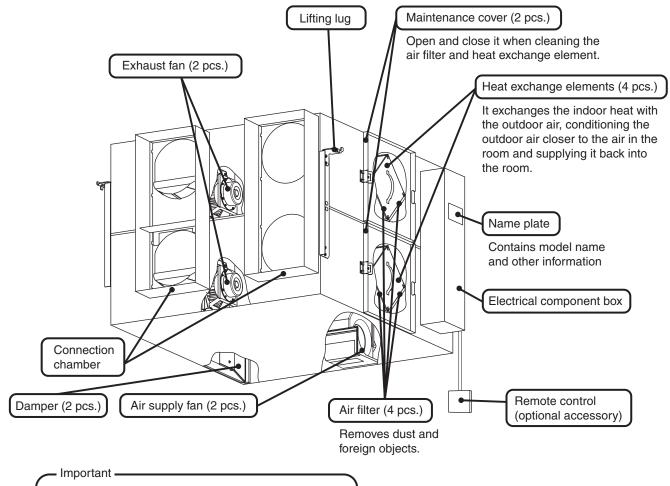
Important -

When first using the unit, sometimes the smell of heat exchange element may be noticeable; it is not harmful. The smell will gradually go away as the unit is used.

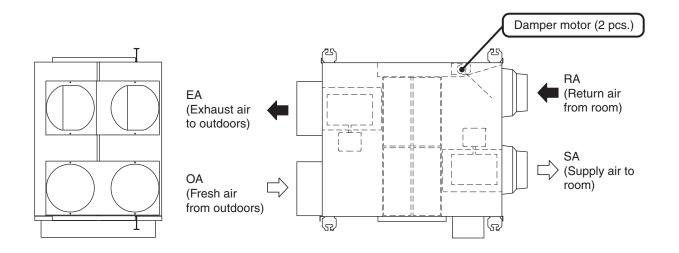


### MODELS VAM1500HVE VAM2000HVE

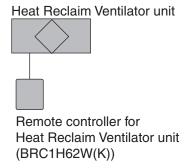
### **Name of Parts**



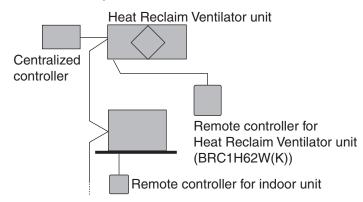
When first using the unit, sometimes the smell of heat exchange element may be noticeable; it is not harmful. The smell will gradually go away as the unit is used.



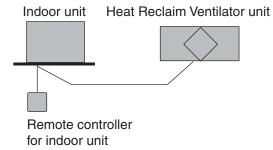
• Independent system



· Centralized system



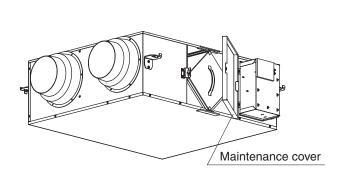
· Combined operation system with VRV systems and Sky-air series

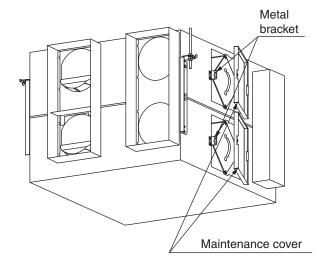


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### MODELS VAM150HVE - VAM1000HVE

### MODELS VAM1500HVE - VAM2000HVE

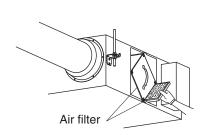


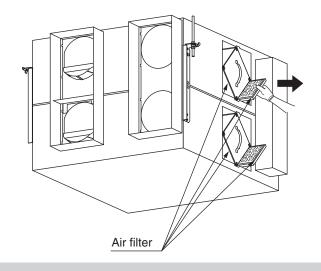


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### MODELS VAM150HVE - VAM1000HVE

### MODELS VAM1500HVE - VAM2000HVE

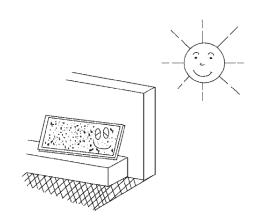




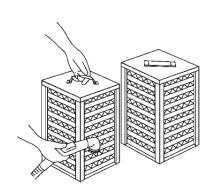
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VAM150HVE VAM250HVE VAM350HVE VAM500HVE VAM650HVF VAM800HVE VAM1000HVE VAM1500HVE VAM2000HVE

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### 1 SAFETY CAUTIONS

Read the following cautions carefully and use your equipment properly.

There are two kinds of safety precaution and tips listed in the following.



**!** WARNING..... Improper handling can lead to such serious consequences as death or severe injury.



CAUTION ...... Improper handling can lead to injury or damage. It could also have serious consequences under certain conditions.

### NOTE T

 These instructions will ensure proper use of the equipment.

Be sure to follow these important safety cautions.

### — /!\ WARNING (During Operation) −

 When the unit is in abnormal conditions (smell of something burning, etc.), cut off the power, and contact your dealer.

Continued operation under such circumstances may result in a failure, electric shock, and fire.

- · It is not good for your health to expose your body to the air flow for a long time.
- Do not operate the unit with a wet hand. An electric shock may result.
- Open the windows and ventilate the room if flammable gas is leaked.

Insufficient ventilation when the unit is turned on or off may cause an explosion from sparks at the electrical connection.

Do not wash the Heat Reclaim Ventilator unit with water.

Electric shock or fire may result. (Not including air filters, etc.)

Be sure to stop the unit and turn off the power when cleaning or inspecting it.

As the fan is rotating at high speed, it will cause injury.

- Do not insert fingers or sticks into duct flange. As the fan is rotating at high speed, it causes injury.
- Do not use in the atmosphere floating food oil or machine oil.

It causes crack, electric shock, and ignition.

Do not use in the room which have much oil mist such as kitchen, and the atmosphere which contains flammable or corrosive gases and metal dust.

It causes fire and malfunction.

Do not use flammable gases such as hair spray or insecticide nearby the unit. Also, not to wipe the unit or controller by organic solvent such as benzene or thinner.

It causes crack, electric shock and ignition.

If the Heat Reclaim Ventilator unit is submerged by the disaster such as typhoons and floods, consult by the dealer.

It causes malfunction, electric shock and fire by running the damaged unit.

### — /!\ CAUTION (During Operation) —

• Do not use the Heat Reclaim Ventilator unit for other purposes.

In order to avoid any quality deterioration, do not use the unit for cooling precision instruments, food, plants, animals or works of art.

- Do not use burning appliances directly in the path of the air from the unit.
  - Incomplete combustion of the burning appliances may occur.
- Never expose young children, plants or animals directly to the air flow.

Adverse influence to little children, animals and plants may result.

- Neither place a flammable spray bottle near the Heat Reclaim Ventilator unit or indoor intake and outlet grills nor perform spraying. Doing so may result in a fire.
- Turn off the power when the unit is not to be used for long periods of time.

Otherwise, the unit may get hot or catch on fire due to dust accumulation.

- Do not block the intake or outlet grills. If the fan does not blow air throughout the entire
  - room it may cause machine trouble.
- Use gloves when cleaning. Cleaning without gloves may cause injury.
- Never touch the internal parts of the controller. Do not remove the front panel. Some parts inside are dangerous to touch, and a machine trouble may happen. For checking and adjusting the internal parts, contact your dealer.
- Young children should be supervised to ensure that they do not play with the appliances.

It may make your health worse by wrong operation.

Do not use heating appliances nearby the Heat Reclaim Ventilator unit.

It may make the outlet grills' or air filters' shape change by the heat from those appliances.

- Do not use the unit without air filter.
   The quality of heat exchange element may get worse by dust, and it may cause malfunction.
- Do not put containers with water such as vases and flowerpots on the Heat Reclaim Ventilator unit.

It may cause electric shock or fire because water goes into the unit.

 Make sure your scaffolding hold when working at heights.

If the scaffolding is unstable, it may cause to fall and injury.

### — / NARNING (For Installation) —

- Do not attempt to install the unit yourself.
   Ask your dealer for installation of the unit.
   Incomplete installation performed by yourself may result in a water leakage, electric shock, and fire.
- Installation should be done following the installation manual.

Incorrect installation may cause leaking, electric shock, or fire. Injuries may result if the unit falls.

Do not allow exhaust air to enter the outside air intake vent.

This may cause the interior of the room to become contaminated and harming the health.

 Locate the outside air intake vent so that it does not take in exhaust air which contains combustion air, etc.

Incorrect installation may cause a loss of oxygen in the room, leading to serious accidents.

All wiring must be performed by an authorized electrician.

To do wiring, ask your dealer. Never do it yourself.

- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local lows and regulations.
   Insufficient power circuit capacity or incorrect work may cause electric shock or fires.
- Install the unit on a foundation strong enough to withstand the weight of the unit.
   A foundation of in sufficient strongth may result in
- Connect the remote controller to the correct model.

This may cause electric shock or fire.

the unit falling and causing injuries.

- Do not connect additional electric wirings. This may cause fire.
- Do not install the Heat Reclaim Ventilator unit at any place where flammable gas may leak out.
   If the gas leaks out and stays around the unit, a fire may break out.
- · Be sure to establish an earth.

Do not earth the unit to a utility pipe, arrester, or telephone earth.

Incomplete earth may cause electrical shock, or fire.

A high surge current from lightning or other sources may cause damage to the air conditioner.

Be sure to install an earth leakage breaker.
 Failure to install an earth leakage breaker may result in electric shocks, or fire.

### — / CAUTION (For Installation) —

- Do not use the Heat Reclaim Ventilator unit or an air suction/discharge grille in the following places.
  - a. Place subjected to high temperature or direct flame.

Avoid a place where the temperature near the Heat Reclaim Ventilator unit and the air suction/discharge air grille exceeds 40°C. If the unit is used at high temperature, deformed air filter and heat exchange element or burned motor result.

b. Place such as kitchens or other places where oil fumes are present.

This may cause fire.

c. Place such as machinery plant and chemical plant where gas, which contains noxius gas or corrosive components of materials such as acid, alkali, organic solvent and paint, is generated.

Place where combustible gas leakage is likely.

This may cause gas poisoning or fires.

d. Place such as bathroom subjected to moisture.

Electric leak or electric shock and other failure can be caused.

- e. Locations below freezing point.
- Near machinery emitting electromagnetic waves.

Electromagnetic waves may disturb the operation of the control system and result in a malfunction of the equipment.

- g. Place subjected to much carbon black. Carbon black attaches to air filter and heat exchange element, marking them unable to use.
- Is a snow protection measure taken? For detail, consult your dealer.
- Make sure the temperature and the humidity of the installation location is within the usage range, not exceed the limit.

Do not install in cold storage or other locations with low temperatures or near heated pools. This may cause fires or short circuits.

- Install the two outdoor ducts with down slope to prevent rainwater from entering the unit.
   If this is not done completely, water may enter the building, damaging furniture, and cause electric shock and fire.
- Insulate the two outdoor ducts to prevent dew condensation (and the indoor duct as well if needed).

If this is not done completely, water may enter the building, damaging furniture, etc.

 Use electric insulation between the duct and the wall when using metal ducts to pass metal or wire laths or metal plating into wooden buildings.

This may cause electric shock, short circuits, or fire.

Avoid placing the controller in a spot splashed with water.

Water coming inside the controller may cause an electric leak or may damage the internal electronic parts.

 Never pull or twist the electric wire of a remote controller.

It may cause the unit to malfunction.

## — ★ WARNING (For moving and reinstalling/repairing)

- Do not modify the unit.
  - This may cause electric shock or fire.
- Ask your dealer to move and reinstall the unit.
   Incomplete installation may result in electric shock, and fire.
- Do not disassemble or repair the unit yourself.
   This may cause electric shock or fire.
   Contact your dealer to have such work done.
- When removing the unit, be sure not to tip it.
   The water inside the unit may drip or leak out, and get on furniture, etc.
- Do not move or attempt to re-install the remote controller yourself.

Incorrect installation, may cause electric shock or fire. Contact your dealer to have such work done.

### 2 WHAT TO DO BEFORE OPERATION

This operation manual is for the following systems with standard control. Before initiating operation, contact your Daikin dealer for the operation that corresponds to your system type and mark.

If your installation has a customized control system, ask your dealer for the operation that corresponds to your system.

### 2-1 NAMES OF PARTS (Refer to figure 1)

- (1) Lifting lug
- (2) Duct connecting flange
- (3) Exhaust fan
- (4) Air filter (Long life filter)
- (5) Damper
- (6) Electric parts box
- (7) Maintenance cover
- (8) Heat exchanger elements
- (9) Name plate
- (10) Air supply fan
- (11) Remote controller (Optional accessory)
- (12) Damper motor
- (13) EA Exhaust air to outdoors
- (14) OA Fresh air from outdoors
- (15) Maintenance space for the air filters, the heat exchange elements and control box.
- (16) RA Return air from room
- (17) SA Supply air to room

### 2-2 VENTILATION OPERATION

See the operation manual of the remote control for operations.

### <Operating Conditions>

To ensure the correct usage of the unit, operate it within the operating conditions specified in the table below.

	Surrounding of total heat exchanger unit	Supplied (outdoor) air	Exhausted (indoor) air
VAM-HVE	-10°C to 50°CDB Max. 80%RH	-15°C to 50°CDB Max. 80%RH	-10°C to 50°CDB Max. 80%RH

\* If the unit is operated for long periods of time out of temperature or operational humidity range, safety devices may cause the unit to not operate, and water may leak from the unit due to dew condensation.

### 2-3 OPTIMUM OPERATION

 Do not operate the unit in Bypass mode when the room air is heated in winter or when the outside temperature is 25°C or higher.

This may cause condensation to form on the main unit or on the indoor air outlet.

- Do not install the remote control where the indoor temperature and humidity, respectively, is out of the range of 0-35°C and RH 40-80%. This may cause malfunction.
- Do not change operations suddenly.
   It can result not only in malfunction but also failure of switches and relays in the remote control.
- Clean the air filter frequently.
   If the unit is used with a clogged air filter, it may lead to lower operation efficiency and failure.

Refer to Page 6 and 7



 Keep the indoor unit and the remote control at least 1 m away from televisions, radios, stereos, and other similar equipment.

This may cause distorted picture or noise.

 Turn off the main power supply when it is not used for long periods of time.

When the main power switch is turned on, some watts of electricity is being consumed even if the system is not operating.

 Do not install the remote controller where direct sunlight may fall on it.

This may cause discoloration or deformation.

### The product's method of use varies according to each system.

Check with the dealer on what system has the product been installed with prior to operation.

For operations of remote controls and centralized controller, see their respective operation manual.

### NOTE T

 When the fan motor fails, the remote controller does not display any error code.

Usage under that status will lead to insufficient ventilation.

The air supply and exhaust fans should be checked once every one or two months.

You can make a simple check such as below way. To check the wind flow, hold a bar of which the end has a string or other similar lightweight item over the supply grille and exhaust grille.

### **3 OPERATION PROCEDURE**

## 3-1 24-HOUR VENTILATION OPERATION

The 24-hour ventilation operation is an automatic function that provides ventilation even after the operation has been stopped in order to prevent sick building and sick school syndrome.

After the operation is stopped, the unit switches to continuous operation at low fan speed or intermittent operation.

 24-hour ventilation operation is set to "off" in the factory settings.

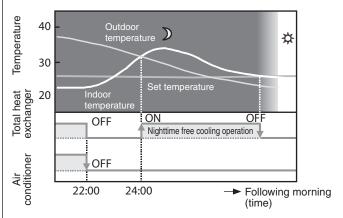
Request your dealer to turn it on if you intend to use it.

## 3-2 NIGHTTIME FREE COOLING OPERATION

The nighttime free cooling is an energy-saving function which works at night when the air conditioners is off; reducing the cooling load in the morning when the air conditioner is turned on by ventilating rooms which contain office equipment which raises the room temperature.

- Nighttime free cooling operation can be performed as stand-alone operation or combined operation.
- The operation lamp on the remote control is OFF during the nighttime free cooling operation.
- Nighttime free cooling is set to "off" in the factory settings. Request your dealer to turn it on if you intend to use it.

### COMBINED NIGHTTIME FREE COOLING OPERATION



Nighttime free cooling only works during cooling and when combined with Sky Air or VRV systems.

### <Unit operation>

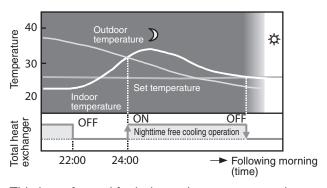
The unit compares the indoor and outdoor temperatures after the air conditioner stops for the night. If the following conditions are met, the operation starts and when the indoor temperature reaches the temperature setting of the air conditioner, the operation stops.

### Conditions;

- 1. The indoor temperature is higher than the temperature setting of the air conditioner combined.
- 2. The outdoor temperature is lower than the indoor temperature.

If the above conditions are not met, reevaluation is made every 60 minutes.

### STAND-ALONE NIGHTTIME FREE COOLING OPERATION



This is performed for independent systems and centralized systems.

Temperature to be set can be selected by making field settings.

### <Unit operation>

The total heat exchanger unit compares the indoor and outdoor temperatures after it stops for the night. If the following conditions are met, the operation starts and when the indoor temperature reaches the temperature setting of the total heat exchanger unit, the operation stops.

### Conditions:

- 1. The indoor temperature is higher than the temperature setting of the total heat exchanger unit.
- 2. The outdoor temperature is lower than the indoor temperature.

If the above conditions are not met, reevaluation is made every 60 minutes.

 For other functions, see the operation manual of the remote control.

## 4 MAINTENANCE (for a qualified service person only)

### — MARNING -

 Do not use flammable gas (such as hair spray and insecticide) near the main unit. Do not wipe the main unit and remote control with thinner, etc.

This may cause cracks, electric shock, or ignition.

• Do not wash the total heat exchanger unit with water (not including air filters).

If the electrical parts or motors get wet with water, it may cause electric leakage, resulting in electric shock or fire.

 Be sure to stop the operation, and turn the breaker off before cleaning or inspection.
 As the fan inside the unit is rotating at high speed, it will cause electric shock or injury.

### — ⚠ CAUTION

- Use gloves when cleaning.
   Cleaning without gloves may cause injury.
- Watch your step when working in high places.
   If the scaffold is unstable, you may fall or topple down thus causing injury.

### NOTE \*\*

- Do not operate the unit without air filter except during cleaning.
   Missing air filter causes clogged heat exchange
  - element which may lower operation efficiency and cause a failure.
- When cleaning, replace heat exchange element if its' knob is found damaged or in deteriorating condition as it is a potential dropping hazard.
- Do not install anything (such as kitchen paper)
   other than the genuine air filters on the air inlet.
   Doing so may lower operation efficiency and cause
   freezing or leakage.
- Cleaning of air filter or heat exchange element, installation and replacement high-performance filter (optional accessory) involves a work in high places and it is dangerous.
  - Be sure to ask your dealer to have such works done.
- If water is in the unit, clean it by wiping it off with a soft cloth.

### **4-1 ROUTINE MAINTENANCE**

### 4-1-1 HOW TO CLEAN THE AIR FILTER

Clean the air filter when the Wired Remote Controller displays "Filter sign".

- · Clean the air filter at least once a year.
- Increase the frequency of cleaning if the unit is installed in a place where the air is very contaminated.

### NOTE T

 You may change the timing of indication "Filter sign" to be displayed.

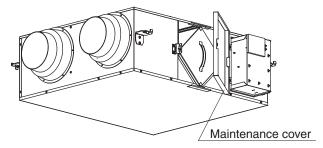
If the unit is used in a place where the air is very contaminated, ask your dealer for solution.

 If the dirt becomes impossible to clean, change the air filter.

(Replacement air filter is optional. See Page 11 for optional accessories.)

### 1. Detach the maintenance cover.

Go into ceiling through the inspection hatch and detach the maintenance cover.

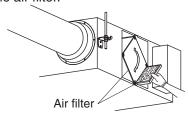


### NOTE TO

• Support the maintenance cover so that it will not fall when the binding metal is removed.

### 2. Detach the air filter.

Take it out from the heat exchange elements. Clean the air filter.



### 3. Use vacuum cleaner or wash the air filter with water.

If the air filter is very dirty, use soft brush and neutral detergent to clean it.



### NOTE \*\*

Do not rub the air filter to clean.
 This may result in deformation or reduced durability.

 Do not wash the air filter with hot water of more than 50°C.

This may cause discoloration or deformation.

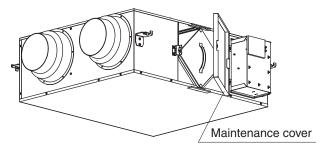
- Do not expose the air filter to fire.
   This may result in burning.
- Do not expose the air filter to direct sunlight. This may cause discoloration or deformation.
- Do not use gasoline, thinner, or other organic solvents.

This may cause discoloration or deformation.

### 4. Fix the air filter.

Fix it in the reverse order of the above 2.

#### 5. Install the maintenance cover.



### 6. Turn the "Filter sign" indication off on the remote control.

Reset the filter sign on the remote control.
 The indication can be turned off while the unit is running or after the unit has stopped.

For details, see the operation manual of the remote control.

## 4-1-2 HOW TO CLEAN THE HEAT EXCHANGE ELEMENT

- Clean the heat exchange element at least once every two years.
- Increase the frequency of cleaning if the unit is installed in a place where the air is very contaminated.

### 1. Detach the maintenance cover.

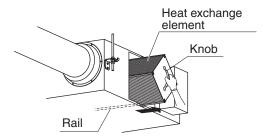
Refer to Page 6 of "How to clean the air filter".

### 2. Detach the air filter.

Refer to Page 6 of "How to clean the air filter".

### 3. Take out the heat exchange elements.

Pull out the air filter and then pull out the heat exchange element from the main unit.



### 4. Clean the heat exchange element.

Use a vacuum cleaner to remove dust and foreign objects on the surface of the heat exchange element.

- 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 exchange element when cleaning.

Be careful not to crush the mesh of the heat exchange elements.



### NOTE T

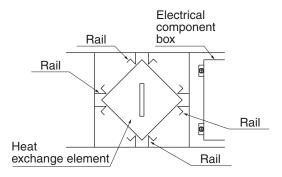
 Do not clean the heat exchange element forcefully with a vacuum cleaner.

This may crush the mesh of the heat exchange elements.

- Never wash the heat exchange element with water.
- Ask your dealer to professionally clean the heat exchange element if it is very dirty.

### 5. Install the heat exchange element.

Put the heat exchange element on the rail and insert it securely into place.



### 6. Fix the air filter.

Fix it in the reverse order of the above 2.

### 7. Install the maintenance cover.

### 4-1-3 HOW TO INSTALL AND REPLACE THE HIGH-PERFORMANCE FILTER (OPTIONAL ACCESSORY)

- Replace the high-performance filter at least once a year.
- Increase the frequency of replacement if the unit is installed in a place where the air is very contaminated.

(Replacement high-performance filter is optional. See Page 10 for optional accessories.)

### 1. Detach the maintenance cover.

Refer to Page 6 of "How to clean the air filter".

### NOTE T

- High-performance filter is for single use only.
   You cannot clean and reuse it.
- · Always use the air filter.

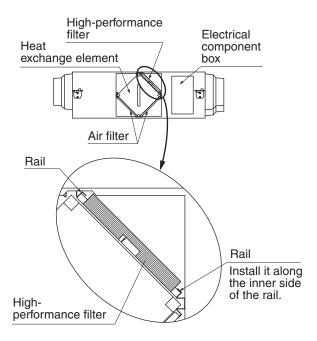
### 2. Installation and replacement of highperformance filter

Installation : Insert the filter in the position shown

in the figure below.

Replacement : Pull the high-performance filter

towards you and replace it with a new high-performance filter.



3. Install the maintenance cover.

## 4-1-4 INSPECTION OF THE FAN MOTOR

### NOTE T

When the fan motor fails, the remote controller does not display any error code.

Usage under that status will lead to insufficient ventilation. The air supply and exhaust fans should be checked once every one or two months. You can make a simple check such as below way. To check the wind flow, hold a bar of which the end

has a string or other similar lightweight item over

5 TROUBLE SHOOTING

the supply grille and exhaust grille.

## 5-1 THE FOLLOWING SITUATIONS ARE NOT MALFUNCTIONS

· Operation does not start.

### <Symptom>

"Under centralized control" is displayed on the remote control and pressing the on/off button causes the display to blink for a few seconds.

#### <Cause>

The central device is controlling the unit. The blinking display indicates that the remote control cannot be used.

### <Symptom>

For the contents of the display, refer to the instruction manual of the remote controller.

### <Cause>

The pre-cooling/pre-heating operation is taking place.

Operation starts after the pre-cooling/pre-heating operation is over.

### <Symptom>

Immediately after the power is turned on.

### <Cause>

The operation is in preparation. Wait for about 1 minute.

### <Symptom>

The unit has been in operation for a long time.

### <Cause>

The auto cut-off function was triggered. Operation starts when the ON/OFF button is pressed once and pressed again after several tens of seconds.

### · Operation stops sometimes.

### <Symptom>

"U5" is displayed on the remote control and the operation stops but then restarts after a few minutes.

### <Cause>

The remote control is intercepting interference (noise) from electrical appliances other than the total heat exchanger unit and this prevents communication between the units, causing them to stop.

Operation automatically restarts when the interference goes away.

### <Symptom>

While in Automatic mode, operation sometimes stops but it restarts.

#### <Cause>

The exhaust fan temporarily stops operation when the mode is switched between "Total heat exchange" and "Bypass" modes.

### The unit works even when operation lamp is not ON.

### <Symptom>

The unit sometimes operates even when it is stopped by pressing the ON/OFF button.

### <Cause>

The nighttime free cooling operation and 24-hour ventilation operation are set to "ON". Refer to Page 5.

### Operation starts even when the remote control is not operated.

### <Symptom>

Immediately after the power is turned on

### <Cause>

Turning on the power and power failure recovery settings are set to "ON".

## CHECK THE FOLLOWING BEFORE REQUESTING FOR SERVICE.

### The unit does not operate at all.

### <Cause>

Check if there is a power failure.

#### <Measure>

After power has been restored, start operation again.

### <Cause>

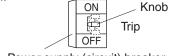
Check if the fuse has blown.

### <Measure>

Turn the breaker off and contact your dealer.

#### <Cause>

Check if breaker switch in the off position or in the trip position.



Power supply (circuit) breaker

#### <Measure>

- Turn the power on if the breaker switch is in the off position.
- Do not turn the power on if the breaker switch is in the trip position. Contact your dealer.

### <Cause>

Is "Under centralized control" indication displayed on the remote control?

### <Measure>

It is normal. Operate the unit with the centralized controller.

### Small volume of discharged air and the sound is loud.

### <Cause>

Check if the air filter and heat exchange element are clogged.

(Check both SA and RA air filter. Check both sides of elements.)

### <Measure>

Clean the air filter and heat exchange element. Refer to Page 6 and 7.

### Large volume of discharged air and the sound is loud.

### <Cause>

Check if the air filter and heat exchange element are not installed.

### <Measure>

Install the air filter and heat exchange element in the correct position.

If one of the following malfunctions occurs, contact Daikin dealer.

### — /N WARNING -

 When the unit presents abnormal conditions (burnt smell, etc.), stop the operation and turn the breaker off.

Continued operation under such circumstances may result in a failure, electric shock, or fire. Contact your dealer.

Symptom	Take the measures shown below and then contact your dealer	
A safety device such as a fuse, a power supply breaker, or an earth	Turn the power off.	
ON/OFF switch does not properly work.	Turn the power off.	
There are other malfunctions or failures.	Stop the unit.	
"Error" or "Alarm" message blinks.	Check the error code.	

#### <List of error codes>

Operation lamp	Error code	Description
Blinking	61	Supply voltage error
ON	64	Indoor air thermistor malfunction
ON	65	Outdoor air thermistor malfunction
ON	6A	Damper-related malfunction
Blinking	6A	Damper-related malfunction + thermistor malfunction
Blinking	U5	Transmission error between the unit and remote control
OFF	U5	Setting error of remote control
Blinking	U8	Transmission error between main and sub remote controls
Blinking	UA	Incorrect combination of the unit and remote control
ON	UC	Overlapped central control address
Blinking	UE	Transmission error between the unit and centralized controller

<sup>\*\* :</sup> The unit may still operate in the case of a malfunction with the error code in white letters on the black background. However, be sure to check the display and contact your dealer as soon as possible.

### **6 AFTER-SALES SERVICE**

After-sales service:

### 

Do not modify the unit.

This may cause electric shock or fire.

· Do not disassemble or repair the unit.

This may cause electric shock or fire. Contact your dealer.

Do not remove or reinstall the unit by yourself.
 Incomplete installation may cause a water leakage electric shock and fire.
 Contact your dealer.

### ■ When asking your dealer to repair, inform related staff of the details as follows:

- Shipping date and installation date:
- Malfunction:

Inform the staff of the defective details. (Malfunction code being displayed on the remote controller.)

- Name, ad dress, telephone number
- Repair where the warranty term is expired Contact your dealer. If necessary to repair, pay service is available.
- Minimum storage period of important parts
  Even after a certain type of the Heat Reclaim
  Ventilator unit is discontinued, we have the related
  important parts in stock for 6 years at least.
  The important parts indicate parts essential to
  operate the Heat Reclaim Ventilator unit.

## Recommendations for maintenance and inspection

Since dust collects after using the unit for several years, the performance will be deteriorated to some extent.

Taking apart and cleaning inside require technical expertise, so we recommend entering a maintenance and inspection contract (at a cost) separate from normal maintenance.

## Recommended inspection and maintenance cycles

## [Note: The maintenance cycle is not the same as the warranty period.]

- Table 1 assumes the following usage conditions.
   Normal use without frequent starting and stopping of the machine.
   (Although it varies with the model, we recommend not start-ing and stopping the machine more than 6 times/hour for normal use.)
- Operation of the product is assumed to be 10 hours/day, 2500 hours/year.

Table 1. "Inspection Cycle" and "Maintenance Cycle"
Lists

Name of Main Part		Inspection Cycle	Maintenance Cycle [Replacements and/or repairs]
Electric motor	For fan (Note 3)	1 to 2 months	20,000 hours
	For damper		
Printed circuit boards		1 year	25,000 hours

Name of Main Part	Inspection Cycle	Maintenance Cycle [Replacements and/or repairs]
Heat exchange element		6 to 10 years
S ensor (thermistor)	1 year	5 year
Remote control and switches	, year	25,000 hours

### NOTE 1

 This table indicates main parts. See the maintenance and inspection contract for details.

### NOTE 2

- This maintenance cycle indicates the recommended duration until the need arises for maintenance work; this ensures the product is operational for as long as possible.
- Use it for appropriate maintenance design (budgeting maintenance and inspection fees, etc.).
- Depending on the content of the maintenance and inspection contract, the inspection and maintenance cycles may in reality be shorter than those listed here.

### NOTE 3

- Using the unit with a failed motor will lead to insufficient ventilation.
- It is recommended to have the motor inspected once every 1 to 2 months. (Simple check)
- Motor performance can be examined with a stick and string or similarly lightweight item attached to the tip and held at the air supply grille and exhaust grille for movement.

### NOTE 4

 Shortening of "maintenance cycle" and "replacement cycle" needs to be considered if the unit is used under severe operation conditions (long operating hours, very frequent ON/OFF, etc.) and harsh operating environment (high temperature, high humidity, etc.).

For details, contact your dealer or the contact center.

## Recommended replacement cycle of consumables

### [Note: The replacement cycle is not the same as the warranty period.]

• Table 2"Replacement Cycle" Lists

Name of Main Part	Inspection Cycle	Replacement cycle
Air filter (*)		Replace if filter is damaged
High-performance filter (optional accessory)	1 year	1 year

Name of Main Part	Inspection Cycle	Replacement cycle	
Heat exchange element	2 years	6 to 10 years	

### NOTE 1

 This table indicates main parts. See the maintenance and inspection contract or details.

### NOTE 2

- This replacement cycle indicates the recommended duration until the need arises for replacement; this ensures the product is operational for as long as possible.
- Use it for appropriate maintenance design (budgeting parts replacement cost,etc.).
- \* If the unit is used for a building for The Building Sanitation Act (Former Building Managment Act), periodic inspection is required.

For details, contact your dealer or the contact center. Any failures cause by unauthorized vendors performing dismantling or internal cleaning of the unit will not be covered by the warranty.

### ■ Moving and disposing the unit

- Contact your dealer or the contact center for moving and reinstalling the total heat exchanger due to relocation, etc., as this requires technical expertise.
- Disposal of the product should be done in accordance with the relevant local regulations.

### ■ Inquiry

• For after-sales service,etc.,contact your dealer or the contact center.

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