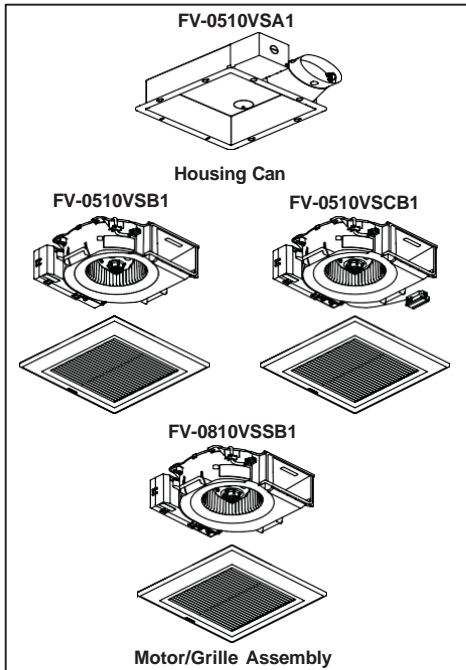


Model No. FV-0510VSAB1 ( FV-0510VSA1 + FV-0510VSB1)  
FV-0510VSCAB1 (FV-0510VSA1 + FV-0510VSCB1)  
FV-0810VSSAB1 (FV-0510VSA1 + FV-0810VSSB1)



### CONTENTS

IMPORTANT SAFETY INFORMATION.....	1
INSTALLATION GUIDE .....	4
DESCRIPTION .....	5
UNPACKING.....	5
SUPPLIED ACCESSORIES.....	5
DIMENSIONS .....	5
FEATURE .....	6
WIRING DIAGRAM .....	8
INSTALLATION INSTRUCTIONS.....	9
MAINTENANCE .....	13
SPECIFICATIONS .....	15
PRODUCT SERVICE.....	15
WARRANTY .....	16

### 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 the "IMPORTANT SAFETY INFORMATION". 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 manual should be presented to users. Please retain this manual for future references.

See page 16 for Panasonic Warranty Sheet.

### IMPORTANT SAFETY INFORMATION

#### For Your Safety

To reduce the risk of injury, loss of life, electric shock, fire, malfunction, and damage to equipment or property, always observe the following safety precautions.

#### Explanation of Symbol Word Panels

The following symbol word panels are used to classify and describe the level of hazard, injury, and property damage caused when the denotation is disregarded and improper use is performed.

**⚠ WARNING**

Denotes a potential hazard that could result in serious injury or death.


**⚠ CAUTION**


Denotes a hazard that could result in minor injury.


**NOTICE**


Denotes a hazard that could result in property damage.

The following symbols are used to classify and describe the type of instructions to be observed.

 This symbol is used to alert users to a specific operating procedure that must be followed in order to operate this unit safely.


















 This symbol is used to alert users to a specific operating procedure that must not be performed.

 This symbol is used to alert users not to disassemble the equipment.

 This symbol is used to alert users to make sure of grounding when using the equipment with the grounding terminal.

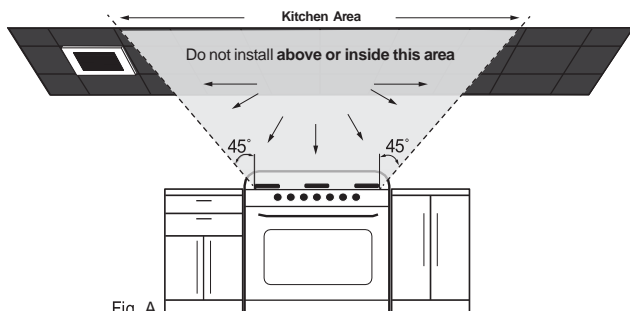
**⚠ WARNING**

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

-  Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
-  Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
-  Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
-  Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), and the local code authorities.
-  When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
-  If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and connected to a GFCI (Ground Fault Circuit Interrupter) protected branch circuit.
-  Do not use replacement parts that have not been recommended by the manufacturer (e.g. parts made at home using a 3D printer).
-  This unit must be properly grounded.
-  Do not use this unit with any solid-state speed control device. Solid state controls may cause harmonic distortion which can cause a humming noise.
-  Do not disassemble the unit for reconstruction. It may cause fire or electric shock.
-  Ducted fans used to exhaust contaminants must always be vented to the outdoors.
-  Install the fan at least 5 feet (1.5 m) above the floor.
-  The Motor/Grille Assembly FV-0510VSB1, FV-0510VSCB1 or FV-0810VSSB1 must be installed with Housing Can FV-0510VSA1, that are marked on the carton to indicate the suitability with this model. Other Motor/Grille Assembly cannot be substituted.
-  These models are UL listed for tub and shower enclosures.
-  If this unit its no longer to be used, it must be removed from the ceiling to prevent it from falling.
-  The ceiling joist or wall stud must be able to withstand a static load of at least five times the weight of the unit.
-  Do not install this unit with a method wich is not approved in the instructions.

## CAUTION

- ❗ Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Administration (OSHA).
- ❗ Make sure that the electric service supply voltage is AC 120 V 60 Hz.
- ❗ The special-purpose or dedicated parts, such as mounting fixtures, must be used if such parts are provided.
- ❗ Please wear gloves to protect hands during installation.
- ⊘ Do not install this ventilating fan where the interior room temperature may exceed 104 °F (40 °C).
- ⊘ For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
- ⊘ Do not kink the supply wiring.
- ❗ Do not install fan above or inside 45-degree angle projected outwards from the cooking equipment element closest to the unit (Fig. A).



- ❗ Always disconnect the power source before working on or near the fan, motor or junction box.
- ❗ Protect the supply wiring from sharp edges, oil, grase, hot surfaces, chemicals or other objects.

## NOTICE

- ❗ Provide make up air for proper ventilation.
- ⊘ Do not connect multiple units in parallel. If two or more units are connected to one switch in parallel, the units may not function.

1. Do not install the unit where ducts are configured as shown below.



Successive bending



Excessive bending



Squeezed duct



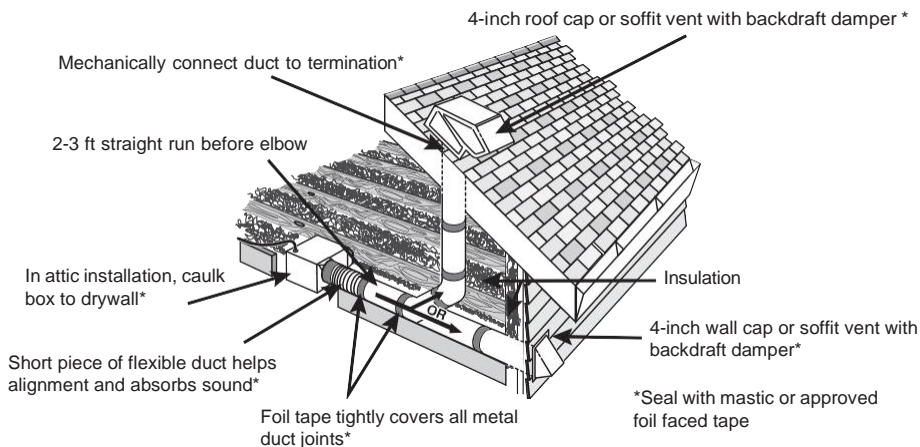
Bend close to duct adaptor

2. "The ducting has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated airflow".

3. A circular 4 inch duct is recommended for best performance and proper fan installation.

4. Ensure duct joints and exterior penetrations are sealed with caulk or other similar material to create an air-tight path and to minimize building heat loss and gain and reduce the potential for condensation.

5. Place/wrap insulation around duct and/or fan to in order to minimize possible condensation buildup within the duct, as well as minimize building heat loss and gain.



## DESCRIPTION

These products are listed by UL under file No. E78414.

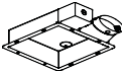



These products uses a sirocco fan driven by a DC motor powered by an integral transformer. The motor is designed to have a long operating life, high dynamic response, higher speed ranges and saving energy. The grille covering the fan body is a spring-loaded, quick removal tape. A damper for preventing air counter flow is provided. The blower uses a high-capacity sirocco fan developed to reduce the noise level.

## UNPACKING

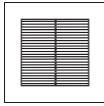



Unpack and carefully remove the unit from carton. Refer to the SUPPLIED ACCESSORIES list to verify that all parts are present.

## SUPPLIED ACCESSORIES

[For model: FV-0510VSA1]

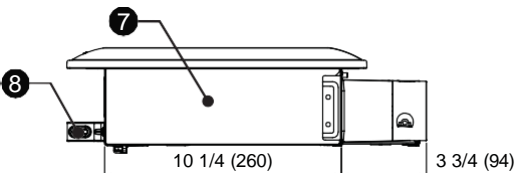
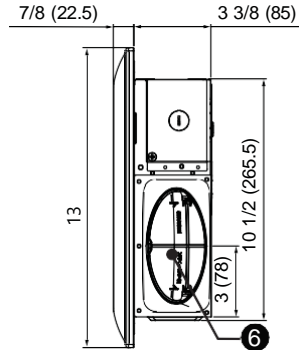
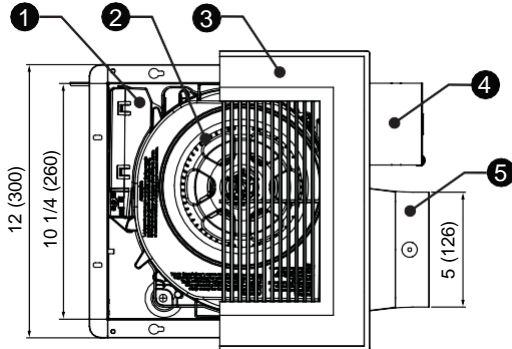
Part name	Appearance	Quantity
Housing Can		4
Installation Instructions / Warranty Sheet		1
Self tapping screws ST4.2X20	 or 	16

[For model:  
FV-0510VSB1, FV-0510VSCB1, FV-0810VSSB1]

Part name	Appearance	Quantity
Grille		4
Motor		4
Installation Instructions / Warranty Sheet		1
Screw (ST4.2X8)		8

## DIMENSIONS

Unit: Inches (mm)



No.	Part Name
①	PCB Box
②	Blade
③	Grille
④	Junction Box
⑤	Adaptor
⑥	Damper
⑦	Fan Body
⑧	Suspension Bracket

## FEATURE

These products employ innovative, state-of-the-art technologies that provide a number of customizable unique features that lead to improved indoor air quality. Please read this manual first in order to realize the benefits of customizable, modular fan.

### Optimun ventilation performance:

Duct lenght, elbows and other factors increase static pressure which can hinder the performance of most ventilations fans. These products utilize SmartFlow™ microchip technology that monitors the static pressure in the system and speeds up or slows down the rpm of the fan depending upon the amount of resistance within the ducts. This feature allows the fan to perform as rated and avoid potential installation issues.

### Outstanding energy savings:

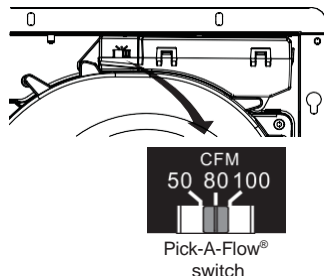
These products are built using DC motor technology. The DC motor is 30% ~ 70% more energy efficient than the minimum ENERGY STAR® requirements.

#### **[For model: FV-0510VSAB1]**

Pick-A-Flow® Feature

This product comes with Pick-A-Flow® speed options. The Pick-A-Flow® switch on the face of product allows the option to choose 50, 80, 100 CFM. This product can run continuously or intermittently, depending upon the needs of the owner.

Air Volume Option (CFM)			Factory Setting
50	80	100	80 CFM

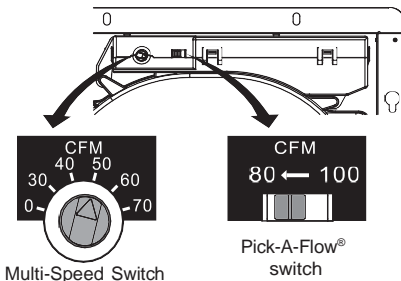


#### **[For model: FV-0810VSSAB1]**

This product can set the high air volume by Pick-A-Flow® switch, and set the low air volume by Multi-Speed switch (factory setting 50 CFM), and operate as below.

Power Switch	ON		OFF
Control Switch	OFF	ON	
Product		Run in high air volume	Stop
	Run in low air volume*1		

\*1 When the low air volume is set 0 CFM, the product will stop running.

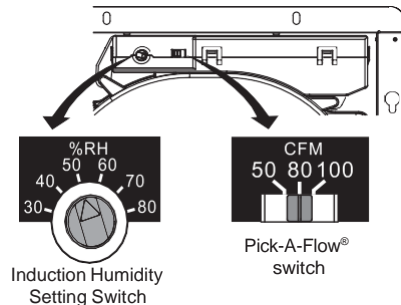


#### **[For model: FV-0510VSCAB1]**

This product can set air volume by Pick-A-Flow® switch, and set humidity by induction humidity setting (factory setting 50% RH, 20 minutes) and operate as below.

Power Switch	ON		OFF
Control Switch	OFF	ON	
Humidity sensor			
Product	Stop	Run	Stop
		Delay Operation*2	Run

\*2 The product will continue run about 20 minutes when detects the enviroment humidity is about 5% RH lower than the humidity setting, the stop running.



**NOTE:**

1. The product will also run when environment humidity rise rapidly but not reach to the humidity setting, and stop after delay operation.
2. Induction humidity setting switch is stepless change between 30%RH~80%RH.
3. The humidity detected by sensor may differ from the value on your hygrometer.
4. The product may on and off cause by unstable environment humidity, you can improve it by adjusting the induction humidity setting switch.

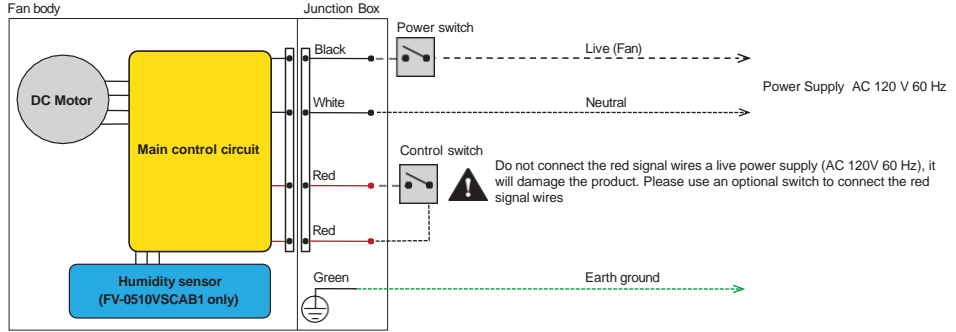
## ⚠ WARNING

**!** Installation work and electrical wiring must be conducted by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.

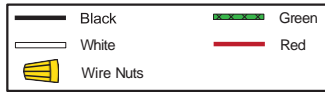
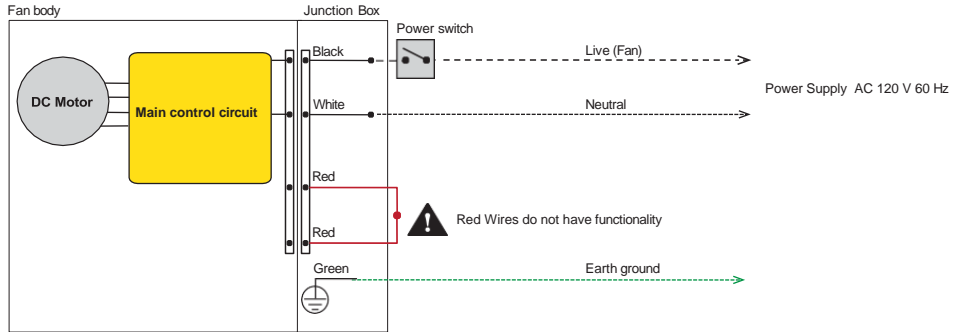
### NOTE:

Follow all the local electrical safety codes as well as the National Electrical Code (NEC), using UL approved wire nuts to connect house power wires to ventilating fan wires.

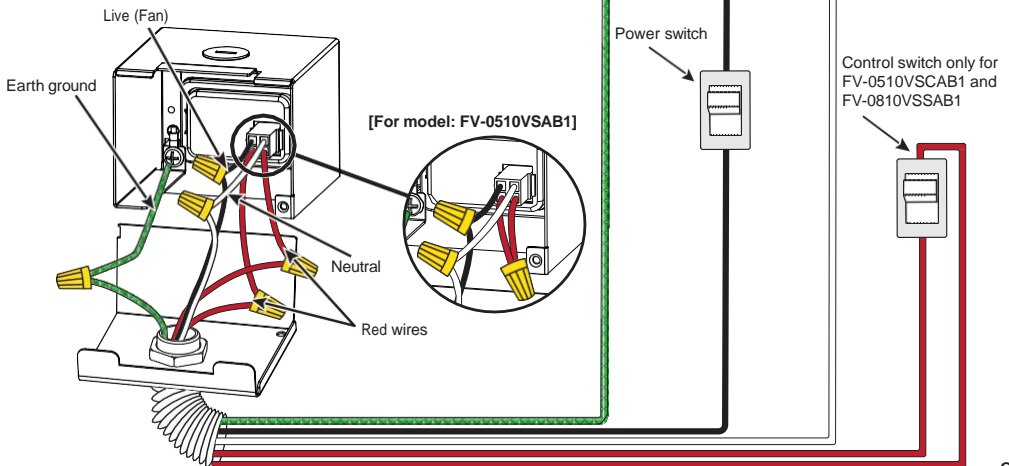
#### [For model: FV-0510VSCAB1 and FV-0810VSSAB1]



#### [For model: FV-0510VSAB1]



#### [For model: FV-0510VSCAB1 and FV-0810VSSAB1]





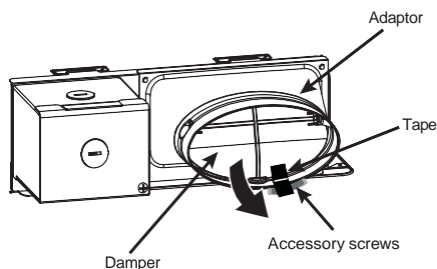
### ⚠ WARNING

❗ Disconnect power supply before installing the unit.

❗ Please wear gloves during installation.

### ATTENTION

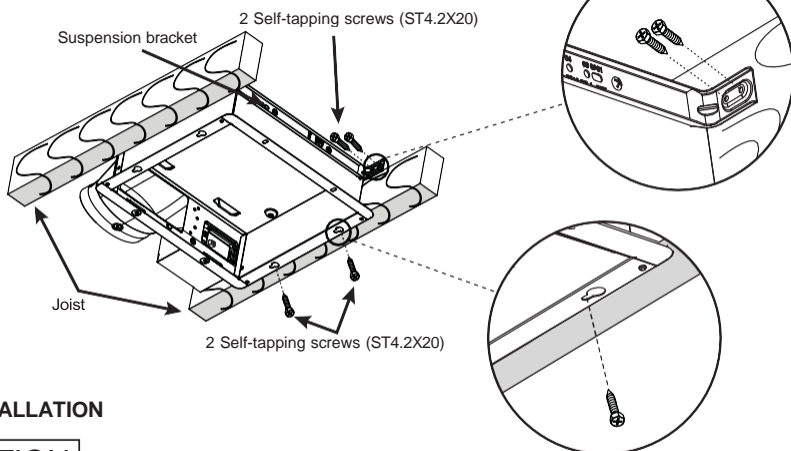
Remove the tape that protects the damper. Then remove accessory screws from the adaptor.



## 1 FIX THE FRAME

Fix the flange of frame to joist or stud by 2 self-tapping screws (ST4.2X20), and fix the suspension bracket to joist or stud by 2 self-tapping screws (ST4.2X20).

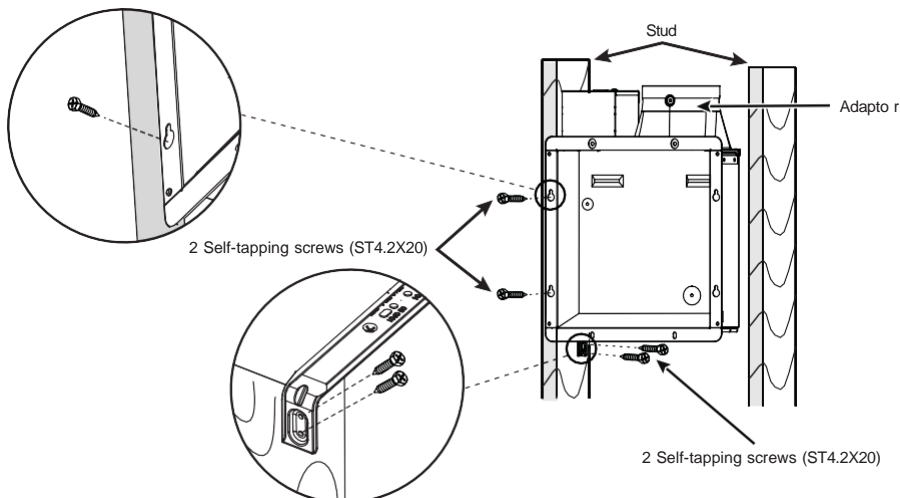
### CEILING INSTALLATION



### WALL INSTALLATION

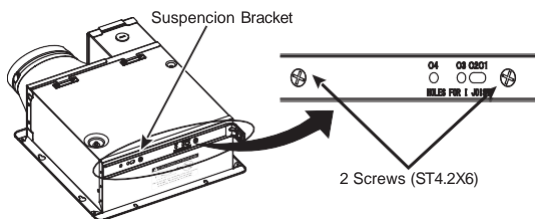
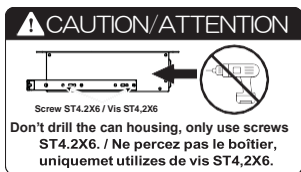
### ⚠ CAUTION

❗ The adaptor of product must be installed upward.



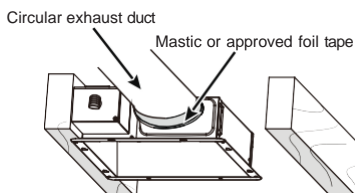
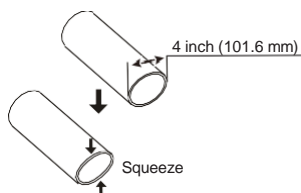
## CAUTION

**!** The screws for fixing suspension bracket should not be replaced by other screws; otherwise the PCB box may be damaged and cause a fire.



## 2 INSTALL VENTILATION DUCT

A 4 inch (101.6 mm) circular duct is needed to connect to the relevant part of adaptor. Squeeze a circular exhaust duct to fit the adaptor, then slip it onto adaptor and secure it with clamps or ties, and seal it with mastic or approved foil faced tape.



### NOTE

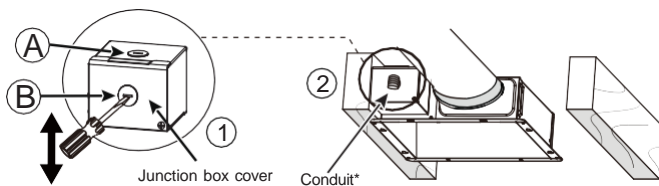
If using 3 inch round duct, please purchase the 26 gauge steel Panasonic 4" Oval-3" Round reducer from our representative.

## 3 CONNECT WIRES

### CAUTION

**!** Mount junction box cover carefully so that lead wires are not pinched.

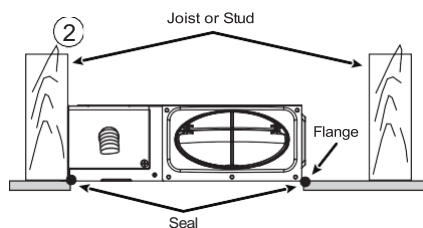
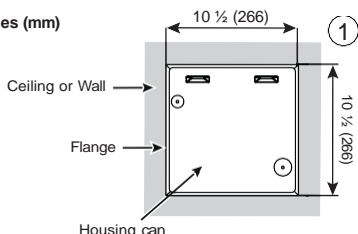
- Remove junction box cover and secure conduit or stress relief to junction box knock-out hole (A or B).
- Connect the wires referring to WIRING DIAGRAM on page 8. Once finished, affix the box cover on original position.



## 4 CEILING / WALL WORK

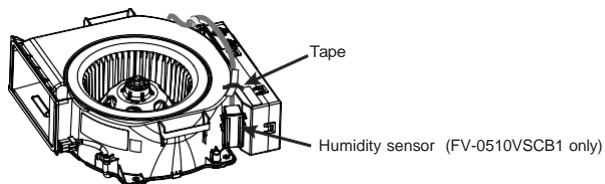
- Finish ceiling / wall work. The hole should be aligned with the inside edge of the flange.
- After finishing the ceiling / wall job, fill gap between flange and ceiling / wall with caulk or other sealant to prevent air leakage.

Unit: Inches (mm)



# ATTENTION

Then remove the tape that fixes the Humidity Sensor (FV-0510VSCB1 only).

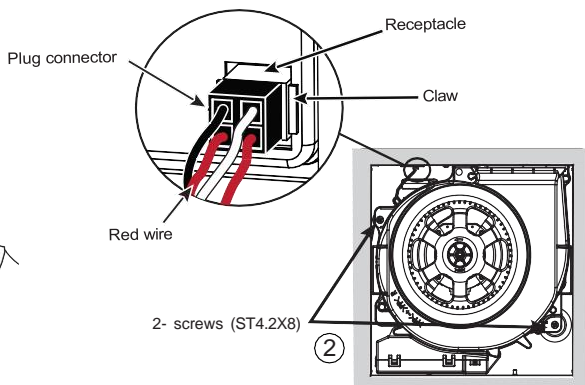
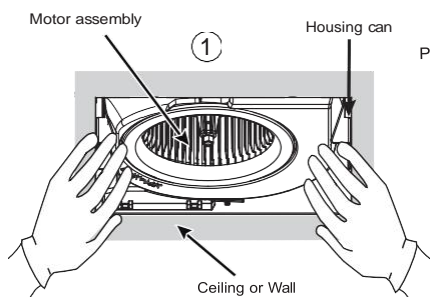


## 5 INSERT MOTOR ASSEMBLY

### NOTICE

- ❗ Before turn on the fan, make sure the connector insert at the correct position. If not, the fan cannot work.
- ❗ The claw of connector must lanch the rib completely.

- ① Insert motor assembly into housing can.
- ② Secure the motor assembly by screws (ST4.2X8) and plug connector to receptacle.



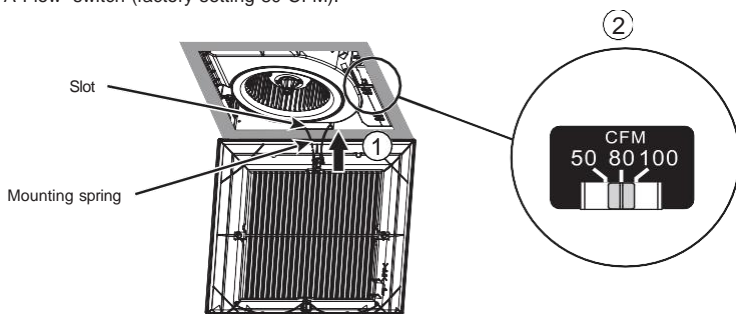
### NOTE

Red wires only for FV-0510VSCB1 and FV-0810VSSB1.

## 6 INSTALL GRILLE AND SELECT SETTING

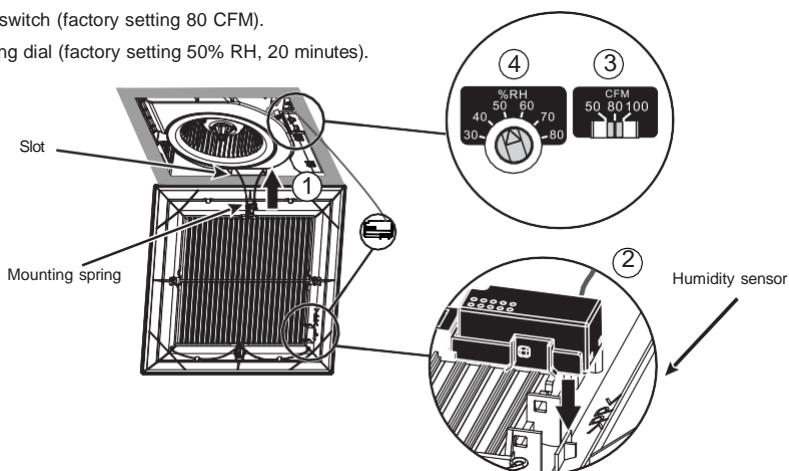
[For model: FV-0510VSB1]

- ① Insert one mounting spring into slot.
- ② Adjust Pick-A-Flow® switch (factory setting 80 CFM).



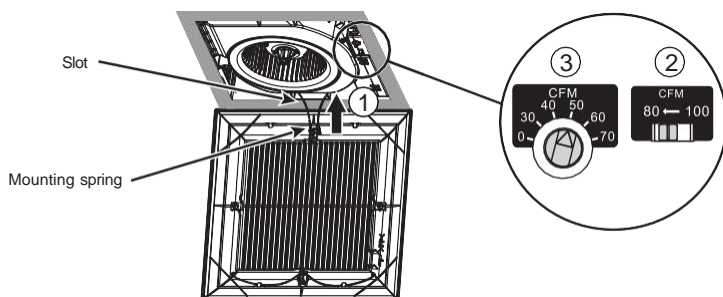
**[For model: FV-0510VSCB1]**

- ① Insert one mounting spring into slot.
- ② Fix the humidity sensor into grille.
- ③ Adjust Pick-A-Flow® switch (factory setting 80 CFM).
- ④ Adjust humidity setting dial (factory setting 50% RH, 20 minutes).



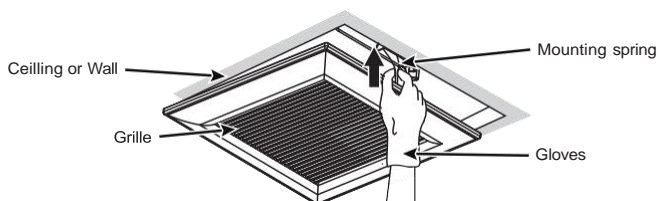
**[For model: FV-0810VSSB1]**

- ① Insert one mounting spring into slot.
- ② Adjust Pick-A-Flow® switch (factory setting 80 CFM).
- ③ Adjust Multi-speed switch (factory setting 50 CFM).



## 7 INSTALL GRILLE

Insert the mounting spring into the slot as shown to mount grille to fan body.



## ⚠ WARNING

❗ Disconnect power source before working.

## ⚠ CAUTION

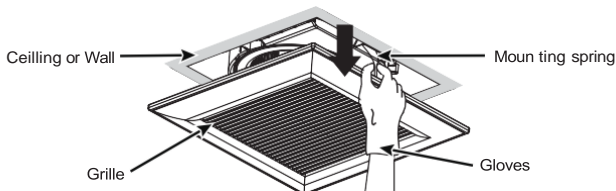
❗ Routine maintenance must be done every year. Please wear gloves during the cleaning work.

🚫 Do not immerse motor in water when cleaning.

🚫 Do not soak resin parts in water over 140°F (60°C).

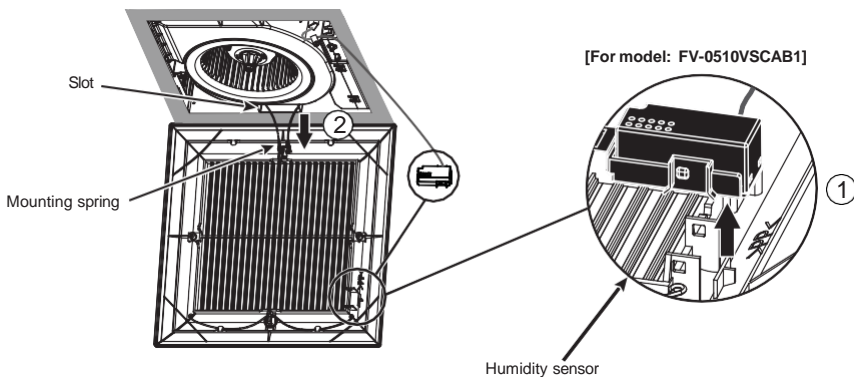
🚫 Never use gasoline, benzene, thinner or any other such chemicals for cleaning the ventilating fan.

### 1 Remove the mounting spring.

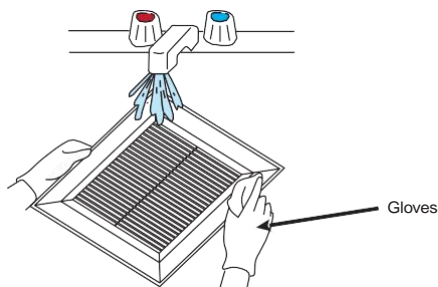


### 2 ① Remove humidity sensor (FV-0510VSCAB1 only).

#### ② Remove the other mounting spring.

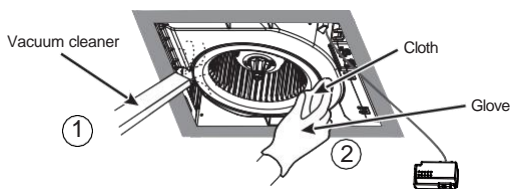


### 3 Wash (don't put into hot water, use non-abrasive kitchen detergent) and clean the grille (wipe dry with clean cloth).



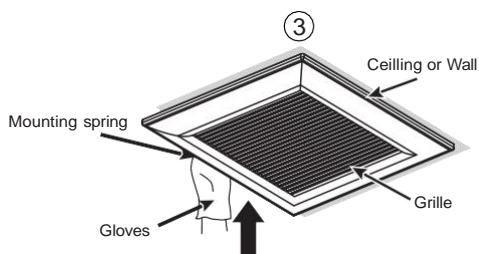
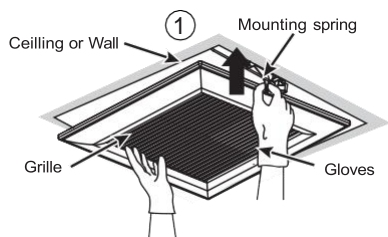
# 4

- ① Remove dust and dirt from fan body using a vacuum cleaner.
- ② Using a cloth dampened with kitchen detergent remove any dirt from fan body. Wipe dry with clean cloth.

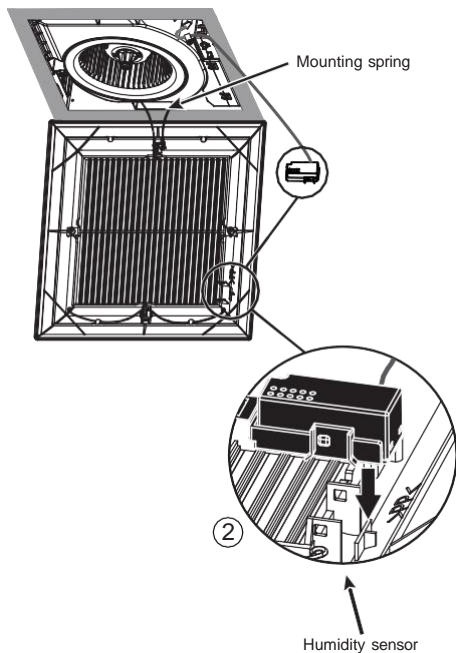


# 5

- ① Install one mounting spring.
- ② Install humidity sensor (FV-0510VSCAB1 only).
- ③ Install the other mounting spring.



[For model: FV-0510VSCAB1]



**SPECIFICATIONS**

Model No.	Air Direction	Voltage (V)	Frequency (Hz)	Oval Duct diameter (Inches)	Air volume at 0.1" WG (CFM)	Noise (Sones)	Speed (rpm)	Power (W)	Weight lb.(kg)
FV-0510VSAB1	Exhaust	120	60	4	50	<0.3	708	4.4	7.0 (3.2)
					80	0.4	797	7.2	
					100	0.9	902	11.1	
FV-0810VSSAB1	Exhaust	120	60	4	30	<0.3	711	3.4	
					40	<0.3	723	3.8	
					50	<0.3	733	4.5	
					60	<0.3	770	5.3	
					70	<0.3	805	6.5	
					80	0.4	856	8.5	
					100	0.9	970	13.4	
FV-0510VSCAB1	Exhaust	120	60	4	50	<0.3	733	4.5	
					80	0.4	856	8.5	
					100	0.9	970	13.4	

HVI Certified performance based on HVI Procedures 915, 916 and 920.

**PRODUCT SERVICE**

Warning Concerning Removal of Covers.  
The unit should be serviced by qualified technicians only.  
Your product is designed and manufactured to ensure a minimum of maintenance.  
Should your unit require service or parts, call Panasonic Call Center at 1-866-292-7299 (USA) or 1-800-669-5165 (Canada).

# Panasonic Ventilating Fan Limited Warranty

Panasonic Corporation of North America ("the Warrantor") will, at its sole discretion, replace this product with new parts or exchange this product, free of charge, in the USA, in the event of defects in material or workmanship in accordance to the following:

**ALL Parts: For period of 3 years (36 months)**

**DC Motor: For period of 6 years (72 months)**

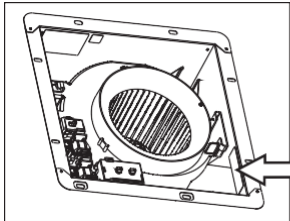
**LED Light Unit: For a period of 5 years (60 months)**

Service in the USA, can be obtained during the warranty period by contacting the selling Distributor or Panasonic Customer Call Center at 1-866-292-7299, toll free.

This warranty does not cover labor charges for removal and installation of parts. This warranty is extended only to the original purchaser of a new product, which was not sold "as is", who purchased the product either directly from the Warrantor or from the Warrantor's authorized resellers (including authorized retail and internet-based sellers), unless otherwise prohibited by law. This warranty only applies to products purchased in the United States.

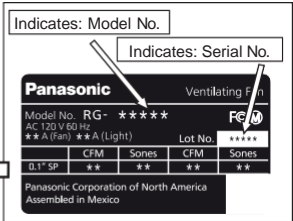
To claim warranty proof of purchase date will be required, in addition to fan model and serial number as shown in the photos below.

Example of display



Ceiling Insert Type Vent-Fan

Example of Name Plate



Name Plate

This warranty only covers failures due to defects ins materials or workmanship that occur during normal use and does not cover shipping damages, whether visible or concealed, normal wear or cosmetic damage. The warranty does not cover failures that are caused by products and peripherals not supplied by the Warrantor, or failures wich result from accident, misuse, abuse, negligence, mishandling, misapplication, alteration, modification, faulty installation, improper setups or adjustments, improper or lack of maintenance, alterations or modifications, power line surge, improper line voltage, lightning damage, or damage that is attributable to acts of God.

### LIMITS AND EXCLUSIONS

There are no express warranties except as listed above. THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL CONSEQUENTIAL, OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, LOSS OF GOODWILL PROFITS OR REVENUE, LOSS OF USE OF THIS PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF SUBSTITUTE PRODUCT, DOWNTIME COST, OR CLAIMS OF ANY PARTY DEALING WITH BUYER FOR SUCH DAMAGES, RESULTING FROM THE USE OF THIS PRODUCT OR ARISING FROM BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE OR ANY OTHER LEGAL THEORY, EXCEPT AS EXPRESSLY PROVIDED ABOVE. THERE IS NO WARRANTY OR ANY OTHER KIND, EXPRESS OR IMPLIED, THERE ARE NO WARRANTIES WHICH EXTENDED BEYOND THE DESCRIPTION ON THE FACE HEREOF.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exlusions or limitation may not apply to you.

This warranty gives you specific legal rights and you may also have others rights wich vary from state to state.

If a problem with this product develops during or after the warranty period, you may contact your Distributor or Panasonic Customer Call Center. If the problem is not handled to your satisfaction, then write to Panasonic Corporation of North America at the address indicated above.

**Customer Support**

Obtain Product Information and Operating Assistance by visiting our website at:  
[us.panasonic.com/ventfans](http://us.panasonic.com/ventfans)

or, send your request by E-mail to:  
[ventfans@us.panasonic.com](mailto:ventfans@us.panasonic.com)

You may also contact us directly for technical and warranty support at 1-866-292-7299  
Please follow the voice prompt for consumers  
(Monday-Friday, 9 am - 6 pm, EST)

**Accessory Purchases**

Purchase Parts and Accessories for all Panasonic Ventilation Products by visiting our website at:  
[www.buypanasonicparts.com](http://www.buypanasonicparts.com)

You may also contact us directly at 1-866-292-7299  
Please follow the voice prompt for consumers  
(Monday-Friday, 8 am - 6 pm, EST)

Panasonic Consumer Electronics Company  
Customer Service Group  
2 Riverfront Plaza, Newark, NJ 07102