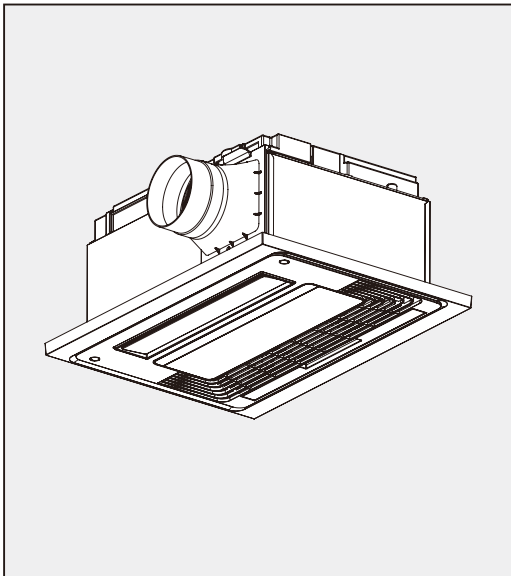


INSTALLATION AND OPERATING INSTRUCTIONS

Thermo Ventilator

Model No.: 40BLAH



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Thank you for purchasing this KDK product.

Please read these instructions carefully before attempting to install, operate or service the KDK product. Please carefully read "INSTALLATION INSTRUCTIONS" (P.2~4) of this instructions before installation. Failure to comply with instructions could result in personal injury or property damage. Please explain to users how to operate and maintain the product after installation, and this booklet should be presented to users. Please carefully read "USE AND MAINTENANCE INSTRUCTIONS" (P.23~24) of this instructions before operation.

Please retain this booklet for future reference.



SAFETY INSTRUCTIONS

Please observe strictly






- Disconnect power supply before maintenance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- This product 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 product by a person responsible for the safety. Children should be supervised to ensure that they do not play with the product.

The following explanations must always be observed in order to prevent harm to users or other people and prevent damage to property.

- The following displays are classified and explained to what extent harm or damage occurs when the display details are ignored and the unit in question is wrongly used.





	WARNING	This indication means: Must be treated seriously that this may result in death or serious injury.
	CAUTION	This indication means: Must be treated seriously that this may result in injury or physical damage.

- The types of details to be observed are classified and explained in the following illustrated displays. (below are the series of illustrated displays)

		This symbol indicates the item "PROHIBITED" to do.
		This symbol indicates the "COMPULSORY" item that must be followed without failure.
		This symbol indicates the item is "CAUTION".

INSTALLATION INSTRUCTIONS

WARNING

- The product must be grounded.
 -  Otherwise, it may cause electric shock when there is any trouble or electric leakage.
- Please install a suitable all-pole switch which the contact separation is more than 3 mm and its rated load capacity is not less than 250 V~15 A, used to turn on or off the host power supply. Please install the all-pole switch out of the bathroom where it is easily controlled.
 -  Otherwise, it may cause a short circuit, thus resulting a fire.
- Make sure the power cord is installed firmly.
 -  Otherwise, a fire may be caused.
- Please use a 60227 IEC 53 flexible stranded cord with a cross-sectional area of 3x1.5 mm² as the power cord; use a 60227 IEC 01 (BV) hard cord with a cross-sectional area of 1.5 mm² - 2.5 mm², (for interactive as the LED switch control wire).
 -  Otherwise, it may be on fire.

INSTALLATION INSTRUCTIONS

WARNING

- The product must be installed by professionals or trained personnel with equivalent expertise and skills according to the national wiring rules.
 - ! Otherwise, electric leakage, electric shock or a fire may be caused due to wrong wiring, twisted wiring or wire clamping.
- Do avoid the back-flow of gas into the room from the open flue of flammable gas or other open-fire appliances.
 - ! Otherwise, a fire may be caused.
- Do not operate the product other than the rated voltage (220 V ~ 50 Hz).
 - ⊘ Otherwise, it may cause damages to the product or a fire.
- The product can not be located just below a power outlet socket.
 - ⊘ Otherwise, a fire may be caused.
- Do not install the product near curtains and other flammable materials.
 - ⊘ Otherwise, combustibles may be inflamed.
- The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.*
 - ! Otherwise, an electric shock may be caused.
- The product is installed so that switches and other controls cannot be touched by a person in the bath or shower.
 - ! Otherwise, an electric shock may be caused.
- Disconnect power source before working on the product.
 - ! Otherwise, an electric shock may be caused.
- To avoid danger arising from wrong resetting of the thermal circuit breaker, the product can not be powered by using an external switch. For example, by a timer or connecting to a circuit that is connected/disconnected through timing of a universal part.
 - ⊘ Otherwise, a fire may be caused.
- Do not remove the cord cover when installing, using, or connecting power cord.
 - ⊘ Otherwise, it may cause an electric shock or a fire.
- Do not install the product as the method which is not approved in the instruction.
 - ⊘ Otherwise, the product may fall down and it may cause injury.

CAUTION

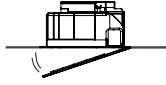
- The product must be mounted on the building and suspender which are strong enough. To ensure it can bear over 5 times of product weight. The building must be reinforced if its strength can not be ensure.
 - ! Otherwise, the product may fall down and it may cause injury.
- The special-purpose or dedicated parts, such as mounting fixtures, must be used if such parts are provided.
 - ! Otherwise, it may fall off to cause personal injury.

*Contact customer consultation service center.

INSTALLATION INSTRUCTIONS

CAUTION

- Components must be installed tightly.



Otherwise, it may fall off to cause personal injury.

- Do fix this product tightly.



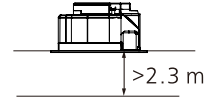
Otherwise, it may fall off to cause personal injury.

- Do not reconstruct this product.



Otherwise, it may cause damage to the product or injury.

- The lowest surface of this product should be installed above 2.3 m from the floor after installation.



Avoiding any accident

- Please ensure two persons perform the installation of the product.



Otherwise, it may fall off to cause personal injury.

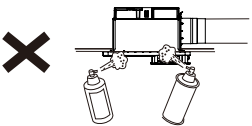
INSTALLATION REQUIREMENTS

Please observe the following requirement. Otherwise, it may cause the product aging and breakdown.

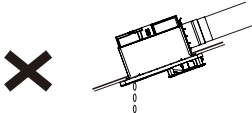
- Do not install the product in steam sauna bathroom.



- Do not install the product in the places where the sprayer is used.

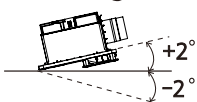


- Do not install onto slanting ceiling board.



Prevent the water condensed in the duct pipe flow back into the body.

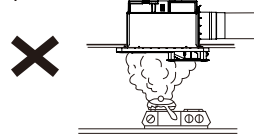
- Please make sure the product is installed horizontally and the deviation angle within the range as below figure.



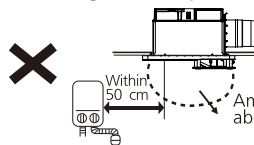
- Do not install the product in the places where the organic solvent is used.



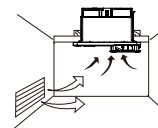
- Do not install the product where it is exposed to oil mist.



- Do not install the product in places with high temperature.



- Please set ventilation holes.



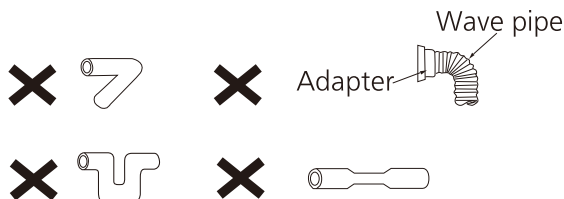
INSTALLATION REQUIREMENTS

■ When the ceiling board is unable to dismantle, please set a square inspection hole of at least 45 cm.



Convenience for installation and maintenance.

■ Do not form the duct as shown below:






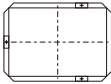
■ The product is not provided with power cord, all-pole switch and leakage protection switch. Please purchase them in market.

■ When you install plastic part, do not exert too much strength to fixing the screw, otherwise, the product would be damaged.

SUPPLIED ACCESSORIES

No.	Drawing	Name and Purpose	Qty
①		Machine screw (M4×8, used to install the louver assembly)	4
②		Self-tapping screw (ø4×30, used to install the main body and the adapter)	8
③		Self-tapping screw (ø4×16, used to install the controller holder) (placed on the backside of controller holder)	2
④		Self-tapping screw (ø4 x13, used to install the suspension bracket and adapter)	4
⑤		Product warranty registration	1
⑥		Installation and operating instructions	1
⑦		Adapter	1
⑧		Louver assembly	1

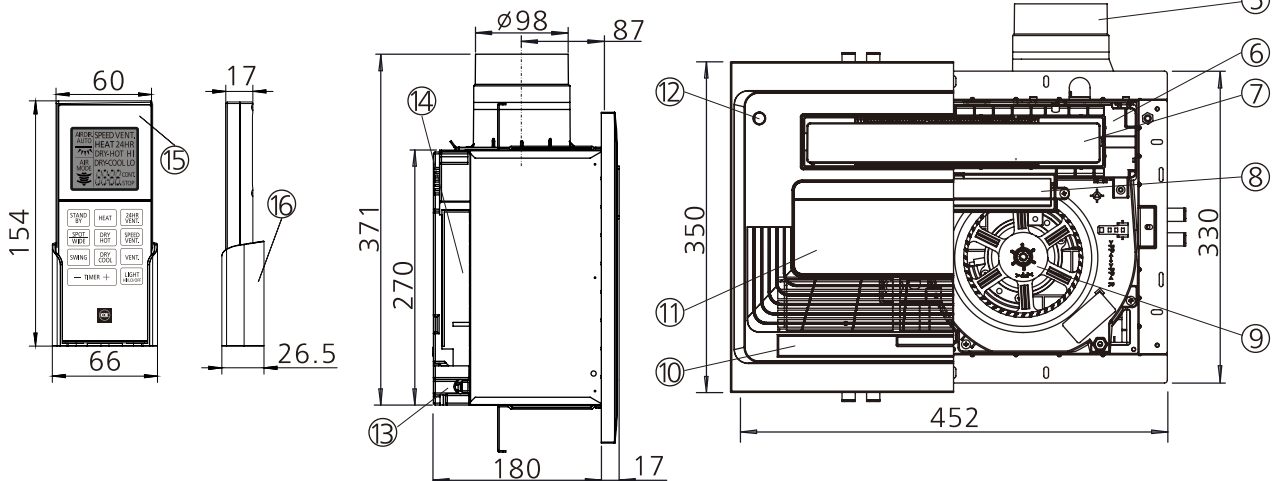
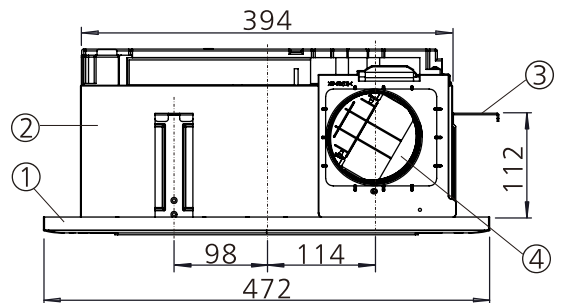
SUPPLIED ACCESSORIES

No.	Drawing	Name and Purpose	Qty
⑨		Remote control assembly	1
⑩		R03(AAA) Carbon battery	2
⑪		Suspension bracket	3
⑫		Installation cardboard	1

PART NAMES AND DIMENSIONS

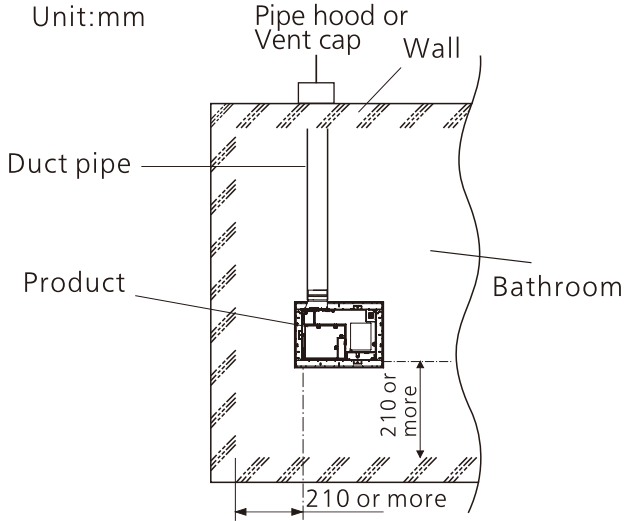
No.	Part name	No.	Part name
①	Louver assembly	⑨	Fan
②	Main body	⑩	Filter assembly
③	Suspension bracket	⑪	LED assembly
④	Shutter	⑫	Screws cover
⑤	Adapter	⑬	Cord cover
⑥	Heater assembly	⑭	PCB cover
⑦	Baffle plate	⑮	Remote control
⑧	Mode button panel on main body	⑯	Controller holder

Unit: mm



WORK BEFORE INSTALLATION

1. Confirmation before installation

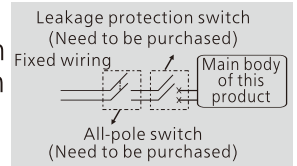


Notice

1. Keep it at least 200 mm away from curtains or other flammable materials. (When the ceiling mounting hole is adjacent to curtains or other flammable materials, make sure that the distance from the edges of the hole to the curtains or other flammable materials is at least 210 mm.)
2. The distance between ceiling board where the product is mounted and ceiling shall be over 200 mm.
3. Make sure that the distance from the edges of the mounting hole to the walls is at least 210 mm.
4. Please reserve a sufficient length of the power cord for easy installation, removal and maintenance.

2. Preparation before installation

Install an all-pole switch with the contact separation not less than 3 mm and specifications not lower than 250 V~15 A and a leakage protection switch (with the leakage current lower than 30 mA) between the fixed wiring and the main body of this product.



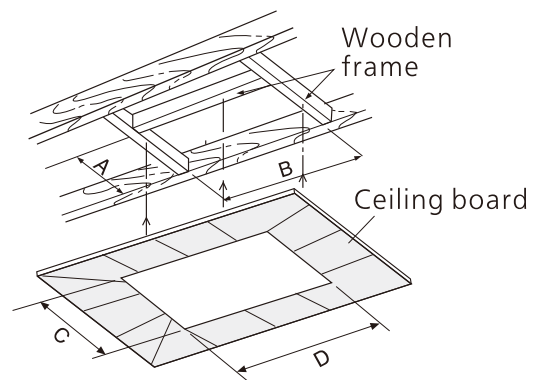
HOW TO INSTALL

1. Main body installation

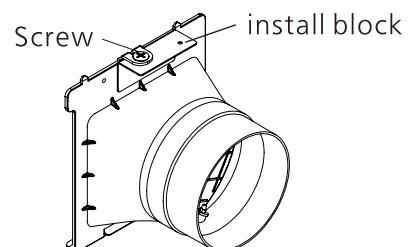
Method 1 Ordinary ceiling

- ① Make a wooden frame and install it onto the ceiling joist. Ensure that the total thickness of the wooden frame and ceiling should be 25 mm~30 mm. Meanwhile, open a mounting hole in the ceiling board with dimensions as shown in the table below: (unit: mm)

A	B	C	D
280	400	280	400

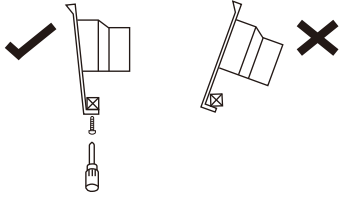


- ② Loosen the screws on the adapter and remove the install block.



HOW TO INSTALL

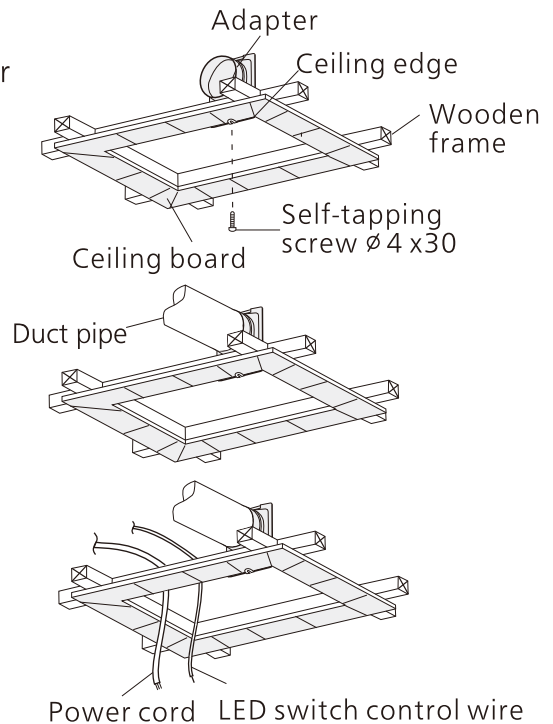
- ③ Use the supplied $\phi 4 \times 30$ self-tapping screw to fix the adapter to the ceiling board. (The adapter must fix to the ceiling edge.)



- ④ Connecting the duct pipe → Refer to Section 3. Duct Pipe Connection on P. 14.

- ⑤ Thread the power cord and LED switch control wire through the ceiling.

- ⑥ Connecting the power cord and LED switch control wire.



⚠ WARNING



When installing, using and connecting the power cord and LED switch control wire, DO NOT remove the circuit board cover. Otherwise, an electric shock or a fire may be caused.



Please use a 60227 IEC 53 flexible stranded cord with a cross-sectional area of $3 \times 1.5 \text{ mm}^2$, as the power cord; use a 60227 IEC 01 (BV) hard cord with a cross-sectional area of 1.5 mm^2 - 2.5 mm^2 (for interactive routing), as the LED switch control wire. Otherwise, a fire may be caused.



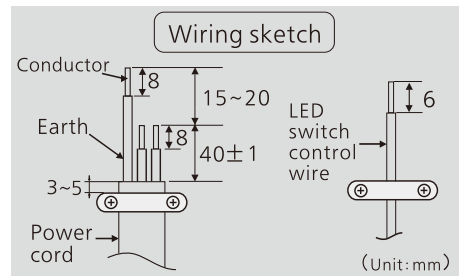
For the stripping length, please strip the cord according to the wiring sketch (Figure 1). If the stripping length is too long, a short circuit or fire may be caused.



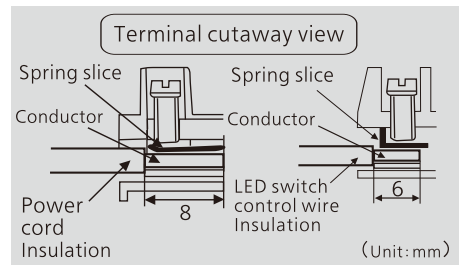
Do not damage the sheath of the power cord, otherwise an electric shock or short circuit may be caused.



Strand the core wire together after stripping, then insert them into deep position of the terminal block, ensuring that the part is under the spring slice, and no copper core cord is exposed outside. Make sure that the copper core cords are fixed by screws reliably (the recommended screw fixing torque is $0.49 \text{ N}\cdot\text{m}$) (See Figure 2). Otherwise an electric shock may be caused.



(Figure 1)



(Figure 2)

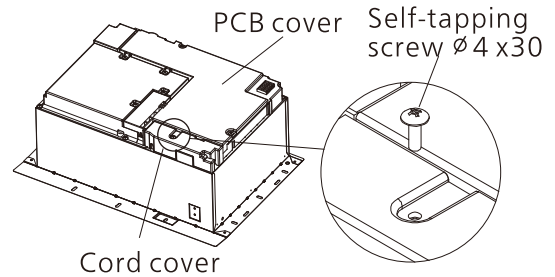
HOW TO INSTALL

Notice

Be sure to connect the neutral wire, live wire and LED switch control wire according to the Wiring Diagram (on Page 26). If the wiring is incorrect, the LED cannot be controlled.

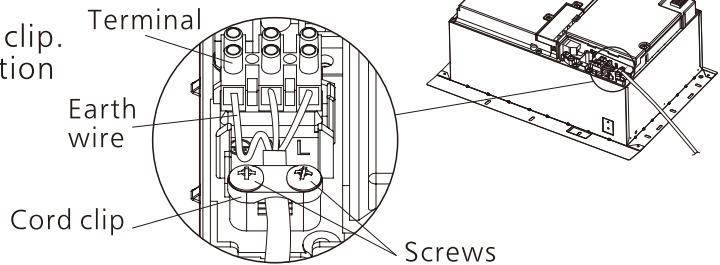
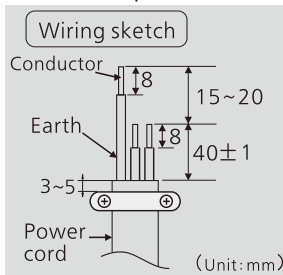
⑥-1 Open the cord cover.

- (1) Remove the screw on the cord cover.
- (2) Remove the cord cover.



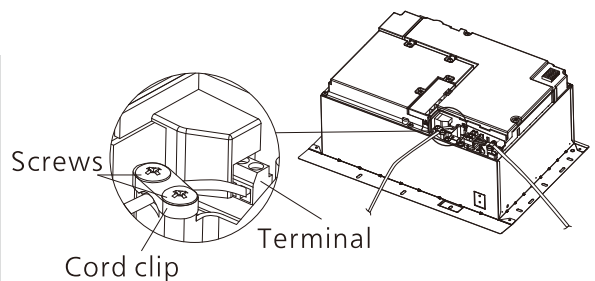
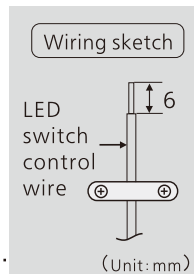
⑥-2 Connecting the power cord.

- (1) Loosen the screws of the cord clip.
- (2) Loosen the screws of the pillar terminal, insert the power cord (not supplied) connected to the fixed wiring which in the house into the pillar terminal, tighten the screw.
- (3) Fix the power cord with the cord clip. (The cord clip must pin the insulation sheath of power cord.)

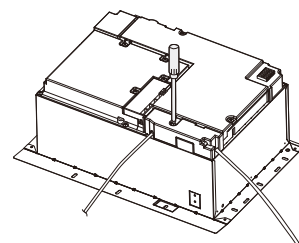


⑥-3 Connecting the LED switch control wire.

- (1) Loosen the screws of the cord clip.
- (2) Loosen the screws of the pillar terminal, insert the LED switch control wire (not supplied) connected to the fixed wiring which in the house into the pillar terminal, tighten the screw.
- (3) Fix the LED switch control wire with the cord clip. (The cord clip must pin the insulation sheath of LED switch control wire.)

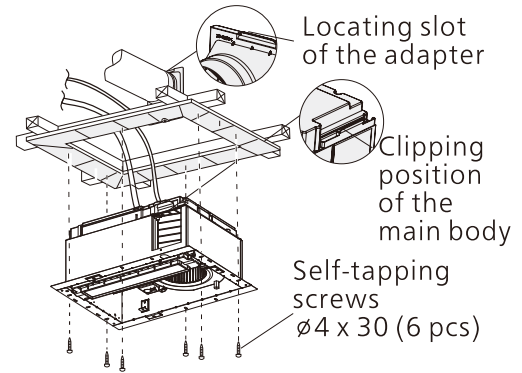


⑥-4 Fix the cord cover by the screws which removed by step ⑥-1.

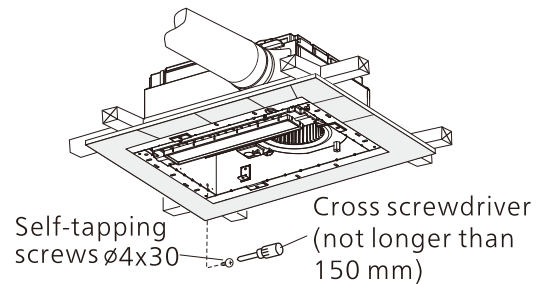


HOW TO INSTALL

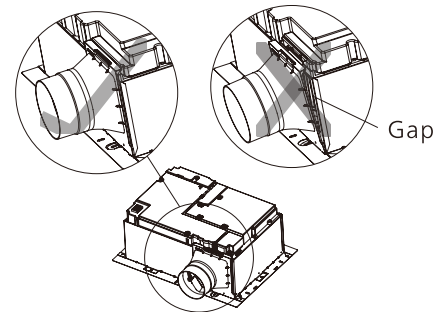
- ⑦ Push the main body upward into the ceiling board and wooden frame by closely leaning against the adapter, clip the clipping position of the main body into the locating slot of the adapter (otherwise, may have air leakage), and fix the main body with six $\phi 4 \times 30$ self-tapping screws.



- ⑧ Use one $\phi 4 \times 30$ self-tapping screw to fix the main body. Be sure to fix this screw because it can prevent the main body from falling off the ceiling board.



- ⑨ After completion of the installation work, be sure the condition between the main body and the adapter is proper. It can be checked from the inspection hole.



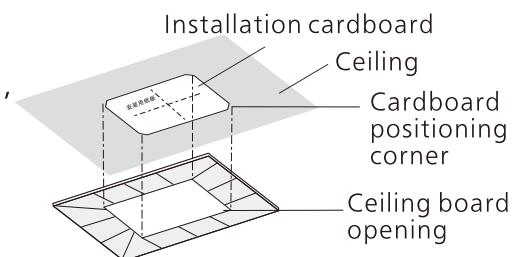
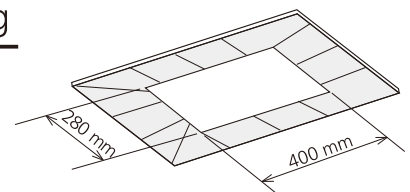
Notice

If the body and the adapter are not tightly attached, it will cause air leakage.

1. Main body installation

Method 2 Ordinary ceiling board mounting

- ① Open a 280 mm x 400 mm mounting hole in the ceiling board.
- ② Position and install the suspenders (M8 or M10 suspenders need to be purchased).
- (1) Taking out the installation cardboard from the accessory package, align the four corners of the opening with those of the installation cardboard, and then paste the installation cardboard onto the ceiling.
- (2) Fix the suspenders on the ceiling according to the location holes as shown in the installation cardboard.

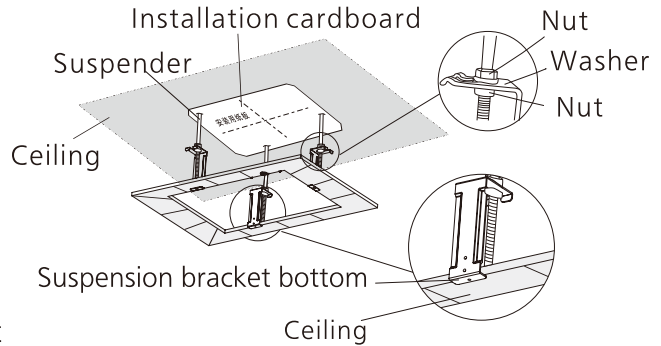


Notice

After fixing the suspenders, please rip off the installation cardboard.

HOW TO INSTALL

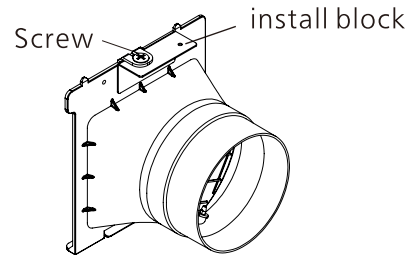
- ③ Install the suspension brackets.
 - (1) Fix the suspension brackets to the suspenders.
 - (2) Adjust the nut on the suspenders to make the suspension bracket bottom cling to the ceiling board.



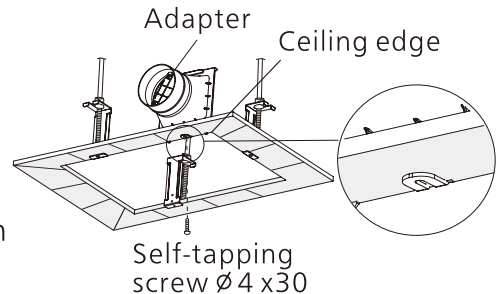
Notice

Make sure that the suspension bracket bottom clings to the ceiling board; otherwise the main body cannot be installed successfully.

- ④ Loosen the screws on the adapter and remove the install block.



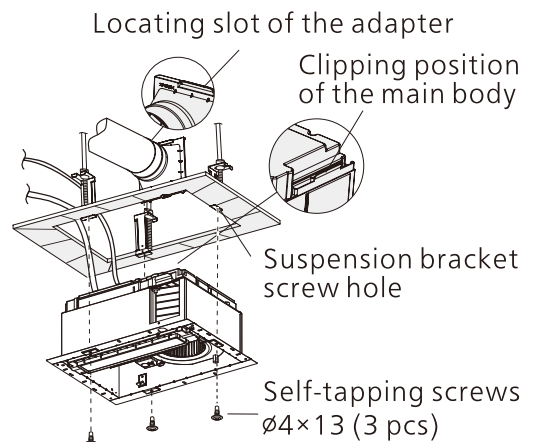
- ⑤ Use the $\phi 4 \times 30$ self-tapping screw to fix the adapter to the ceiling board.



- ⑥ Connecting the duct pipe → Refer to Section 3.Duct Pipe Connection on P.14.

- ⑦ Connecting power cord and LED switch control wire. → Refer to Section ⑤⑥ on P.8~9.

- ⑧ Push the main body upward into the ceiling board and wooden frame by closely leaning against the adapter, clip the clipping position of the main body into the locating slot of the adapter (otherwise, it may have air leakage), and fix the main body with three $\phi 4 \times 13$ self-tapping screws.



⚠ CAUTION

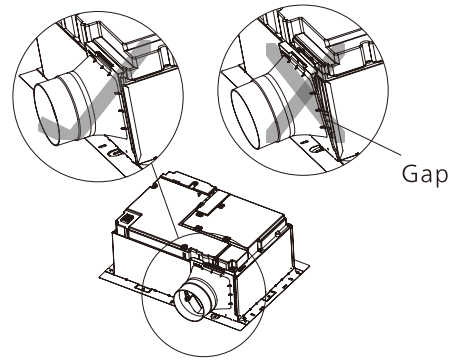
The screws for fixing the main body to the ceiling board should go through the hole of the suspension brackets, otherwise, product may fall down.

HOW TO INSTALL

- ⑨ After completion of the installation work, be sure the condition between the main body and the adapter is proper. It can be checked from the inspection hole.

Notice

If the body and the adapter are not tightly attached, it will cause air leakage.



1. Main body installation

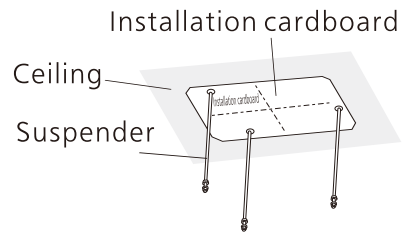
Method 3 Ceiling board has not been installed

- ① Positioning and installing the suspenders.

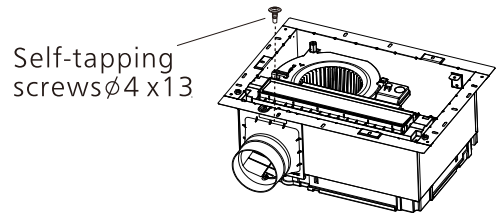
- (1) Paste the installation cardboard provided on the position where the main body is intended to be installed.
- (2) Fix the suspenders on the ceiling according to the location holes as shown in the installation cardboard.

Notice

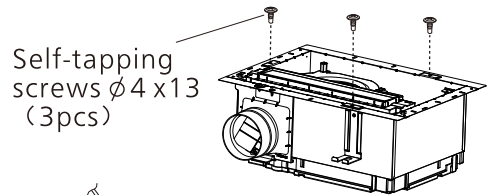
After fix the suspenders, please rip off the installation cardboard.



- ② Fix the adapter to the main body with one $\varnothing 4 \times 13$ self-tapping screw.



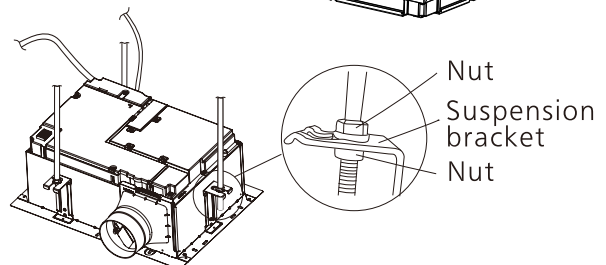
- ③ Fix the suspension bracket to the main body with three $\varnothing 4 \times 13$ self-tapping screws.



- ④ Connecting power cord and LED switch control wire.

➡ Refer to Section ⑤⑥ on P.8~9.

- ⑤ Fix the main body to the suspenders.

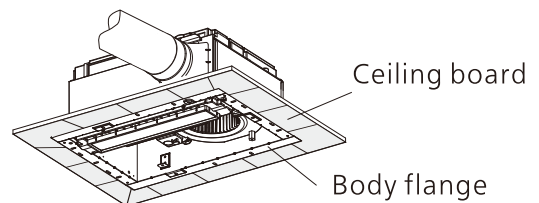


- ⑥ Connecting the duct pipe ➡ Refer to Section 3. Duct Pipe Connection on P.14.

- ⑦ Install the ceiling board.

Notice

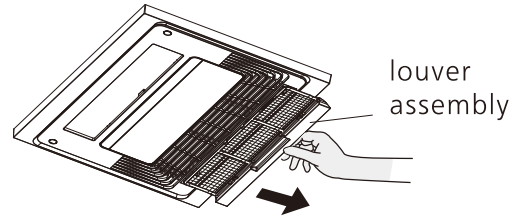
Please install the ceiling board on the upper side of the main body flange. Otherwise, the louver assembly may not be installed correctly.



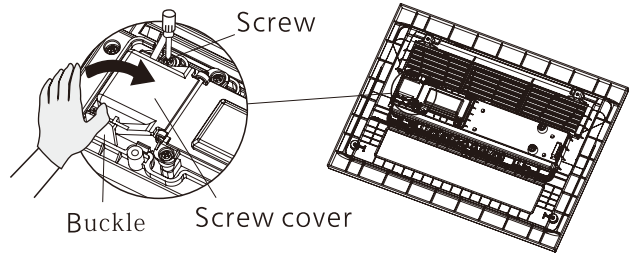
HOW TO INSTALL

2. Installing louver assembly

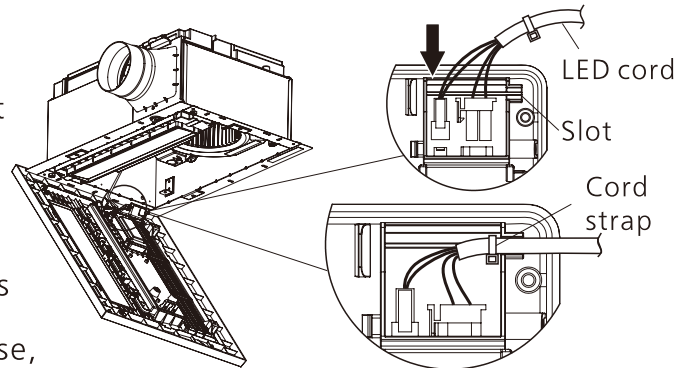
- ① Remove the filter assembly from the louver assembly.



- ② Remove the screws, pull apart the buckle, and flip open the cord cover.



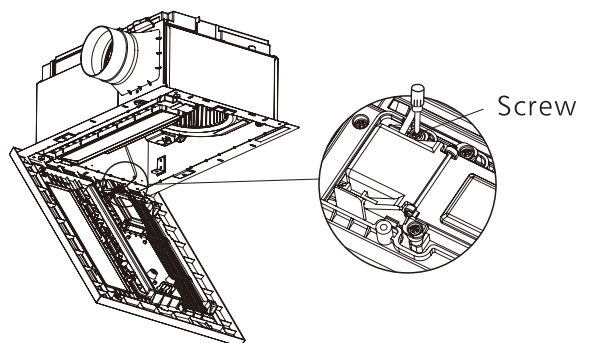
- ③ Insert the two plugs of the LED cord into the terminals and then lead the cord out of the slot, making sure that the cord strap is inside.



Notice

Please pay attention to the directions of the plugs and make sure that the plugs are properly inserted. Otherwise, the louver assembly may fall off.

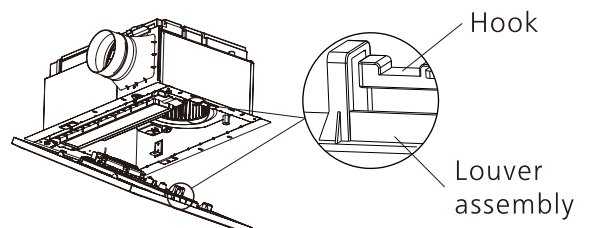
- ④ Close the cord cover and fix it with the removed screws.



⚠ CAUTION

When closing the cord cover, be careful not to get the LED cord caught by the cord cover; otherwise the LED cord may be damaged.

- ⑤ Hang the louver assembly into the hook on the main body.

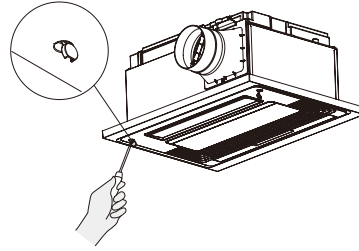


HOW TO INSTALL

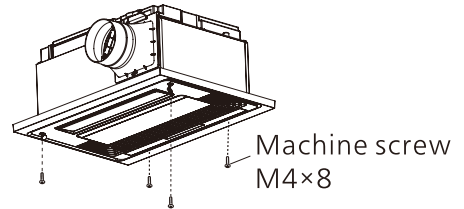
- ⑥ Insert the screw cover with a slotted screwdriver and pry the screw cover outward.

Notice

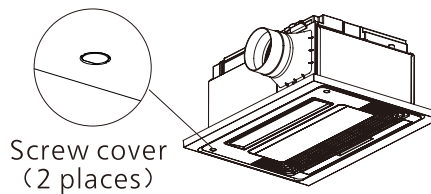
Please be careful not to scratch the louver assembly.



- ⑦ Fix the louver assembly to the main body with four M4×8 machine screws.



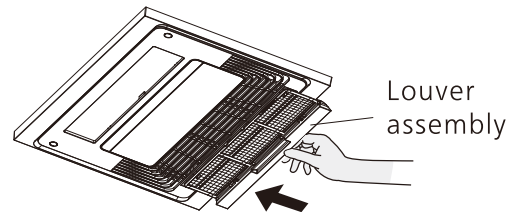
- ⑧ Covering the screw cover.



- ⑨ Install the filter assembly back into the louver assembly.

Notice

Be sure to install the filter. Otherwise, dust will enter the main body.



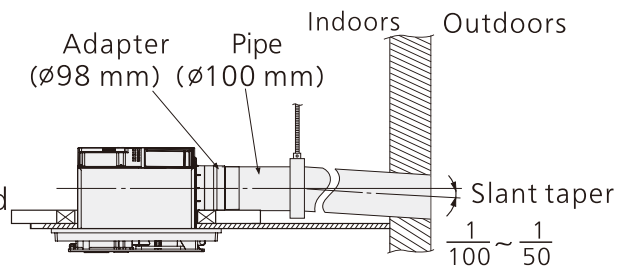
3. Connecting duct pipe

- ① Install the duct pipe onto the adapter, and then bind them tightly with adhesive tape. Suspend the duct pipe from the ceiling to prevent external forces from being applied to the main body. The duct pipe leading to the outside must be kept inclined to prevent rainwater or condensed water from flowing backwards. (The duct pipe should be as short as possible. If a long pipe is needed, do not use a straight pipe that is longer than 30 m.)

- ② Install the pipe cap or pipe cover on the external wall. (Please purchase pipe hood or vent cap according to pipe size)

Notice

The minimum diameter of the hole: $\phi 110$ mm.

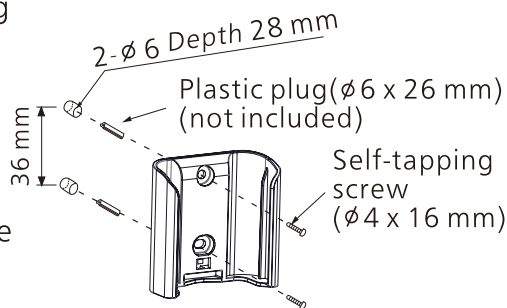
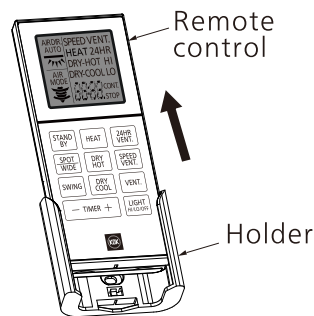


HOW TO INSTALL

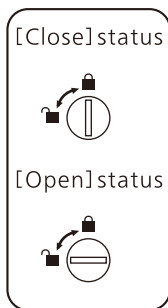
4. Installing the remote control

① Take out the remote control from the holder.

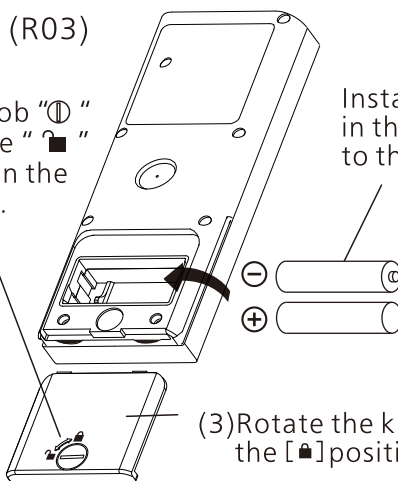
② Open two $\phi 6$ mounting holes in the bathroom wall, as shown in the right figure. Check that the main body can receive the signal from the designated installation location before installing the remote control. If the main body cannot properly receive the signal from the location, select another proper location, or take out the remote control from the holder and operate the remote control by pointing it to the main body. The installation location should be out of the spraying coverage of the shower. Put the remote control back after the holder is installed.



③ Install two carbon batteries (R03) in the remote control.



(1) Rotate the knob "⓪" leftward to the "■" position, open the battery cover.



Install two carbon batteries (R03) in the remote control. (Pay attention to the directions of "⊕" and "⊖")

(3) Rotate the knob "⊖" rightward to the [■] position.

⚠ WARNING



■ Please observe the following when using the batteries.

- Do not inversely install the positive pole and negative pole of batteries.
- Do not use an old battery together with a new battery or use different types of batteries in a mixed way.
- Do not short circuit. (Otherwise, a leakage or damage may be caused.)

Notice

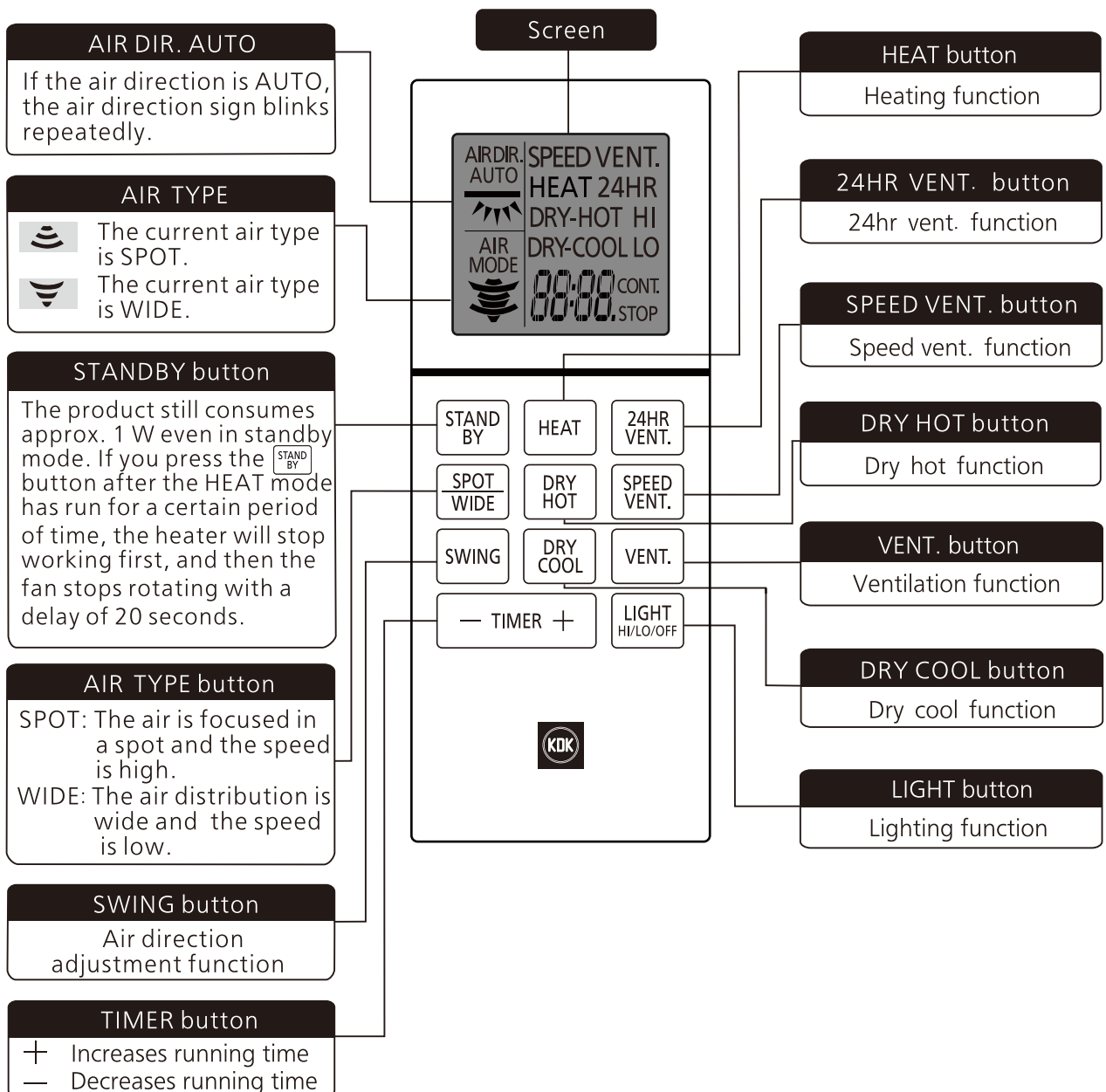
1. If you will not use the remote control for a period of time, take out the batteries.
2. Do not replace the batteries when the remote control body is wet.
3. Do not exert too hard when you rotate the "⓪" knob on the remote control back, otherwise the knob will be damaged.
4. Please be careful when handling the remote control in case it falls off and gets damaged.

■ Please comply with local laws and regulations when dispose the battery.

TEST RUN

- After installing, connect the power, please check the following item using the remote control:
 - Does the fan revolve normally?
 - Does it have abnormal vibration or noise?
 - Does it blow out hot air?
 - Is each button on remote control perform its right function?
 - Check whether the LED lights up when the lighting function is enabled.

FUNCTION OF REMOTE CONTROL

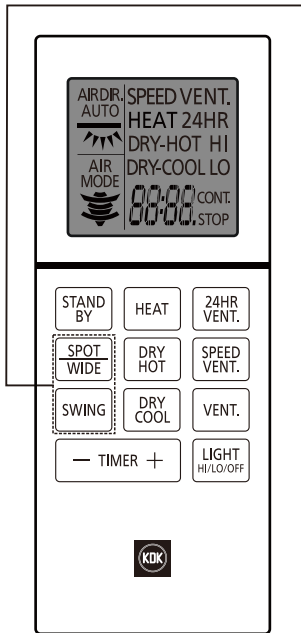


HOW TO USE AIR DIRECTION AND AIR TYPE FUNCTION

SWING

SPOT
WIDE

For adjusting air direction and air type



Air Direction

During running, you can press the **SWING** button to adjust the air direction.

- The air direction is adjustable in two modes: AUTO and MANUAL.

* **MANUAL** : To fix the baffle plate angle, press the **SWING** button then the baffle plate turns to the required position. The baffle plate will stop.

* **AUTO**: The range of air direction is shown in the picture below.

- The default setting of HEAT is [MANUAL]; The default settings of DRY HOT and DRY COOL are [AUTO].

24HR VENT.

- SPEED VENT.

VENT.

} Air direction cannot be set.

- Heating and DRY HOT/COOL mode will automatically memorize the air direction position set this time.

* To cancel the automatic memory mode, press and hold the **STAND BY** button for 3s.

Air Type

During running, you can press the **SPOT WIDE** button to adjust the air type.

- The air type is adjustable in two modes: SPOT and WIDE.

- The default setting of HI HEAT is [SPOT]; The default settings of LO HEAT is [WIDE]; The default settings of DRY HOT and DRY COOL are [SPOT].

24HR VENT.

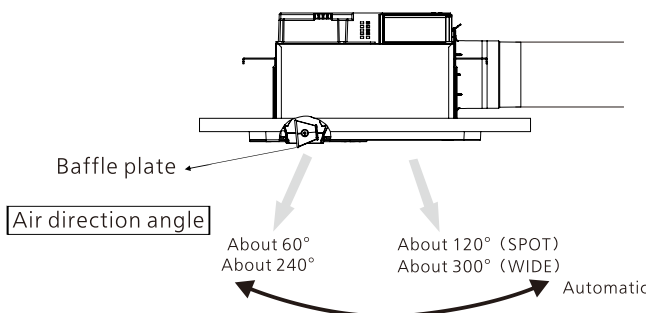
- SPEED VENT.

VENT.

} Air type cannot be set.

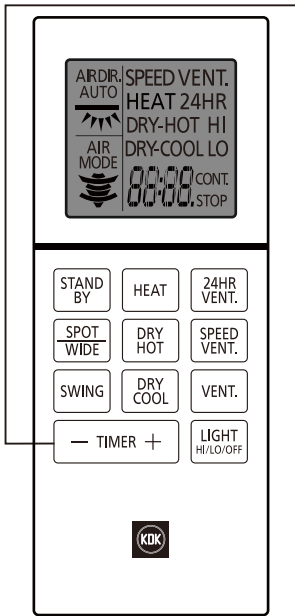
- Heating and DRY HOT/COOL mode will automatically memorize the air type position set this time.

* To cancel the automatic memory mode, press and hold the **STAND BY** button for 3s.



HOW TO USE TIMER FUNCTION

— TIMER + For adjusting running time



Timer

During running, you can press the — TIMER + button to change the running time.

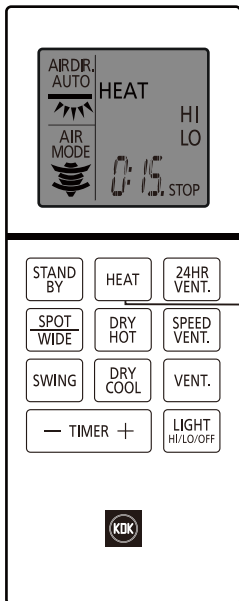
- ① Each time you press the + button, the time increases accordingly. Each time you press the – button, the time decreases accordingly. If you press and hold the button, the running time keeps changing.
- ② After the running time is set once, the system will automatically memorize the last running time of each mode. To cancel the automatic memory content, press and hold the **STAND BY** button for 3 seconds.
- ③ Once the batteries are replaced, all modes are restored to the default settings.

HEAT mode (HI/LO)		
0 : 05	~	3 : 00
Default settings		0 : 15
VENT. mode (HI/LO)		
0 : 05	~	12 : 00
Default settings		CONT.
DRY HOT mode (HI/LO)		
0 : 05	~	6 : 00
Default settings		0 : 15
DRY COOL mode (HI/LO)		
0 : 05	~	12 : 00
Default settings		CONT.
SPEED VENT. mode		
0 : 05	~	12 : 00
Default settings		CONT.

* In the above running mode, each time you press the — TIMER + button, the time changes at the step of 5 minutes; one hour later, the time will change at the step of 30 minutes.

HOW TO USE HEATING FUNCTION

HEAT Use when you feel cold in a bath



Heat

Before taking a bath, start the heating function to warm the bathroom beforehand.

(The operating time may vary with the season and temperature.)

- ① Press the **HEAT** button to start the heating mode at the HI. It will switch to the LO. mode if you press this button again.

SWING

Air direction: The default setting is [MANUAL].

The air direction can also be reset during operation.

+

SPOT WIDE

Air type: The default setting of HI is [SPOT], and the

initial setting of LO is [WIDE]. The air type can also be reset during operation.

+

- TIMER +

The default setting is 15 minutes. The operating time can also be reset during operation.

- ② To stop midway in running, press the **STAND BY** button.

* If you press the **STAND BY** button after the HEAT mode has run for 30 seconds or longer, the heater will stop working first, and the fan will stop running with a delay of 20 seconds to cool down the heater.

(At this time, the baffle plate is fixed at the angle of 45 degrees and it will automatically close after the fan stops rotating.)

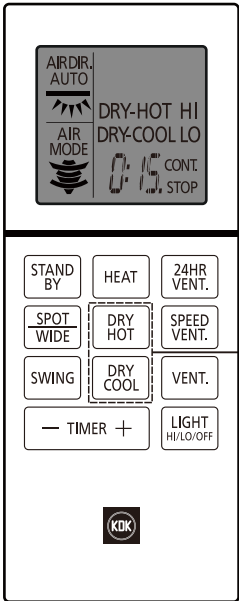
Notice

1. Hot startup function: After the product starts up in the HEAT mode when the temperature in the bathroom is lower than 20 °C, the product enters the Hot Startup state to avoid blowing cold air, and the baffle plate is fixed at the angle of 60 degrees. Once the temperature in the bathroom rises to 20 °C or above, or after 60 seconds, the baffle plate operates in the preset mode.
2. Heater may stop heating when temperature in bathroom is up to required degree, and may restart heating after 3 minutes or the temperature in bathroom cools down.

HOW TO USE DRYING FUNCTION

DRY HOT **DRY COOL**

Use when you need to dry the bathroom or clothes



Dry Bathroom

The DRY HOT/COOL mode can be used to dry the bathroom. The DRY COOL mode can also be used in hot weather to make people feel cool.

- Press the **DRY HOT** or **DRY COOL** button to start the DRY HOT/COOL mode at the HI. It will switch to the LO. mode if you press this button again.

SWING

Air direction: The default setting is [AUTO].

The air direction can also be reset during operation.

+

SPOT WIDE

Air type: The default setting of HI is [SPOT], and the initial setting of LO is [WIDE]. The air type can also be reset during operation.

+

- TIMER +

The default setting is 15 minutes. The operating time can also be reset during operation.

- To stop midway in running, press the **STAND BY** button.

* If you press the **STAND BY** button after the HEAT mode has run for 30 seconds or longer, the heater will stop working first, and the fan will stop running with a delay of 20 seconds to cool down the heater.

(At this time, the baffle plate is fixed at the angle of 45 degrees and it will automatically close after the fan stops rotating.)

Dry Clothes

SWING

The default setting [AUTO] is recommended.

+

SPOT WIDE

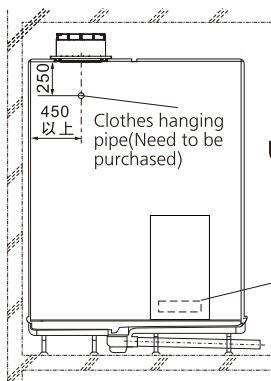
The default setting [SPOT] is recommended.

+

- TIMER +

The default setting is 15 minutes. The operating time can also be reset during operation.

- ✱ When the air direction of the DRY mode is AUTO, the baffle plate runs at a slow speed.
- ✱ To use the drying function to dry clothes, please install the product as shown below:



Unit: mm

ventilation shutter at the lower part of the door (with a valid opening area of 100 cm² or above).

⚠ WARNING



■ This appliance is intended only for drying textiles washed in water. Otherwise, it may cause damage.

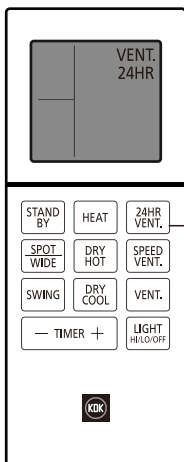
⚠ CAUTION



■ Do not leave clothes too close to the air outlet. Otherwise, a fire may be caused.

- ✱ Heater may stop heating when temperature in bathroom is up to required degree, and may restart heating after 3 minutes or the temperature in bathroom cools down.

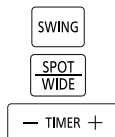
HOW TO USE 24HR VENT. FUNCTION



24HR VENT. Use to maintain high indoor air quality

To maintain high indoor air quality, you can use the **24HR VENT.** mode for uninterrupted ventilation.

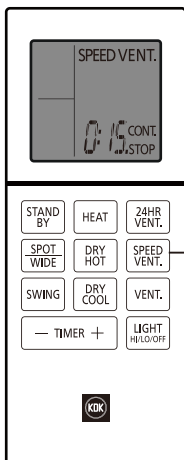
24HR VENT.



Cannot be used in the 24 HR VENT. mode.

In the **24HR VENT.** mode, if you press another mode button (except the lighting button), the product exits from the **24HR VENT.** mode and switches to the currently selected mode.

HOW TO USE SPEED VENT. FUNCTION



SPEED VENT. Use when you want quick ventilation

When there is a lot of steam after bathing, you can use the **SPEED VENT.** mode to quickly remove moisture from the bathroom.

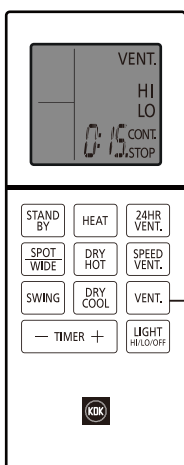
SPEED VENT.

- TIMER + The default setting is 15 minutes. The operating time can also be reset during operation.

SWING **SPOT WIDE** Cannot be used in the **SPEED VENT.** mode.

To stop midway in running, press the **STAND BY** button.

HOW TO USE VENTILATION FUNCTION



VENT. Use to ventilate the bathroom

After bathing, you can use the **VENT.** mode to remove moisture from the bathroom.

If there is a lot of steam, the **SPEED VENT.** mode is recommended.

① Press the **VENT.** button to start the ventilation mode at the HI. It will switch to the LO. mode if you press this button again.

VENT.

VENT. HI, LO

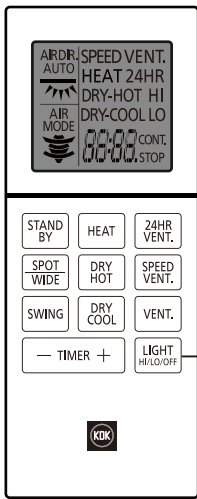
+

- TIMER + The default setting is 15 minutes. The operating time can also be reset during operation.

SWING **SPOT WIDE** Cannot be used in the **SPEED VENT.** mode.

② To stop midway in running, press the **STAND BY** button.

HOW TO USE LIGHTING FUNCTION



LIGHT
HI/LO/OFF

Used when you need to light the bathroom

Light

The lighting function can be used to light the bathroom.

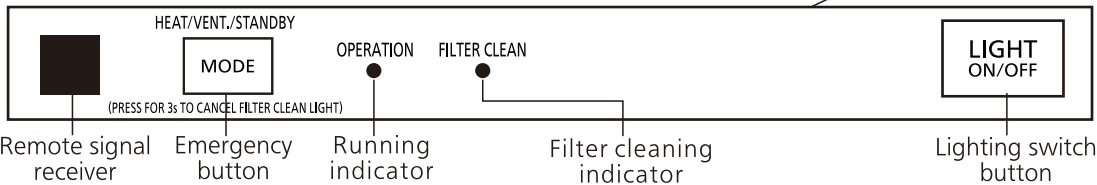
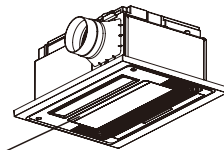
Press the **LIGHT HI/LO/OFF** button to turn on the lighting at the HI level; press the button again to switch to the LO level; press the button again to turn off the lighting.

* When lighting is controlled, there is no lighting-related prompt on the screen of the remote control.

1. With the LED switch on the wall, you can only switch the lighting between "HI" and "OFF".
2. After turning on the lighting through the switch on the wall, if the lighting is turned off through the remote control, the switch on the wall is still in the "ON" state. If you need to turn on the lighting again through the switch on the wall, you need to first turn off the switch on the wall and then turn on the switch.

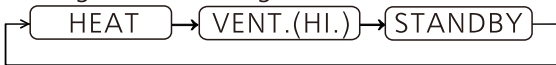
MODE BUTTON PANEL ON MAIN BODY

When the remote control is lost or cannot be properly used, you can use the emergency button on the front panel of the main body to temporarily switch among the three modes: HEAT, VENT, and STANDBY. (The default setting is 15 minutes. The operating time can also be reset during operation.)



Emergency button

The emergency button can be used to switch among the following functions:



Filter cleaning indicator

When the accumulated running duration reaches 2,200 hours (i.e. continuous running for about three months), the filter cleaning indicator will blink, reminding you to clean the filter. After cleaning the filter, press and hold the emergency button for 3 seconds to clear the cleaning indication.

Running indicator

Run Status	Running indicator
Stop	Off
Normal running	On(Red)
During the hot startup	Blinking slow(Red)
Abnormal running	Blinking fast(Red)

Lighting switch button

The lighting switch button can be used to switch the lighting between "HI" and "OFF".

⚠ WARNING

While bathing in the bathroom, do not operate the emergency button. During operation, please pay attention to safety and avoid slipping.

❖ Blinking slow: On for 1 second and off for 1 second
Blinking fast: On for 0.5 seconds and off for 0.5 seconds.

❖ The running indicator blinks quickly, indicating that an error occurred to the product. In this case, power off the product and contact customer consultation service center or your distributor.

USE AND MAINTENANCE INSTRUCTIONS

WARNING

- Before touching the main body of this product or cleaning this product, make sure that the "all-pole switch" connected to this product is disconnected.



Otherwise, may lead to electric shock.

- Once flammable gas leaks, do not start any function of this product.



Doing this may generate spark and thus lead to explosion.

- Do not directly spray this product with water and other liquids.



Doing this may lead to short circuit or electric shock.

- If the product will not be in use for a long time, please use the "all-pole power switch" to disconnect the product.



Otherwise, may lead to electric shock.

- Do not store the batteries within the reach of children or infants.



Swallowing may cause chemical burns, soft tissue perforation, or even death. Severe burns may be caused within 2 hours upon ingestion. If the battery is swallowed, seek medical help immediately.

- Do not use battery of broken casing.



If the insulation or exhaust valve is damaged, the battery may become hot, crack.

- To avoid low-temperature scalding, do not directly blow the same part of the body with hot wind for a long time (2 hours or above).



Doing this may lead to low-temperature scald.

- If you will not use this product any more, remove the product.



This product may cause injuries once it falls off.

- Do not disassemble this product for repair or reconstruction.



Doing this may lead to fire and electric shock.

- Do not clean the heating part or let water flow into the electric motor or electrical parts.



Otherwise, may lead to electric shock.

- Do not throw the batteries into fire, or heat, disassemble or modify batteries. Do not expose the batteries to excessively high temperatures. Be aware of the risk of the battery being short-circuited by metal objects.



If the insulation or exhaust valve is damaged, the battery may leak, heat up or rupture.

- If the alkaline liquid of battery enter eyes, clean the eyes with lots of water and seek medical help immediately, but not rub eyes with hands.



Otherwise, it may cause blindness, etc.

USE AND MAINTENANCE INSTRUCTIONS

⚠ WARNING

■ Please observe the following when using the batteries.

- Do not inversely install the positive pole and negative pole of batteries.
- Do not short circuit.
- Do not charge non-rechargeable batteries.
- Do not use any repaired or damaged batteries.

⚠ Otherwise, leakage or damage may be caused.

■ Remove the batteries from the remote control when they are discharged or not used for an extended period of time.

⊘ Otherwise, the battery may leak, heat up or rupture.

⚠ CAUTION

■ When you clean this product, please wear gloves.

⚠ Otherwise, may lead to injury.

Notice

1. The applicable ambient temperature of this product is in the range of $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$, using it out of this range may cause a fault.
2. The bathroom size may affect the heating performance of this product.
3. Do not swing the baffle plate with your hands when the product is powered on. Otherwise, the baffle plate may operate in incorrect angles.

MAINTENANCE

Cleaning Precautions

Cleaning the louver assembly:

1. To prevent color change and accelerated aging of the panel, do not use any type of diluent, alkaline cleaner, benzene, alcohol, antiseptic, or steel ball as shown.
2. To use a chemical cloth, clean this product by following the instructions.



Cleaning the filter assembly:

1. Do not use any type of diluent, alkaline cleaner, benzene, alcohol, antiseptic, or steel ball as shown.
2. When the filter cleaning indicator at the receiving part of the main body blinks, it is time to clean the filter. You need to clean the filter. (When the accumulated running duration reaches 2,200 hours (continuous running about three months), the filter cleaning indicator will blink.)

MAINTENANCE

Cleaning the louver assembly and filter assembly:

- ① Shut off the all-pole switch.
- ② Wipe the front panel with a soft cloth.
- ③ Remove the filter assembly from the louver assembly.
- ④ Use a vacuum cleaner to remove dust and dirt from the filter.

- ⑤ Reinstall the filter assembly.

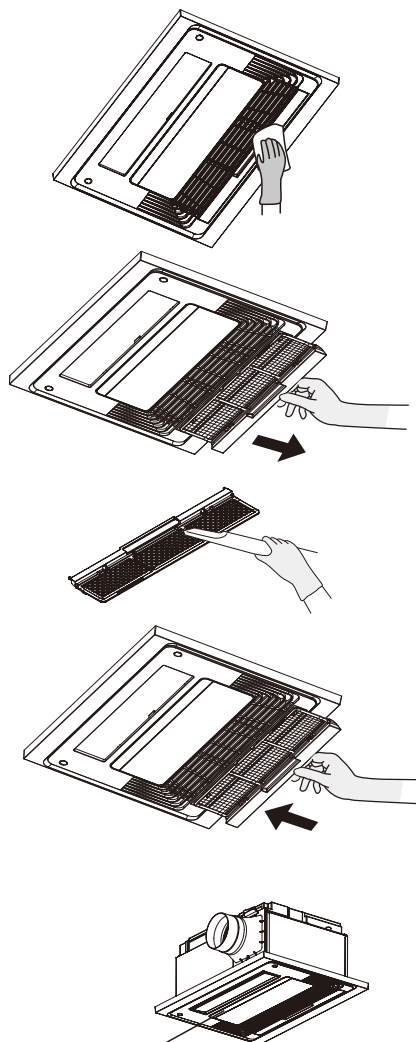
Notice

Be sure to install the filter, otherwise dust will enter the body.

- ⑥ Turn on the all-pole switch.
- ⑦ Clear the filter cleaning indication at the mode button panel on main body.

Press and hold the MODE button at the mode button panel on main body for 3 seconds. After releasing the button, a "beep" means the filter cleaning indication is cleared. (The accumulated time of the filter cleaning indication will be reset, and the time will be accumulated again.)

- ※ Each time cleaning the filter, you are advised to reset the accumulated time of the filter cleaning indication. (Press and hold the MODE button for 3 seconds. After releasing the button, a "beep" sound means the resetting is done.)



ANTIBACTERIAL FUNCTION

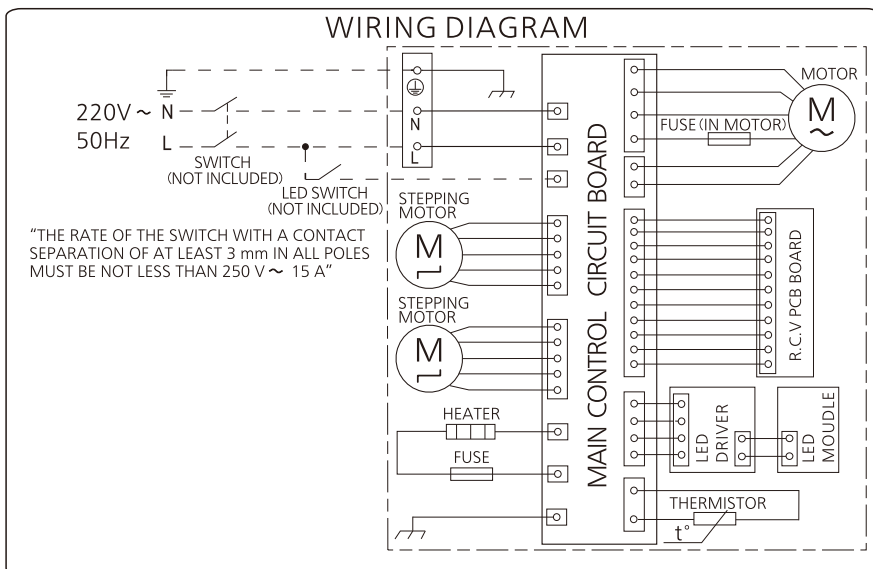
- The filter mesh in the filter mesh assembly provides the antibacterial function, with the antibacterial ratio against staphylococcus aureus and the antibacterial ratio against colibacillus up to 99.9 % respectively (test basis: JIS Z2801).
- As the use time increases, the antibacterial performance of the filter mesh will decrease accordingly.

TROUBLESHOOTING

Check the product according to the table below if a fault occurs. If an error still occurs, check that the all-pole switch connected to this product is disconnected, and contact customer consultation service center or your distributor.

	Symptom	Cause	Troubleshooting
Air	No hot wind blow out	The heater may fail	Contact customer consultation service center or your distributor
	Air volume reduced	The filter may be blocked	Clean the filter (Refer to P.24~25)
Remote control	Remote control does not work	The batteries may be exhausted	Replace the batteries (Refer to P.15)
Mode button panel on main body	The filter cleaning indicator blinks	When the accumulated running duration reaches 2,200 hours (i.e. continuous running for about three months), the filter cleaning indicator will blink	After cleaning the filter, press and hold the emergency button for 3 seconds to clear the cleaning indication. (Refer to P.24~25)
	The running indicator blinks in red slowly	The hot startup mode is running	This is normal and no action is required
	The running indicator blinks in red quickly and a buzzing sound is accompanied sometimes	The temperature sensor may malfunction	Contact customer consultation service center or your distributor.
LED	The LED does not light up	The light may malfunction	Contact customer consultation service center or your distributor.
	The intensity level of the light cannot be switched		

WIRING DIAGRAM



SPECIFICATIONS

Model No.	Rated voltage [V]	Rated frequency [Hz]	Power consumption [W]	Rated current [A]	Air volume [CMH]				Weight [kg]	Power Consumption [W]		
					Vent			24HR Vent		Light	Heat	
					Speed	Hi	Low					
40BLAH	220	50	2100	9.55	200	160	90	90	6.4	10.5	2100	
Power Consumption [W]				Noise [dB]								
Dry		Vent			24HR Vent	Heat	Dry		Vent			24HR Vent
Hot	Cool	Speed	Hi	Low			Hot	Cool	Speed	Hi	Low	
1975	25	25	22	17	17	45	45	45	42	37	25	25

- Power consumption and rated current are obtained when the product is under 90°.
- Air volume, electric specification and noise value are measured when static pressure is 0 Pa.
- Noise value is the weighted sound pressure grade A, which is the central value measured by this company, its tolerance range is from +3 dB to -7 dB. The method to measure is as follows: in an anechoic chamber, measure noise value first 1 m away from the left, right and beneath of the sample, then get the averaged value.
- Air volume is the central value measured by this company with $\pm 10\%$ of tolerance range.
- This product comply with the IPX2 requirement against the water drop test and its remote control comply with the IPX4 requirement against the water shower test.
- Insulation class E

The above specification may be changed without further notice.

CHECKS AFTER INSTALLATION

Check the following items before trial operation.
Be sure to put a tick mark in the corresponding tick box .
Perform trial operation after making these checks.

- (1) Product installation check Reference page
 - Is the main unit installed securely, without looseness? Page 10
 - Are the product inlet and outlet kept unblocked?Page 16
 - (Method 1)Is the self-tapping screw $\phi 4 \times 30$ fixed the adapter from inner?
..... Page 10
 - (Method 2 & 3)Is the self-tapping screw $\phi 4 \times 13$ fixed the main body in a
proper direction? Page 11, 12
- (2) Electrical work check
 - Is an earth leakage circuit breaker installed in the power supply? Page 7
 - Is a 220 VAC single-phase used for the power supply? Page 3, 26
 - Is the wiring connected according to the wiring diagram? Page 8, 9
 - Are the power cable connected to the terminal block without looseness?
..... Page 8, 9
 - Is the connected wiring secured with cable clips?Page 8, 9
 - Is the earth connected? Page 2, 9
 - Is there enough spare in length for power cord (for easy installation, removal and
maintenance)? Page 7
- (3) Others
 - Is there any air leakage from the joint between the duct and the adapter?
..... Page 14

*To prevent initial problems, be sure to perform the post-installation checks before hand-over to the customer.