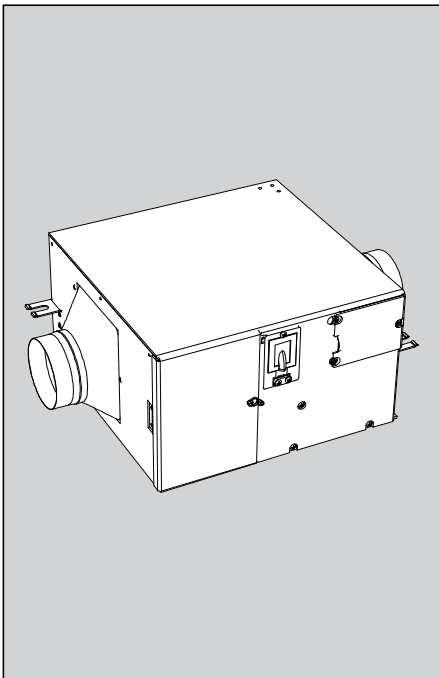


## INSTALLATION AND OPERATING INSTRUCTIONS

Cabinet Fan

Model No. FV-01NAP1



### CONTENTS

SAFETY INSTRUCTIONS	2
INSTALLATION INSTRUCTIONS	2~4
INSTALLATION AND OPERATING REQUESTS	4
SUPPLIED ACCESSORIES	5
PARTS NAME AND DIMENSIONS	5
HOW TO INSTALL	6~8
USE AND MAINTENANCE INSTRUCTIONS	9~10
HOW TO MAINTENANCE	10~11
TROUBLESHOOTING	11
SPECIFICATIONS	12

### READ AND SAVE THESE INSTRUCTIONS

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.9~10) of this instructions before operation. Please retain this booklet 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.

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 "PROHIBITED" to do.



This symbol indicates the "COMPULSORY" item that must be followed without failure.



This symbol indicates the item is "CAUTION".

# INSTALLATION INSTRUCTIONS

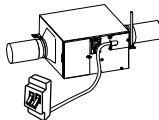


## WARNING

- There should be an all poles switch with minimum 3 mm contact gap in the fixed wiring.



Otherwise, it may cause electric shock.



- Do not operate the product other than the rated voltage (220 V-240 V~, 50 Hz).



Otherwise, it may damage the product or cause fire.

- Do not use the product in the place where outdoor temperature is much lower than indoor temperature.



Otherwise, it may be condensation and cause electric shock or water drops.

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



Otherwise, it may cause product to fall and result in injuries.

# INSTALLATION INSTRUCTIONS

## ⚠ WARNING

- It must be grounded.



Abnormality or current leakage may cause electric shock.

- Do not install product and outdoor air intake in the place where it produces harmful gas including acid, alkali, organic solvent, coatings and corrosive elements, such as machine factory, chemical factory and research facilities, etc.

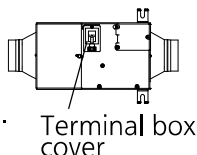


Otherwise, it may cause gas poisoning or fire because of product internal corrosion and degradation.

- Do not remove the terminal box cover when the external controller is not connected.



Otherwise, it may cause electric shock.



- Do not install the product and indoor outlet in the place with much moisture and high humidity steam.



Otherwise, it may cause electric shock or short circuit.

- The product should be installed by a qualified person firmly.



Otherwise, it may cause the product to fall and result in injuries.

- Overload protection should be installed in the circuit when install product



Otherwise, it may cause fire or electric shock.

- Specified number and size of the bolts should be used for hanging the product and they must be tightened.



Otherwise, it may cause injury due to insufficient strength.

- Please select 60227 IEC 53(RVV) ordinary polyvinyl chloride sheathed cord. Nominal cross-sectional area of conductors is  $4 \times 0.75 \text{ mm}^2$ .



Otherwise, it may cause fire.

- Weight of duct should not load on the product after installation.



Otherwise, it may cause injury due to insufficient strength.

- That 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, it may cause fire.

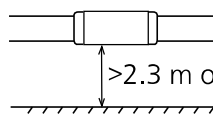
## ⚠ CAUTION

- Please install anti-bird net or similar items at the air inlet. We recommend you purchase pipe hood that model No. is FV-MGX100P (no provided) supplied by Panasonic. Detail installation please refer to the instruction of outdoor duct installation.



Please remove it if there is bird nest or other things. Otherwise, it may effect product function.

- The installation height of the product shall be more than 2.3 m above the floor. (More than 2.5 m for Malaysia following domestic regulation.)



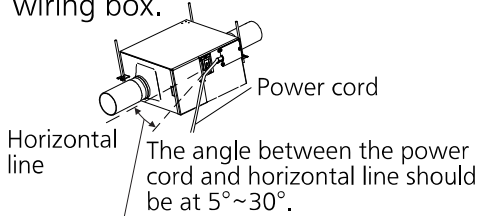
Avoiding any accident

# INSTALLATION INSTRUCTIONS

## CAUTION

- The power cord should be lower than the outlet of terminal box during installation or maintenance.

! Otherwise, it may cause water flow along the power cord into wiring box.

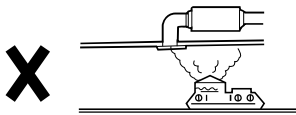


- The building structure and suspender which are used to installed product must have sufficient installation strength and support more than 5 times weight of the product. They must be reinforced if their strength can not be sure.

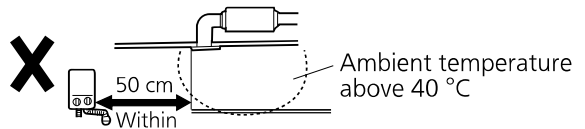
! Otherwise, the product may fall off and cause injury.

## INSTALLATION AND OPERATING REQUESTS

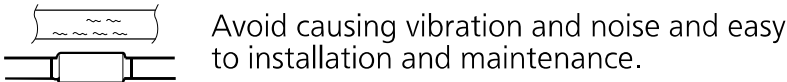
- Avoid a location with too much oil fume.



- Avoid a location with high temperatures.



- The product should not touch any object, such as wall, etc.



- Do not place any obstacle near the inlet and outlet openings.

- For an exhaust to outdoor, attach a pipe hood to the end and keep at least a 1/100 slant downward. For an air intake to indoor, keep at least a 1/100 slant upward.

- Connect the duct avoiding the following cases.



### Operating condition

- The applicable ambient temperature of this product is in the range of 10 °C~40 °C. The relative humidity is 85% below.

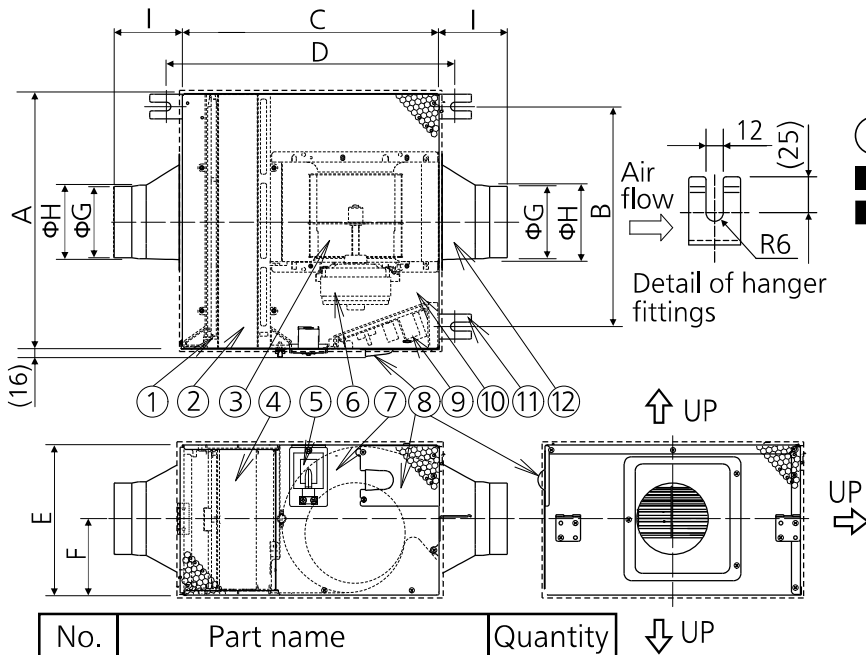
- The product installs in the place where it is the same as the indoor environment and the temperature difference of ambient air dewpoint is 15 °C below. For a cold storage or other locations of rapid temperature change, even if they conform to the above temperature range, they are also prohibited from using the product. (Indoor environment refers to the environment that is equipped with air conditioner in living room. )

# SUPPLIED ACCESSORIES

The following accessories are provided with the cabinet fan in the package. When you unpack, check if the accessories are all included. If not, please contact your dealer.

No.	Appearance	Name and purpose	Quantity
①		Installation and operating instructions	1
②		The caution label of filter maintenance	1
③		Warranty card (for Vietnam)	1

# PARTS NAME AND DIMENSIONS



### Notice

- The views are 3rd angle.
- "↑ UP" indicates the surfaces in the left view which can be installed upwards.

No.	Part name	Quantity
①	Pre-filter	1
②	Sub-efficient (PM2.5) filter	1
③	Blade	1
④	Filter panel	1
⑤	Terminal box	1
⑥	Motor	1
⑦	Check board	1
⑧	Wiring box cover	1
⑨	PCB	1
⑩	Frame	1
⑪	Hanger fitting	3
⑫	Adapter	2

## ⚠ WARNING

Do not install the product as the directions below. Otherwise, it may cause electric shock.

Duct to be upside

**X**

Check board to be upside

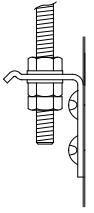
**X**

Unit: mm

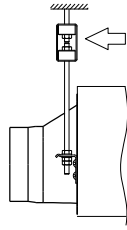
Model No.	A	B	C	D	E	F	G	H	I	Duct size
FV-01NAP1	350	302	355	401	206	103	98	101	90	Φ100

# HOW TO INSTALL

## 1. Fan body installation



To hang the fan, be sure to attach firmly with hanger bolts, washers and nuts. (Which should be M8-M10 and no provided)



Vibration cushion rubber set (no provided) can be used in special condition for vibration requirement and it must can support the weight of the product.

### ⚠ WARNING

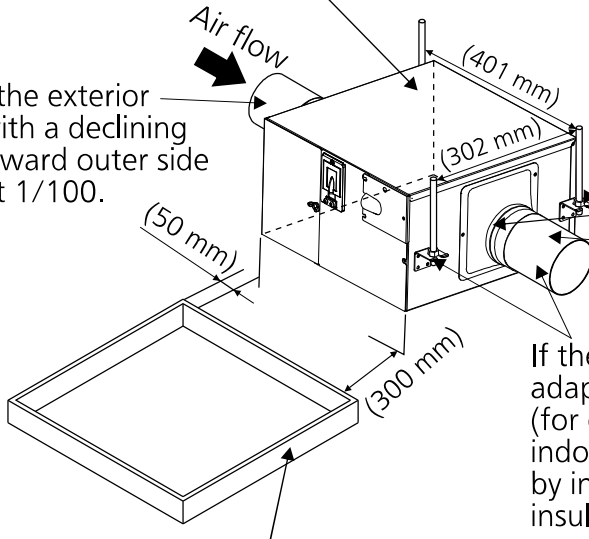
Specified number and size of the bolts should be used for hanging the product and they must be tightened.



Otherwise, it may cause injury due to insufficient strength.

The fan body must be installed horizontally.

Install the exterior duct with a declining slope toward outer side at least 1/100.



Connect the circular duct and the adapter by using noncombustible sailcloth.

Install the interior duct with a declining slope toward inner side at least 1/100.

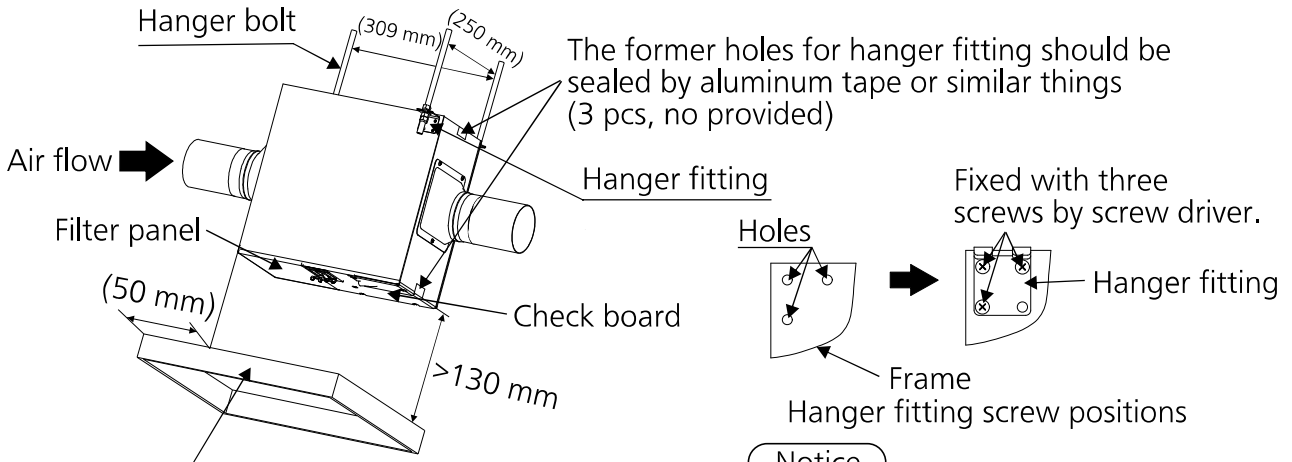
If there is dewfall outside of the duct, adapter surface and hanger fitting (for example, in winter, when heating indoors), heat insulation should be taken by insulation material ( such as cotton insulation).

Be sure to provide an square inspection hole of 450 mm or more.

### Notice

To install the fan with the check board facing down, remove the attached three hanger fittings and reattach them in the holes in the top and bottom surfaces (use the screws you just removed). The former holes for installing the hanger fitting need be sealed.

# HOW TO INSTALL



**Notice**

It will affect performance or damage the internal structure of the product if sponge of hanger fitting is damaged when installed.

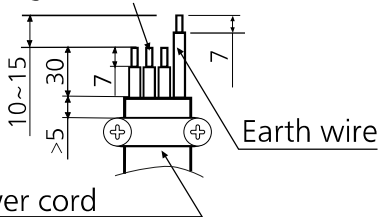
Be sure to provide an square inspection hole of 450 mm or more.  
 Hanger fitting positions for installing with the check board facing down.  
 (Inspection hole is set under the check board.)

## 2. Wiring connecting

- In accordance with the Electrical Equipment Engineering Standard and the domestic wiring rule specified by the power company, the wire should be subcontracted an electrician to connect firmly and securely.
- The earth wire of the power cord must be longer than other wires for 10 mm~15 mm, and each wire inserted to the wire terminal need wiring to sheaves.

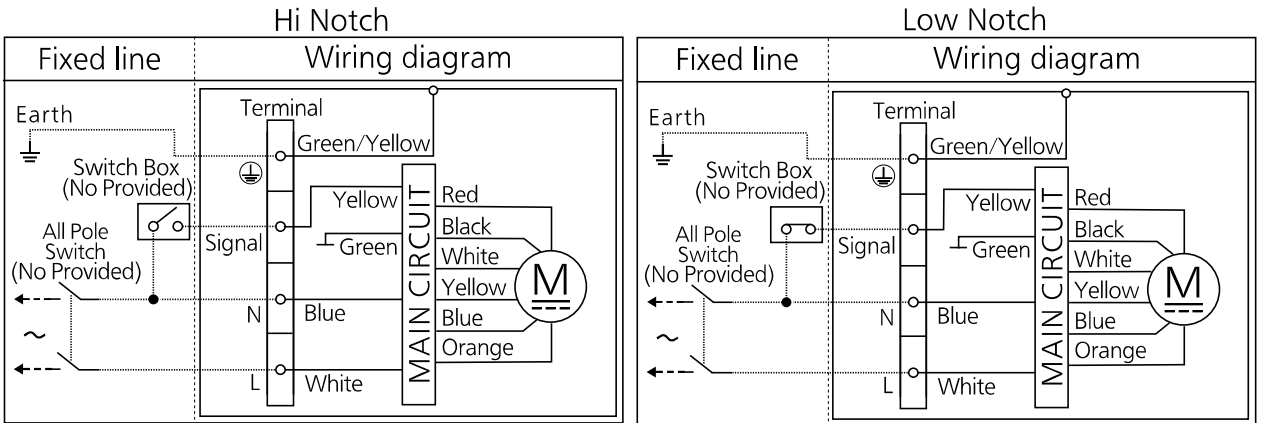
Wiring each wire to sheaves

Unit: mm



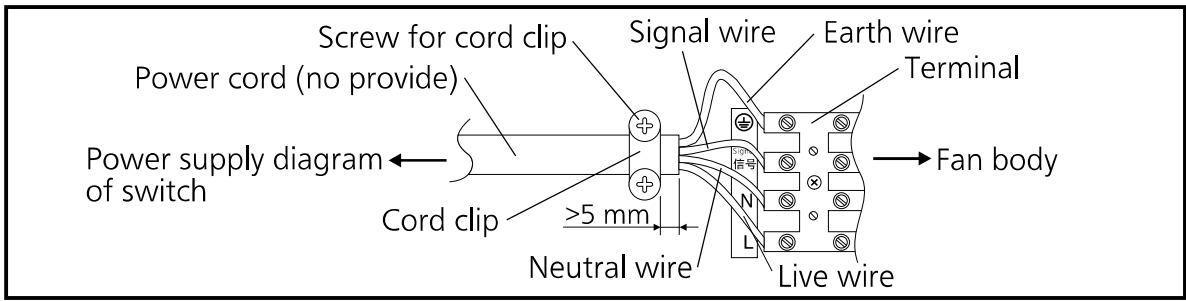
60227 IEC53 (RVV) 4×0.75 mm<sup>2</sup>

- Open the wiring box cover and connect wires according to the following wiring diagram. It must carry out grounding work.



It can switch high and low notch by switch box (no provided). The switch box (no provided) of fixed line should be in the status "off" if choosing high notch; or it should be in the status "on" when choosing low notch.

# HOW TO INSTALL



- Connect the wires to the corresponding terminal as above wiring diagram. Please refer to above fixed line to connect the wires of power supply diagram of switch.
- After connecting the wiring, fix the wiring box cover with screws.
- Do not connect two or more products to one single switch in parallel. Otherwise, it may cause breakdown such as damaging product, etc.

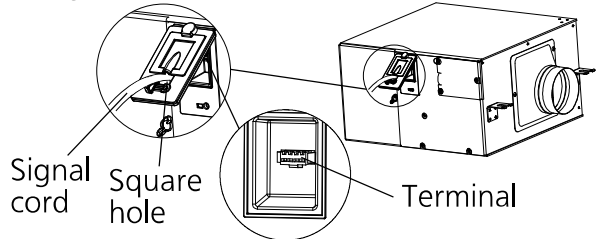
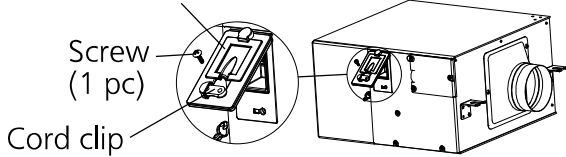
## 3. Terminal for connecting an external controller (no provided)

The product has a terminal that connects an external controller (no provided). Please open terminal box cover to connect it if this terminal needs to be used. Please see the following specific connection method. Please contact the dealer to buy the controller that the model No. is FV-SCGPW1 if it is needed.

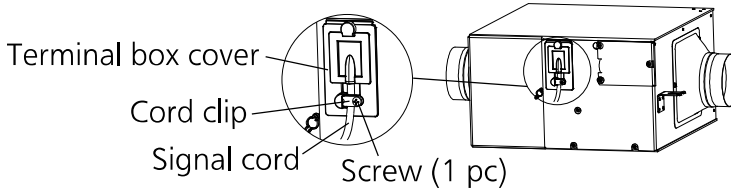
■ How to install the signal cord of controller (no provided):

- ① Remove a screw fixing terminal box cover and cord clip by screwdriver, remove the cord clip, then open terminal box cover.
- ② Pass the signal cord of FV-SCGPW1 controller through the square hole on terminal box cover, then connect the signal cord to terminal.

Terminal box cover

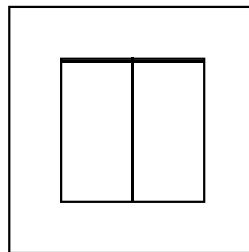


- ③ As the picture shows, close terminal box cover, then pin the signal cord of FV-SCGPW1 controller by cord clip removed in step ① and fix them with a screw.



## 4. Stick caution label of filter maintenance

■ Please stick the caution label of filter maintenance in package on the place near the switch. Record the first time using date of the filter, so that to clean or replace filter on time.



Switch box (no provided)

Caution about Cabinet Fan filter maintenance 送风机过滤网维护注意									
<ul style="list-style-type: none"> <li>● It is recommended to clean pre-filter once a month and replace pre-filter once a year. 建议初效过滤网约1个月清洁1次, 约1年更换1次。</li> <li>● It is recommended to replace sub-efficient filter once in 2-6 months. 建议亚高效过滤网约2-6个月更换1次。</li> <li>● When cleaning, if the outer face of sub-efficient filter is found completely black, please replace it in time. The detail of operation please refer to operation instruction or the label about filter cleaning and replacement on the product. 在清洁初效过滤网时, 如观察到亚高效过滤网出风侧完全变黑, 请及时进行更换。详细操作方法请参照使用说明书或机体上的过滤网清洁和更换标签。</li> </ul>	<table border="1"> <tr> <td>Pre-filter for replacement 更换用初效过滤网</td> </tr> <tr> <td>Type: □ FV-FB01NJ1</td> </tr> <tr> <td>产品型号: □ FV-FB02NJ1</td> </tr> <tr> <td>Start date: 开始使用日期:</td> </tr> <tr> <td>Sub-efficient filter for replacement 更换用亚高效过滤网</td> </tr> <tr> <td>Type: □ FV-FP01NJ1</td> </tr> <tr> <td>产品型号: □ FV-FP02NJ1</td> </tr> <tr> <td>Start date: 开始使用日期:</td> </tr> </table>	Pre-filter for replacement 更换用初效过滤网	Type: □ FV-FB01NJ1	产品型号: □ FV-FB02NJ1	Start date: 开始使用日期:	Sub-efficient filter for replacement 更换用亚高效过滤网	Type: □ FV-FP01NJ1	产品型号: □ FV-FP02NJ1	Start date: 开始使用日期:
Pre-filter for replacement 更换用初效过滤网									
Type: □ FV-FB01NJ1									
产品型号: □ FV-FB02NJ1									
Start date: 开始使用日期:									
Sub-efficient filter for replacement 更换用亚高效过滤网									
Type: □ FV-FP01NJ1									
产品型号: □ FV-FP02NJ1									
Start date: 开始使用日期:									

The caution label of filter maintenance (in package)



# USE AND MAINTENANCE INSTRUCTIONS



## WARNING

- Disconnect power supply before inspection, maintenance or filter replacement.



Otherwise, it may cause electric shock.

- When gas leakage occurs, do not operate any function of the product.



Otherwise, it may cause explosion.

- Do not inspect and maintain the product by unprofessional people.



Otherwise, it may cause injury or electric shock.

- Do not touch the assembly parts such as blades and motor when operate the product.



Otherwise, it may cause injury.

- Please pay attention that do not pull the wiring during service, maintenance and cleaning.



Otherwise, it may cause electric shock.

- Immediately stop the operation in case of any abnormality (noise, vibration, smell).



Otherwise, it may cause accident.

- Filter panel must be screwed tightly.



Otherwise, it may cause condensation.

- When the product is no longer to be used, it must not be left in the place but removed.



Otherwise, it may fall off and cause injury.

- Do not disassemble the product to repair or modification.



Otherwise, it may cause fire or electric shock.



## CAUTION

- Do not operate the fan without filter.



Otherwise, it may effect the function and capability of product. The attached dust may cause equipment failure.

- Please use the gloves when cleaning the fan.



Otherwise, it may cause injury.

- Clean the pre-filter regularly.



It may effect product function if much dirt or duct attaches to the pre-filter.

- When outdoor temperature is lower than the lowest temperature that the product is allowed to use, please stop operating the product.



Otherwise, the cold air may enter the room and cause uncomfortable.

- Be careful not to drop the parts, tools removed from high place.



Otherwise, it may cause injury.

- Be careful to drop the dirt, dust or insect when inspect, clean and replace filter.



Otherwise, it may enter the eyes.

- When inspect, the fan may rotate caused by the wind inside the duct, even power supply is disconnect. Please make sure the fan has stopped completely before inspection.



Otherwise, people or other things will be caught in the rotating fan and cause injury.

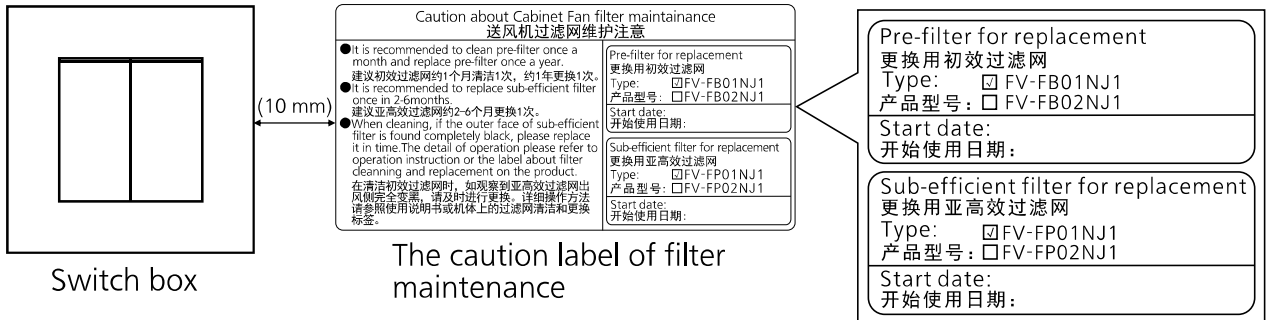
# USE AND MAINTENANCE INSTRUCTIONS

## Notice

For long-term and safe use of the fan, inspection and maintenance of the fan at least once a year by a specialized subcontractor is required.

## HOW TO MAINTENANCE

- Before replacing the filter, please record the start using date on the attached label and stick it near the switch to cover the old used date.



- Please make sure the arrow direction on filter is the same as the air flow marked on product name plate when installing filter.
- Please do not put other items into the filter installation area.
- Please clean the pre-filter gently. Otherwise, the pre-filter may be damaged.
- Operating at bad environment (in a place in a lot of dust), will lead to a rapid decrease of air volume and filter efficiency. To ensure the performance of product, please increase the filter maintenance and replacement frequency adequately; If the environment keeps getting worse, in case of polluted air coming into indoor, please switch to low notch or switch off temporarily.
- Sub-efficient filter is disposable, please do not reused it after cleaning.
- The filter which needs to exchange can not be used again even if it is cleaned. Please dispose it as non-flammable garbage.
- In order to ensure the normal use of cabinet fan, do not use this product to discharge indoor decoration dust or use it in places where dust is serious.

## The method of filter cleaning and replacement: (the product operates in 24 hours everyday)

- Pre-filter cleaning and replacement
  1. It is recommended to clean pre-filter once a month (about 720 hours).
  2. Twist the screw, open the filter panel to left (figure 1 of page 11).
  3. Pull out the pre-filter (figure 2 of page 11), and then use vacuum cleaner to remove the dust.
  4. It is recommended to replace pre-filter once a year. ※
- Sub-efficient filter replacement
  1. It is recommended to replace sub-efficient filter once in 2~6 months. ※
  2. Twist the screw, open the filter panel to left (figure 1 of page 11).
  3. Pull out the sub-efficient filter by hooking the rope by hand to replace the new one (figure 3 of page 11).

# HOW TO MAINTENANCE

■ Please install the filter in reverse order of disassembly.

Figure 1

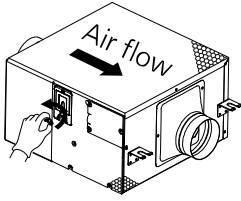


Figure 2

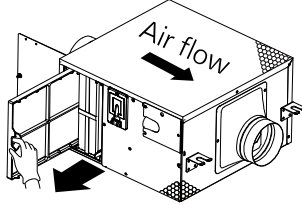
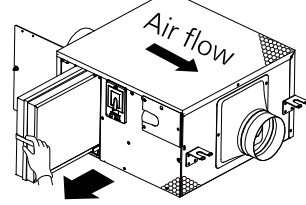


Figure 3



- ※ 1. The replacement standard is evaluated in according to the benchmark of our company and it will have difference in different actual used environment.
- 2. According to different used environment and time, air volume and filter efficiency will change. When cleaning, if the outer face of sub-efficient filter is found completely black, please replace it in time.

■ Filter accessories list

Pre-filter	Sub-efficient filter
FV-FB01NJ1	FV-FP01NJ1

## TROUBLESHOOTING

### Trouble shooting

Check according to the following table and correct the problem. If the product still does not work normally, disconnect the power source and contact the dealer.

Problem / Cause	Insufficient air flow	Excessive noise	Excessive vibration	Overheated motor	Run abnormally	Action
Poor foundation		○	○			Reinforce foundation
Faulty installation		○	○			Re-adjust installation
Low voltage	○					Check power source
Contact between rotary and stationary parts		○	○	○		Inspect and adjust
Sucked in objects/ Adhered dust		○	○	○		Inspect and clean
Faulty ducting	○	○	○			Inspect and adjust
Incorrect wiring (relay product)					○	Change wiring
Clogged filter	○	○	○			Clean and change

# SPECIFICATIONS

Model No.	Rated voltage [V]	Rated frequency [Hz]	Power consumption [W]		Air volume [m <sup>3</sup> /h]		Noise [dB]		Max static pressure [Pa]		Product weight [kg]
			Hi	Low	Hi	Low	Hi	Low	Hi	Low	
FV-01NAP1	220-240	50	10	3.3	133	42	23	18	90	15	6.9

1. The air volume, electric characteristic and noise are specified at the static pressure of 0 Pa.
  2. 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.
  3. The values of noise level are measured at the 1.5 m apart from the side of the fan body when ducts are connected on both inlet and outlet side. The test method is that the test point insulates from inlet and outlet, measures the noise of fan body straightly.
  4. The values of air volume are the mid-points of results measures by our company, within  $\pm 10\%$  tolerance.  
With the external duct of product becoming longer, static pressure increases, product noise will increase.
- \* Insulation class E

The above specification may be changed without further notice.