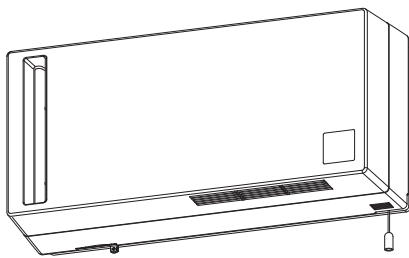


Mitsubishi Lossnay Ventilator
MODELS
VL-50S2-E (pull cord Type)

VL-50ES2-E (wall switch Type)

Operating Instructions
For Customer


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Please read these instructions thoroughly to ensure safe and proper use. After reading, store the manual in a handy location for easy access.

Before proceeding with operation, please be sure to read “Safety precautions”, as it will tell you how to operate the Lossnay ventilator properly and safely.

Do not install the unit yourself. (The safety and performance of customer-installed units is not guaranteed.)

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified persons in order to avoid a hazard. (VL-50S2-E only)

- Contact your dealer.

1. Safety precautions

Hazards created by mishandling and their severity are indicated by the following markers.

 **Warning:**

This applies to mishandling or misoperation of the product which could lead to a fatal or serious injury.

 **Caution:**

This applies to mishandling or misoperation of the product which will lead to an injury or damage to your home, household effects, etc.

 **Warning**



- Do not cut, damage or physically alter the power cord*1 or subject it to unreasonable bending, pulling, twisting or bundling.

- You could damage the cord, resulting in fire or electric shock.

- Do not turn the Lossnay switch ON or OFF if there is a flammable gas leak.

- Sparks from electric contacts could cause explosions. Open a window to ventilate the room.


Do NOT
disassemble


Do not expose
to water


No wet hands


You must
follow the
instructions
given.

- **Do not use the unit in excessively hot areas (40°C or more), near open flames, areas prone to oily smoke, or where it could come in contact with organic solvents.**
 - Fire could result.
 - **Do not disassemble the unit in ways that require physical alteration or tools.**
 - Fire, electric shock or injury could result.
 - **Do not let the unit get wet.**
 - Fire or electric shock could result.
 - **Do not insert or remove the power plug*1 with wet hands.**
 - Electric shock could result.
 - **Use at the rated voltage.**
 - Fire or electric shock could result.
 - **Check that there is no dust on the power plug*1.**
 - A dusty plug could cause fire from a short circuit.
 - **Insert the plug*1 completely into the socket, making sure it is not loose.**
 - A loose fit could result in electric shock or fire.
 - **Make sure that the outside air intake opening is positioned so that it will not take in combustion gases or other exhaust.**
 - If intake air is not fresh, oxygen could become depleted in the room.
 - **Always shut off circuit breakers or remove the power plug*1 from the wall outlet during long periods of disuse.**
 - Failure to do so could result in electric shock from deteriorated insulation, or fire from a short circuit.
 - **Install the outdoor weather covers packaged with the unit.**
 - Rainwater entering the unit could result in electric shock, fire or indoor items getting wet.
 - **Immediately halt use in the event of malfunction or breakdown.**
 - Continued use of the Lossnay could result in smoke, fire, electric shock or injury.
- * Promptly shut off the circuit breaker or remove the power plug*1 from the wall outlet. Then contact the store of

purchase for inspection and repair.
<Examples of malfunction and breakdown>

- Blades do not turn when power is turned on.
 - The unit makes strange noises or vibrates while running.
 - Blade rotation is slow or irregular. (Motors require periodic maintenance.)
 - You smell burning.
 - The unit mount is corroded or damaged.
- **Always shut off circuit breakers or remove the power plug*1 from the wall outlet before performing maintenance work.**
 - Electric shock and burns could result if power is flowing.

Caution


Prohibited

- **Do not place combustion equipment in the direct path of the air from the unit.**
 - Incomplete combustion could result in accidents.
- **If using a step-ladder for maintenance, be sure to place it on level ground where there is nothing underfoot.**
 - Injury could result from falling over.
- **Never attach the unit to the ceiling.**
 - Injury could result if the unit falls.
- **Because this product is designed to be installed at a higher location, install the product at least 1.8 m above the floor.**
 - Failure to heed this warning may result in injury.
- **A fan rotates inside the unit during operation. Never stick anything inside the unit during operation.**
 - Injury could result.
- **Do not use the unit in a bathroom or other highly humid location.**
 - Electric shock or breakdown could result.
- **Wear gloves when maintaining the unit.**
 - Failure to wear gloves could result in injury.
- **After maintenance, reattach parts securely.**
 - Injury could result if the unit falls.


Do NOT touch


You must
follow the
instructions
given.

- **Never remove the power plug^{*1} by pulling on the cord. Always grasp the plug itself.**
 - Could result in electric shock or shorts, or could cause fires.
- **If the outside air is cold, winds are strong, snow or rain is falling heavily, or there is mist or fine snow, turn the Lossnay off and close the manual shutter.**
 - Water or snow could infiltrate the Lossnay with the air supply, resulting in weather damage.
- **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. (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.)

^{*1} Refers only to VL-50S2-E (Lossnay with plug-in power cord).

2. When using the unit

■ When running in winter, the Lossnay transfers the heat of indoor air to the cold outdoor air as it brings outside air in.

This means that when outside air is colder than about -10 °C, condensation or frost may form on the panel or inside the unit.

Since condensation and frost formation varies with subtle changes in conditions (indoor humidity, air flow and the like), switch operating modes or temporarily stop the unit as conditions dictate.

When dew condensation has formed on the surface of the unit, wipe it off.

Using the following outside air temperatures as a guide, switch the mode to Exhaust only mode. (Refer to page 6 for details of the mode.)

	Outside air temperature
In operation	-10° C or higher
Exhaust only mode	-10° C to -20° C
Stop	-20° C or lower

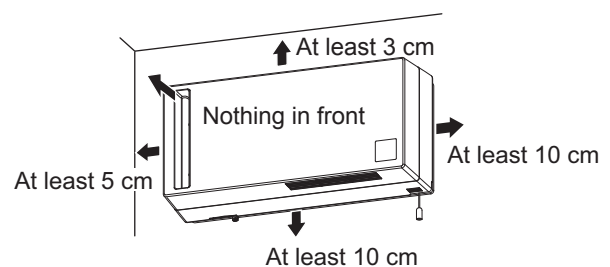
■ Check that the unit is mounted properly before using it.

- **Is the Lossnay mounted on a wall?**
 - This Lossnay is designed to be mounted only on a wall. If mounted on a ceiling, it may drop off.
- **Is the special outdoor hood mounted on an exterior wall?**

- Failure to install the hood may allow wind and rain into the unit, damaging it.

■ Obey the following cautions when using the Lossnay.

- **Do not place objects around the unit.**
 - Such objects may block air outlets or intake openings or may prevent servicing.
 - They may also prevent you from reaching the wall outlet (for plug-in models).



- **Do not use aerosol sprays (such as insect sprays, hair sprays or cleaners) directly on the unit.**

- The panel may warp, weaken, or become damaged.

- **Do not obstruct the panel.**
 - Proper ventilation may be impeded.

- **Do not pull the cord diagonally (VL-50S2-E only).**

- The unit will not operate correctly.

- In the following cases, stop the Lossnay and close its shutter.

- If the outside air is cold, winds are strong, snow or rain is falling heavily, there is heavy fog, or fine snow is falling. (Water or snow may infiltrate the Lossnay with the air supply, resulting in weather damage.)
- During cleaning and inspections (Stop the Lossnay temporarily, resuming operation later.)

- Do not pull the panel forcefully.

- Doing so could cause the product to fall.

- ■ Mitsubishi recommends mounting the Lossnay away from the bed.
- If the unit is too close, you may hear operating noise or feel cold air blowing while in bed.
- ■ Bugs smaller than the grate openings of the outdoor hood may be able to infiltrate the unit.
- ■ When wind is strong, there may be a rattling sound from the shutter. (This is not a malfunction.)
- ■ The motor and the air filter require periodic maintenance (replacement). Replacement time will vary with frequency of use.

3. Features


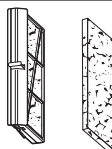

The Lossnay ventilator, from Mitsubishi
Running the Lossnay

The Lossnay moves dirty indoor air outside (exhausting it) and brings clean air from the outside in (providing air supply). When it supplies air, it brings outside air close to room temperature (functioning as a heat exchanger).

* The Lossnay is not an air-conditioner. It is a ventilating fan that exchanges heat as it ventilates.

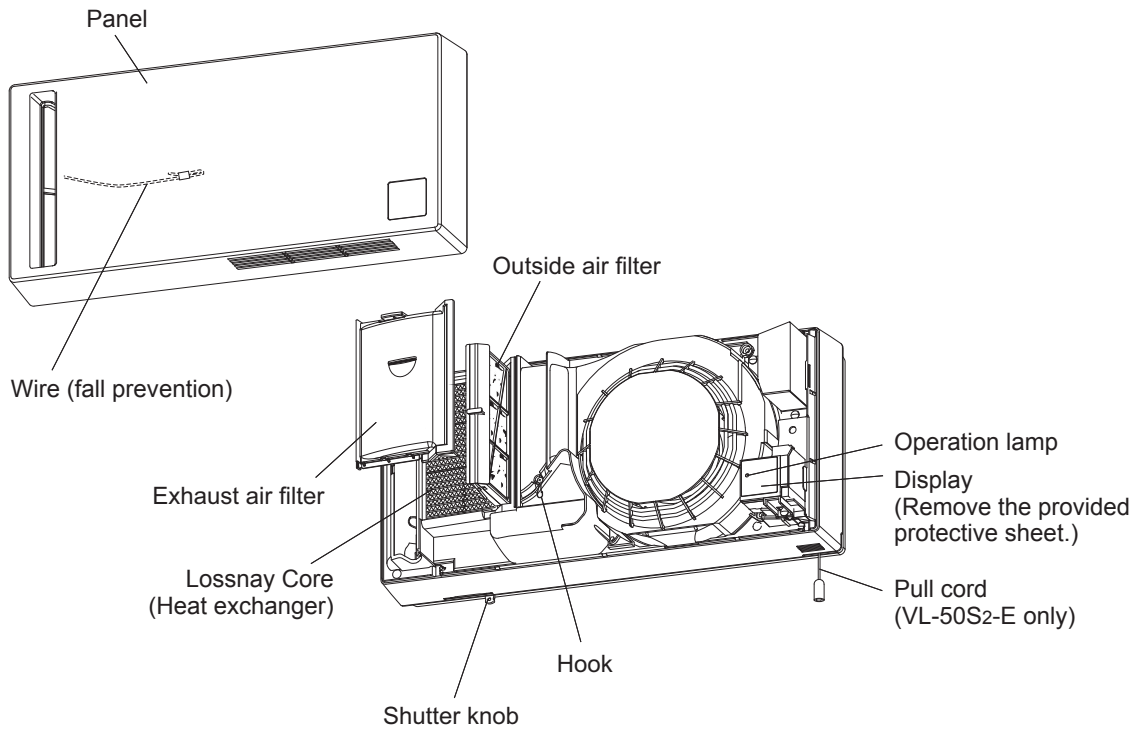
- ◆ Since it not only sends indoor air out but also brings fresh air in, it works well in tightly sealed homes.

- ◆ Since it is a heat exchanger, it provides heating and cooling at a lower cost than ventilators that merely exhaust.
- ◆ Built-in filters reduce the amount of dust, pollen and other particles entering the house in outside air.

1		Exhaust air filter
2		Outside air filter For replacement: P-50F2-E
3		Option High efficiency filter P-50HF2-E

- ◆ To prevent a cold air feeling or dew condensation forming on the unit in winter, Exhaust only mode can be used. (Refer to page 6 for details of the mode.)

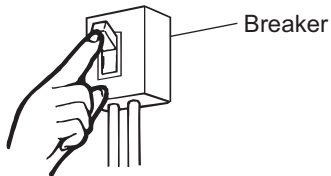
4. Names of parts



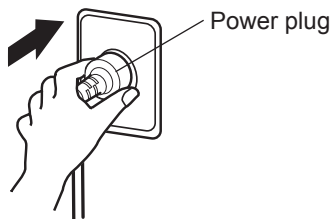
5. Before you start the Lossnay

1. Preparing to turn the power on

1) Turn the circuit breaker on at the distribution board.



2) Insert the power plug into the wall outlet. (VL-50S2-E only)

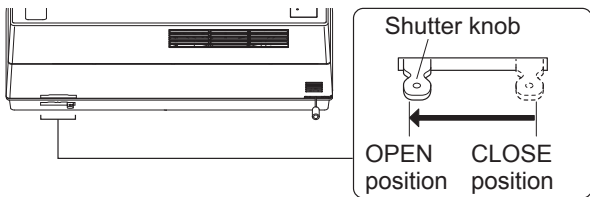


6. Operation

Note

- In the following cases, stop the Lossnay and manually move the shutter knob to the leftmost position (the closed position) to close the shutter.
 - If the outside air is cold, winds are strong, snow or rain is falling heavily, there is heavy fog, or fine snow is falling. (Water or snow may infiltrate the Lossnay with the air supply, resulting in weather damage.)
 - During cleaning and inspections

1. Slide the shutter knob to the open position.

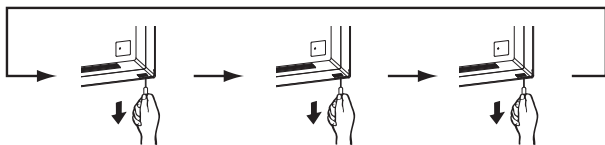


Note

- Make sure that the shutter knob must be located in the open position, and then operate the unit.

2. Operation For VL-50S2-E

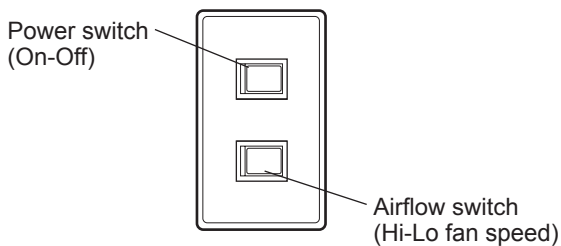
Switching operating modes (airflow)
Pull the cord to switch from HI to LO to Off.



HI operation (Operation indicator lights.) LO operation (Operation indicator lights.) Off (Operation indicator goes out.)

For VL-50ES2-E

Using the control switches.



* The switches shown above are only an example. Operations and indicators may vary depending on the switches installed.

3. Operation in Exhaust only mode

What is Exhaust only mode?

When the outside air temperature becomes low in winter and intake air (air supply) feels cold, or there is a concern about dew condensation on the unit, change the mode to Exhaust only mode.

By closing the shutter at the air supply side and half closing the shutter at the exhaust side, operation with suppressed supply air (cold outside air) is performed.

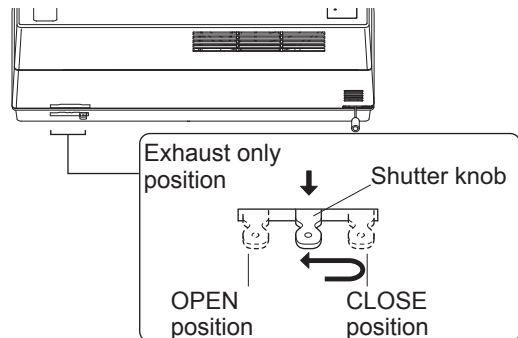
In order to prevent freezing of the heat exchanger, if the outside air temperature becomes -10 °C or lower, make sure to operate in Exhaust only mode.

(*For a guide to outside air temperatures, refer to page 3.)

How to operate Exhaust only mode

Adjust the shutter knob to the Exhaust only position.

- Move the shutter knob to the CLOSE position and then slowly move to the OPEN position and stop at the Exhaust only position.



Note

- When Exhaust only mode is no longer necessary, return the shutter knob to the OPEN position.

7. Maintenance

Remove all dust and dirt on air filters and Lossnay cores at regular intervals in order to prevent a deterioration in the Lossnay functions.

Guideline:

Clean the air filters **at least once every six months**

Clean the Lossnay cores once two year.
(Frequency should be increased depending on the extent of dirt.)

⚠ Warning:

- **Always shut off circuit breakers or, for the VL-50S2-E, remove the power plug from the wall outlet before performing maintenance work.**
- Electric shock and burns could result if power is flowing.

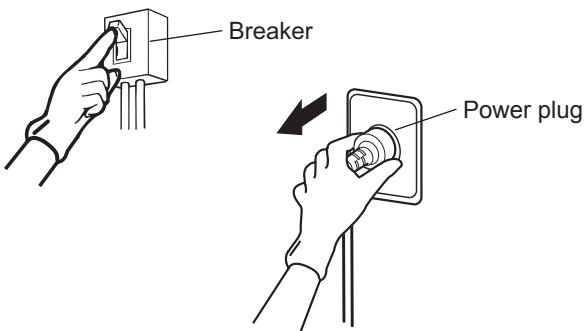
⚠ Caution:

- **Wear gloves when maintaining the unit.**
- Failure to wear gloves could result in injury.
- **If using a step-ladder, be sure to place it on level ground where there is nothing underfoot.**
- Injury could result from falling over.

Removing the parts

(1) Turn the power off

- 1) Turn the Lossnay off.
- 2) Always shut off circuit breakers or, for the VL-50S2-E, remove the power plug from the wall outlet.

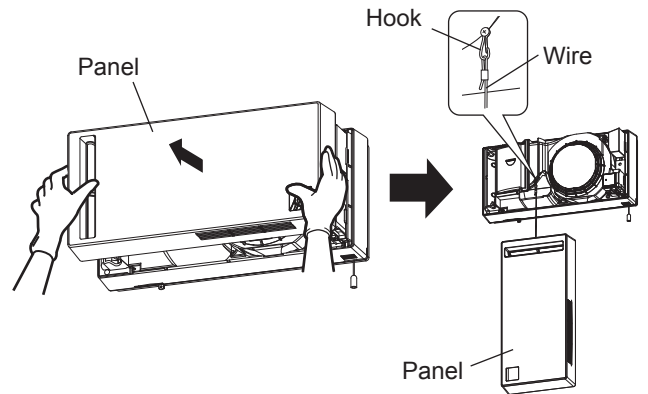


(2) Open the panel.

For horizontal mounting

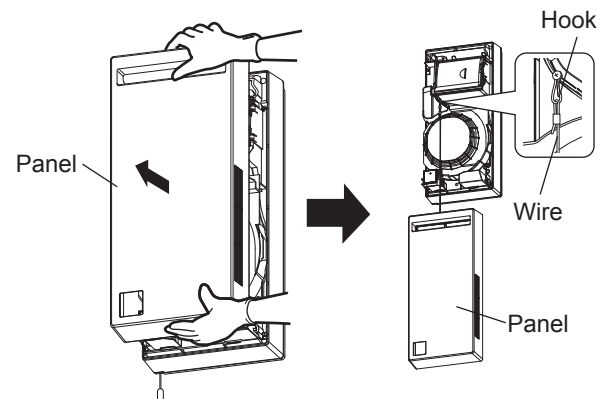
- 1) As shown in the figure, hold the left and right end of the panel and pull toward you.
- 2) Remove the panel and suspend it.
 - When removing the panel (wire) from the main unit, hold the hook and remove the wire.

- Do not shake the suspended panel. (The wallpaper could be damaged.)



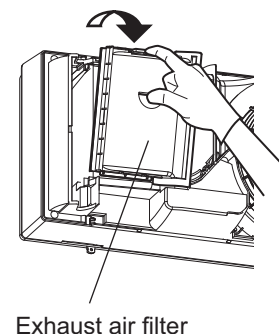
For vertical mounting

- 1) As shown in the figure, hold the top and bottom end of the panel and pull toward you.
- 2) Remove the panel and suspend it.
 - When removing the panel (wire) from the main unit, hold the hook and remove the wire.
 - Do not shake the suspended panel. (The wallpaper could be damaged.)



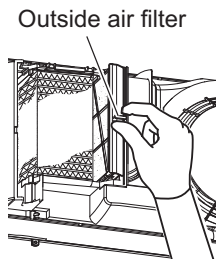
(3) Remove the exhaust air filter.

As shown in the figure, hold the air filter and pull the top of the air filter toward you to detach it from the hooking part on the top to remove it.



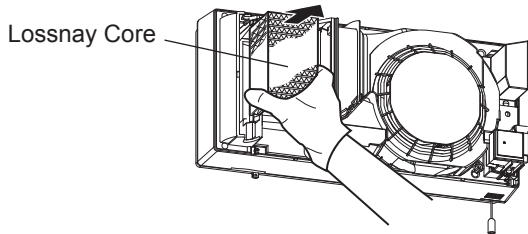
(4) Remove the outside air filter.

Hold the knob of the outside air filter to pull it out.



(5) Remove the Lossnay Core.

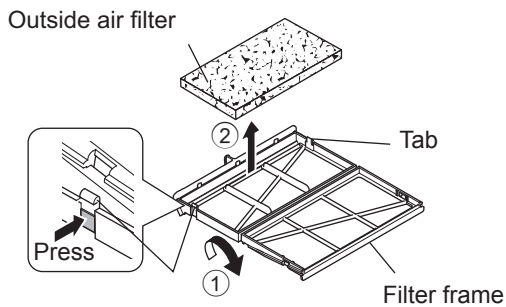
Press the prong of the Lossnay Core's handle and pull the handle toward you to remove the core.



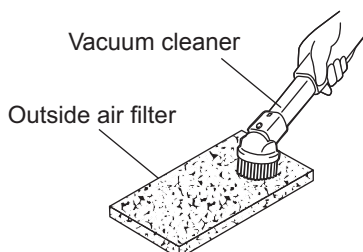
Cleaning

(1) Outside air filter

- 1) Press the tab at two locations to open the filter frame.
- 2) Remove the outside air filter.



- 3) Vacuum the dust from the filter, and then handwash it in water with a neutral detergent or in lukewarm water (up to 40°C). Then dry it thoroughly to remove moisture. Take out the outside air filter.

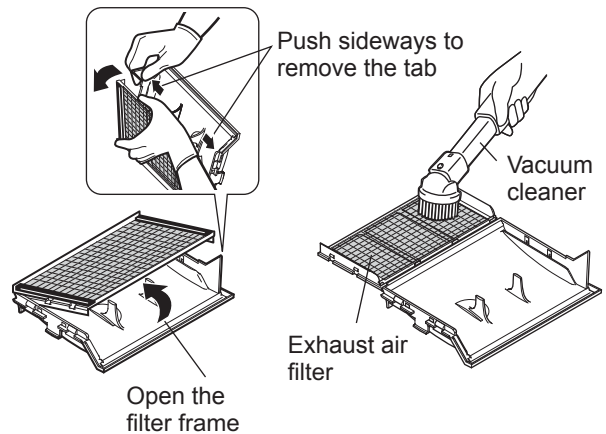


Replacement:

Replace the filter with separately sold parts (P-50F2-E) when it has been washed four times.

(2) Exhaust air filter

- 1) Open the exhaust air filter as shown in the figure.
- 2) Either lightly tap with your hand or remove dust with a vacuum cleaner.
- 3) If it is excessively dirty, wipe with a cloth soaked in water and tightly wrung out.



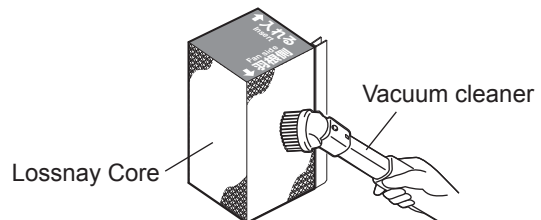
Note

- Never wash with hot water or do rubbing wash.
- Do not dry the filter by directly holding it up to an open flame.
- If a separately available high performance dust filter is used, clean the filter in accordance with the instructions in its Instruction Manual.

(3) Lossnay Core

Use a vacuum cleaner to remove surface dust.

- Vacuum the surface gently with the vacuum cleaner nozzle.



Note

- Do not expose the Lossnay Core to water, chemicals, or volatile solutions.
- Do not wash Lossnay Core with water.
- Do not expose the Lossnay Core close to open flames.
- Do not press wires, screwdrivers or hard vacuum cleaner nozzles into the surface.

Reassembly and checking after maintenance

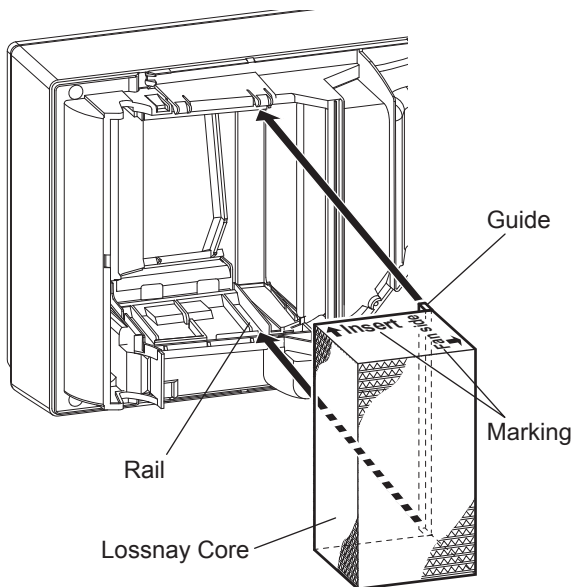
Mount the filter and Lossnay Core by the opposite of the removal procedure.

⚠ Caution

- After maintenance, reattach parts securely.
- Injury could result if the unit falls.

(1) Mount the Lossnay Core.

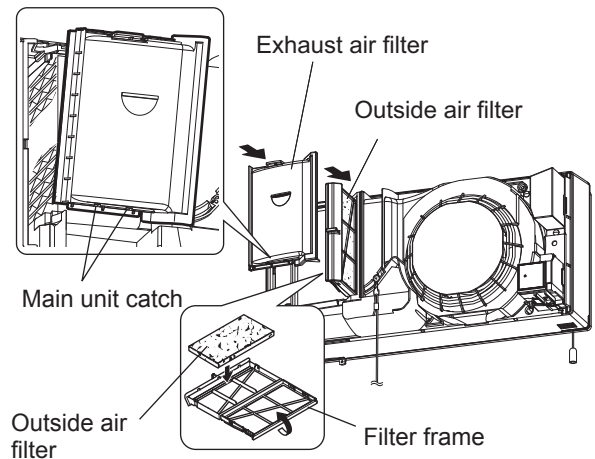
- 1) Check the orientation of the "Insert" and "Fan side" markings on Lossnay Core.
- 2) Insert the Lossnay Core guide along the rail of the main unit.
- 3) Push Lossnay Core deeply until the flange and packing of Lossnay Core make contact.



(2) Mount the outside air filter. (See page 9.)

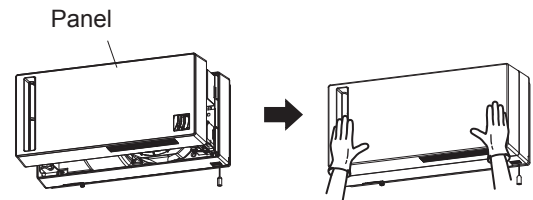
- Place the outside air filter into the filter frame and mount it in the main unit. (Do not confuse the top and bottom.)

(3) Mount the Exhaust air filter



(4) Close the panel.

- Press the panel horizontally against the main unit.



(5) Turn on the circuit breaker or, for the VL-50S2-E, plug the power plug into the wall outlet.

(6) Turn the power on.

(7) After reassembly, check the following.

- Are the filters and the panel attached securely?
- Is the unit making no strange noises?
- Is the unit blowing air? (Be sure to check the unit while it is running. Make sure that the shutter is open.)

Cleaning the panel/main unit

If the panel or main unit becomes dirty, wipe it with a well-wrung cloth soaked in a solution of neutral detergent and lukewarm water (40°C or less), then wipe it with a clean cloth to remove any traces of detergent.

Note

- Use of any of the following solvents in maintenance may warp, weaken or discolor Lossnay components.
 - Paint thinner, alcohol, benzene, gasoline, kerosene, aerosol sprays, alkaline cleaners, chemical wipes, or abrasive-containing detergents, such as cleansers
- Clean any dust off of the plug. (VL-50S2-E only)

8. Troubleshooting

Inspect the unit if any of the following problems occurs. If the problem is not listed below, or the problem persists after inspection, shut off the circuit breaker on the distribution board or, for VL-50S2-E, remove the power plug from the wall outlet, and then contact your dealer.

Model	Problem	Cause	Check the following	Page
VL-50S2-E VL-50ES2-E	Unit does not operate.	No power to main unit.	Check the power plug. (VL-50S2-E only) Check whether a breaker has tripped. Check whether a power failure has occurred.	5
	The unit is louder. The unit is noisy.	The panel or outside air filter is not attached securely.	Reattach the panel or filter.	7
		The outside air filter or exhaust air filter is clogged.	Clean the filter.	7-8
	Less air than normal is coming from the unit.	The outside air filter or exhaust air filter is clogged.	Clean the filter.	7-8
	The operation lamp is not bright.	When the operation mode is changed from HI to LO, the lamp becomes dim.	This is not a malfunction.	—
	Small insects get inside.	Small particles and insects may pass through.	To enhance trapping efficiency, purchase a high performance dust filter.	4
	No air is coming from the unit. Not much air is coming from the unit.	The Lossnay is a heat-exchanging ventilator, so the volume of air will be lower than with an ordinary fan. This is normal.		—
		The shutter is closed.	Open the shutter.	6
	The panel will not close.	The Lossnay Core or outside air filter is not mounted correctly. (A component is out of position or inserted backwards.)	Mounted the component correctly.	7-8
	The incoming air feels cold.	The outside air temperature has dropped.	Turn the unit off temporarily and close the shutter, as dictated by the situation. Operate the unit by setting the shutter position to Exhaust only mode.	5
		Cold air may enter inside if inside the room is in negative pressure for a reason such as that the range hood fan is operating.	This is not a malfunction. Use the unit in Exhaust only mode.	6
	When operating the shutter knob, there is a noise inside.	This sound is the operation sound of the shutter inside the product.	This is not a malfunction.	—
	Cold air or wind comes in more than usual when the unit is stopped.	Is the shutter being kept open?	Move the shutter knob to the CLOSE position.	6
The unit is loud.	The shutter is closed.	Open the shutter.	5	

9. Specifications

Model	Supply voltage (V)	Frequency (Hz)	Notch	Power consumption (W)	Air volume (m ³ /hr)	Temperature exchange efficiency (%)	Noise (dB)	Weight (kg)
VL-50S2-E	220	50	HI	19	51	70	36.5	6.2
			LO	4	15	86	14	
VL-50ES2-E	230	50	HI	20	52.5	69	37	
			LO	4.5	16	85	15	
VL-50ES2-E	240	50	HI	21	54	68	37.5	
			LO	5.0	17	84	15.5	
VL-50ES2-E	220	60	HI	21	54	68	37.5	
			LO	5.5	17	84	15.5	

* Noise values may be higher than those listed depending on the structure of the room.

10. After-sales servicing

Consult with your dealer about the after-sales services provided for this Lossnay product.

- If you hear strange sounds, if no air is blown out or if some other trouble occurs, switch off the power and contact your dealer. Consult with your dealer concerning the cost of inspection or repair work.

■ Retention period of functional repair parts

- We will retain the functional repair parts for six years after terminating production of the product.
- The functional repair part means a part which is necessary to maintain the function of the product.

■ Recommended inspection and maintenance

- After several years of use, the following might occur. We recommend inspection and maintenance by a professional.
- Entry of dust due to deterioration of filters
- Abnormal noise or vibration due to the motor reaching the end of its service life
- Air leakage due to the heat exchanger Lossnay core reaching the end of its service life

The following are consumables:

- Motor
- Supply air filter
- Exhaust air filter
- Lossnay core

■ Repair costs include technical fee, cost of parts, (and business trip charges), etc.

Manufactured by: **MITSUBISHI ELECTRIC CORPORATION**

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