



AM050FNKDEH
AM100FNKDEH

ERV Plus (ERV with DX-COIL) user & installation manual

18784671

imagine the possibilities

Thank you for purchasing this Samsung product.

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How to use this unit

This unit should be used with air conditioners. Air conditioning is impossible only by this unit, because this unit does not have temperature control function. (It's capacity is too small in order to control the room temperature to the whole) And should be operated in combination with standard indoor units. (Interlocked operation) Independent operation is possible, however, temperature setting by remote controller is impossible. In this ON/OFF operation by thermostat depends on factory setting, however, this value is changeable by installation/service mode on site. Model selection should be done not by cooling capacity but by ventilating air flow rate.

Refer to following capacities when using the product with outdoor unit:

AM050FNKDEH - 3.6kW, AM100FNKDEH - 7.1 kW

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Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.








For information on Samsung's environmental commitments and product specific regulatory obligations e.g. REACH visit: samsung.com/uk/aboutsamsung/samsungelectronics/corporatecitizenship/data_corner.html

Safety precautions


Before using your new product, please read this manual thoroughly to ensure that you know how to safely and efficiently operate the extensive features and functions of your new appliance.

Because the following operating instructions cover various models, the characteristics of your product may differ slightly from those described in this manual. If you have any questions, call your nearest contact center or find help and information online at www.samsung.com.

Important safety symbols and precautions:

 WARNING	Hazards or unsafe practices that may result in severe personal injury or death.
 CAUTION	Hazards or unsafe practices that may result in minor personal injury or property damage.
	Follow directions.
	Do NOT attempt.
	Make sure the machine is grounded to prevent electric shock.
	Unplug the power plug from the wall socket.
	Do NOT disassemble.

FOR INSTALLATION **WARNING**

-  **Use the power line with the power specifications of the product or higher and use the power line for this appliance only. In addition, do not use an extension line.**
 - ▶ Extending the power line may result in electric shock or fire.
 - ▶ Do not use an electric transformer. It may result in electric shock or fire.
 - ▶ If the voltage/frequency/rated current condition is different, it may cause fire.

! **The installation of this appliance must be performed by a qualified technician or service company.**

- ▶ Failing to do so may result in electric shock, fire, explosion, problems with the product, or injury.

Install a switch and circuit breaker dedicated to the product.

- ▶ Failing to do so may result in electric shock or fire.

Fix the outdoor unit firmly so that the electric part of the outdoor unit is not exposed.

- ▶ Failing to do so may result in electric shock or fire.

⊘ Do not install this appliance near a heater, inflammable material. Do not install this appliance in a humid, oily or dusty location, in a location exposed to direct sunlight and water (rain drops). Do not install this appliance in a location where gas may leak.

- ▶ This may result in electric shock or fire.

Never install the outdoor unit in a location such as on a high external wall where it could fall.


- ▶ If the outdoor unit falls, it may result in injury, death or property damage.

⚡ This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic water pipe, or telephone line.

- ▶ Failure to do so may result in electric shock, fire, an explosion, or other problems with the product.
- ▶ Never plug the power cord into a socket that is not grounded correctly and make sure that it is in accordance with local and national codes.

Safety precautions

FOR INSTALLATION CAUTION

 **Install your appliance on a level and hard floor that can support its weight.**

▶ Failing to do so may result in abnormal vibrations, noise, or problems with the product.

Install the draining hose properly so that water is drained correctly.

▶ Failing to do so may result in water overflowing and property damage.

When installing the outdoor unit, make sure to connect the draining hose so that draining is performed correctly.

▶ The water generated during the heating operation by the outdoor unit may overflow and result in property damage.

In particular, in winter, if a block of ice falls, it may result in injury, death or property damage.

 **Do not let the discharged air go back to the indoor through its air suction hole. It can contaminate indoor air.**

Do not connect the electric heater to the product.

Hang down a blockage for bird in front of outdoor air suction duct. If something such as bird's nest blocks the air suction duct, it may result in oxygen shortage in indoors.

FOR POWER SUPPLY WARNING

 **When the circuit breaker is damaged, contact your nearest service center.**

- ⊘ Do not pull or excessively bend the power line. Do not twist or tie the power line. Do not hook the power line over a metal object, place a heavy object on the power line, insert the power line between objects, or push the power line into the space behind the appliance.

- ▶ This may result in electric shock or fire.

FOR POWER SUPPLY | ⚠ CAUTION

- ⚡ When not using the product for a long period of time or during a thunder/lightning storm, cut the power at the circuit breaker.

- ▶ Failing to do so may result in electric shock or fire.

FOR USING | ⚠ WARNING

- ❗ If the appliance is flooded, please contact your nearest service center.

- ▶ Failing to do so may result in electric shock or fire.

If the appliance generates a strange noise, a burning smell or smoke, unplug the power plug immediately and contact your nearest service center.

- ▶ Failing to do so may result in electric shock or fire.

In the event of a gas leak (such as LNG, LPG or Liquefied natural gas, Liquefied petroleum gas, etc.), ventilate immediately without touching the power line. Do not touch the appliance or power line.

- ▶ Do not use a ventilating fan.

- ▶ A spark may result in an explosion or fire.

Safety precautions

FOR USING

WARNING

- ❗ To reinstall the product, please contact your nearest service center.**
 - ▶ Failing to do so may result in problems with the product, water leakage, electric shock, or fire.
 - ▶ A delivery service for the product is not provided. If you reinstall the product in another location, additional construction expenses and an installation fee will be charged.
 - ▶ Especially, when you wish to install the product in an unusual location such as in an industrial area or near the seaside where it is exposed to the salt in the air, please contact your nearest service center.

- ⊘ Do not touch the circuit breaker with wet hands.**
 - ▶ This may result in electric shock.**Do not strike or pull the product with excessive force.**
 - ▶ This may result in fire, injury, or problems with the product.**Do not place an object near the outdoor unit that allows children to climb onto the machine.**
 - ▶ This may result in children seriously injuring themselves.**Do not turn the product off with the circuit breaker while it is operating.**
 - ▶ Turning the product off and then on again with the circuit breaker may cause a spark and result in electric shock or fire.**After unpacking the product, keep all packaging materials well out of the reach of children, as packaging materials can be dangerous to children.**
 - ▶ If a child places a bag over its head, it may result in suffocation.**Do not insert your fingers or foreign substances into the air inlet/outlet of the product.**

- ⊘ ▶ Take special care that children do not injure themselves by inserting their fingers into the product.

Do not use the product as a ventilator for a burner.

- ▶ If you use a burner with gas or gasoline, you need to have separate ventilation system for the combustible apparatus.

- ⊘ **If any foreign substance such as water has entered the appliance, cut the power by unplugging the power plug and turning the circuit breaker off and then contact your nearest service center.**

- ▶ Failing to do so may result in electric shock or fire.

- ⊘ **Do not attempt to repair, disassemble, or modify the appliance yourself.**

- ▶ Do not use any fuse (such as cooper, steel wire, etc.) other than the standard fuse.

- ▶ This may result in electric shock, fire, problems with the product, or injury.

FOR USING

⚠ CAUTION

- ⓘ **Do not place objects or devices under the indoor unit.**

- ▶ Water dripping from the indoor unit may result in fire or property damage.

Check that the installation frame of the outdoor unit is not broken at least once a year.

- ▶ Failing to do so may result in injury, death or property damage.

Max current is measured according to IEC standard for safety and current is measured according to ISO standard for energy efficiency.

Safety precautions

FOR USING

CAUTION

 **Do not stand on top of the appliance or place objects (such as laundry, lighted candles, lighted cigarettes, dishes, chemicals, metal objects, etc.) on the appliance.**

▶ This may result in electric shock, fire, problems with the product, or injury.

Do not operate the appliance with wet hands.

▶ This may result in electric shock.

Do not spray volatile material such as insecticide onto the surface of the appliance.

▶ As well as being harmful to humans, it may also result in electric shock, fire or problems with the product.

Do not drink the water from the product.

▶ The water may be harmful to humans.

Do not apply a strong impact to the remote controller and do not disassemble the remote controller.

Do not touch the pipes connected with the product.

▶ This may result in burns or injury.

Do not use this product to preserve precision equipment, food, animals, plants or cosmetics, or for any other unusual purposes.

▶ This may result in property damage.

Avoid directly exposing humans, animals or plants from the air flow from the product for long periods of time.

▶ This may result in harm to humans, animals or plants.

- ⊘ This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

For use in Europe : This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision

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Safety precautions

FOR CLEANING

WARNING

- ⊘ **Do not clean the appliance by spraying water directly onto it. Do not use benzene, thinner or alcohol to clean the appliance.**

- ▶ This may result in discoloration, deformation, damage, electric shock or fire.

Before cleaning or performing maintenance, unplug the product from the wall socket and wait until the fan stops.

- ▶ Failing to do so may result in electric shock or fire.

FOR CLEANING

CAUTION

- ⓘ **Take care when cleaning the surface of the heat exchanger of the outdoor unit since it has sharp edges.**

- ▶ To avoid cutting your fingers, wear thick cotton gloves when cleaning it.

- ⊘ **Do not clean the inside of the product by yourself.**

- ▶ For cleaning inside the appliance, contact your nearest service center.

- ▶ When cleaning the internal filter, refer to the descriptions in the 'Cleaning and maintaining the unit' section.

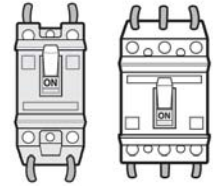
- ▶ Failure to do so may result in damage, electric shock or fire.

Checking before use

Checking Up the Sub Power Supply

The sub power supply is a device to prevent electric leakage due to the over current. Install the sub power supply separately near the unit and turn it off when you clean the unit or you do not use the unit for a long period of time.

- ▶ Turn on the sub power supply which is installed separately.
 - The sub power supply is not supplied with the unit.
 - Purchase the sub power supply individually.



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- If the circuit breaker (MCCB, ELB) is installed, the sub power supply does not need to be installed mandatorily.

Install & Operation Ranges

Install condition	Outdoor air condition	Indoor air condition
0~40 °C, 80 %RH below	-15~40 °C, 80 %RH below	0~40 °C, 80 %RH below



- If the unit is operated under the condition other than are indicated, it may not operate due to the protective device in the unit. Especially, if outside temperature is under -15 °C, the unit does not operate at all.
- Do not operate the unit when typhoon comes. Water may get in the room through the unit due to the rain and heavy winds.
- Avoid operating the unit in indoor or outdoor with high temperature and humidity since dew may form on the internal part of the product, including the heat exchanger. Especially avoid using it during the long rainy period in the summer.

Maintaining your product

Internal protections via the unit control system

- ▶ This internal protection operates if an internal fault occurs in the product.

Type	Description
Against cold air	The internal fan will be off to against cold air when the heat pump is heating.
De-frost cycle	The internal fan will be off to against cold air when the heat pump is heating.
Anti-protection of internal battery	The compressor will be off to protect internal battery when the product operates in Cool mode.
Protect compressor	The product does not start operating immediately to protect the compressor of the outdoor unit after it has been started.



- If the heat pump is operating in Heat mode, De-ice cycle is actuated to remove frost from an outdoor unit that may have deposited at low temperatures.
The internal fan is switched off automatically and restarted only after the de-ice cycle is completed.
When the outdoor air suction temperature becomes lower than -10 °C, the unit is changed to intermittent operation to prevent freezing of the heat exchanger element and dew condensation within the unit.

Checking before use

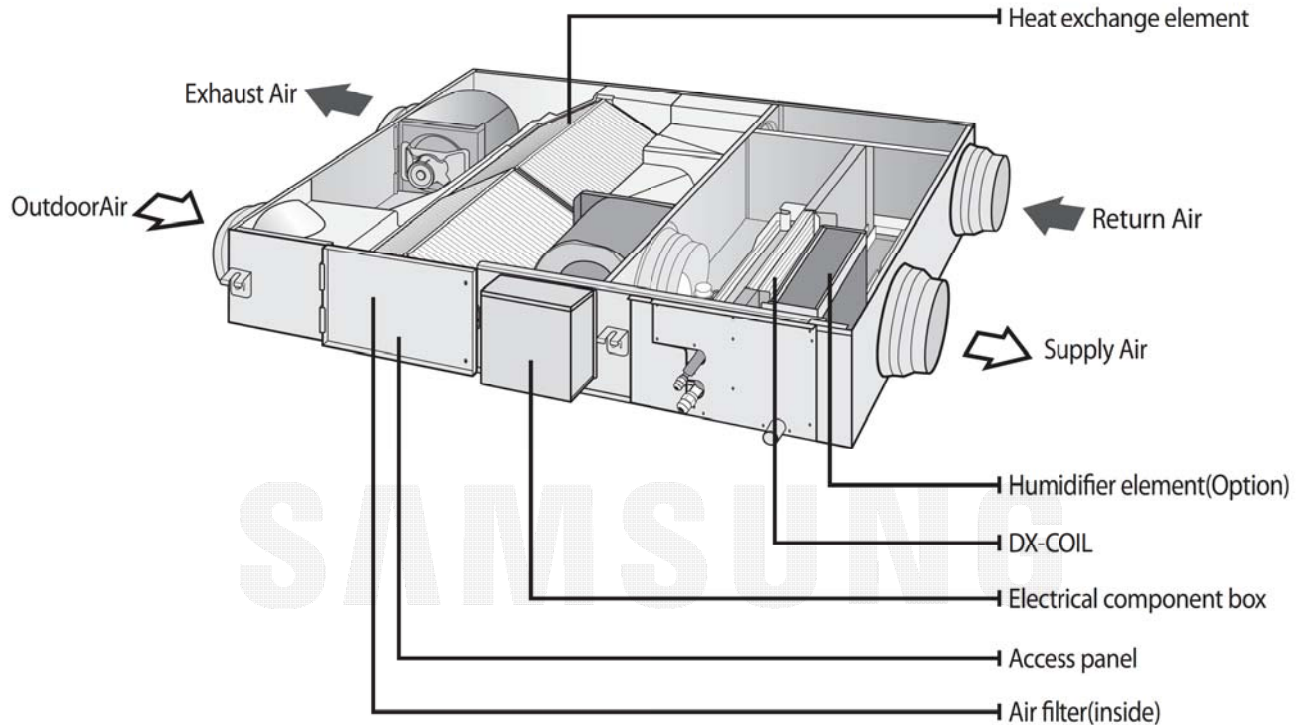
Tips on using product

Here are some tips that you would follow when using your product.

TOPIC	RECOMMENDATION
Heat-EX Mode	<ul style="list-style-type: none"> Energy loss is minimized by recovering energy exhausted when indoor heating and cooling
Quiet Mode	<ul style="list-style-type: none"> This allows you to have quiet sleep and fresh air while sleeping. The ERV operation lamp will also be less bright.
Away Mode	<ul style="list-style-type: none"> This allows you to operate the ERV while you are away from home. If the operational status is changed by another controller, the Away mode is canceled.
By-Pass Mode	<ul style="list-style-type: none"> The ventilation method is used when temperature gap of indoor and outdoor is not big. Outdoor air flows into indoor.
Auto Mode	<ul style="list-style-type: none"> The air is automatically changed depending on the degree of pollution in the indoor air. (Available only when the additional CO₂ sensor is installed)
Energy saving	<ul style="list-style-type: none"> Make operating condition for optimized energy saving.
Clean up	<ul style="list-style-type: none"> Prevent the odor and dust of other places such as bathroom and kitchen from entering inside by making the supply air greater than the exhaust air. (You can reverse this procedure to make the exhaust air bigger than the supply air.)
Cooling / Heating	<ul style="list-style-type: none"> You can have cooling and heating operation through the DX-COIL. This unit should be used with air conditioners. Air conditioning is impossible only by this unit, because this unit does not have temperature control function. (It's capacity is too small in order to control the room temperature to the whole) and should be operated in combination with standard indoor units. When a remote controller is only connected to the ERV with DX-COIL, independent operation is possible. However, temperature setting by remote controller is not possible. In this ON/OFF operation by thermostat depends on factory setting. However, this value is changeable by installation/service mode on site.
Frost & De-frost	<ul style="list-style-type: none"> When the product runs in Heat mode, due to temperature difference between the unit and the outside air, frost will form. If this happens: <ul style="list-style-type: none"> The product stops heating. The product will operate automatically in De-ice mode for 10 minutes. The steam produced on the outdoor unit in De-ice mode is safe. No intervention is required; after about 10 minutes, the product operates again normally. ✳ The unit will not operate when it starts to de-ice.
High indoor/outdoor temperatures	<ul style="list-style-type: none"> If both indoor and outdoor temperatures are high and the product is running in Heat mode, the outdoor unit's fan and compressor may stop at times. This is normal; wait until the product turns on again.
Power failure	<ul style="list-style-type: none"> If a power failure occurs during the operation of the product, the operating immediately stops and unit will be off. When power returns, the product will run automatically.
Protection mechanism	<ul style="list-style-type: none"> After the compressor has stopped or the power supply has been switched on, the compressor will not run for 3 minutes for its protection therefore cool/warm air does not come out of the unit immediately.

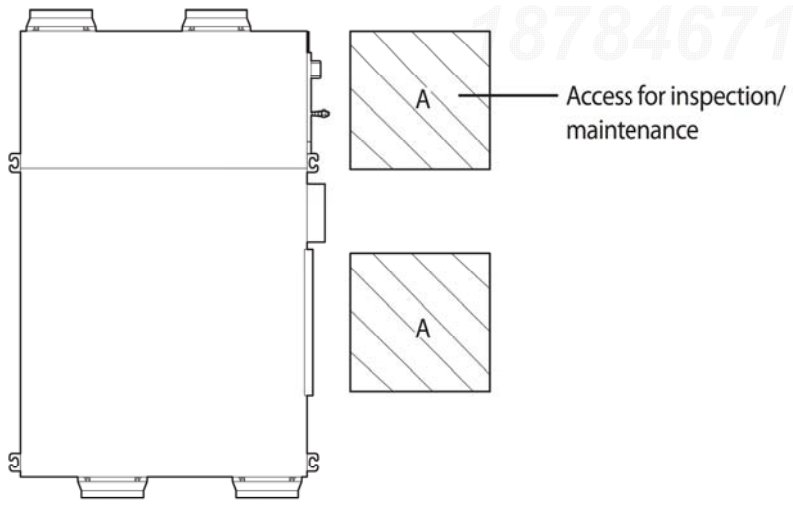
Checking the name of the parts

Main parts



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Inspection hole



Model	'A' (mm)
AM050FNKDEH	450 x 450
AM100FNKDEH	550 x 550

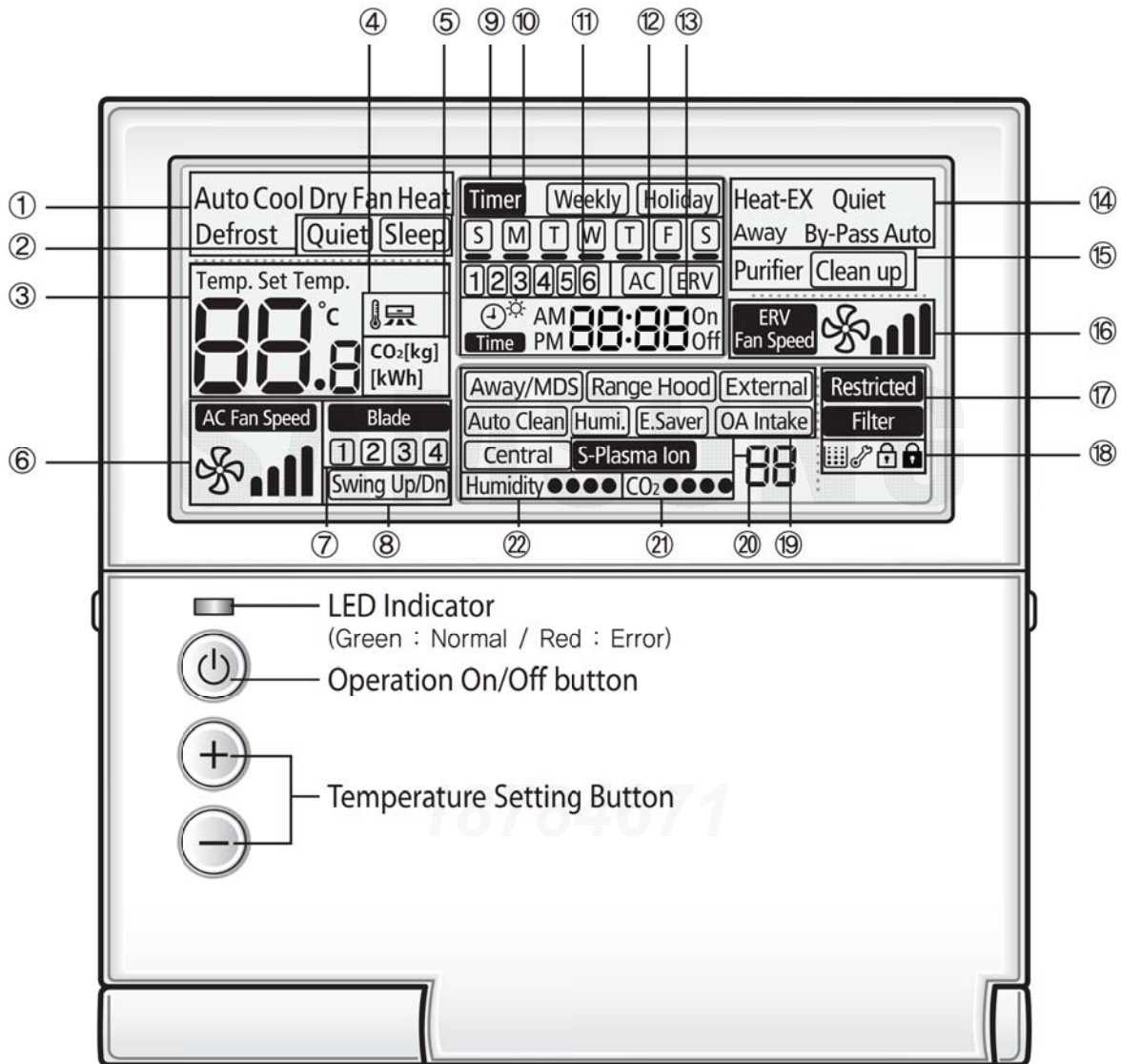
- ▶ There is access for inspection/maintenance for cleaning the air filter and the heat exchanger element.
- ▶ Lack of installation and maintenance spaces may cause injury or malfunction.
- ▶ There is also access for inspection/maintenance of the DX-coil and humidifier element.







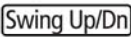













Checking the name of the parts

For detailed instruction, refer to the wired remote controller user manual.

- ▶ Wired remote controller (not supplied)
- ▶ Model: MWR-WE10N

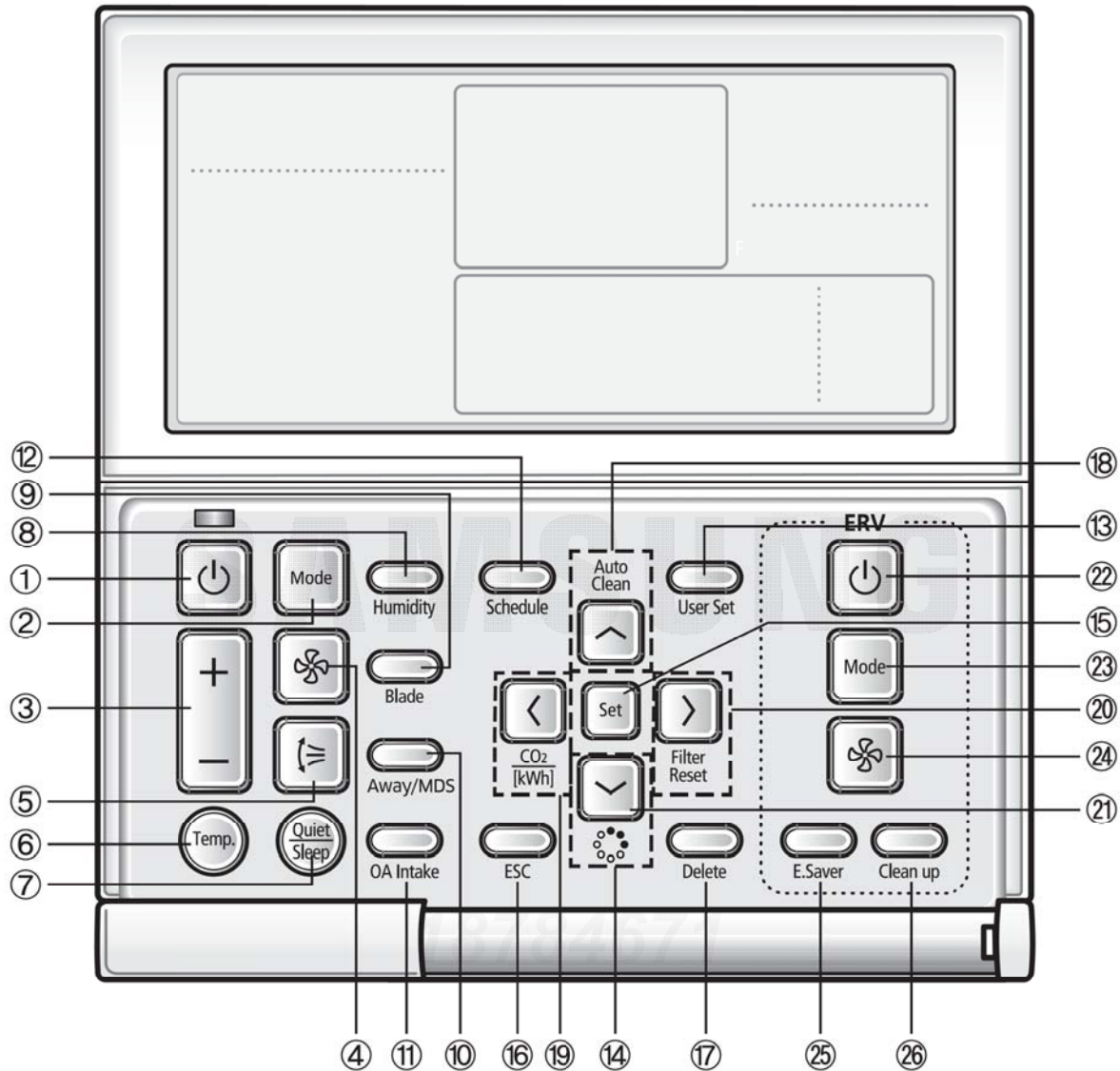
Display






















Classification	Indication	Function
Product Related Information	① Auto Cool Dry Fan Heat Defrost	Displays System operation
	② 	Displays Quiet/Sleep operation
	③ Temp. Set Temp. 	Displays Indoor temperature/Set temperature
	④ 	Displays discharge temperature control
	⑤ 	Displays CO ₂ /power consumption
	⑥ 	Displays AC fan speed
	⑦ 	Displays Blade selection
	⑧ 	Displays Air swing(Up/Dn)
Schedule related information	⑨ 	Weekly schedule/Holiday setting displays
	⑩ 	Displays Current day(□) or scheduled day()
	⑪ 	Displays Schedule number
	⑫ 	Displays Scheduled device selection
	⑬ 	Displays Current time/summer time/scheduled time
Ventilator (ERV) related information	⑭ Heat-EX Quiet Away By-Pass Auto Purifier	Displays Ventilator(ERV) operation
	⑮ 	Displays Clean up
	⑯ 	Displays Ventilator(ERV) fan speed
Common function related information	⑰ 	Displays Invalid operation /Filter cleaning (filter cleaning period)
	⑱ 	Displays Dust box cleaning alert/check/partial locking/full locking
	⑲ 	Displays Away/Motion detect sensor/Range hood/External interconnection control/Auto clean/ Humidifying/Energy saving/Outdoor air supply intake/ Central control
	⑳ 	Displays S-Plasma Ion
	㉑ 	Displays Indoor CO ₂ density
	㉒ 	Displays Indoor humidity

Checking the name of the parts


Buttons



Classification	Button	Function		
Unit Related Information	①		Operation On/Off button	Turns the unit power On/Off
	②		Mode button	Selects the desired unit operation
	③		Temperature setting button	Sets the desired temperature
	④		Fan speed button	Changes the unit fan speed
	⑤		Air Swing button	Changes the air flow direction to move upward or downward
	⑥		Temp. button	Checks the indoor temperature
	⑦		Quiet/Sleep button	Selects Quiet or Sleep operation for the unit

Classification	Button	Function	
Unit Related Information	⑧  Humidity	Humidity button	Turns the AHU humidifying function On/Off
	⑨  Blade	Blade button	Selects a blade for individual control
	⑩  Away/MDS	Away / Motion detect sensor button	Selects when no one is detected in an indoor area, when the air conditioner needs to be turned off automatically, when the AWAY operation is set
	⑪  OA Intake	Outdoor air intake	Select the AHU Outdoor intake function
Special Function Displays	⑫  Schedule	Schedule Button	Select the schedule setting function
	⑬  User Set	User Set Button	Select the detailed setting function
	⑭  Navigational buttons	Navigational buttons	Move between items or change the item value
	⑮  Set	Set button	Save your new settings
	⑯  ESC	ESC button	Return to general mode from schedule and detailed setting screens
	⑰  Delete Auto Clean	Delete button	Cancel the schedule setting
	⑱  Auto Clean	Auto Clean button	Use the auto cleaning function for your unit
	⑲  CO ₂ /[kWh]	CO ₂ /[kWh] button	Display the amount of CO ₂ and the power consumption
	⑳  Filter Reset	Filter Reset button	Turn off the filter cleaning displays (filter using time reset)
	㉑  S-Plasma Ion	S-Plasma Ion button	Choose the S-Plasma Ion function
	Ventilator (ERV) Related Buttons	㉒  Operation On/Off	Operation On/Off button
㉓  Mode		Mode button	Select the desired operation for the Ventilator(ERV)
㉔  Fan speed		Fan speed button	Change the fan speed for your Ventilator(ERV)
㉕  E.Saver		E.Saver button	Begin Energy Saving Operation
㉖  Clean up		Clean up button	Select air purification through the in/out load controls

 NOTE

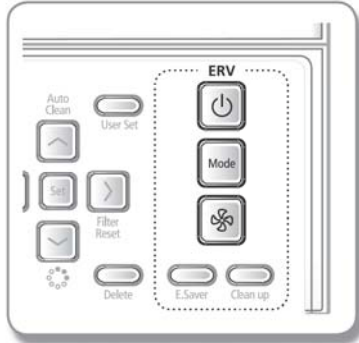
- After cleaning the filter, please press the **Filter Reset** button. The **Filter** lamp will turn off, and it will be turned on again upon the next cleaning period.
- If you press a functional button not supported by the unit, then the **Restricted** lamp will turn on.
- If the temperature display setting is set to indoor temperature and you press the **Temp.** button, the **Restricted** lamp display will appear. (When you install the wired remote controller, the setting is available.)
- If you press the **On/Off**  button when your Ventilator(ERV) is connected to a wired remote controller, then the air conditioner and the Ventilator(ERV) might operate or stop at the same time or only the air conditioner might operate or stop. The factory setting is set to simultaneous operation/stop. (When you install the wired remote controller, the setting is available.)
- Although the air conditioner and the Ventilator(ERV) are set to simultaneous operation/stop, you can individually control the air conditioner and the Ventilator(ERV) by using another controller (e.g. wireless remote controller, central controller, S-net mini) except for a wired remote controller.

Basic operation

Basic operations can be selected after pressing the **Mode** button.

When the wired remote controller is connected to an ERV with DX-COIL and an Air conditioner simultaneously


When controlling an ERV with DX-COIL

















Press the  button to begin the ventilator(ERV) operation.

Press the  button to select the desired operation.

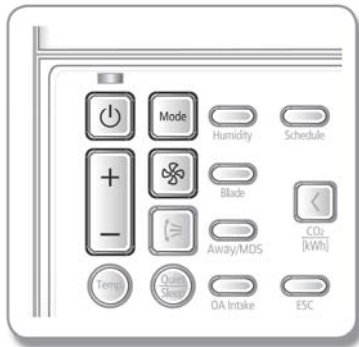


Press the  button to change the fan speed.

Heat-EX	 (High) ▷  (Turbo) ▷  (Medium)
Quiet	Can't change the fan speed.
Away	 (Medium)
By-Pass	 (High) ▷  (Turbo) ▷  (Medium)
Auto	 (High) ▷  (Turbo) ▷  (Medium)

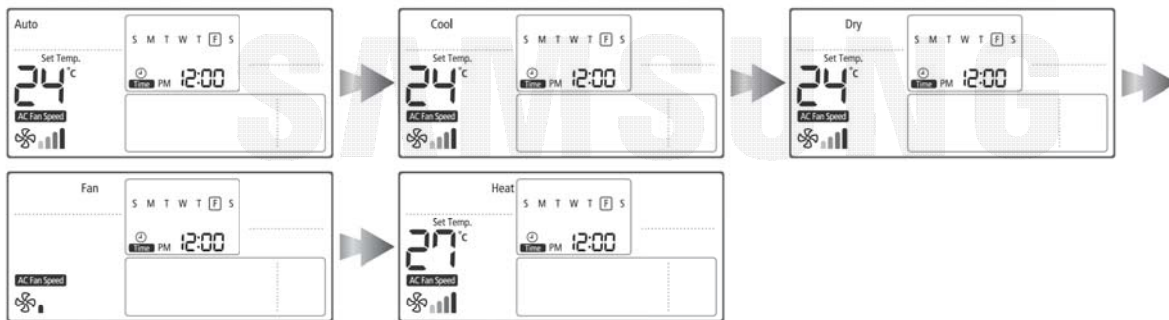
※ After installing a CO₂ sensor in your Ventilator(ERV), you can select from  (High) ▷  (Turbo) ▷  (Auto) ▷  (Medium).
(Exception : Quiet Operation, Away Operation)

When controlling an Air conditioner
















Press the  button to begin operating the air conditioners.

Press the  button to select the desired operation.



Press the  button to select a fan speed.

Auto	 (Auto)
Cool	 ,  ,  , 
Dry	 (Auto)
Fan	 ,  , 
Heat	 ,  ,  , 

Press the  button to set the desired temperature.

Auto	You can adjust the desired temperature by 1 °C within a range of 18 °C~30 °C.
Cool	You can adjust the desired temperature by 1 °C within a range of 18 °C~30 °C.
Dry	You can adjust the desired temperature by 1 °C within a range of 18 °C~30 °C.
Fan	You can't change the desired temperature.
Heat	You can adjust the desired temperature by 1 °C within a range of 16 °C~30 °C.

Basic operation

When controlling an ERV with DX-COIL and Air conditioner simultaneously

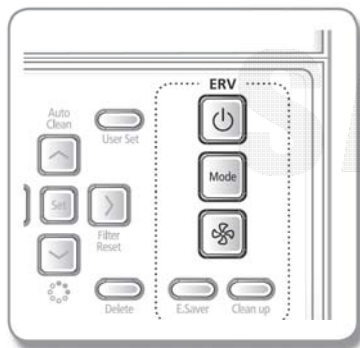
- ▶ Operate the ERV with DX-COIL and Air conditioners separately by referring to the operation of only the ERV with DX-COIL and only the Air conditioner.



- When you operate an ERV with DX-COIL only, cooling and heating operation is impossible.
- When you operate an ERV with DX-COIL and air conditioner at the same time, the ERV with DX-COIL follows the operation of the Air conditioner.

When the wired remote controller is connected to an ERV with DX-COIL only

When you operate the ventilation operation of an ERV with DX-COIL only

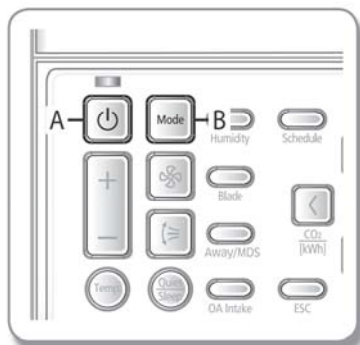


Press the button to begin the ventilator(ERV) operation.

Press the button to select the desired operation.

Press the button to change the fan speed.

When you operate the cooling and heating operation of an ERV with DX-COIL

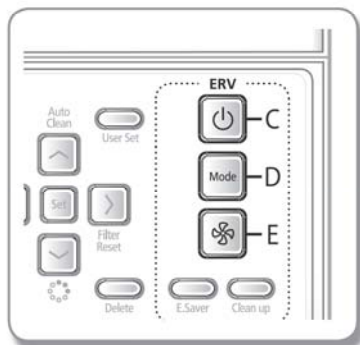


Press the (A or C) button to begin the ventilator(ERV) operation.

Press the (D) button to select the desired ventilator(ERV) operation.

Press the (E) button to change the fan speed.

Press the (B) button to select cooling and heating operation.



- You cannot set the temperature by an ERV with DX-COIL only.
- You cannot select the dry operation if you operate an ERV with DX-COIL only.

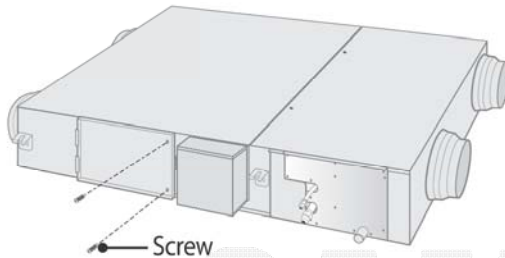
Cleaning and maintaining the unit

Cleaning the Air filter

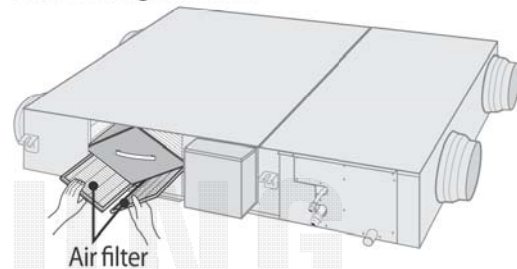
Clean the air filters at least twice a year. However, the frequency may vary depending on use and environment. Clean the air filters more frequently in dusty place. Make sure that the power supply is disconnected before cleaning the unit.

ENGLISH

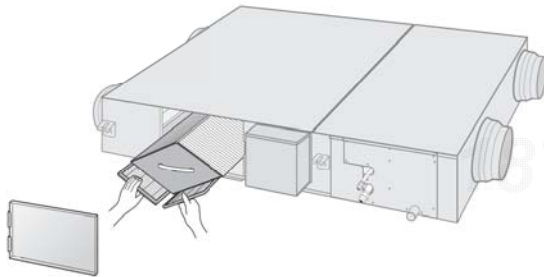
Remove 2 screws on the access panel.



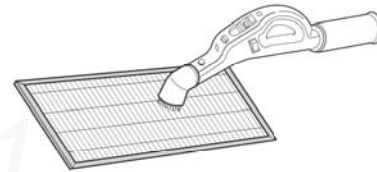
- ▶ Take off the access panel from the unit.
- ▶ Detach the air filters by pulling them forward.
- ▶ There are totally 4 air filters on both sides of the heat exchange element.



- ▶ Reassemble the air filters and access panel.
- ▶ Make sure to insert the air filters correctly. If not, dust may accumulate on the heat exchange element decreasing the efficiency.



- ▶ Remove all dust on the air filters with a vacuum cleaner or a brush.



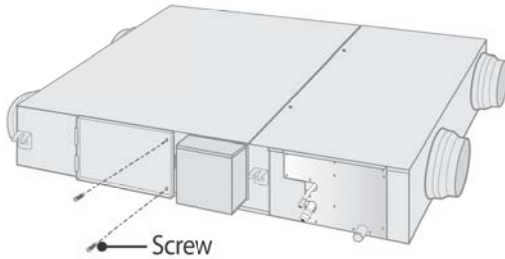
- Change the air filters in every two years. However, changing frequency may vary according to the used period and condition.
- If the air filter is damaged, purchase it individually in a customer care center or an agency that you bought the product.
- Make sure to turn off the power supply.

Cleaning and maintaining the unit

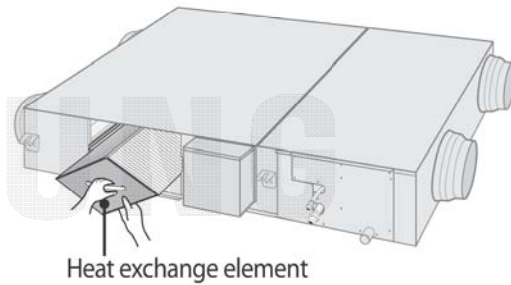
Cleaning the Heat Exchange Element

Clean the Heat exchange element at least twice a year. However, the frequency may vary depending on use and environment. Clean the Heat exchange element more frequently in dusty place. Make sure that the power supply is disconnected before cleaning the unit.

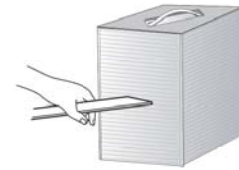
- ▶ Remove 2 screws on the access panel.



- ▶ Take off the access panel from the unit.
- ▶ Detach the 2 heat exchange elements in order.
- ▶ The heat exchange element is heavy. Take care not to drop it.
- ▶ There are 2 heat exchange elements in the unit. Make sure clean them at once.



- ▶ Remove all dust and particles on the heat exchange elements with a nozzle of a vacuum cleaner.
- ▶ Take care not to attach the nozzle too close. It may damage the heat exchange element.



- ▶ Reassemble the heat exchange elements and access panel.



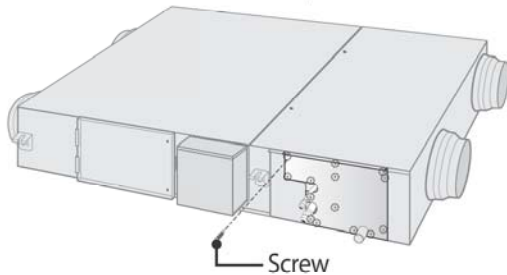
- If the heat exchange element is damaged, purchase it individually in a customer care center or an agency that you bought the product.
- Make sure to turn off the power supply.



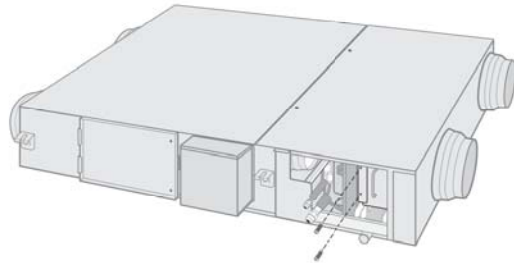
- Do not wash the heat exchange element. It may decrease its efficiency.

Cleaning the Humidifier (Optional)

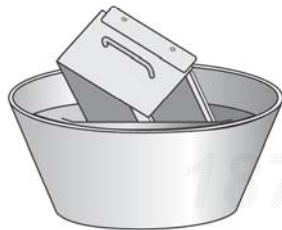
- ▶ Remove 15 screws on the humidifier access panel.
Take off the humidifier access panel.



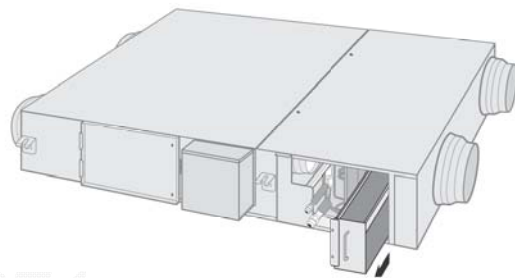
- ▶ Remove 2 more screws.



- ▶ Submerge the humidifier element in water and move up and down with care to release any dirt.
- ▶ Do not scrub the humidifier element.
- ▶ Do not spray water directly onto the humidifier element with a hose.
- ▶ Do not use detergent or water hotter than 40 °C.



- ▶ Remove the element as illustrated.

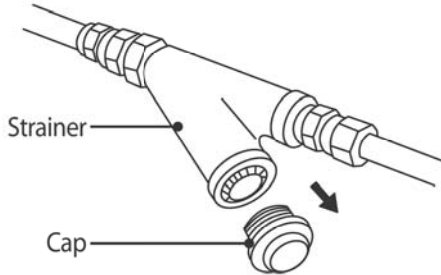


- ▶ Reassemble the humidifier element and access panel.
- ▶ Check whether the humidifier element is correctly assembled. Otherwise, this may result in water leakage and performance deterioration.

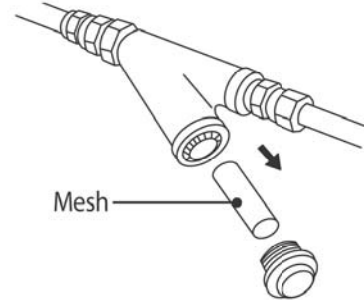
Cleaning and maintaining the product

Cleaning the Strainer (Optional)

► Remove the Strainer cap.



► Take out the mesh inside the strainer.



► Clean the mesh with running water.



- Clean the mesh once a month.

Maintaining your product

Period of Replacement & Cleaning

Basic parts

Parts	Replacement	Cleaning	Reasons for exchange or cleaning
Air filter	2 years	6 months	Dust clogging, Performance deterioration
Heat exchange element	-	6 months	Dust clogging
Drain pan	-	1 year	Pollution

Option parts

Parts	Replacement	Cleaning	Reasons for exchange or cleaning
Electronic feed water valve	5 years	-	Deterioration, Clogging
Flow control valve	5 years	-	Deterioration, Clogging
Water piping	10 years	-	Deterioration, pipe water leak
Humidifier element	7~10 years (1,000 hours/year)	1 year	Deterioration of saturation efficiency
Feed water strainer	10 years	1 month (Heating season)	Deterioration, Clogging



- The product life and product durable years can be different from the table above according to installation condition and maintenance situation. The table above is applicable when the use of ERV follows the instruction and does the regular maintenance work and is in the general air conditioning condition.
(If the ERV performs round-the-clock operation, replacement interval can be reduced to 1/3~2/5)