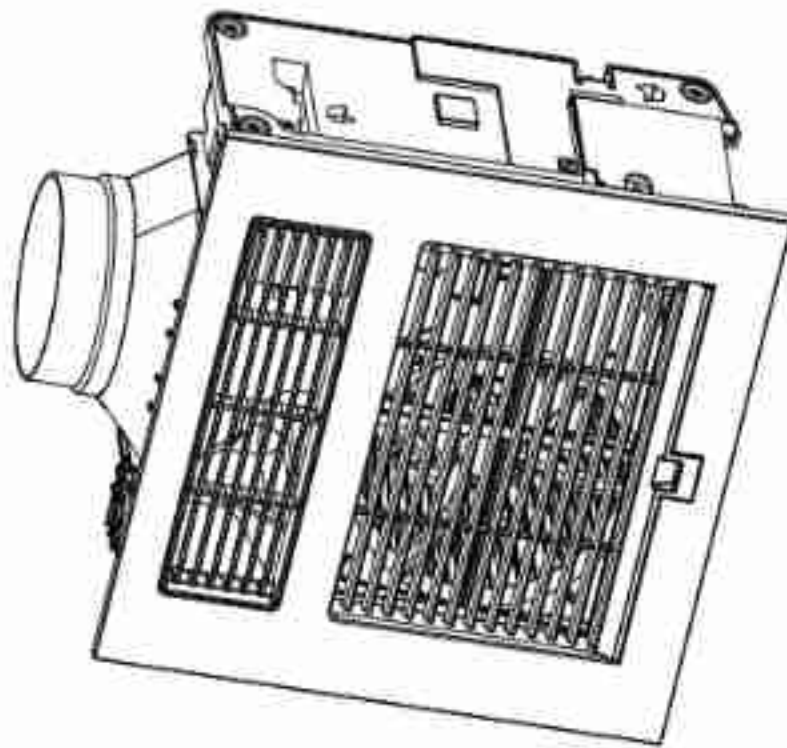


## INSTALLATION AND OPERATING INSTRUCTIONS

### Thermo Ventilator

Model No. FV-30BY1



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#### Warranty card attached

Thank you for purchasing this Panasonic product.

Please read these instructions carefully before attempting to install, operate or service the Panasonic 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.16~17) of this instructions before operation. Please retain this booklet for future reference. Make sure that the correct information is written on the warranty card, including the date of purchase and the name of the distributor. Keep the warranty card in a safe place along with the instructions for future reference.





# SAFETY INSTRUCTIONS

Please observe strictly




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

The following instructions should be strictly observed in order to prevent injury to the users and other people, or damage to property.

- The degrees of injury or damage that can occur when the instructions are ignored and if the product is not used properly have been classified and described by the following indications.







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

- Types of instructions that should be observed have been classified and described by the following pictorial symbols.

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

# INSTALLATION INSTRUCTIONS

## WARNING

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>■ Disconnect power source before working on the product.</li><li> Otherwise, an electric shock may be caused.</li><li>■ The product shall be installed so that switches and other controls cannot be touched by a person in the bath or shower.</li><li> Otherwise, an electric shock may be caused.</li><li>■ Do not install the product near curtains and other flammable materials.</li><li> Otherwise, combustibles may be inflamed.</li></ul> | <ul style="list-style-type: none"><li>■ Make sure the power cord is installed firmly.</li><li> Otherwise, a fire may be caused.</li><li>■ Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances</li><li> Otherwise, a fire may be caused.</li><li>■ Do not operate the product other than the rated voltage.</li><li> Otherwise, it may cause damages to the product or a fire.</li></ul> |
|---|---|



# INSTALLATION INSTRUCTIONS



## WARNING

- 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.

- A means of disconnection with a contact separation of at least 3 mm must be supplied in the fixed wiring in accordance with the wiring rules. 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.

- Do not install the product as the method which is not approved in the instruction.



Otherwise, unreliable installation may be caused and thus the product may fall off, resulting in injuries.

- The product may adversely affect the safe operation of appliances burning gas or other fuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation the operation of open flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur.



Otherwise, a fire may be caused and the gases may potentially result in carbon monoxide poisoning.

- This product must be installed by an authorized person according to all codes and regulations as stated in the local municipal building code and other relevant statutory regulations.



Otherwise, electric leakage, electric shock or a fire may be caused due to wrong wiring, twisted wiring or wire clamping.

- Please select 60227 IEC 53(RVV) ordinary polyvinyl chloride sheathed cord. Nominal cross-sectional area of conductors is  $2 \times 1.5 \text{ mm}^2$ .



Otherwise, it may be on fire.

- To avoid electric shock or fire, do not remove the PCB cover.



Otherwise, an electric shock or a fire may be caused.

- The product can not be located just below a power outlet socket.



Otherwise, a fire may be caused.

- Wiring connections must be in accordance with AS/NZS 3000 wiring rules and any particular conditions of the local authority.



Otherwise, electric leakage, electric shock or a fire may be caused due to wrong wiring.

- Disconnection in the fixed wiring must occur in accordance with the AS/NZS 3000 wiring rules.



Otherwise, electric leakage, electric shock or a fire may be caused.

- The product shall under no circumstances, be covered with insulating material or similar material.



Otherwise, a fire may be caused.



# INSTALLATION INSTRUCTIONS

## CAUTION

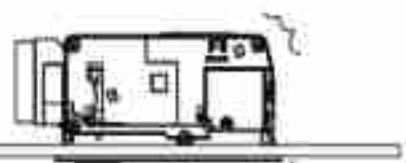
- The special-purpose or dedicated parts, such as mounting fixtures, must be used if such parts are provided.

! Otherwise, it may fall off to cause personal injury.

- Do not reconstruct this product.

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

- Components must be installed tightly.



! Otherwise, it may fall off to cause personal injury.

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

! Otherwise, it may fall off to cause personal injury.

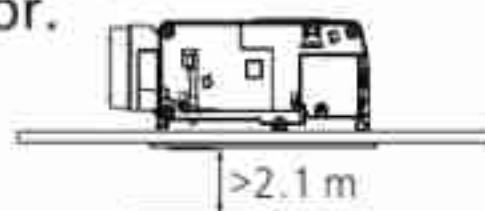
- The mounting of the suspension system must be performed by the manufacturer, its service center or suitably qualified persons.

! Otherwise, it may fall off to cause personal injury.

- Do fix this product tightly.

! Otherwise, it may fall off to cause personal injury.

- Install this product over 2.1 m above the floor.



!

Avoiding any accidents

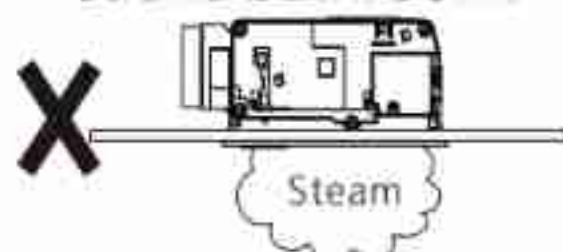
- The fixing means for attachment to the ceiling such as hooks or other devices shall be fixed with a sufficient strength to withstand 5 times the weight of the product. They must be reinforced if their strength can not be sure.

! Otherwise, it may fall off to cause personal injury.

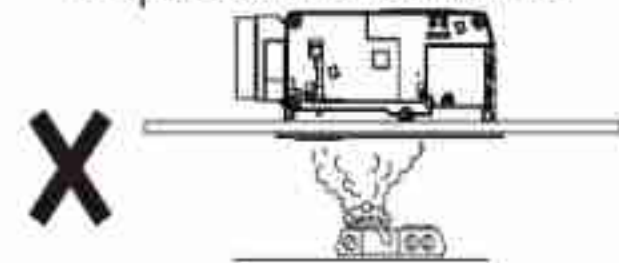
## INSTALLATION REQUIREMENTS

Please observe the following installation requirements. Failure to do so may cause aging or failure of the product.

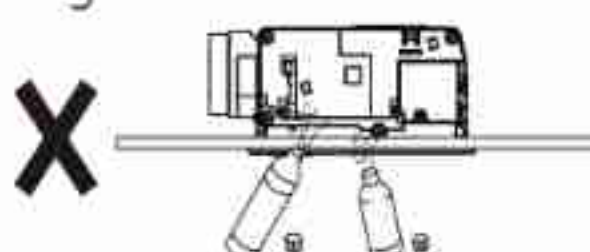
- Do not install the product in steam sauna bathroom.



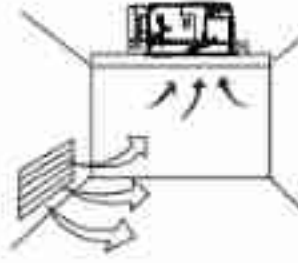
- Do not install the product where it is exposed to oil mist.



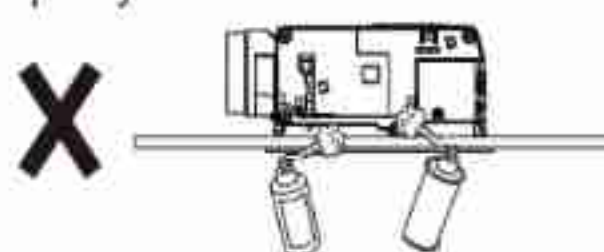
- Do not install the product in the places where the organic solvent is used.



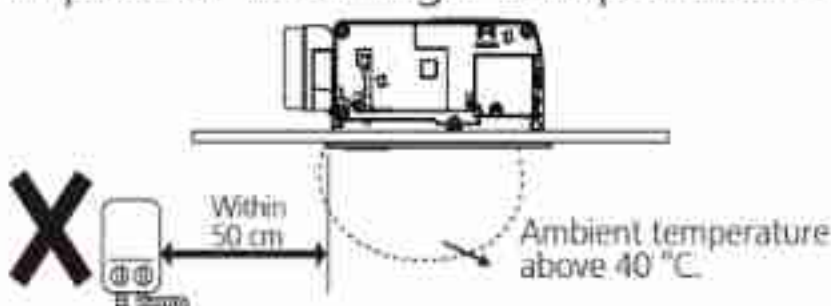
- Please set ventilation holes.



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



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



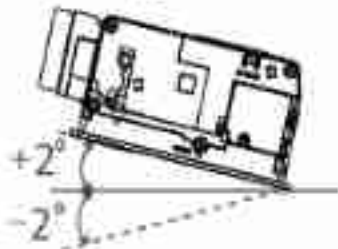
- The product is not provided with power cord, all-pole switch and leakage protection switch. Please purchase them in market.

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



# INSTALLATION REQUIREMENTS

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



■ Do not form the duct as shown below:

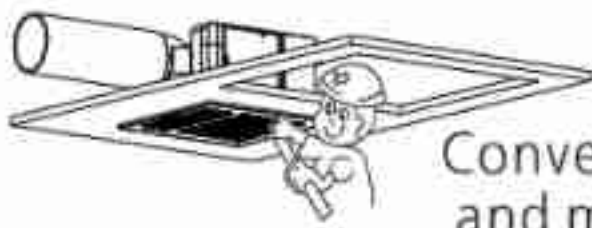


■ Do not install onto slanting ceiling board.



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

■ When the ceiling board is unable to dismantle, please set a square inspection hole of at least 45 cm. (Please set the inspection hole near the pipeline and power cord, not directly under the duct pipe.)



Convenience for installation and maintenance.

■ National regulations concerning the discharge of air have to be fulfilled.

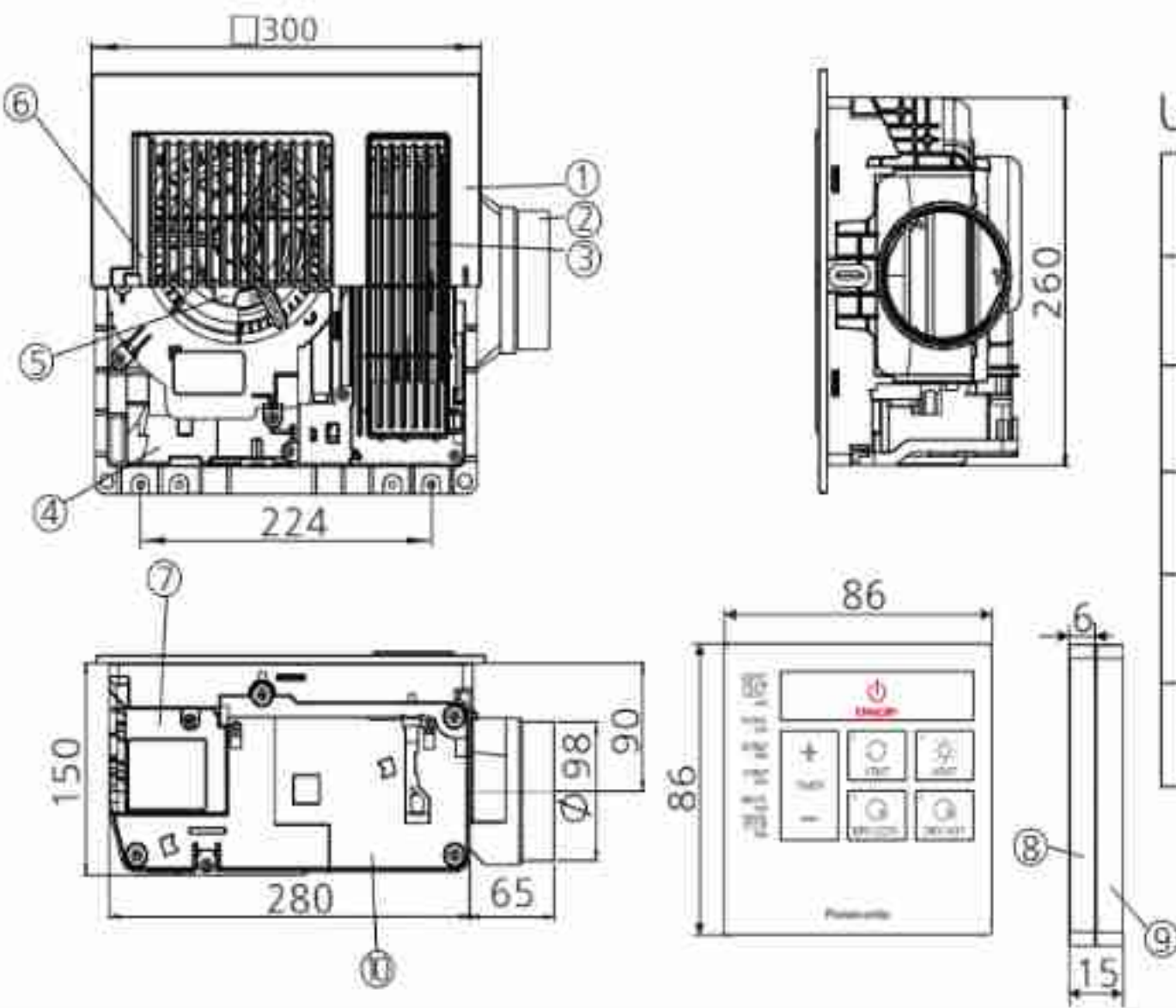
■ Joists, beams and rafters shall not be cut or notched to install the product.

# SUPPLIED ACCESSORIES

No.	Drawing	Name and Purpose	Qty
①		Machine screw (M4×10)	1
②		Self-tapping screw (flat head ø4×20)	6
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 x12)	5
⑤		Self-tapping screw (round head ø4×20)	4
⑥		Installation and operating instructions	1
⑦		Louver assembly	1
⑧		Bracket assembly	3
⑨		Remote controller assembly	1
⑩		Warranty card	1



# PART NAMES AND DIMENSIONS



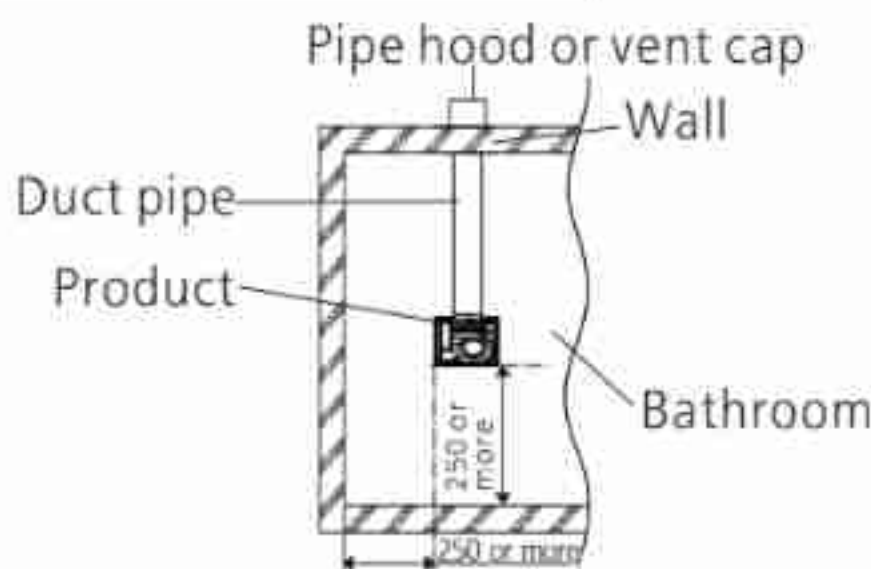
Unit:mm

No.	Part name	No.	Part name
①	Louver assembly	⑥	Filter assembly
②	Adapter	⑦	Cord cover
③	Heater assembly	⑧	Remote controller
④	Main body	⑨	Controller holder
⑤	Fan	⑩	PCB cover

## WORK BEFORE INSTALLATION

### 1.Confirmation before installation

Unit: mm



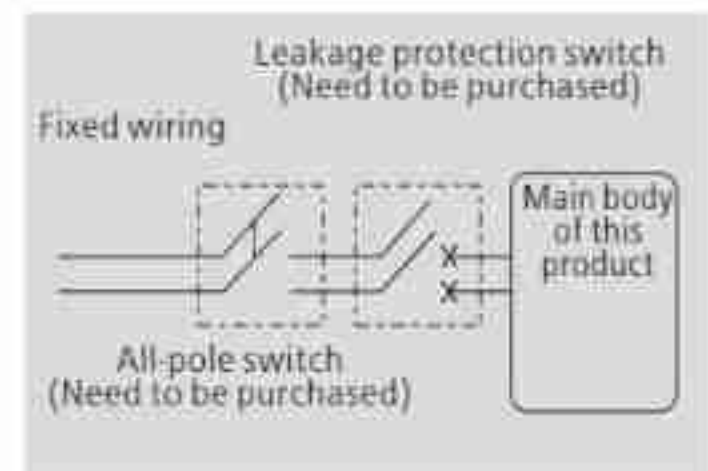
The bathroom size may affect the heating performance of this product.

#### Notice

- ① The distance from louver assembly to walls is 250 mm or more.
- ② When the ceiling mounting hole is adjacent to curtains or other flammable materials, more than 200 mm from curtains and other flammable materials.
- ③ The distance between ceiling board where the product is mounted and ceiling shall be over 170 mm.
- ④ Please reserve a sufficient length of the power cord for easy installation.
- ⑤ When duct pipe is connected to outside of the room, a vent that diameter is  $\phi 110$  mm should be opened. (Duct pipe, pipe hood or vent cap are not supply.)
- ⑥ The distance between the sides of the product of the sides and of any adjacent thermo ventilator shall not be less than four times the minimum distance specified for the distance between the sides of the heater and any building element adjacent to it.

### 2.Preparation before installation

Install an all-pole switch with the contact separation not less than 3 mm and specifications not lower than 230 V-240 V~15 A and a leakage protection switch (with the leakage current of 30 mA or less ) between the fixed wiring and the main body of this product.





# HOW TO INSTALL

## 3. Main body installation Method 1

The main body position between joists from 390 mm to 580 mm can be adjusted flexibly.

- ① Open a mounting hole in the ceiling board. dimensions as shown in the table below:

A	264±2
B	284±2

### Notice

If joists are from 390 mm to 460 mm, bracket needs to be cut, please see the picture at right.

- ② Connecting the duct pipe → Refer to Section 5.Duct Pipe Connection on P.11.

- ③ Measure the D1 distance between the joist and the opening edge.

The other side of D2 distance please see below formula to figure out:

$$D2=L-D1-L1$$

- ④ Loosen the 2 screws on the bracket 1 and bracket 2.

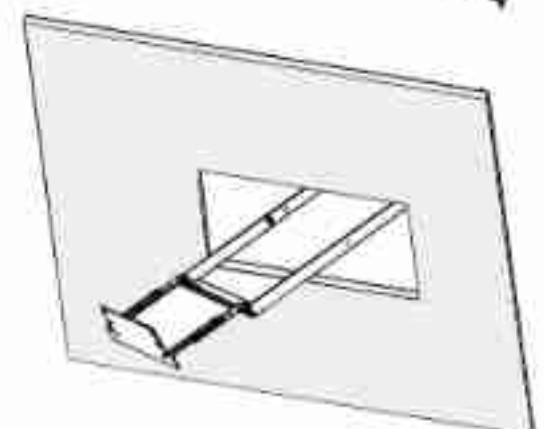
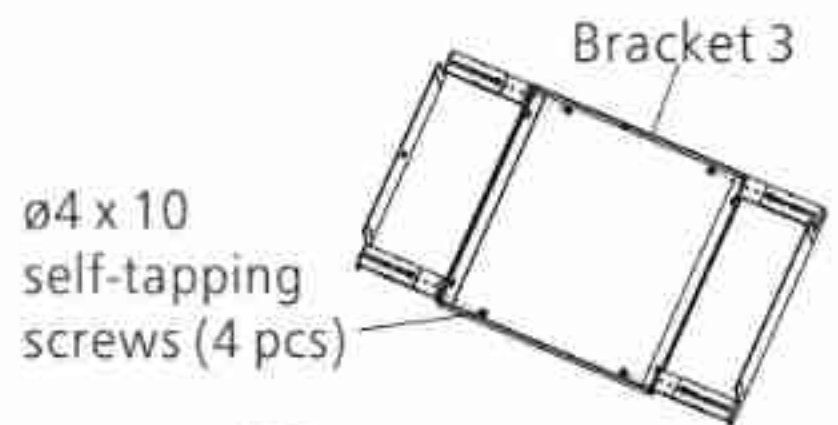
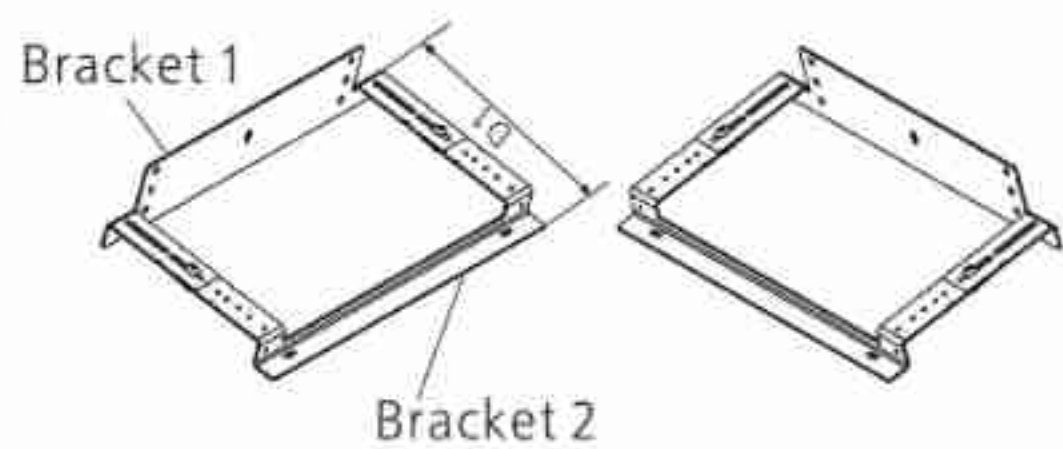
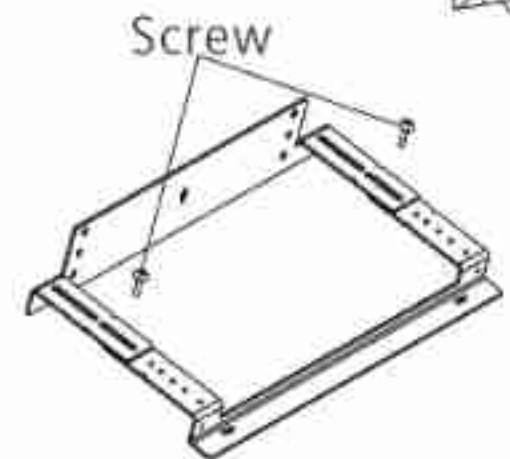
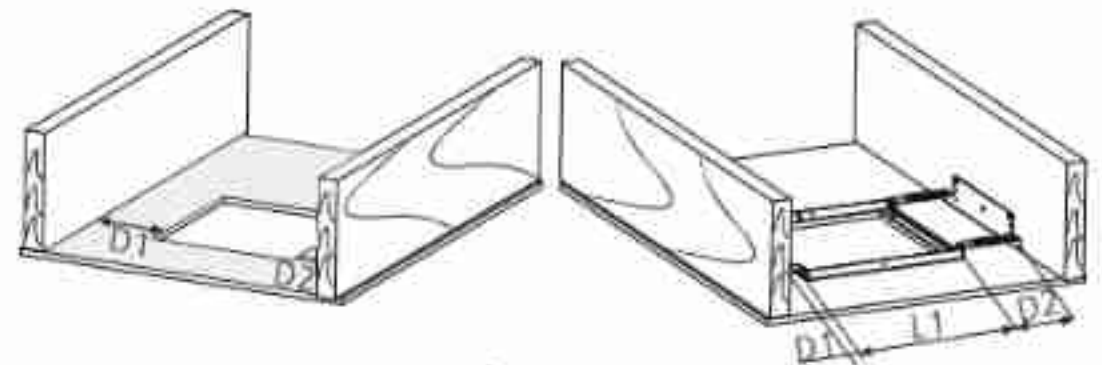
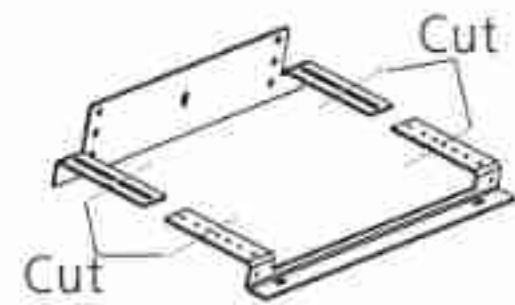
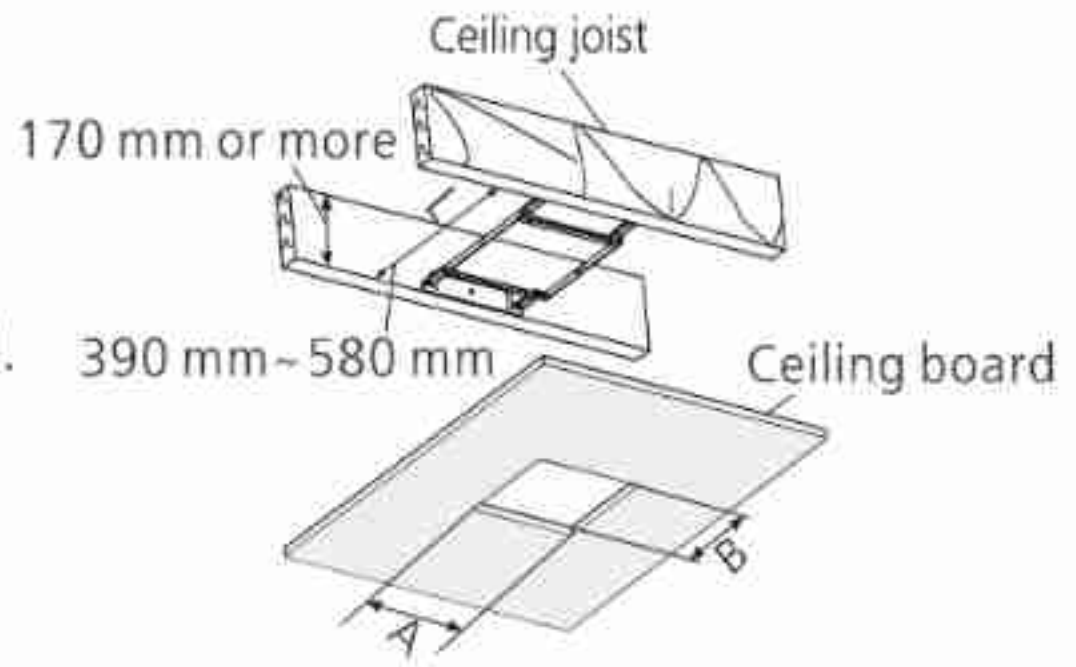
- ⑤ Adjust the bracket 1 and bracket 2 to the distance D1,D2, and then tighten the screws to fix the distance D1,D2 of the bracket 1,2.

- ⑥ Fix bracket 3 to the bracket 2, use  $\varnothing 4 \times 10$  self-tapping screws.

- ⑦ Place the mounting bracket assy into the ceiling.

### Notice

The distance between ceiling board not enough to palace the bracket assembly to ceiling, can place the bracket 1,2 and bracket 3 to ceiling separately, and then fix bracket 3 to bracket 2 in ceiling.





# HOW TO INSTALL

- ⑧ Fix the bracket assy to the joist,  
Use  $\varnothing 4 \times 20$  (4 pcs) self-tapping screws.

**Notice**

The corner on the side of the fixed adapter should be aligned with the Angle of the ceiling opening.

- ⑨ Install the adapter to the bracket  
3's hole.  
Use  $\varnothing 4 \times 10$  (1 pcs) self-tapping  
screw.

- ⑩ Connecting power cord

## ⚠ WARNING



Please select 60227 IEC 53(RVV) ordinary polyvinyl chloride sheathed cord. Nominal cross-sectional area of conductors is  $2 \times 1.5 \text{ mm}^2$ .



For the stripping length, please prepare according to the wiring sketch (refer to 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.

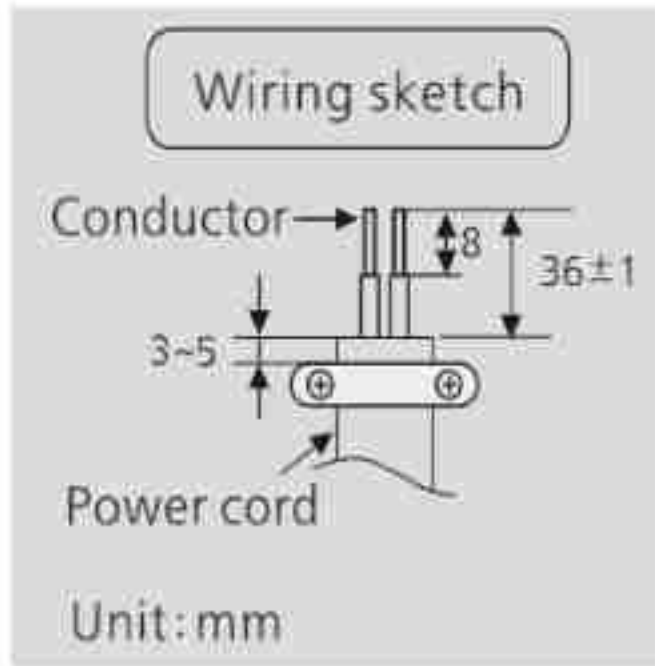


Figure 1

## ⚠ CAUTION



Strand the core wire together after stripping, then insert them into about 8 mm 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.

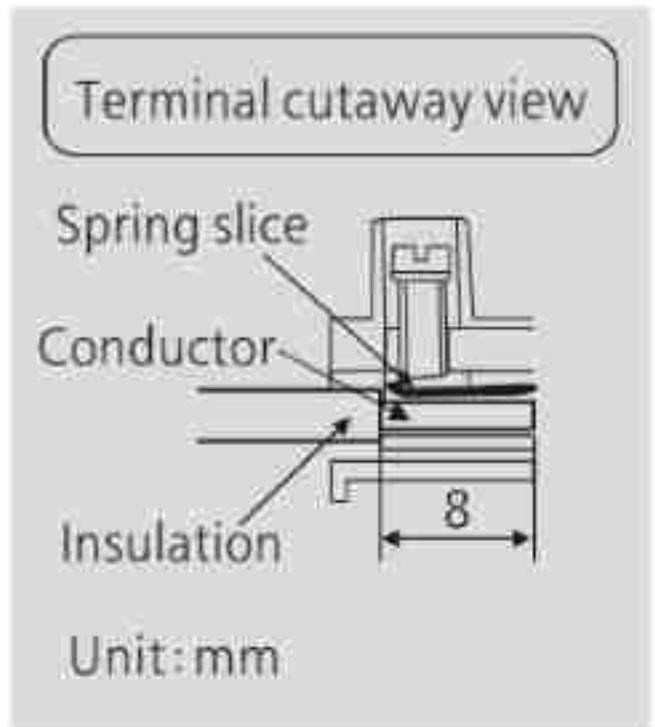
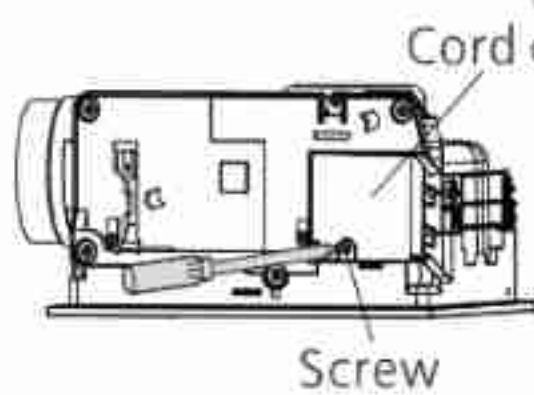
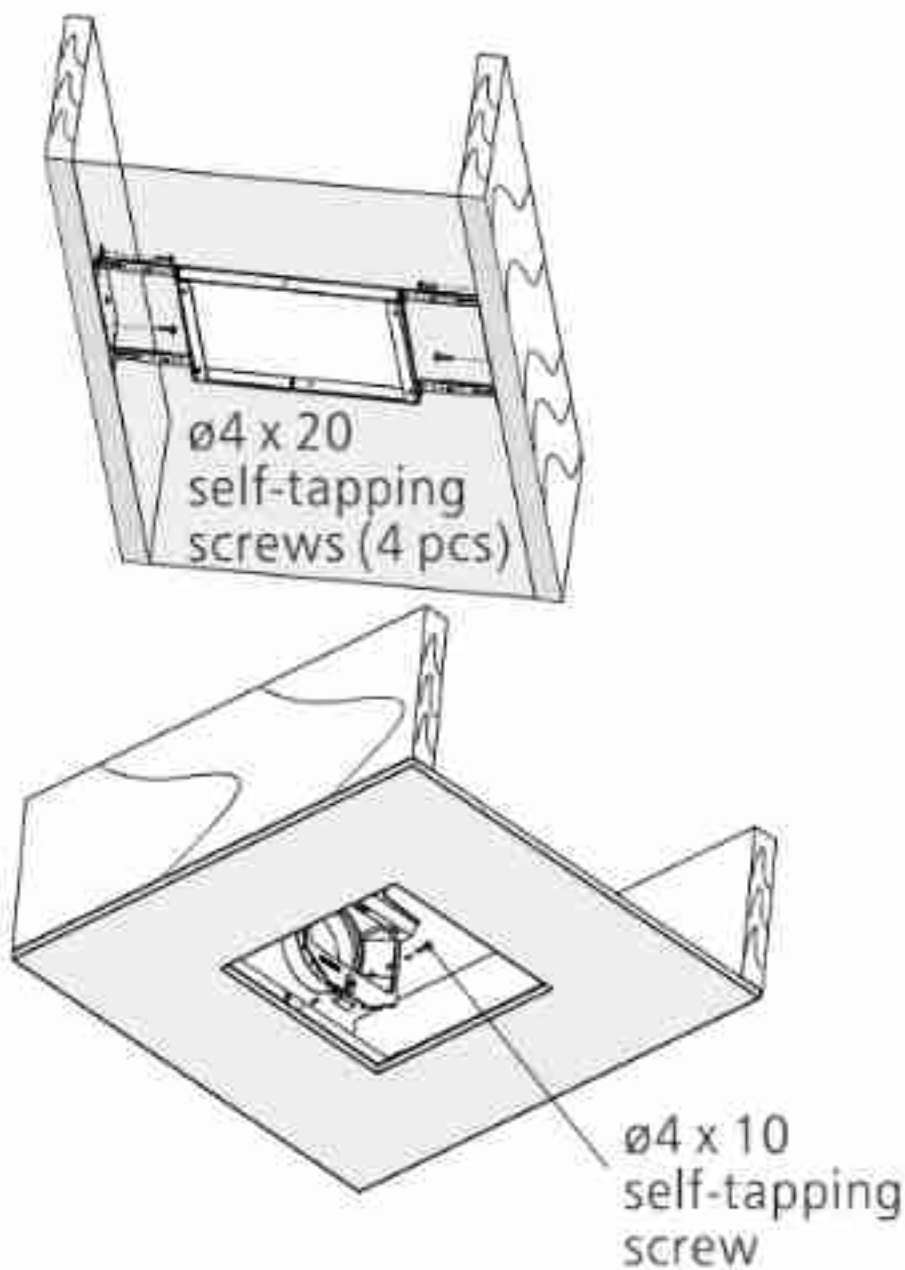


Figure 2

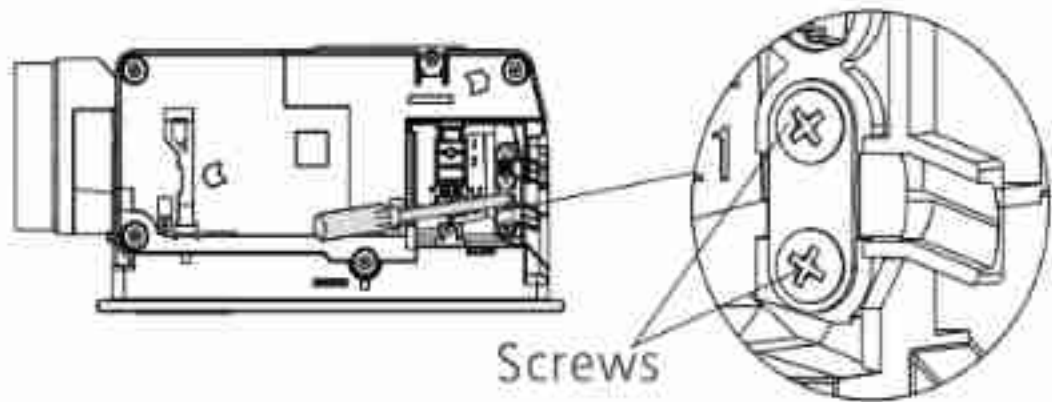
- (1) Remove the screw (1 pcs) on the cord  
cover, then open the cord cover.



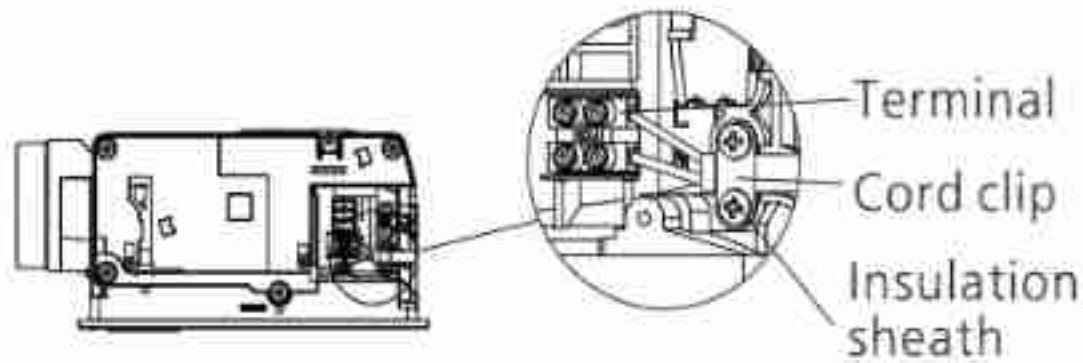


# HOW TO INSTALL

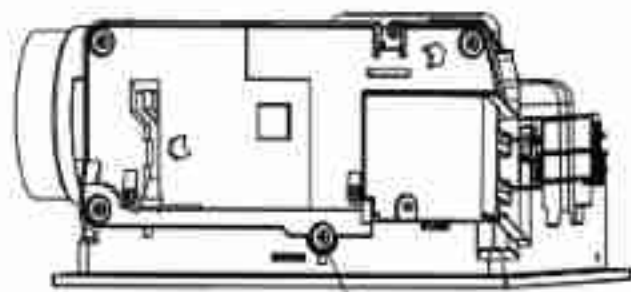
(2) Loosen the screws of the cord clip.  
(2 pcs)



(3) Loosen the screws of the terminal, insert the indoor power cord (not supplied) into the terminal, then tighten the screws. Fix the power cord with the cord clip. (The cord clip must pin the insulation sheath of power cord.)



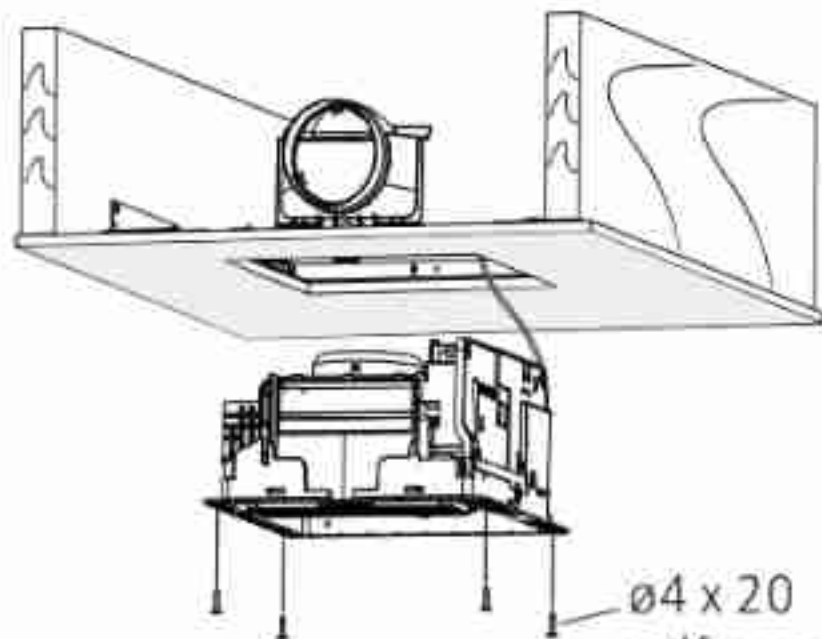
(4) Fix the cord cover by the screw which removed by step ①.



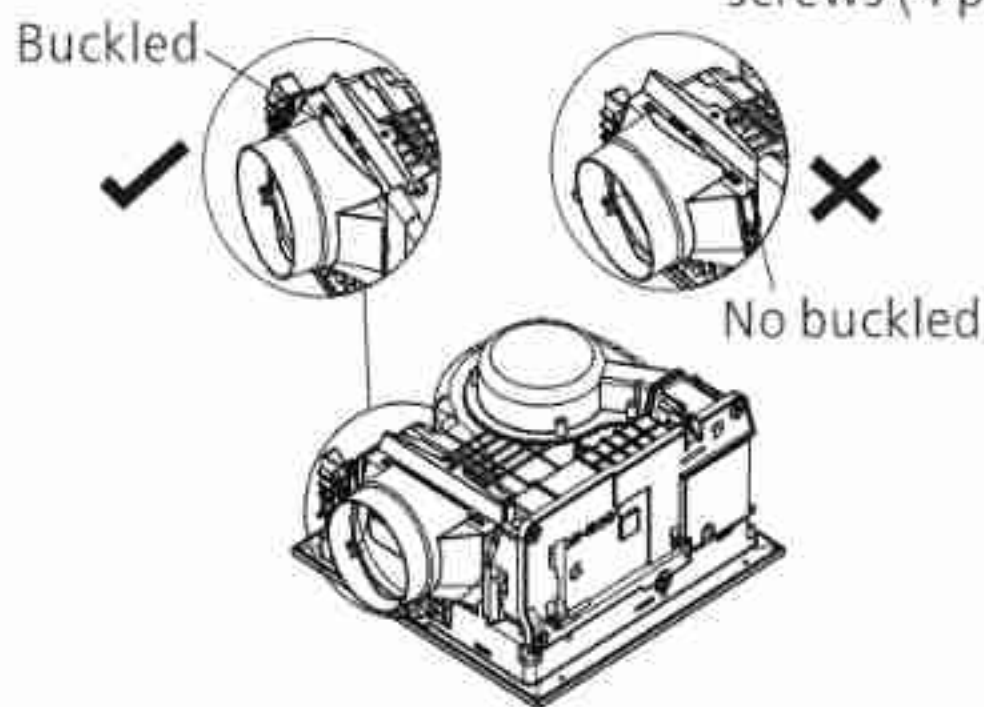
① Push the main body upward into the ceiling board. Install the main body, Use  $\varnothing 4 \times 20$  (4 pcs) self-tapping screws.

### Notice

- 1. Be sure the condition between the main body and the adapter is proper. It can be checked from the inspection hole.
- 2. Please be careful not to damage the power cord when pushing the main body into the ceiling.



② 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.



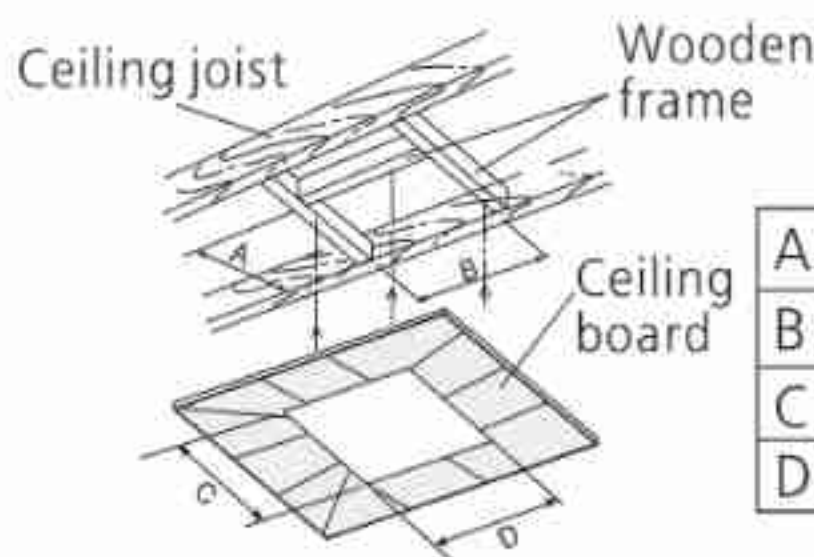
### Notice

If adapter fails to cling to the main body, it may cause air leakage.

③ Make sure the screws of fix the main body in hanger 2 slot.

## 3. Main body installation Method 2

① Make a wooden frame and install it onto the ceiling joist. Ensure that the total thickness of the wooden frame and ceiling board 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)

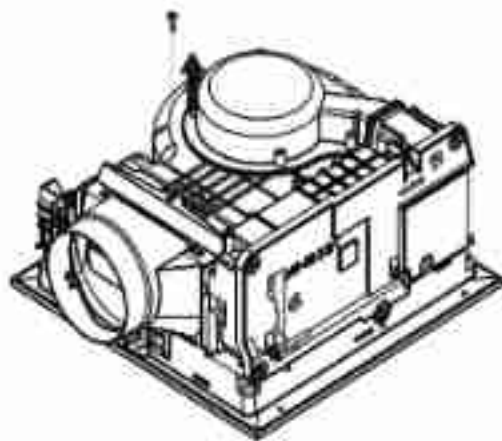


A	264±2
B	284±2
C	264±2
D	284±2

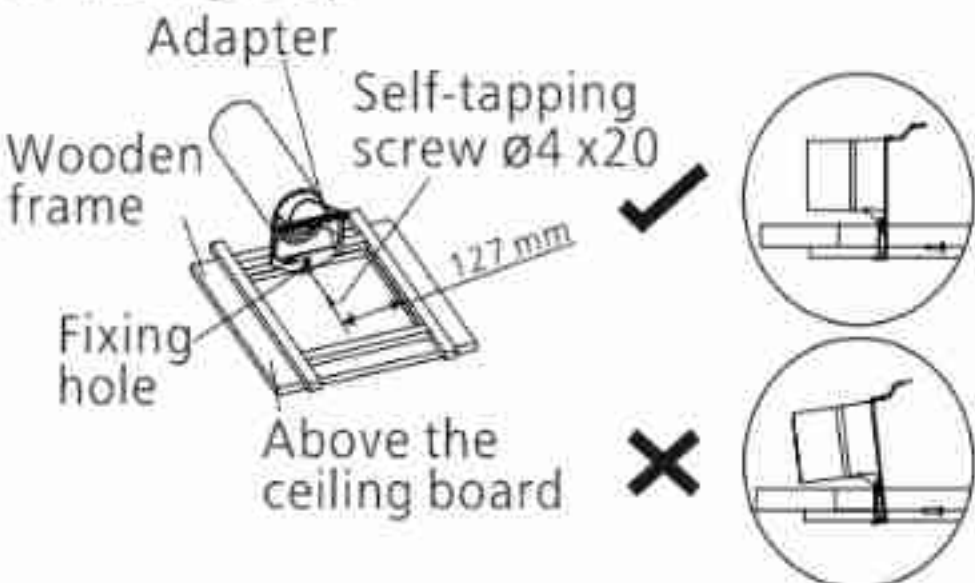


# HOW TO INSTALL

② Remove one screw from the adapter.



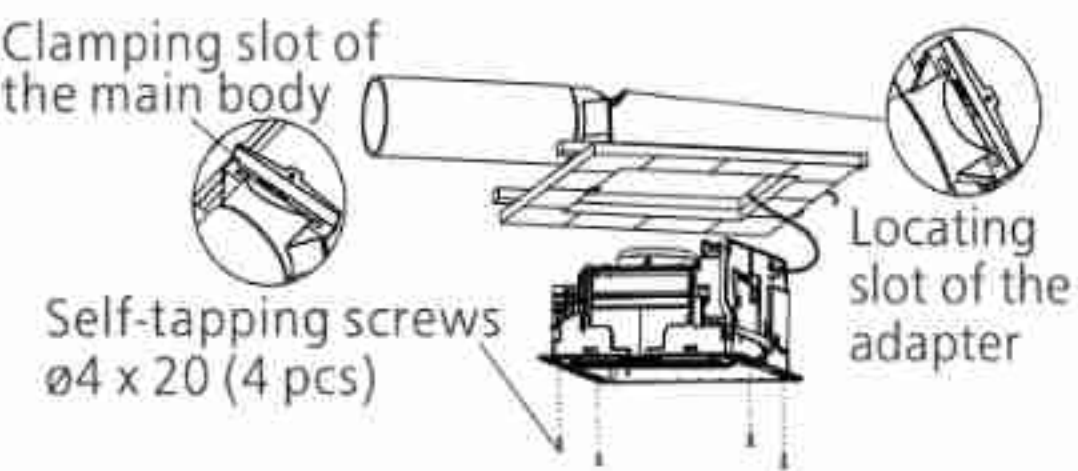
③ Use one  $\varnothing 4 \times 20$  self-tapping screw in the supplied accessories to fix the adapter on the ceiling board (please install the screw fixing hole according to the size requirements in the figure).



④ Connecting the duct pipe → Refer to Section 5. Connecting duct Pipe on P.11.

⑤ Connecting power cord → Refer to Section ⑩ Connecting power Cord on P.8.

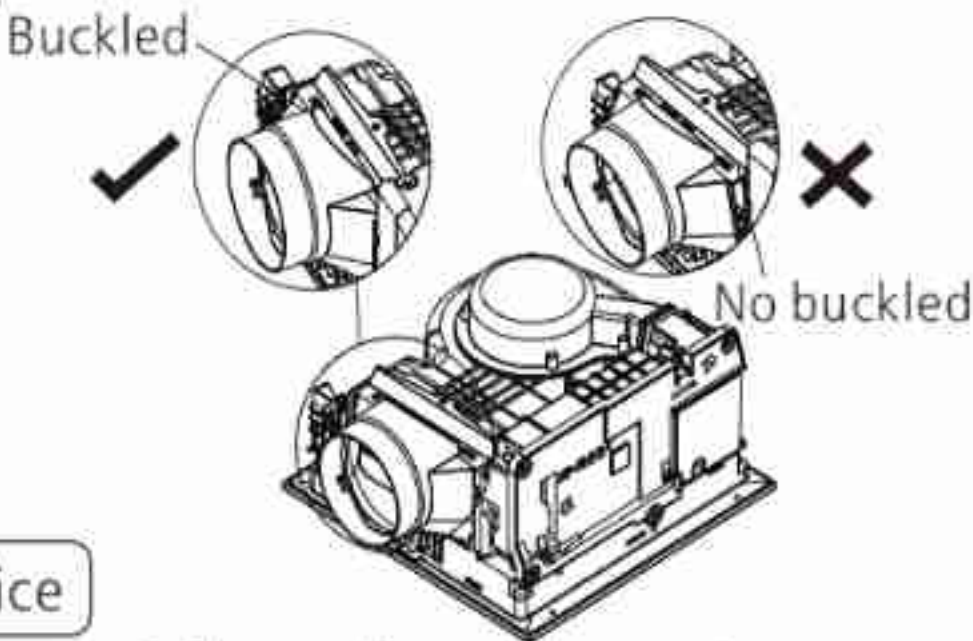
⑥ Push the main body upward against the adapter into the ceiling board and wooden frame, snap the locating slot of the adapter into the clamping position of the main body (to avoid air leakage), and firmly fix the main body with four  $\varnothing 4 \times 20$  self-tapping screws.



⑦ Use one  $\varnothing 4 \times 20$  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.



⑧ 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

Please be careful not to damage the power cord when pushing the main body into the wooden frame.

## Notice

If adapter fails to cling to the main body, it may cause air leakage.

② Hang the louver assembly into the hook on the main body.



## 4. Installing louver assembly

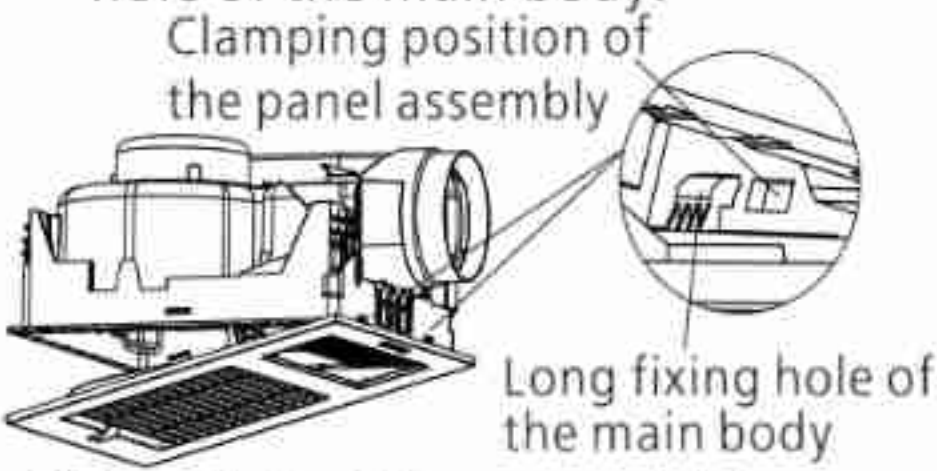
① Remove the filter assembly from the louver assembly.



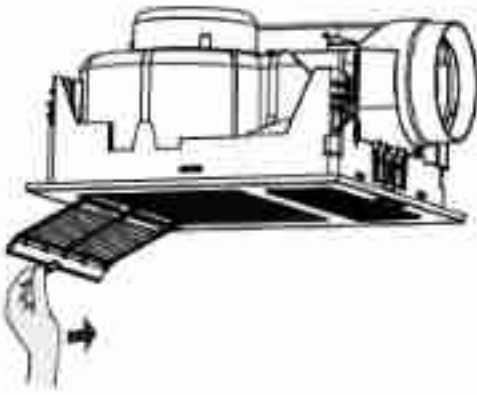


# HOW TO INSTALL

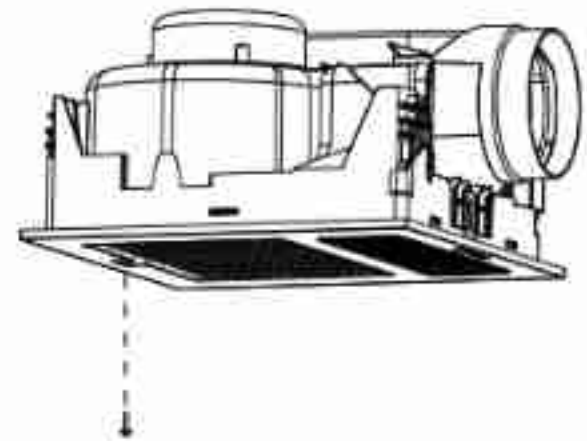
- ③ Snap the clamping position of the panel assembly into the long fixing hole of the main body.



- ⑤ Install the filter assembly back into the louver assembly.



- ④ Fix the louver and the main body with one M4 x 10 screw in the supplied accessories.

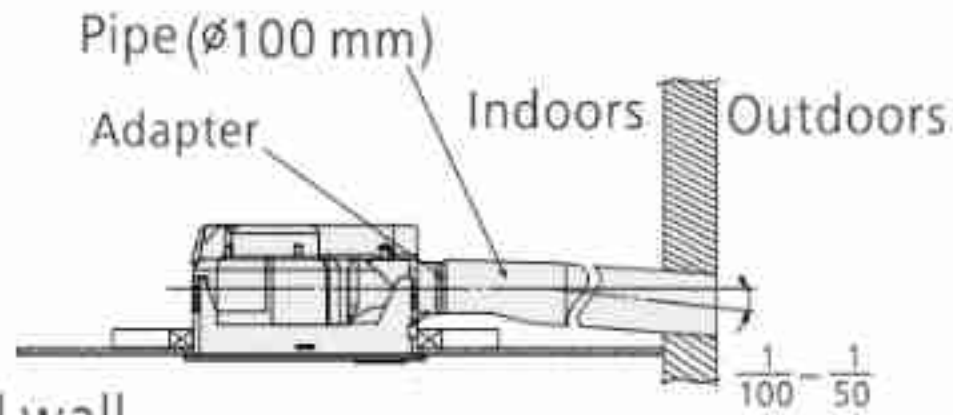


## ! WARNING

When installing the ceiling board, be careful not to scratch the power cord. Otherwise, an electric shock may be caused.

### 5. Connecting duct pipe (Not supply)

- ① Install the duct pipe onto the adapter, and then bind them tightly with adhesive tape. Suspend the duct pipe from the ceiling board to prevent external force exerted on the unit body.
- ② Install the pipe cap or pipe cover on the external wall.  
(Please purchase a pipe cap or pipe cover separately according to the pipe size.)

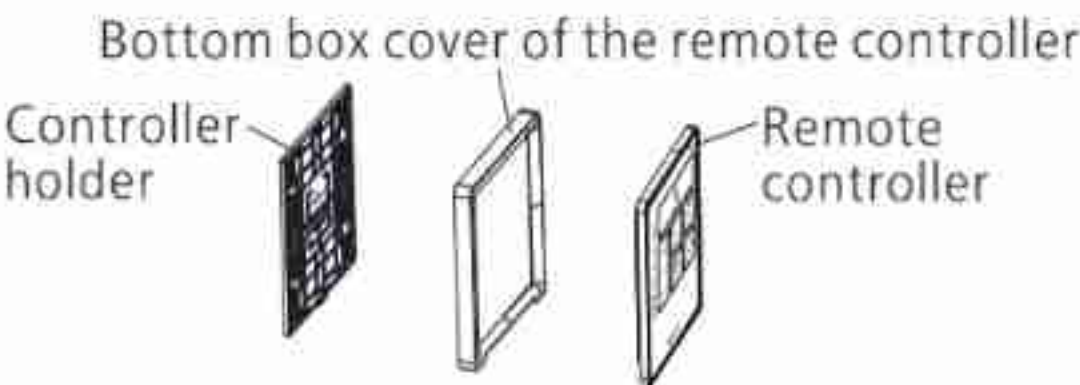


#### Notice

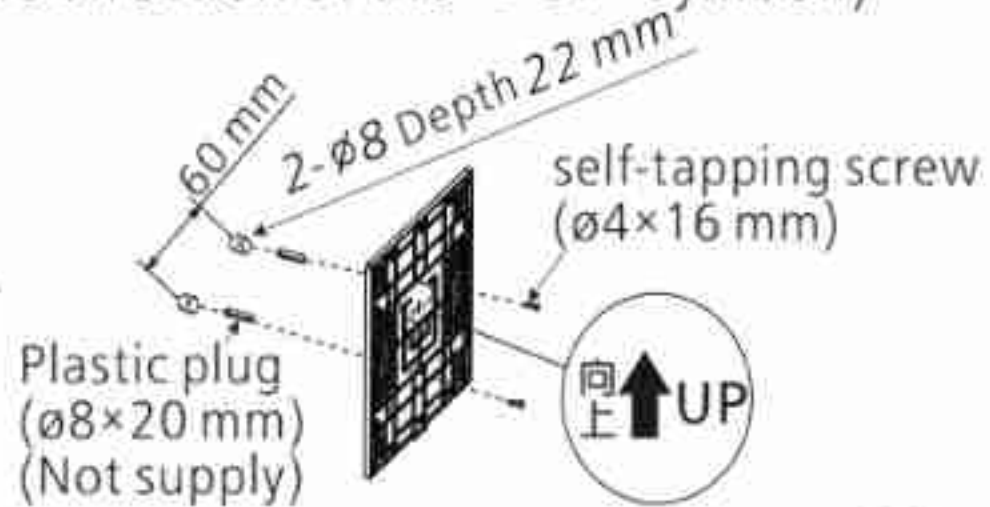
1. The minimum diameter of the hole: ø110 mm.
2. The duct pipe connected to outside of the room must be slanted to prevent rain or condensed water from flowing backwards.
3. This duct pipe length should be as moderate as possible. It will affect product performance if it is too long.
4. Failure to install a pipe hood or vent cap may result in the entry of birds, insects, rats, etc.

### 6. Installing the remote controller assembly

- ① Remove the remote controller, and then remove the controller holder together with the bottom box cover of the remote controller.



- ② Drill two ø8 mounting holes in the bathroom wall, as shown in the figure below. Make sure that the mounting position is kept away from direct spraying of the shower. Then fix the remote controller with two ø4 x 16 mm screws. (Install the remote controller in the direction of the "↑UP" symbol.)



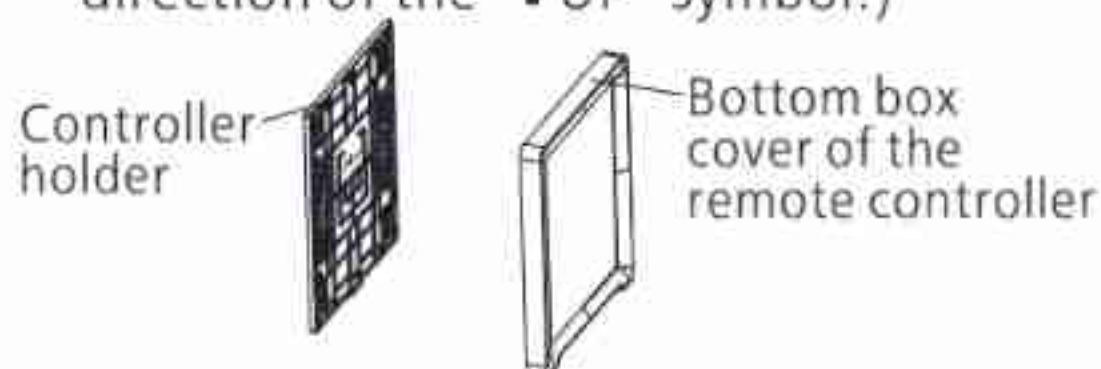
## ! CAUTION

Do not install the remote controller assembly in a place where it is easily splashed by water. (Otherwise, it may not be applicable.)

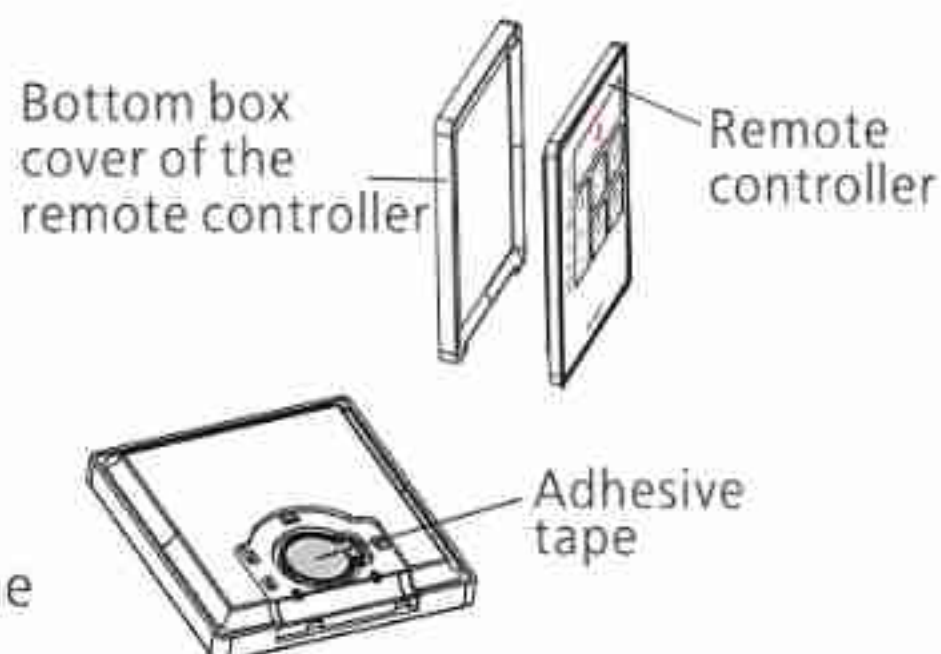


# HOW TO INSTALL

- ③ Close the bottom box cover of the remote controller and the controller holder, and check that the buckle on each side is locked. (Install the remote controller in the direction of the "↑UP" symbol.)



- ④ Pull in the remote controller and the bottom box cover of the remote controller.



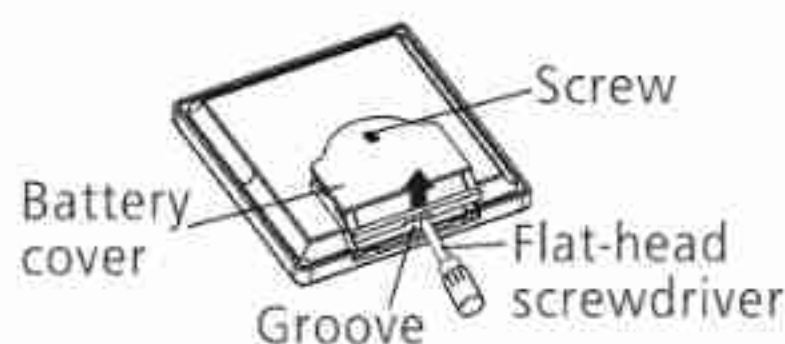
## ■ How to use the remote controller

Please remove the adhesive tape before using the remote controller for the first time.

(According to the method for replacing the battery, after removing the battery cover, remove the adhesive tape without removing the battery.)

## ■ How to replace the battery (when a CR2032 battery is used.)

- ① Use the M2 screwdriver loosen the screw of the battery cover, then pry the battery cover up in the groove using a flat-head screwdriver.

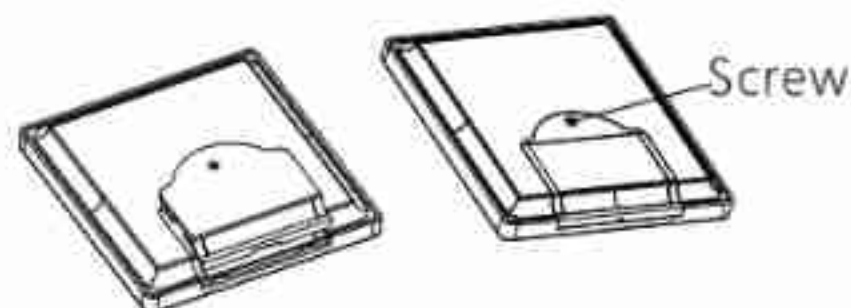


- ② Replace the battery. Put the battery into place with ⊕ facing upward.



- ③ Install the battery cover.

Put the battery cover into the remote controller, and then press on the middle position of the battery cover until a "click" is heard. Fix the cord cover by the screw at last.





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

- Please refer to page 16~17 for more information on the "USE AND MAINTENANCE INSTRUCTIONS" of the batteries.

# TEST RUN

- After the installation, turn on the power supply, pair\* the remote controller with the product, and then press functional buttons to check the following items:

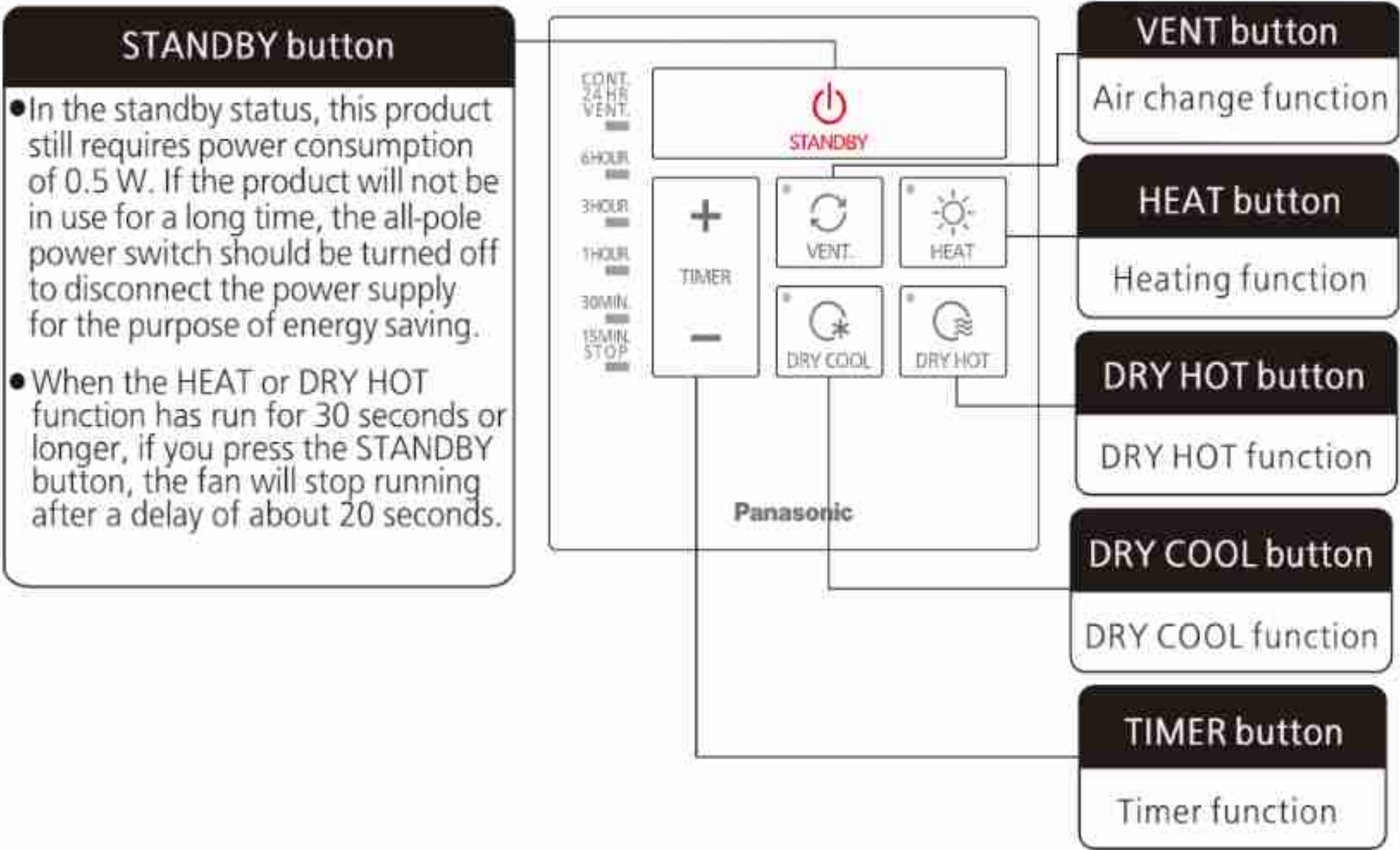
- Does the fan revolve normally?
- Does it have abnormal vibration or noise?
- Does it blow out hot air?
- Is each button on remote controller perform its right function?

\*The remote controller must be paired with the product before use. Within one minute after the product is powered on, press and hold the buttons  +  on the remote controller for 3 seconds to complete the pairing process. When the pairing is successful, three beeps will be heard. (If the remote controller was just replaced, power off and restart the product and then repeat the above pairing procedure.)

\*When two or more thermo ventilators of the same model are installed in the nearby area, the RF remote controller may be paired with more than one thermo ventilator at the same time. Therefore, please make sure that each thermo ventilator is installed with an independent "all-pole switch" according to the requirements and check that only one thermo ventilator is powered on for each pairing.



# FUNCTION OF REMOTE CONTROLLER



## HOW TO USE TIMER FUNCTION

**TIMER**

For running time adjusted

① During operation, you can press the button to change the running time.

※ The running time set here is automatically memorized.

② Each time you press the button, the time will change once.

③ The maximum running time of HEAT can be set to 3 hours.

The maximum running time of DRY HOT can be set to 6 hours.

Continuous running can be set for VENTILATION and DRY COOL.

The initial setting of each mode is 15 minutes.  
(Initial settings)

15 MIN.

30 MIN.

1 HOUR

3 HOUR

6 HOUR

CONT.

HEAT mode

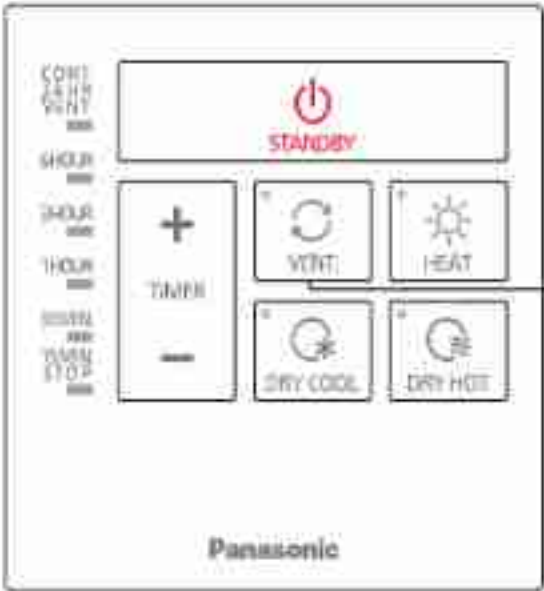
DRY HOT mode

VENT. mode and DRY COOL mode





# HOW TO USE VENTILATION AND HEATING FUNCTION

 Used to ventilate the bathroom



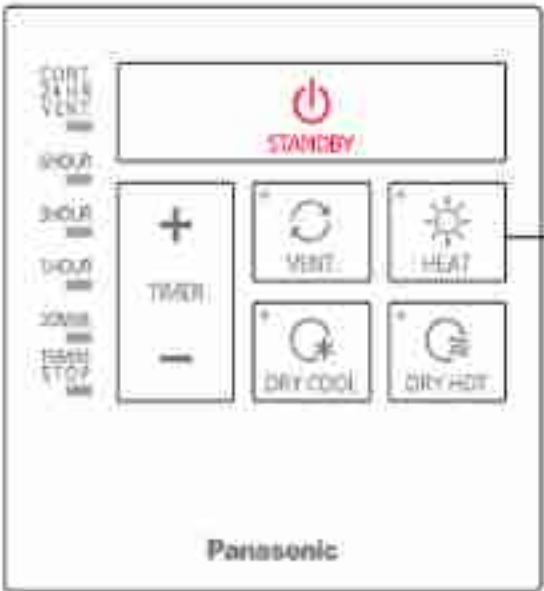
VENT.

- ① Press the  button to start the ventilation mode.
- ※ The setting range of the VENTILATION mode is 15 min to Continuous.
- ② This product will stop automatically when the set time is up.
- ③ To stop midway in operation, press the  button.




### Notice

When the heating mode or hot drying mode is switched to the air ventilation mode, the fan blade will run at a low speed for 20 seconds to cool the heater down, then enter the air ventilation mode.

 Used when you feel cold in a bath



HEAT

- ① Press the  button to start the heating mode.
- ※ The setting range of the heating mode is 15 min to 3 hours.
- ※ In the heating mode running for 30 seconds above, press the  button to stop the heater. The fan will stop running after a delay of 20 seconds.
- ② This product will stop automatically when the set time is up.
- ③ To stop midway in operation, press the  button.

### Notice


- 1. Hot start function: When the bathroom temperature is lower than 20 °C and the product is started in the HEAT mode, the product enters the "hot start" state with low air volume to avoid blowing cold air. After the bathroom temperature rises to 20 °C or above, or after 60 seconds have elapsed, the product enters the HEAT mode.
- 2. Heater may stop heating when temperature in bathroom is up to required degree, and may restart heating as the temperature in bathroom cools down.



# HOW TO USE DRY COOL/HOT FUNCTION




 Used during a shower or to dry the bathroom

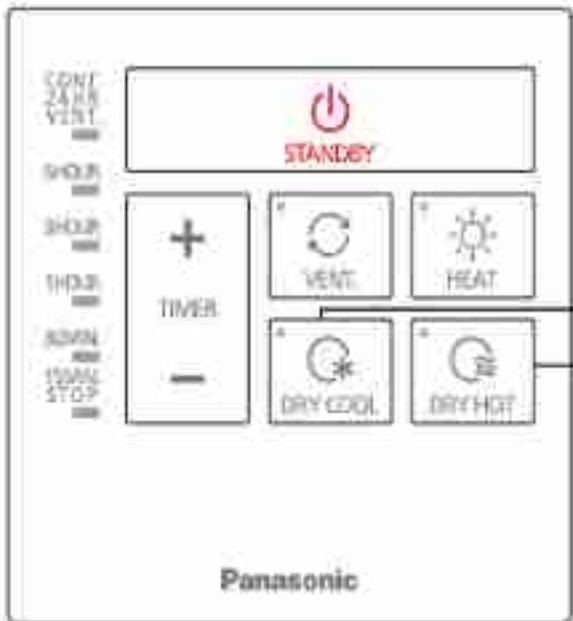
## DRY COOL

- ① Press the  button to start the DRY COOL mode.
- ※ The setting range of the DRY COOL mode is 15 min to Continuous.
- ② This product will stop automatically when the set time is up.
- ③ To stop midway in operation, press the  button.

 Used to dry clothes and the bathroom

## DRY HOT

- ① Press the  button to start the DRY HOT mode.
- ※ The setting range of the DRY HOT mode is 15 min to 6 hours.
- ② This product will stop automatically when the set time is up.
- ③ To stop midway in operation, press the  button.
- ※ In the DRY HOT mode running for 30 seconds above, press the  button to stop the heater. The fan will stop running after a delay of 20 seconds.



To use the drying function to dry clothes, please to install the product as shown below:

Unit:mm

## WARNING

This appliance is intended only for drying textiles washed in water.



Otherwise, it may cause injury.



To make the effect of drying clothes better, please set a ventilation shutter at the lower part of the door with a valid opening area of 100 cm<sup>2</sup> or above.




# 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.

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


 Otherwise, may lead to electric shock.

- 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.

- Please observe the following when using the batteries.


- Do not inversely install the positive pole and negative pole of batteries.
- Do not short circuit.
- Non-rechargeable batteries should not be recharged.
- Do not use modified or damaged batteries.
- Rechargeable batteries are to be removed from the remote controller before being recharged.

 Otherwise, a leakage or damage may be caused.


- Keep such articles as watches and credit cards away from the remote controller since it has a built-in magnet.

 The magnetic force of the magnet may cause functional damages to watches, credit cards, etc.


- Do not disassemble this product for repair or reconstruction.

 Doing this may lead to fire and electric shock.

- Do not put battery into fire or heat, break, modify it.

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

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


 Doing this may generate spark and thus lead to explosion.

- 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.

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



 Doing this may lead to short circuit or 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 use battery of broken casing.

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

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

 This product may cause injuries once it falls off.



# USE AND MAINTENANCE INSTRUCTIONS



## WARNING

- Please make sure that anyone with a medical pacemaker keep the implantation site away from the remote controller since it has a built-in magnet.



Otherwise, the pacemaker may be negatively affected.

- Please promptly take out of the battery from the remote controller when the battery is exhausted or if you will not use the remote controller for a period of time.



Otherwise, battery may leakage or become hot, crack.



Contains button or coin cell battery. Hazardous if swallowed.



If it is suspected the battery has been swallowed or otherwise placed inside any part of the body, a person should contact the Australian Poisons Information Centre immediately for 24/7 fast, expert advice; and includes the phone number for the Australian Poisons Information Centre. (phone number:131 126)

- Do not put the battery in reach of children and infants.(whether the battery is new or used)



Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 h of ingestion. Seek medical attention immediately.

- Do not put battery into fire or heat, break, modify it. Do not expose the battery to excessive temperatures and be aware of the risk of battery being short circuited by metal objects.



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



## CAUTION

- When you clean this product, please wear gloves.



Otherwise, may lead to injury.

### Notice

- The applicable ambient temperature of this product is in the range of -10 °C~40 °C, using it out of this range may cause a fault.



# HOW TO 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 wool as shown below.
- 2. To use a chemical cloth, clean this product by following the instructions.

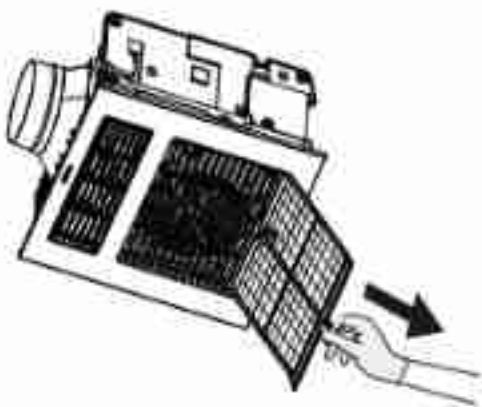


### Cleaning the filter assembly:

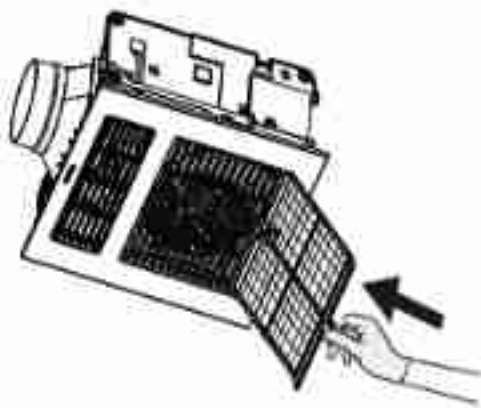
- 1. Do not use a wire brush or any other hard tool to clean the filter, lest the filter would be damaged.
- 2. Clean the filter assembly once every three months. Otherwise, the filter may be blocked.

### Cleaning the louver assembly and filter assembly

- ① Shut off the all-pole switch.
- ② Wipe the louver assembly 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 assembly. Then, rinse it with water and let it air dry.
- ⑤ Reinstall the filter assembly.
- ⑥ Turn on the all-pole switch.



#### Notice

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



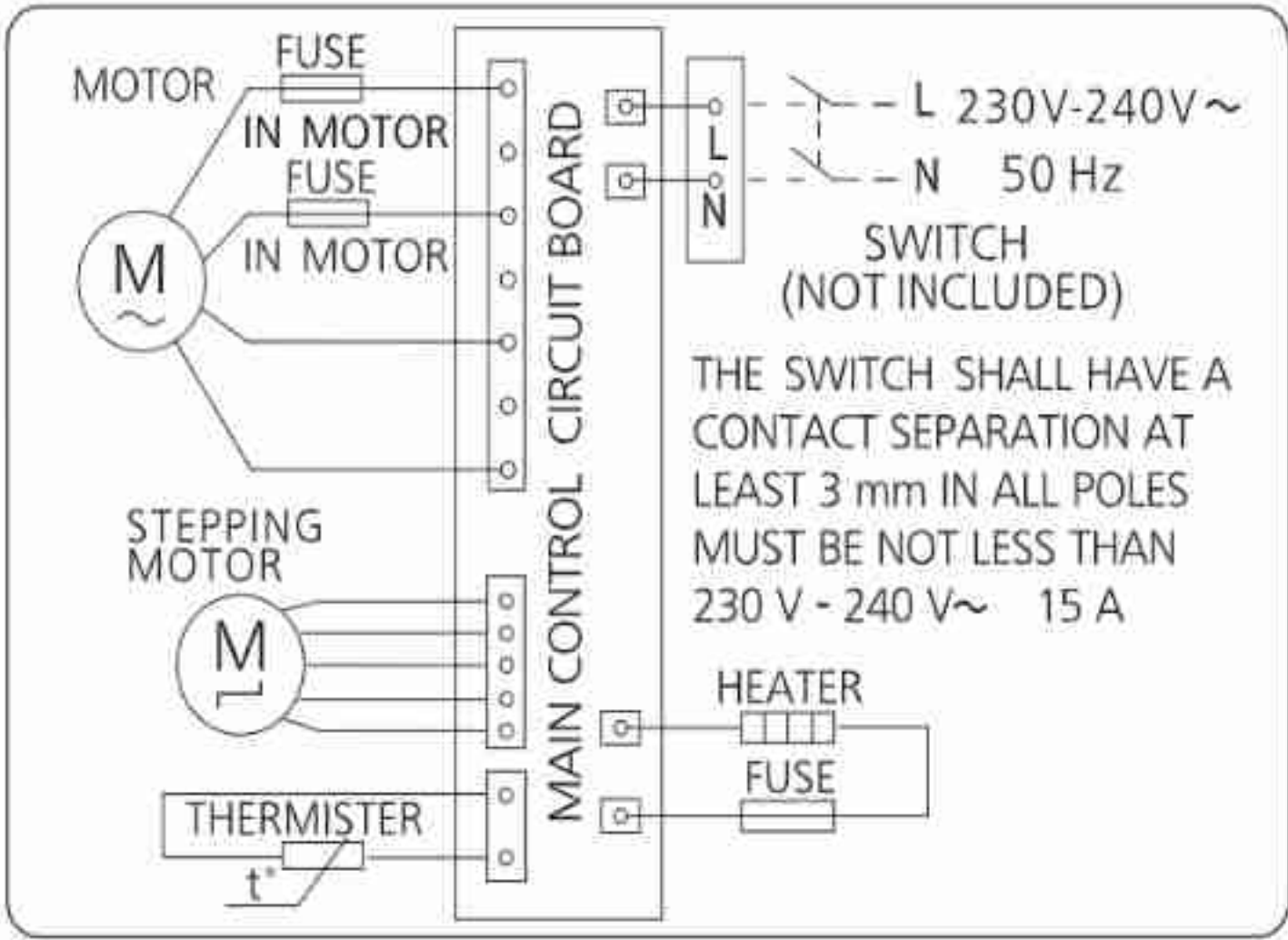
# TROUBLESHOOTING

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 Panasonic customer consultation service center or your distributor.

	Symptom	Cause	Troubleshooting
Air	No hot wind blow out	The heater may fail	Contact Panasonic customer consultation service center or your distributor
	Air volume reduced	The filter may be blocked	Clean the filter
Remote controller	Remote controller does not work	The batteries may be exhausted	Replace the batteries
		The communication module of the PCB may malfunction.	Contact Panasonic customer consultation service center or your distributor
Sound	When the remote controller is operated, the buzzer generates a short prompt tone.	The thermo links may malfunction.	Contact Panasonic customer consultation service center or your distributor
	An abnormal sound is heard.	The main body may not be firmly installed.	Check that the product is fixed by following the steps in the instructions.
		The fan blades may be deformed.	Contact Panasonic customer consultation service center or your distributor
		The stepping motor may be stuck.	Contact Panasonic customer consultation service center or your distributor



WIRING DIAGRAM



SPECIFICATIONS

Model No.	Rated voltage [V]	Rated frequency [Hz]	Power consumption [W]	Rated current [A]	Air volume [m³/h]	Weight [kg]
FV-30BY1	230	50	1600(23 °C) 1470(40 °C)	7.0	150	3.7
	240		1620(23 °C) 1490(40 °C)	6.7	155	

Power Consumption [W]				Noise [dB(A)]			
Heat	Vent	Dry Cool	Dry Hot	Heat	Vent	Dry Cool	Dry Hot
1600(23 °C) 1470(40 °C)	22	22	1250	45	45	45	45
1620(23 °C) 1490(40 °C)	24				46	46	46

- Power consumption and rated current are obtained in the factory default state and the test ambient temperature is 40 °C.
- 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.
- This product comply with the IPX2 requirement against the water drop test and its remote controller comply with the IPX4 requirement against the water shower test.
- Insulation class E

The above specification may be changed without further notice.