

# VL-100U-E

## Installation Instructions


*(For Dealer or Contractor)*


Before proceeding with the installation work, be sure to read through these instructions. The installation work should be done by an authorized dealer or qualified contractor.

*Please ensure that the separate "Operating Instructions" are handed over to the customer.*






### Essential Safety Precautions

- Before proceeding with operation, please be sure to read "Essential Safety Precautions" as it will tell you how to operate the product properly and safely.
- The displays have the following significance.

	<b>WARNING</b>	This applies to mishandling or misoperation of the product which may lead to a fatal or serious injury.
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	<b>CAUTION</b>	This applies to mishandling or misoperation of the product, which will lead to an injury or damage to your home, household effects, etc.
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- The graphic symbols have the following significance.




	Prohibited
	Do NOT disassemble.
	Use is prohibited wherever water is present.
	You must follow the instructions given.
	Disconnect the power plug.

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# Before installation

## Safety precautions

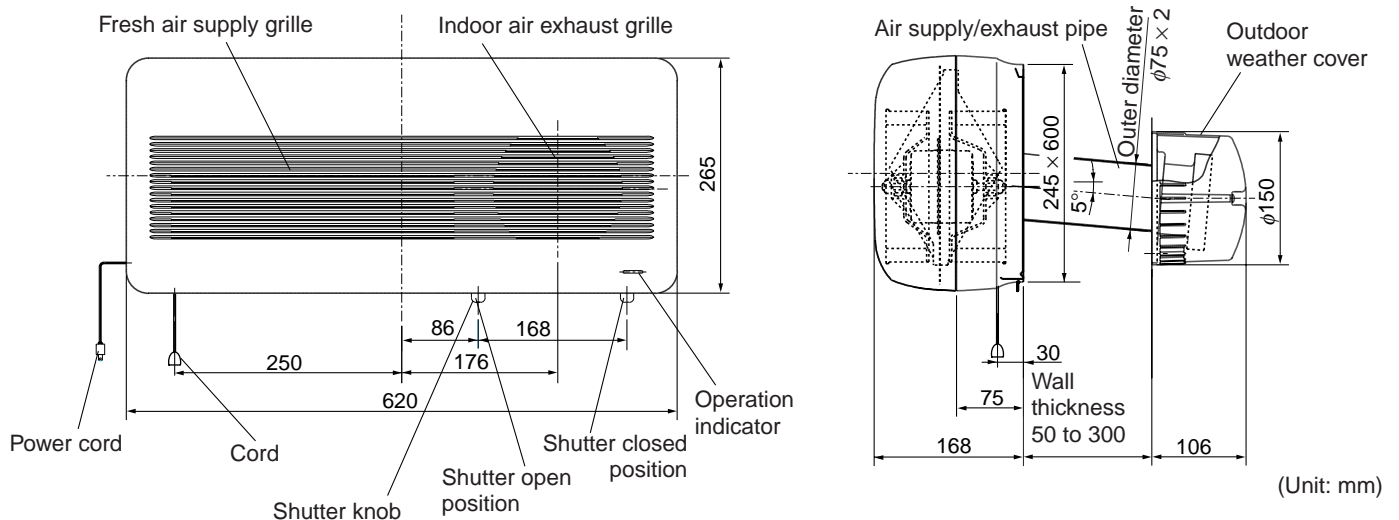
### WARNING

	<ul style="list-style-type: none"> <li>Do not alter the unit or disassemble it more than necessary. (Fire, electric shock or injury may result.)</li> </ul>
	<ul style="list-style-type: none"> <li>Do not install the unit in a bathroom or other highly humid location. (Fire or electric shock may result.)</li> </ul>
	<ul style="list-style-type: none"> <li>Use the unit at the rated voltage and within the control capacity range. (Failure to do so may result in fire or electric shock.)</li> <li>Make sure the outside air intake opening is positioned so that it will not take in combustion gases or other exhaust. Position the unit so that it will not become covered with snow. (If intake air is not fresh, oxygen may become depleted in the room.)</li> <li>Install the unit securely to a sufficiently strong wall surface. (Injuries may result if the unit falls.)</li> </ul>

### CAUTION

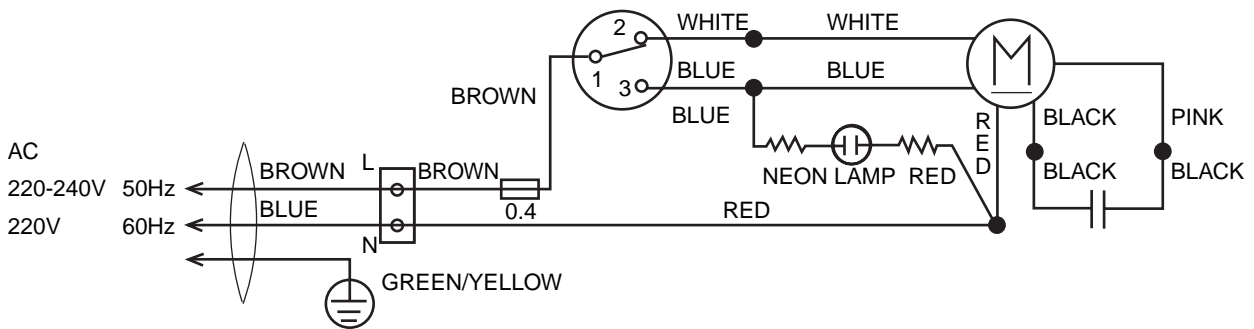
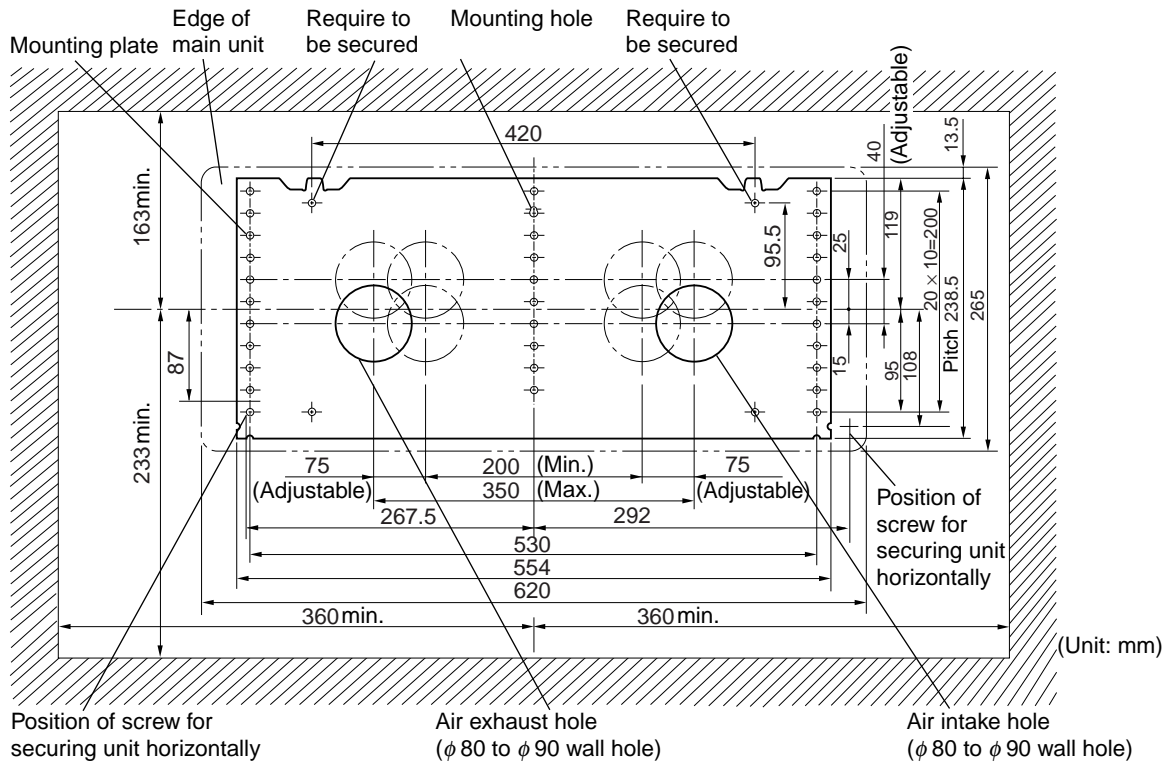
	<ul style="list-style-type: none"> <li>Install the unit only on a wall. Do not install it on a ceiling. (Injuries could result if the unit falls.)</li> <li>Do not install the unit in excessively hot areas, areas of oily smoke, or near open flames. (Fire may result)</li> </ul>
	<ul style="list-style-type: none"> <li>Wear gloves when attaching the unit (or injury may result).</li> <li>Attach the unit so that the air supply/exhaust pipes slope downward toward outdoors. (Rainwater entering the unit could cause electric shock or fire, or wet indoor items.)</li> <li>Install the supplied outdoor weather covers. (Rainwater entering the unit could cause electric shock or fire, or wet indoor items.)</li> </ul>
	<ul style="list-style-type: none"> <li>After installation, be sure to remove the power plug from the wall outlet when not using the unit for an extended period. (Failure to do so could cause insulation deterioration, resulting in electric shock or fire from a short-circuit.)</li> </ul>

## Outline drawings



If the wall is thicker than 300 mm, use the extension pipes and the pipe extension joints (separately sold parts).

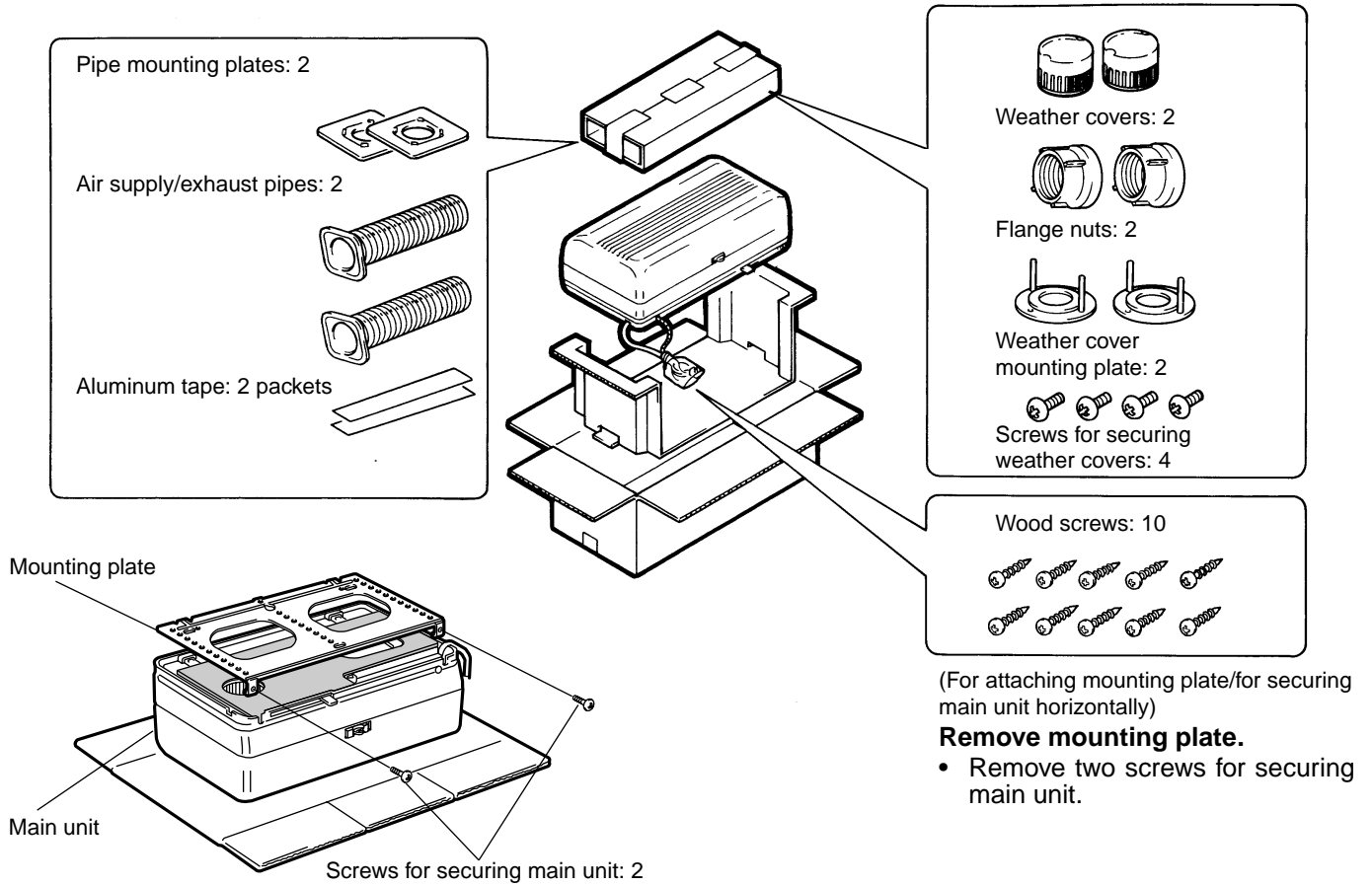
# Installation positions



# Installing the unit

## Unpacking

English

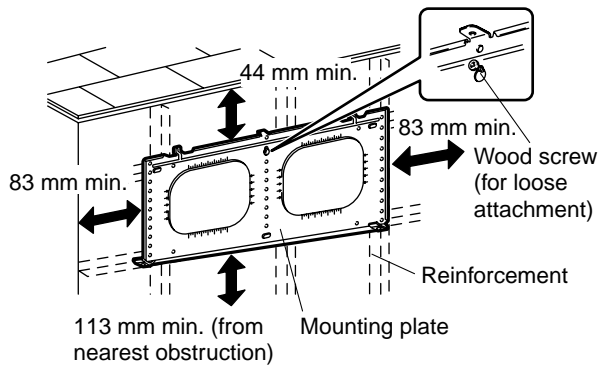


### Note

- Keep the screws for securing the main unit in a safe place. Screws are needed when installing the main unit.

# Wall hole construction

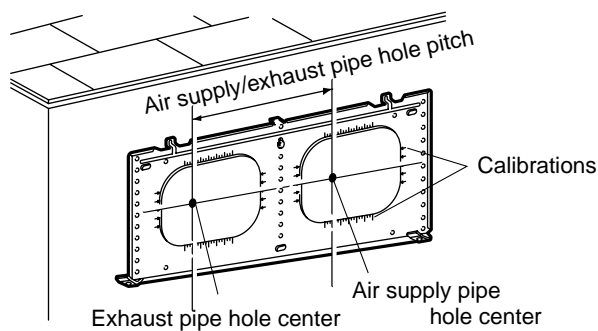
1



## Determine the installation position.

1. Place the mounting plate on the wall.
2. Check that the reinforcement (indoor wall) is positioned properly to secure the mounting plate.
3. Attach the mounting plate loosely (with single wood screw).

2

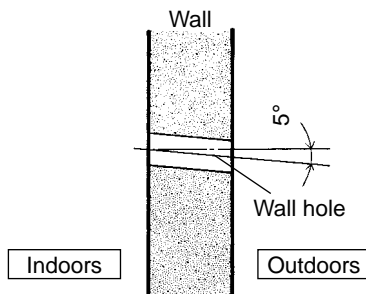


## Determine the position of the wall holes.

1. Place a caliper on the calibrations on the mounting plate.
2. Mark the center position of the wall hole.
  - Position the wall holes away from obstructions in the wall, within the ranges shown in the table below.

	Exhaust pipe hole position	Air supply pipe hole position	Air supply/exhaust pipe hole pitch
Vertical direction	From main unit center 15 mm below to 25 mm above		—
Horizontal direction	From main unit center to left 85 to 175 mm	From main unit center to right 85 to 175 mm	200 to 350 mm

3



## Drill the wall holes.

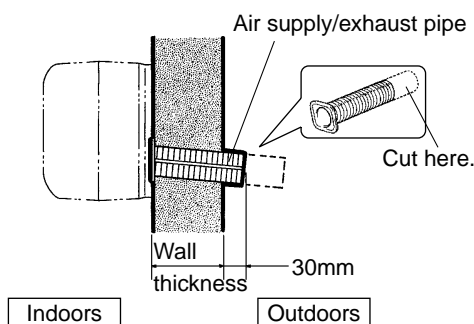
1. Remove the mounting plate.
2. Drill wall holes of  $\phi 80$  to  $\phi 90$  mm.

### Note

- To prevent rainwater entering indoors, drill the holes so they slope downward toward outdoors.

# Preparations before installation

1



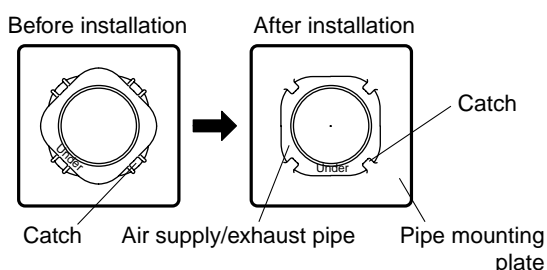
## Cutting air supply/exhaust pipes.

1. Measure the wall thickness.
2. Cut the pipes to a length of [wall thickness] + 30 mm.

### Note

- Be sure to cut off the end without the flange.

2

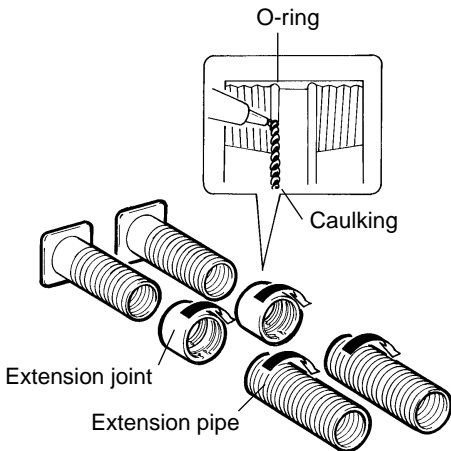


## Secure air supply/exhaust pipes to mounting plate.

1. Insert pipe into mounting plate.
2. Rotate pipe counterclockwise.
3. Secure flange (four catches).

# If the wall is more than 300 mm thick

Use the extension pipes (separately sold Parts P-100P) and pipe extension joints (separately sold Parts P-100PJ). Attach them to the pipes as shown below. (Each set can extend the pipes by 300 mm.)



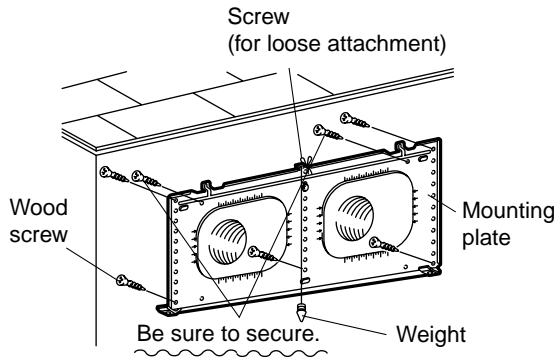
1. Screw the extension joints all the way into the air supply/exhaust pipes, making sure they fit securely.

<b>Note</b>	Before screwing the extension joints into the pipes, apply caulking (commercially available) to the O-rings on the joints (to prevent condensation inside the pipes wetting the indoor wall).
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2. Screw the extension pipes all the way into the extension joints, making sure they fit securely.

# Installing the mounting plate

1



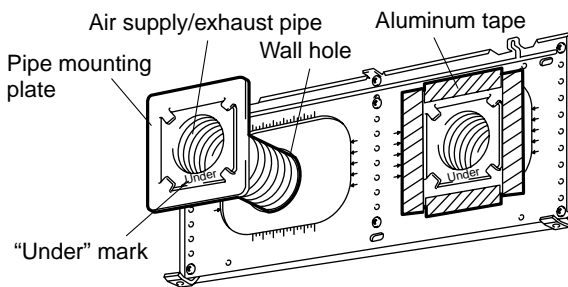
### Secure mounting plate.

- Secure the mounting plate to the wall (using seven wood screws and the single screw for loose attachment).
- You can align the plate horizontally by suspending a weight from the top and aligning its string with the center line.

### Note

- Be sure to secure the mounting plate with the two screws near the catches, and with screws in symmetrical positions.
- To attach the plate to a concrete wall, use concrete screws to secure it (commercially available).

2



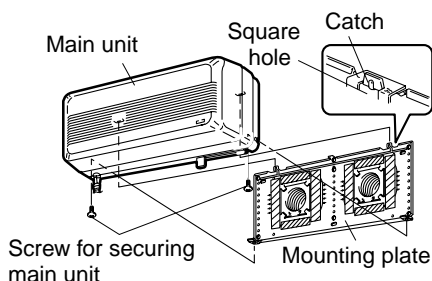
### Secure air supply/exhaust pipes.

### CAUTION

- **Install the air supply/exhaust pipes so that they slope downward toward outdoors.**  
(Rainwater entering the unit may cause electric shock or fire, or wet indoor items.)

1. Pass the air supply/exhaust pipes through the wall holes. (The "under" mark should be on the bottom.)
2. Secure the pipes with aluminum tape.

# Installing the main unit



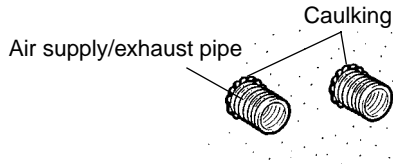
### Secure main unit.

1. Hang main unit on mounting plate.
2. Secure main unit with the two screws provided. (Press main unit into wall.)

# Outdoor construction

Attach weather covers packed together with unit.

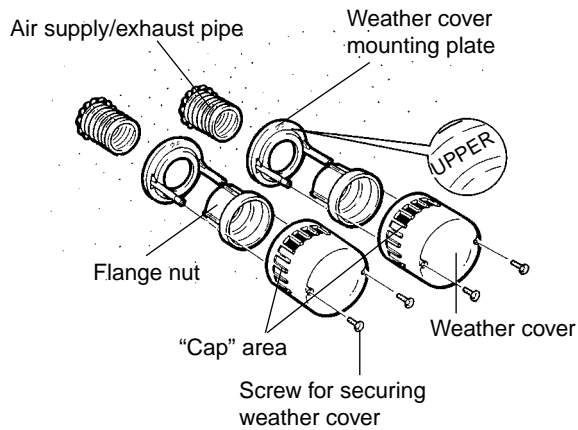
1



## Wall hole caulking.

- Fill in any gaps between the air supply/ exhaust pipes and the wall holes with caulking (commercially available).

2



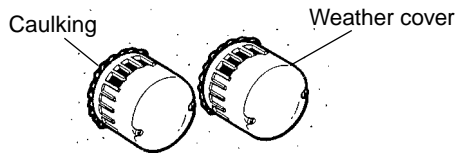
## Attaching weather covers.

1. Insert weather cover mounting plate into air supply/ exhaust pipes.
  2. Tighten flange nuts. (Secure so that "upper" marks on flanges are on top.)
- Weather cover mounting plate have two holes ( $\phi$  5mm) in them. Use these holes to secure the flanges to the wall.
3. Secure the weather covers with the screws.

## Note

- To keep the air supply and exhaust sides separate, each weather cover attaches only to one side. Check that each "cap" area is positioned on the left, as shown in the diagram.

3



## To prevent rainwater leakage.

- Caulk any gaps around the weather covers.

## Note

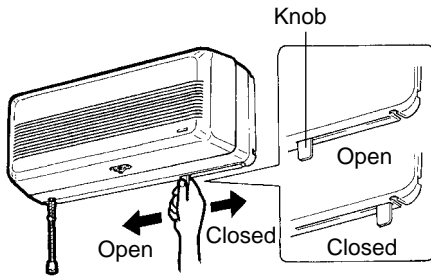
- After installing the unit, before conducting a test run, check the unit again to make sure it has been installed correctly.
- Be sure to correct any problems discovered. (Failure to correct problems may result in poor performance as well as causing safety problems.)

# Test run

Insert the power plug into the wall outlet.

1

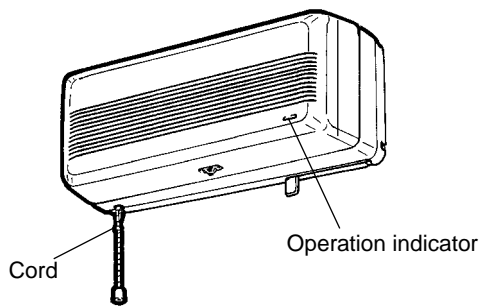
2



**Check the shutter's open/close operation.**

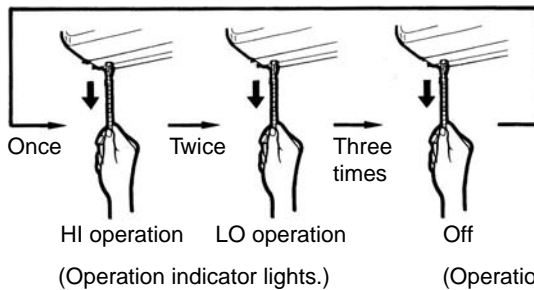
- Slide the knob to check the shutter opens and closes normally.

3



**Check operating modes.**

1. Slide the knob to the shutter open position.
2. Pull the cord to start operation.
3. Pull the cord a few more times to check the unit responds accordingly.

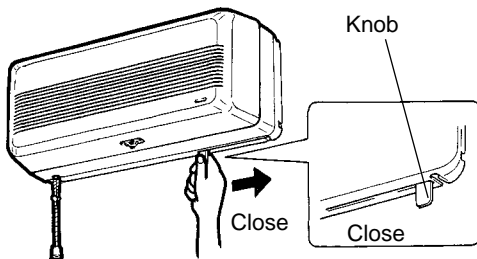


4

**Check there are no strange vibrations or noises.**

- Stop the unit after checking.

5



**Close the shutter.**

- Slide the knob to the shutter closed position.

6

Remove the power plug from the wall outlet.