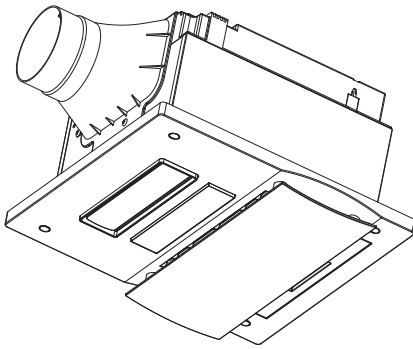


## INSTALLATION AND OPERATING INSTRUCTIONS

### Thermo Ventilator

Model No. **FV-30BG3**



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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.20~21) 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 the 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.

 **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.

- 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.

 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.


- 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.

- Make sure the power cord is installed firmly.

 Otherwise, a fire may be caused.

- Please select 60227 IEC 53 ordinary polyvinyl chloride sheathed cord. Nominal cross-sectional area of conductors is  $3 \times 1.5 \text{ mm}^2$ .


 Otherwise, it may be on fire.

# INSTALLATION INSTRUCTIONS




## WARNING


- 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.


- 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.


- 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 install the product near curtains and other flammable materials.

 Otherwise, combustibles may be inflamed.


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

 Otherwise, a fire may be caused.


- 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.


- 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

 Otherwise, a fire may be caused.


- The product is installed so that switches cannot be touched by a person in the bath or shower.

 Otherwise, an electric shock may be caused.


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

 Otherwise, a fire may be caused.

- Do not operate the product other than the rated voltage.

 Otherwise, it may cause damages to the product or a fire.

# INSTALLATION INSTRUCTIONS



## CAUTION

- Do not reconstruct this product.



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

- Do fix this product tightly.



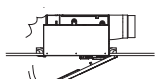
Otherwise, it may fall off to cause personal injury.

- 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.

- Components must be installed tightly.



Otherwise, it may fall off to cause personal 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.

- 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.



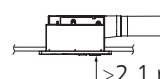
Otherwise, it may fall off to cause personal injury.

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



Otherwise, it may fall off to cause personal injury.

- Install this product over 2.1 m above the floor.



Avoiding any accidents

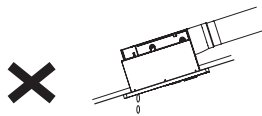
# INSTALLATION REQUIREMENTS

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

- Do not form the duct as shown below:

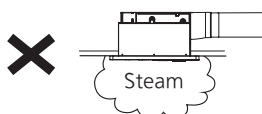


- Do not install onto slanting ceiling.

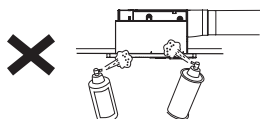


Prevent the water condensed in the duct pipe flow back into the body.

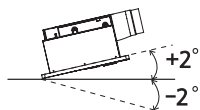
- Do not install the product in steam sauna bathroom.



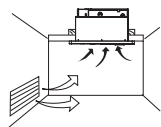
- Do not install the product in the places where the sprayer is used.



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



- Please set ventilation holes.



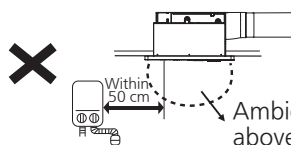
- National regulations concerning the discharge of air have to be fulfilled.

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

- 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.

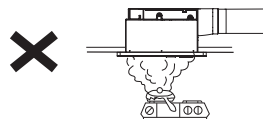
- Do not install the product in places with high temperature.



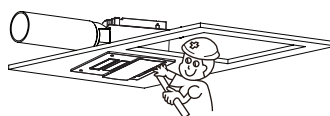
- Do not install the product in the places where the organic solvent is used.



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


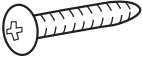

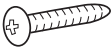


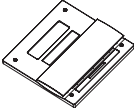


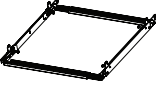



- When the ceiling is unable to dismantle, please set a square inspection hole of at least 45 cm (The inspection hole should not be directly under the duct pipe).



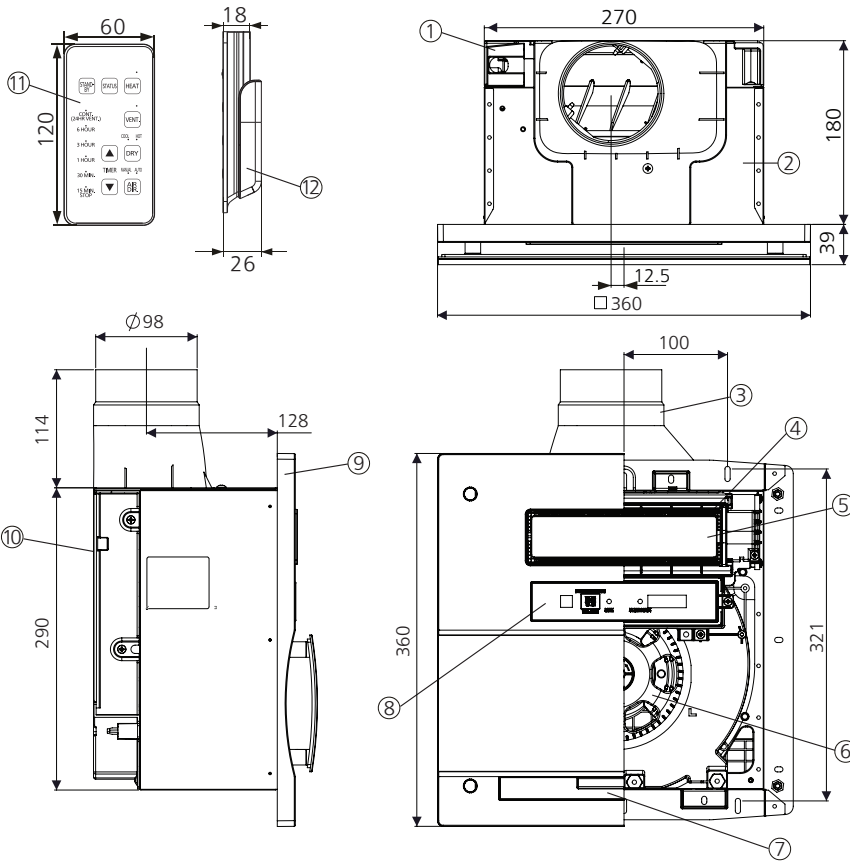
Convenience for installation and maintenance.

# SUPPLIED ACCESSORIES

No.	Drawing	Name and Purpose	Qty
①		Machine screw (M4×8)	4
②		Self-tapping screw (ø4×20)	6
③		Self-drilling screw (ø4×45)	5
④		Self-tapping screw (ø4×16, used to install the remote controller base) (placed on the backside of controller holder)	2
⑤		Installation and operating instructions	1
⑥		Adapter	1
⑦		Louver assembly	1
⑧		Remote controller	1
⑨		R03 (AAA) Manganese battery	2
⑩		Bracket (with 4 trapping screws—ST4 2×20)	1
⑪		Warranty card	1

# PART NAMES AND DIMENSIONS

Unit: mm

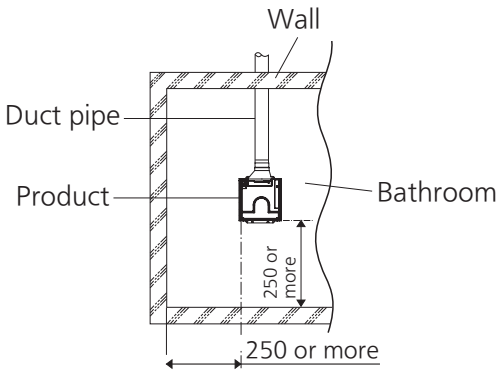


No.	Part name
①	Cord cover
②	Main body
③	Adapter
④	Heater assembly
⑤	Baffle plate
⑥	Fan
⑦	Filter assembly
⑧	Mode button panel
⑨	Louver assembly
⑩	PCB cover
⑪	Remote controller
⑫	Controller holder

# WORK BEFORE INSTALLATION

## 1. Confirmation before installation

Unit: mm

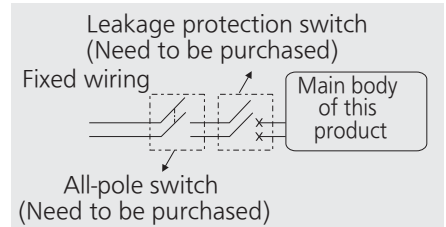


### Notice

1. Install this product over 200 mm apart from curtains or other flammable materials. (When the mounting hole is adjacent to curtains or other flammable materials, ensure that more than 250 mm gap is required between the hole edge and wall.)
2. The distance between ceiling board where the product is mounted and ceiling shall be over 200 mm.
3. Install this product over 250 mm apart from walls.
4. Please reserve a sufficient length of the power cord for easy installation.
5. 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

### Notice

The main body position between joists from 310 mm to 580 mm on center can be adjusted flexibly. The flexible thickness of ceiling joist is 200 mm or more.

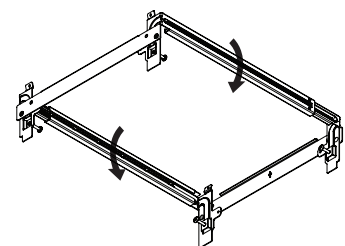
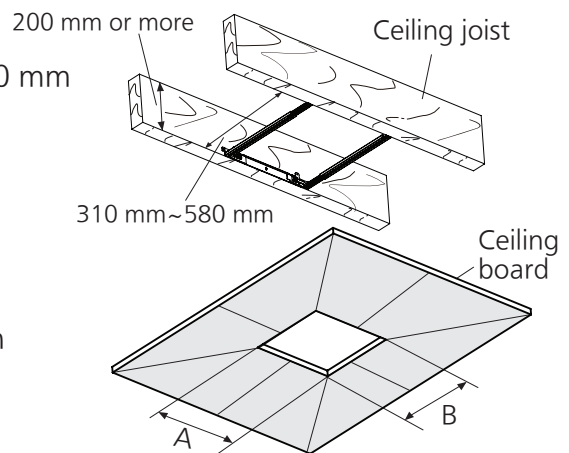
## 1 Main body installation Method 1

- ① Open a mounting hole in the ceiling board with dimensions as shown in the table below: (unit: mm)

A	B
300	300

- ② Connecting the duct pipe → Refer to Section 4. Connecting Duct Pipe on P.11.

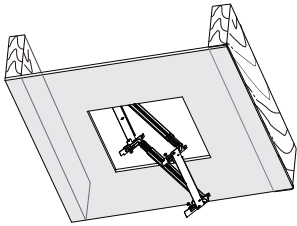
- ③ Fold the mounting bracket over.



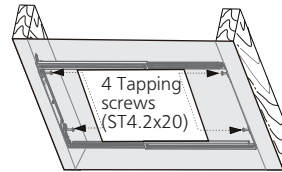


# HOW TO INSTALL

- ④ Place the mounting bracket into the ceiling.



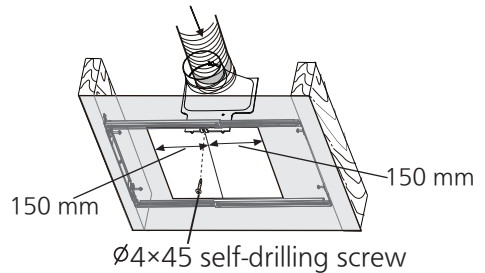
- ⑤ Adjust the length of the bracket as the spacing between joists, and install to joists by drilling the other 2 tapping screws which have been fixed on it.



- ⑥ Mark the center position on the non-joist side. Connect adapter to the circular duct and secure it with clamps, or ties and seal it with mastic or approved foil tape.

- ⑦ Install the adapter at the location you just marked. Fix the adapter with one  $\varnothing 4 \times 45$  self-drilling screw.

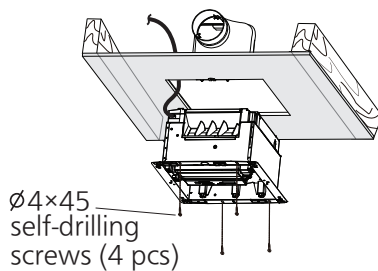
Circular duct



- ⑧ Connecting power cord → Refer to Section 2. Connecting power cord on P.10.

- ⑨ Push the main body upward into the ceiling board by closely leaning against the adapter, and fix the main body with  $\varnothing 4 \times 45$  self-drilling screws (4 pcs).

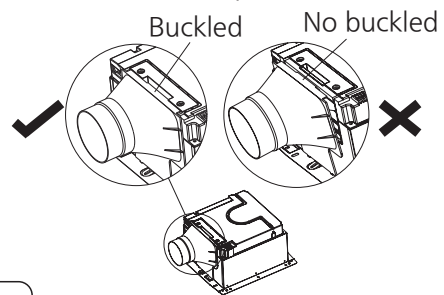
- ⑩ After completion of the installation work, be sure the condition between the main body and the adapter is proper. It can be checked from the inspection hole.



$\varnothing 4 \times 45$   
self-drilling  
screws (4 pcs)

Notice

Please be careful not to pinch the cord, when push upward the main body.



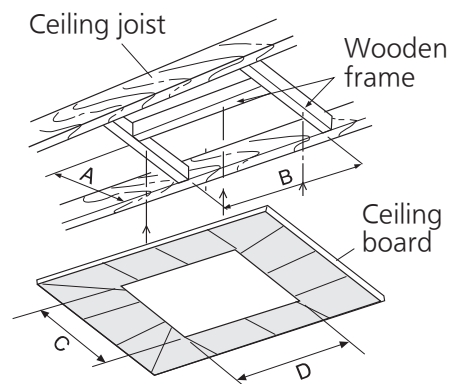
Notice

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

## 1 Main body installation Method 2 ordinary ceiling

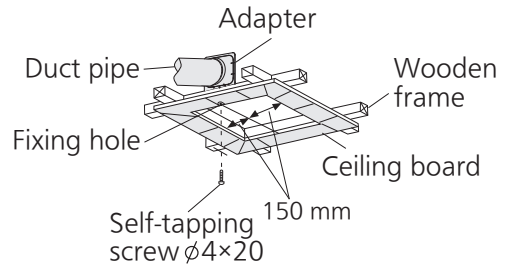
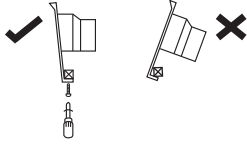
- ① Make a wooden frame and install it onto the ceiling joist. Ensure that the total thickness of the wooden frame and ceiling should be 20 mm~30 mm. Meanwhile, open a mounting hole in the ceiling board with dimensions as shown in the table below: (unit: mm)

A	B	C	D
300	300	300	300



# HOW TO INSTALL

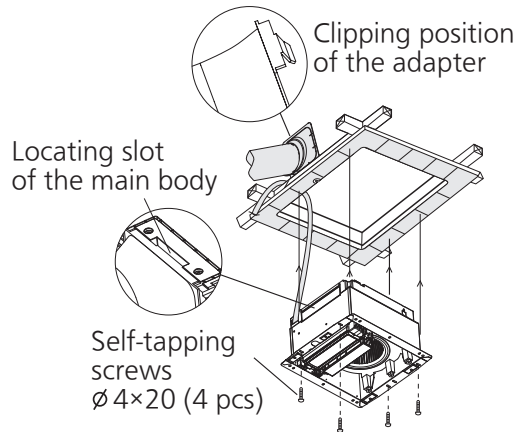
- ② Install the adapter (make the fixing hole in the middle). Use one  $\phi 4 \times 20$  self-tapping screw to fix the adapter to the ceiling.



- ③ Connecting the duct pipe → Refer to Section 4.Connecting Duct Pipe on P.11.

- ④ Connecting power cord → Refer to Section 2.Connecting power cord on P.10.

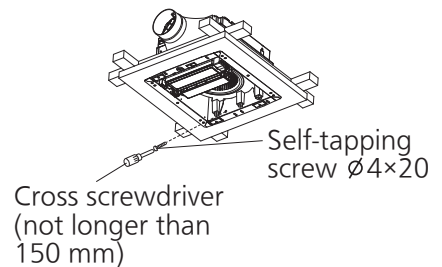
- ⑤ Push the main body upward into the ceiling board and wooden frame by closely leaning against the adapter, clip the clipping position of the adapter into the locating slot of the main body (otherwise, may have air leakage), and fix the main body with four  $\phi 4 \times 20$  self-tapping screws.



## Notice

Please be careful not to pinch the cord, when push upward the main body.

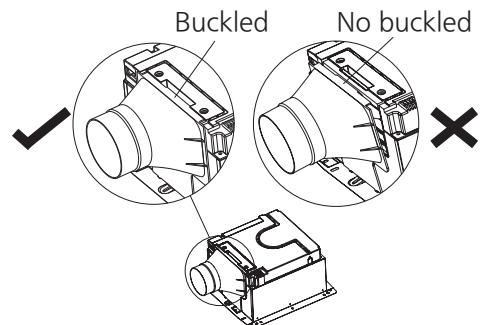
- ⑥ Use one  $\phi 4 \times 20$  self-tapping screw to fix the adapter. Be sure to fix this screw because it can prevent the main body from falling off the ceiling board.



- ⑦ 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.



# HOW TO INSTALL

## 2 Connecting power cord



### WARNING



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



Please select 60227 IEC 53 ordinary polyvinyl chloride sheathed cord. Nominal cross-sectional area of conductors is  $3 \times 1.5 \text{ mm}^2$ .



For the stripping length, please prepare according to the wiring sketch (refer to figure 1). If the stripping length is too long, it may cause short circuit.



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 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 (the recommended screw fixing torque is  $0.49 \text{ N}\cdot\text{m}$ ) (See Figure 2). Otherwise an electric shock may be caused.

Wiring sketch

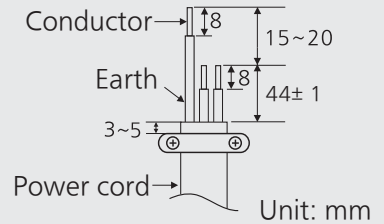


Figure 1

Terminal cutaway view

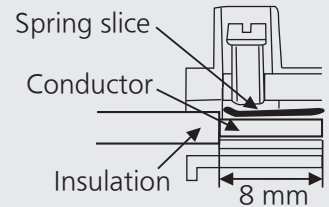
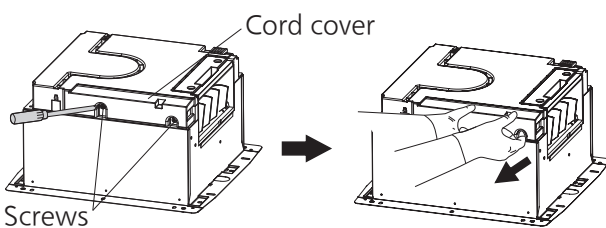
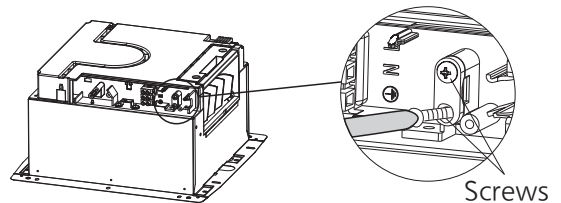


Figure 2

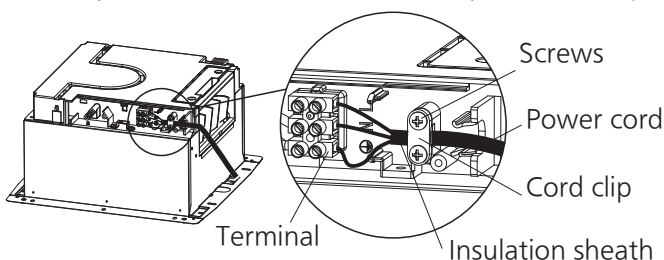
- ① Remove the screws (2 pcs) on the cord cover, then open the cord cover.



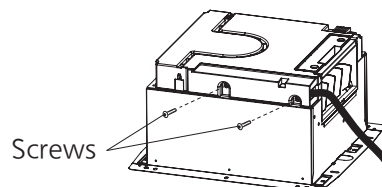
- ② Loosen the screws of the cord clip.



- 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.)



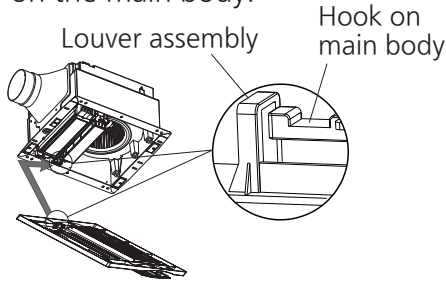
- ④ Fix the cord cover by the screws which removed by step ①.



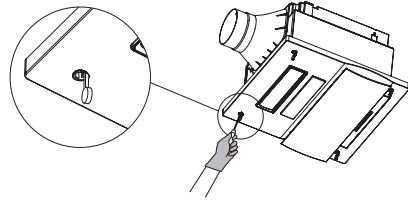
# HOW TO INSTALL

## 3. Installing louver assembly

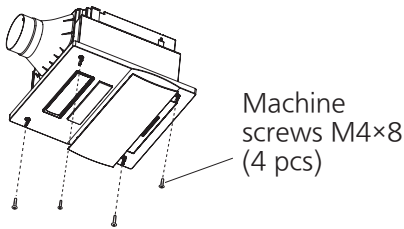
- ① Hang the louver assembly into the hook on the main body.



- ② Insert a straight screwdriver into the gap of the screw cap, and unclench the screw cap outward.

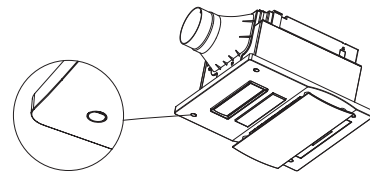


- ③ Fix the louver to the main body with four M4×8 machine screws provided in accessory package.



- ④ Attach the unclenched screw caps again.

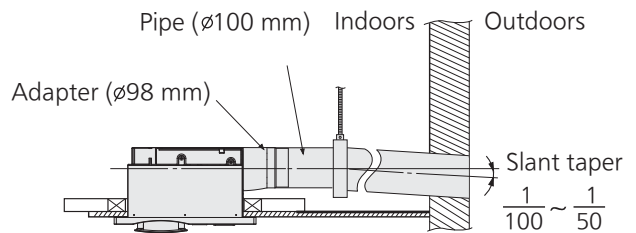
- ⑤ Please remove the protective film on the mode button panel on main body after finishing the installation.



Screw caps (4 pcs)

## 4. 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 force exerted on the unit body.
- ② Install the pipe cap or pipe cover on the external wall. (Please purchase a pipe hood or vent cap separately according to the pipe size.)



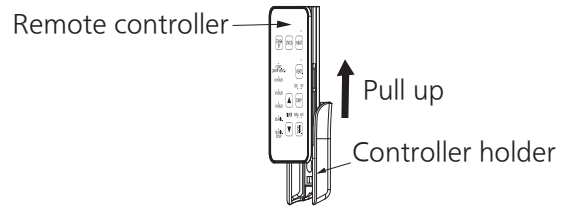
### Notice

1. The minimum diameter of the hole:  $\varnothing 110$  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.

# HOW TO INSTALL

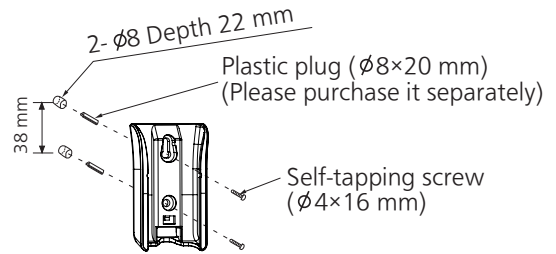
## 5. Installing the remote controller

① Take out the remote controller from the holder.

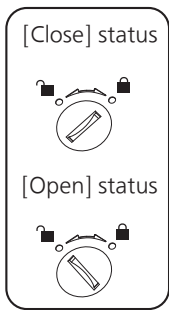


②-1 Check the main body can receive the signal from the intended remote controller installation location. If remote controller can not receive the signal from this installation location, please choose another installation location, or operate the remote controller toward product after taking out it from the holder. The installation location cannot be toward the direct spraying area of the shower.

②-2 Open two  $\phi 8$  holes in the bathroom wall as shown below. And install the controller holder.

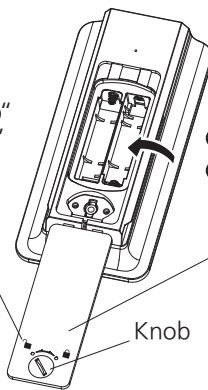


③ Install two R03 (AAA) manganese batteries in the remote controller.

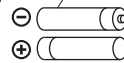


(1) Rotate the knob "⊗" leftward to the "⊗" position.

(2) Open the battery cover.



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



(4) Replace the battery cover.

(5) Rotate the knob "⊗" rightward to the "⊗" position.

④ Please back the remote controller to the holder.

### Notice

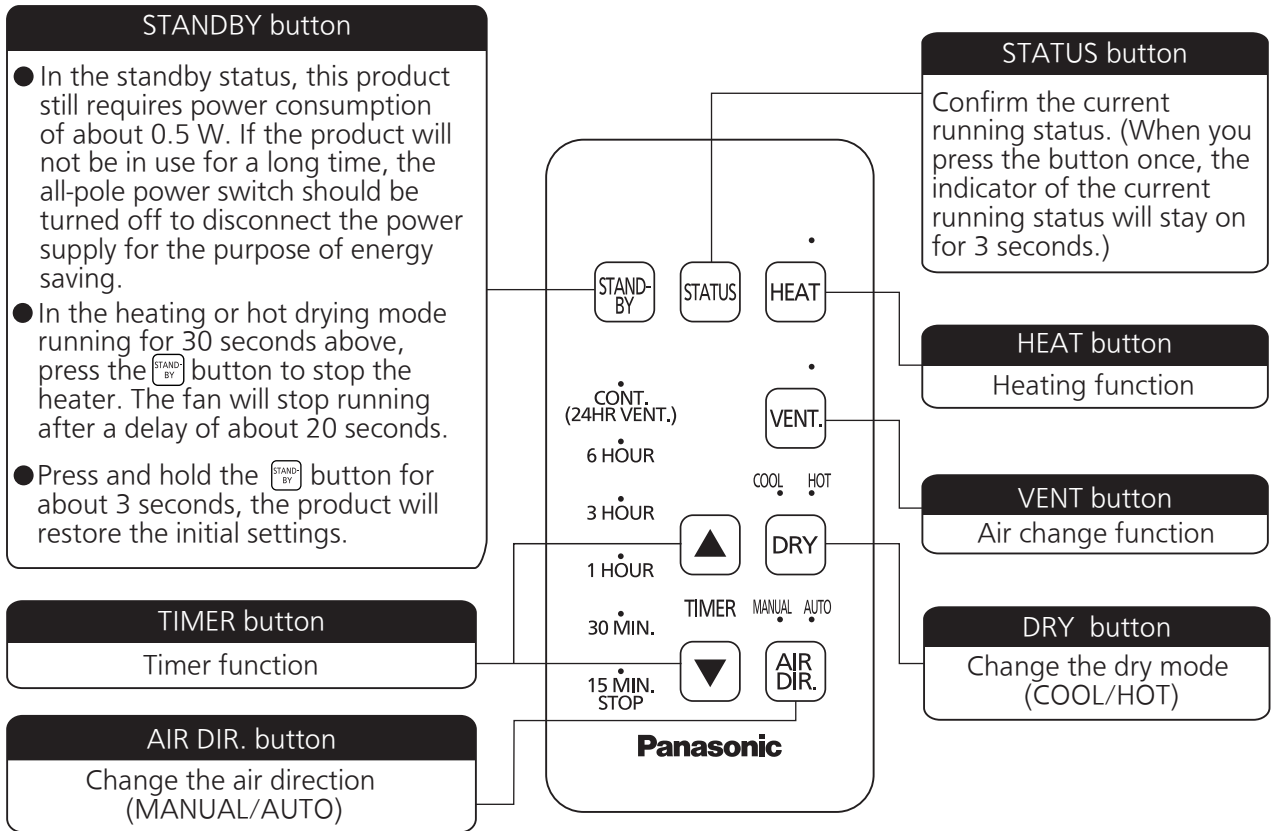
1. Do not replace the batteries when the remote controller body is wet.
2. Do not exert too hard when you rotate the "⊗" knob on the remote controller back, otherwise the knob will be damaged.
3. If the battery cover is not tightened, it will affect the sealing effect.
  - When the battery leaks, avoid direct skin contact with the battery, and dispose the battery.
  - Please comply with local laws and regulations when dispose the battery.
  - Please refer to page 20 for more information on the "USE AND MAINTENANCE INSTRUCTIONS" of the batteries.

## TEST RUN

After connecting the power, please check the following item using the remote controller:

- 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?

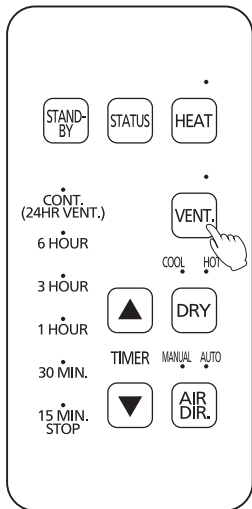
# FUNCTION OF REMOTE CONTROLLER



## Notice

1. 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 about 20 seconds to cool the heater down, then enter the air ventilation mode.
2. When you use the mode button on the mode button panel on main body, then press the **STATUS** button on remote controller, the status displayed by the remote controller may differ from the actual product status.
3. If there is no sound from product after you press the remote controller, it means the product does not receive the remote controller signal, you need to reoperate.
4. Please remove the protective film on the remote controller before use.

# HOW TO USE VENTILATION FUNCTION



**VENT.** Used to ventilate the bathroom

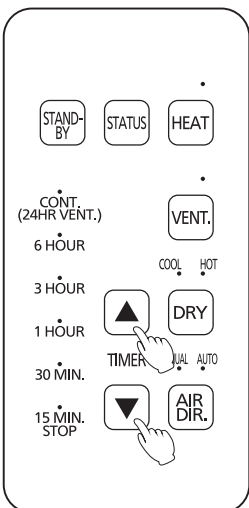
- ① Press the **VENT.** button to start the air change mode.
- ※ The indicators of VENT. and default setting time (15 MIN.) light on, then turn off automatically after 3 seconds.
- ② During operation, you can press **▲▼** to change the running time.
- ③ To confirm the current running mode and remaining time for reference, press the **STATUS** button.
- ④ This product will stop automatically when the set time is up.
- ⑤ To stop midway in operation, press the **STAND-BY** button.

# HOW TO USE TIMER FUNCTION

**▲▼** For running time adjusted

During operation, you can press the **▲▼** button to change the running time.

- ① Each time you press the **▲** button, the time will increase accordingly.  
Each time you press the **▼** button, the time will decrease accordingly.  
If you press and hold the button, the running time will keep 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 about 3 seconds.



HEAT mode

15 MIN. ~ 3 HOUR Default settings 15 MIN.

VENT. mode

15 MIN. ~ 6 HOUR ~ CONT. Default settings 15 MIN.


DRY HOT mode

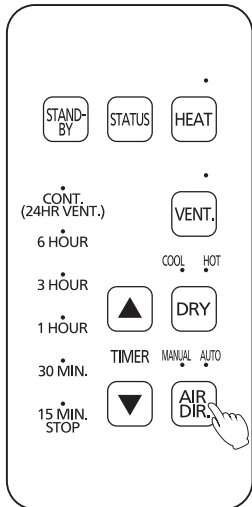
15 MIN. ~ 6 HOUR Default settings 15 MIN.


DRY COOL mode


15 MIN. ~ 6 HOUR ~ CONT. Default settings 15 MIN.

# HOW TO USE AIR DIRECTION FUNCTION

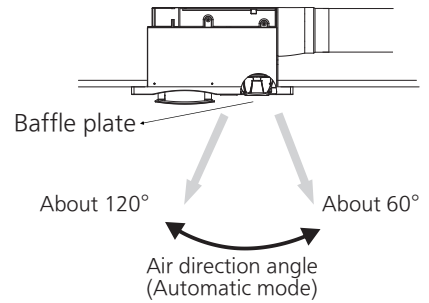
 For adjusting air direction




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

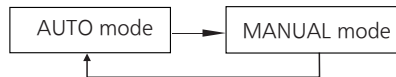
- ① The initial air direction setting of HEAT, DRY HOT and DRY COOL is AUTO mode. You can press the  button change the mode between MANUAL and AUTO.

\* AUTO mode: The baffle plate circularly swings within the range of about 60° to 120°




\* MANUAL mode: To fix the baffle plate angle, press the  button when the baffle plate turns to the required position. The baffle plate will stop, and the MANUAL indicator lights on.

- ② The figure below shows switching sequence between the AUTO mode and MANUAL mode:



- ③ Air direction cannot be set in the ventilation mode.
- ④ Each mode will automatically memorize the air direction position set this time.

To cancel the automatic memory content, press and hold the  button for about 3 seconds.

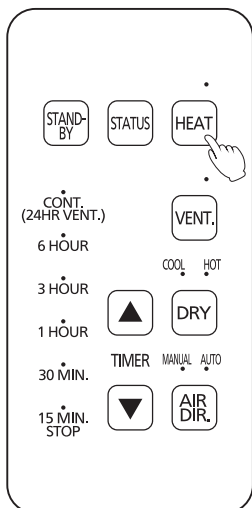


# HOW TO USE HEATING FUNCTION



Use when you feel cold in a bath

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



- ① Press the button to start the heating mode.
- ※ The indicators of HEAT and default setting time (15 MIN.) light on, then turn off automatically after 3 seconds.
- ② During running, you can press to change the running time.
- ③ During operation, you can press the button to change the air direction.
- ④ To confirm the current running mode and remaining time for reference, press the button.
- ⑤ This product will stop automatically when the set time is up.
- ⑥ To stop midway in running, press the button.
- ※ 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 about 20 seconds.

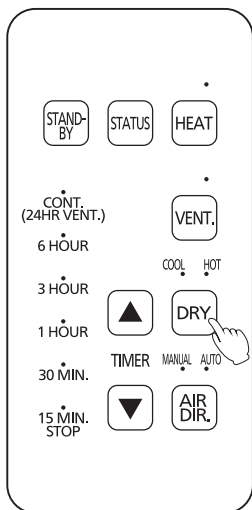
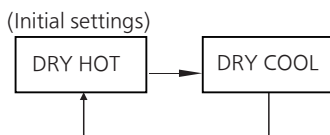
## Notice

1. Hot startup function: After the product starts up in the heating mode when the temperature in the bathroom is lower than 20 °C, it enters the hot startup status to avoid blowing of cold air, and the fan runs at a low speed. When the temperature in the bathroom reaches 20 °C or above or after running for about 60 seconds, the hot startup status stops and the fan runs at a high speed.
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 DRYING FUNCTION

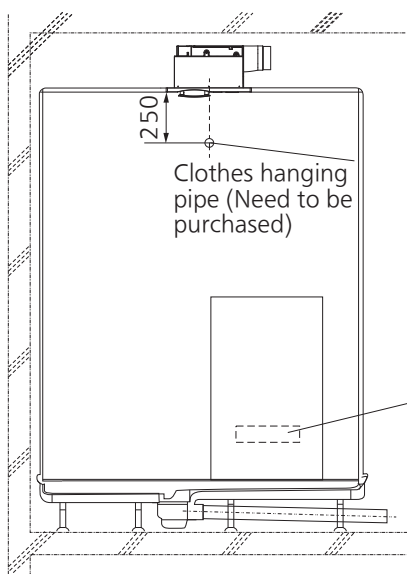
**DRY** Use when you need to dry the bathroom or clothes

- ① Press the **DRY** button to start the DRY HOT mode. It will switch to the DRY COOL mode if you press this button again.



- ※ The indicators of COOL or HOT and default setting time (15 MIN.) light on, then turn off automatically after 3 seconds.
- ② During running, you can press **▲** **▼** to change the running time.
- ③ To confirm the current running mode and remaining time for reference, press the **STATUS** button.
- ④ This product will stop automatically when the set time is up.
- ⑤ To stop midway in running, press the **STAND-BY** button.
- ※ In the DRY HOT mode running for 30 seconds above, press the **STAND-BY** button to stop the heater. The fan will stop running after a delay of about 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.

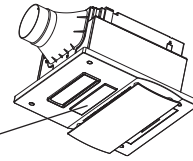
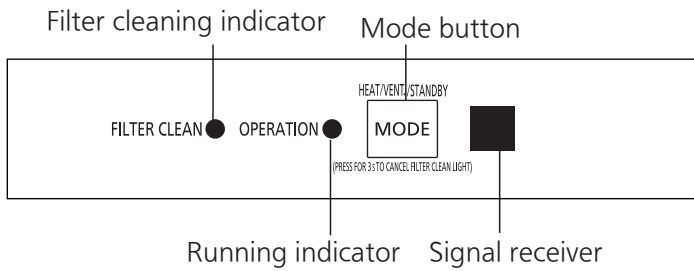


Otherwise, it may cause injury.

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.

# MODE BUTTON PANEL ON MAIN BODY

When the remote controller is lost or does not work, you can use the MODE button panel on the front surface of the main body to operate the product. (Each time can be operated for 15 mins)

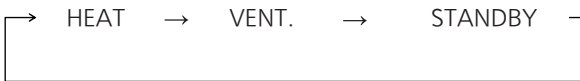


## WARNING



Do not press the MODE button during a bath or shower in the bathroom. Otherwise, you may slip.

1. The MODE button can be used to switch among the following functions:



2. Conditions of the filter cleaning indicator and running indicator.

Run Status	Filter cleaning indicator	Running indicator
Stop	Off	Off
Normal running	Off	On
Abnormal running	Off	Blinking fast <sup>*1</sup>
Normal running + Filter cleaning indication	Blinking fast <sup>*1</sup>	On
During the hot startup	Off	Blinking slow <sup>*2</sup>

When the running indicator blinks quickly, please disconnect the power supply, and contact Panasonic customer consultation service center or your distributor.

※1 Blinking fast: On for 0.5 seconds and off for 0.5 seconds

※2 Blinking slow: On for 1 second and off for 1 second

# USE AND MAINTENANCE INSTRUCTIONS

## WARNING

- Do not disassemble this product for repair or reconstruction.



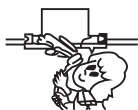
Doing this may lead to fire and electric shock.

- 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.

- 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.
- 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.

- Do not put the battery in reach of children and infants.

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.



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



Doing this may generate spark and thus lead to explosion.

- 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 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 become hot, crack.

- Do not use battery of broken casing.



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

- 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 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 rupture.

- 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.


# USE AND MAINTENANCE INSTRUCTIONS

## WARNING

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


 This product may cause injuries once it falls off.

- 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.

## CAUTION

- When you clean this product, please wear gloves.

 Otherwise, may lead to injury.

### Notice

1. Do not swing the baffle plate, otherwise the baffle plate may operate in inaccurate angles.
2. The bathroom size may affect the heating performance of this product.
3. 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.

## MAINTENANCE

### Cleaning Precautions

#### Cleaning the louver:

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.



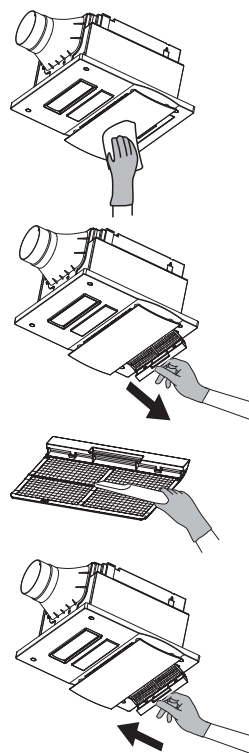
#### Cleaning the filter:

1. Do not use any type of diluent, alkaline cleaner, benzene, alcohol, antiseptic, or steel wool 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.)

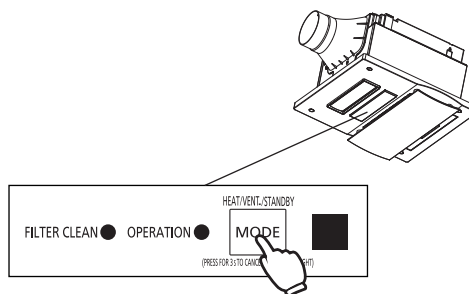
# MAINTENANCE

## Cleaning the louver assembly and filter

- ① Shut off the all-pole switch.
- ② Wipe the front panel with a soft cloth.
- ③ Remove the filter from the louver assembly.
- ④ Use a vacuum cleaner to remove dust from the filter.
- ⑤ Reinstall the filter assembly.
- ⑥ Turn on the all-pole switch.
- ⑦ Clear the filter cleaning indication at the receiving part of the main body.  
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. A “beep” sound means the resetting is done.)



Press and hold the MODE button at the receiving part of the unit body for 3 seconds. 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.)



## ANTIBACTERIAL FUNCTION

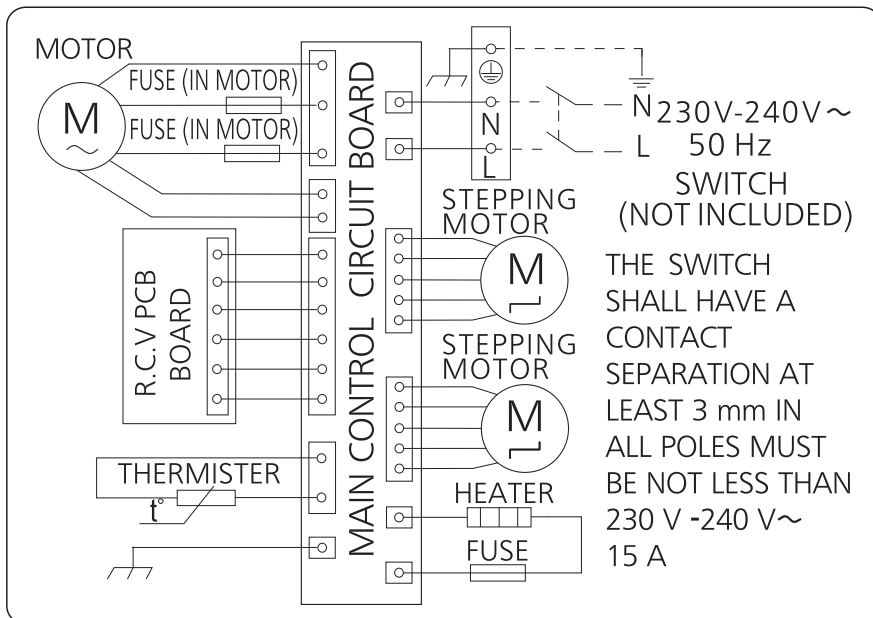
- ※ The filter mesh in the filter mesh assembly provides the antibacterial function.
- ※ As the use time increases, the antibacterial performance of the filter mesh will decrease accordingly.

# 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 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 signal receiver may be obstructed or dirty.	Please remove the obstacle or clean the signal receiver
Mode button panel on main body	The filter cleaning indicator blinks quickly	It's time to clean the filter	Clean the filter
	The running indicator blinks quickly	The product is error	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 [m <sup>3</sup> /h]	Weight [kg]
FV-30BG3	230	50	1670 (23 °C) 1500 (40 °C)	7.2	170	5.2
	240	50	1670 (23 °C) 1500 (40 °C)	6.8	180	

Power consumption [W]		Noise [dB(A)]			
Heat	Vent	Heat	Dry		Vent
			Hot	Cool	
1670 (23 °C) 1500 (40 °C)	27	46	46	46	38
1670 (23 °C) 1500 (40 °C)	29	46	46	46	39

- Power consumption and rated current are obtained when the baffle plate is under 90° 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.
- Air volume is the central value measured by this company with ±10% of tolerance range.
- 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.