

# Lossnay Energy Recovery Ventilator

Model:

## LGH-50RSDC-E (220-240V 50Hz)

# Operating Instructions

## (For the user)

Please read this manual carefully before use for proper and safe use.

**Do not attempt to install the product by yourself.**

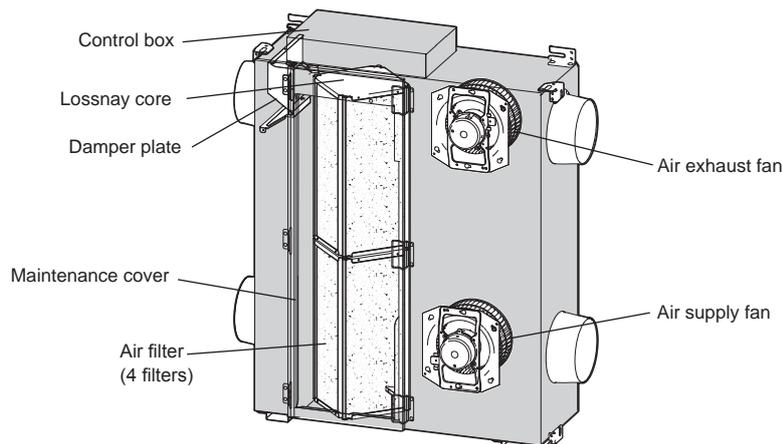
## Safety precautions

The following signs indicate that death or serious injury may be caused by failure to heed the precautions described below.

 <b>WARNING</b>	
 Prohibited	<p><b>Do not turn the remote controller on or off when flammable gas has leaked.</b> (It could catch fire or cause explosion with sparks released from electric contactor.) Open windows to ventilate.</p>
 Wet hands prohibited	<p><b>Don't operate with wet hands.</b> (Electrical shock can result.)</p>
 Do not disassemble	<p><b>Do not modify or disassemble.</b> (It could cause fire, electric shock or injury.)</p>
 Do not wet	<p><b>Do not apply water to the unit and remote controller.</b> (Electrical shock can result.)</p>
 Do not touch	<p><b>Do not poke your fingers or sticks into the air intake and outlet while the product is operating.</b> (Failure to heed this warning may result in injury.)</p>
 The instructions given must be followed.	
<p><b>Use the specified power supply and voltage.</b> (Use of incorrect power supply could cause fire or electric shock.)</p> <p><b>Make sure the power supply isolator is turned off on the power distribution panel before starting maintenance.</b> (It could cause electric shock or injury if it is turned on.)</p> <p><b>When any abnormal conditions (burning smell, or others) are observed, stop operation, turn off the power supply isolator on the power distribution panel and consult your dealer.</b> (Continuing operation under such conditions could cause electric shock, fire, or damage.)</p>	

 <b>CAUTION</b>	
 Prohibited	<p><b>Do not place a burning appliance in a place where it is exposed directly to the wind from Lossnay.</b> (It could cause an accident as a result of incomplete combustion.)</p> <p><b>Don't operate with the "BY-PASS" when heating the room in winter.</b> (Condensed water may drip from the unit and wet the surface of ceiling.)</p> <p><b>Do not use at a place where exposed to high temperatures (40°C or higher), naked flames, or in environment with heavy fumes.</b> (It could cause fire.)</p> <p><b>Do not use in an environment such as a chemical factory, where hazardous gases such as acidic gases, alkaline gases, organic solvent fumes, paint fumes, or gases containing corrosive components are generated.</b> (It could malfunction.)</p>
 The instructions given must be followed.	
<p><b>Securely install parts after maintenance.</b> (It could cause injury if parts fall.)</p> <p><b>Put on gloves during maintenance.</b> (It could cause injury.)</p> <p><b>Make sure the power supply isolator is turned off on the power distribution panel when Lossnay is not used for a long period of time.</b> (It could cause electric shock, power leakage, or fire as a result of deteriorated insulation.)</p> <p><b>This appliance is not be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction. Children should be supervised to ensure that they do not play with the appliance.</b></p>	

## Names of the parts



# Operation

This Lossnay unit is operated by Remote controller. (provided by installer)  
Please refer to installer for further information.

## 1. Fan speed

### ■ The wide range of fan speed and the low power consumption

This unit has 5 fan speed settings 110 l/s to 25 l/s, and 14w ultra low power consumption for Lossnay ventilation, thanks of DC blushless motor technology.

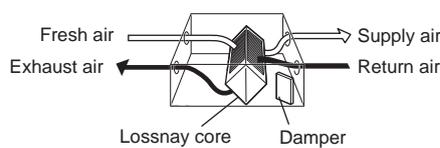
### ■ Power "BY-PASS" mode setting

This unit has 130 l/s extra-high fan speed for "By-pass" ventilation over 5 fan speed.

## 2. Ventilation setting

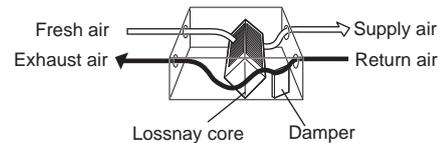
### ■ LOSSNAY ENERGY RECOVERY VENTILATE setting

Both fresh air supply and return air pass through the Lossnay cores. Resulting in total heat exchange. Energy recovery ventilation makes the fresh air temperature close to the indoor temperature in the winter and the summer season.



### ■ "BY-PASS" VENTILATE setting

The fresh air passes through the Lossnay cores and the return room air is exhausted direct. Energy recovery "By-pass" ventilation is normally operated during the spring/autumn months.



### ■ AUTOMATIC VENTILATION setting

The automatic damper mode automatically provides the correct ventilation for the conditions in the room. The following shows the effect "By-pass" ventilation will have under various conditions.

#### 1. Reduces cooling load

If the air outside is cooler than the air inside the building during the cooling season (such as early morning or at night), "By-pass" ventilation will draw in the cooler outside air and reduce the cooling load on the system.

#### 2. Night purge

"By-pass" ventilation can be used to release hot air from inside the building that has accumulated in buildings a business district during the hot summer season.

#### 3. Office equipment room cooling

During cold season, fresh air can be drawn in and used as is to cool rooms where the temperature has risen due to the use of office equipment.

- In the case of "By-pass" ventilation, the supply air temperature slightly rises more than the outside air temperature because of the heat effect around the ducts or the unit motors.
- Operate by 5 fan speed (Lowest speed) during night time, for low noise level, energy saving and preventing to intake water mist of fog during night.
- Operate by 5 fan speed in foggy day.

# 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 once a year.

Clean the Lossnay cores once two year.

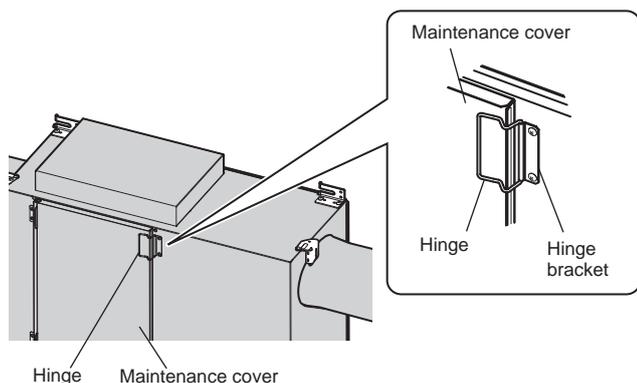
(Clean the Lossnay cores once a year if possible.)

(Frequency should be increased depending on the extent of dirt.)

## Removing the parts

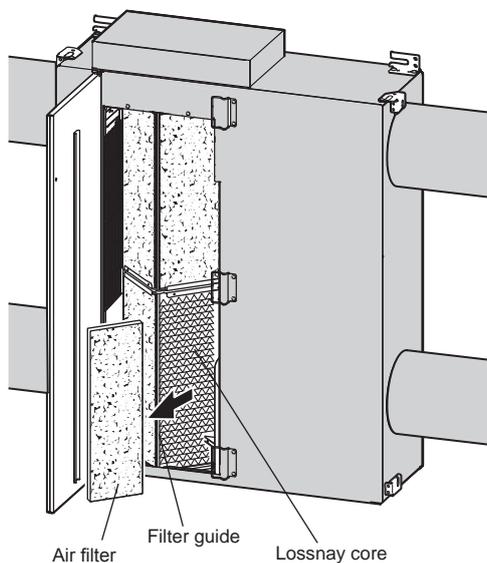
### 1) Maintenance cover

- ① Pull back the hinged clip. (x3)
- ② Open the maintenance cover.
  - Be careful not to sandwich the hand.



### 2) Air filters (4 filters)

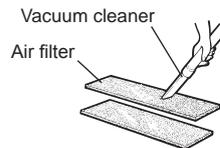
Remove the air filters, located at the surface of the Lossnay cores, as below.



## Cleaning the parts

### 1) Air filters

Use a vacuum cleaner to remove light dust. To remove stubborn dirt wash in a mild solution of detergent and lukewarm water. (under 40°C)



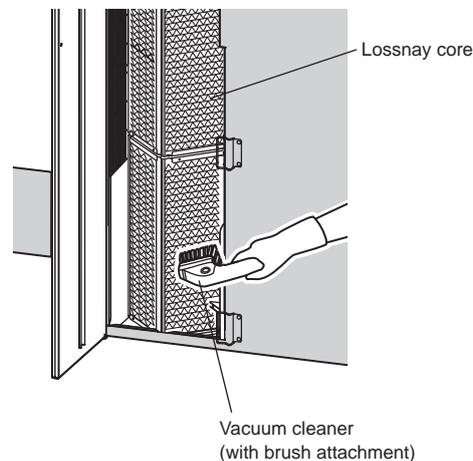
#### ⚠ CAUTION

- Never wash the filters in very hot water and never wash them by rubbing them.
- Do not dry the filters by exposing them to a flame.

### 2) Lossnay cores

Use a vacuum cleaner to suck up the dust and dirt on the exposed surfaces of the Lossnay cores.

Use a soft brush only to clean exposed surface areas.



#### ⚠ CAUTION

- Do not use the hard nozzle of the vacuum cleaner. It may damage the exposed surfaces of the Lossnay cores.
- Under no circumstances should the Lossnay cores be washed in water.

## Assembly after maintenance

Bearing in mind the following points, assemble the parts following the sequence for their removal in reverse.



Filters should be set in all side rails of Lossnay cores.

# Specifications

Model	Voltage (v)	Line frequency (Hz)	Ventilate setting	Fan speed	Current (A)	Power consumption (W)	Air volume		Static pressure		Temperature Exchange efficiency (%)	Enthalpy Exchange efficiency (%)		Noise (dB (A))	Weight (kg)
							(m <sup>3</sup> /h)	(L/S)	(mmH <sup>2</sup> O)	(Pa)		Heating	Cooling		
LGH-50RSDC-E	230* <sup>2</sup>	50	Lossnay Energy recovery setting	1	1.17	165	395	110	10.2	100	77.5	71	68	31	46
				2	0.67	90	305	85	6.1	60	81.5	75	72.5	26.5	
				3	0.35	41	215	60	3.1	30	85.5	79	77	21	
				4	0.20	22	144	40	1.5	15	88	82	80.5	18	
				5	0.13	14	90	25	0.7	7	90	84	83	18	
			BY-Pass Ventilate setting	PB* <sup>1</sup>	1.80	265	468	130	13.8	135	-	-	-	35	
				1	1.20	164	395	110	10.2	100	-	-	-	31	
				2	0.70	90	305	85	6.1	60	-	-	-	26.5	
				3	0.35	40	215	60	3.1	30	-	-	-	21	
				4	0.20	21	144	40	1.5	15	-	-	-	18	
				5	0.13	14	90	25	0.7	7	-	-	-	18	

(1mmH<sup>2</sup>O=9.80665Pa)

\*<sup>1</sup> PB stands for "Power By-pass".

\*<sup>2</sup> Specifications are in 230V / 50 Hz operation. The unit operation is available with 220-240V / 50 Hz.

\* The values given in the table for the noise level reflect the levels measured at a position 1.5 meters immediately below the unit in an anechoic chamber.

\* Noise change or increase may occur because of the Bypass-Automatic function or Automatic fan speed change by timer setting.

\* Temperature Exchange efficiency (%) are based on winter condition.

## 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.