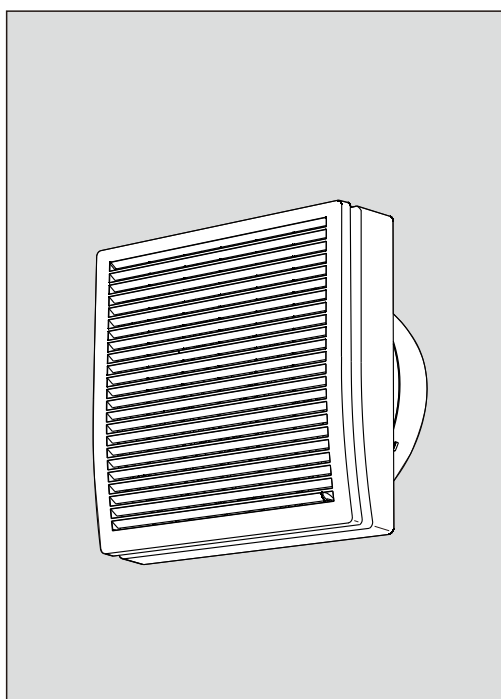


## INSTALLATION AND OPERATING INSTRUCTIONS 安裝使用說明書

### Ventilating Fan 換氣扇

Model No. FV-20WH3 07 FV-20WH3 08  
型號 FV-15WH3 07 FV-15WH3 08



Contents	
目錄	
Safety Instructions .....	2
安全指引	
Installation Cautions .....	2-3
安裝注意事項	
Installation and Operating Requests .....	4
安裝使用要求	
Supplied Accessories .....	4
包裝附件清單	
Parts Name and Dimensions .....	5
部件名稱及尺寸	
How to Install .....	5-6
安裝方法	
How to Remove .....	7
拆卸方法	
Maintenance .....	7-Back cover
日常使用及維護	7-末頁
Specifications and Wiring Diagram .....	Back cover
規格及電氣原理圖	末頁

### READ AND SAVE THESE INSTRUCTIONS

Thank you very much for purchasing this Panasonic product.

Please read these instructions carefully before attempting to install, operate or service the Panasonic product. 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 the installation, and this booklet should be presented to users.

Please retain this booklet for future reference.

### 閱讀並保管好此說明書

感謝您購買本Panasonic產品。

安裝、使用和維護Panasonic產品前，請仔細閱讀本安裝使用說明書。

不遵照此說明書進行操作有可能導致人員受傷或財產損失。

安裝完成後，請向顧客說明如何使用和維護本產品，並將此說明書交給顧客保管。

請妥善保管好此說明書以備日後參考。

# SAFETY INSTRUCTIONS

## 安全指引

Please observe strictly  
請務必遵守

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

為了避免給您及其他人造成傷害，這裏我們列出了以下安全注意事項，請務必遵守，各種標誌的含義請參照以下內容。

- The following displays are classified and explained to what extent harm or damage occurs when the display details are ignored and the unit in question is wrongly used.
- 無視或錯誤理解這些標誌，會產生下列兩種情況。



**WARNING**  
**警告**

This indication means: Must be treated seriously that this may result in death or serious injury.  
本標誌所表示的內容為“可能造成人員重傷或傷亡”。



**CAUTION**  
**注意**

This indication means: Must be treated seriously that this may result in injury or physical damage.  
本標誌所表示的內容為“可能造成人身傷害和其他物品損害”。

- The types of details to be observed are classified and explained in the following illustrated displays. (below are the series of illustrated displays)
- 務必遵守的內容分類，用標誌區分說明如下：



This symbol indicates the item “PROHIBITED” to do.  
此標誌表示為禁止事項。



This symbol indicates the “COMPULSORY” item that must be followed without failure.  
此標誌表示為強制事項。



This symbol indicates the item is “CAUTION”.  
此標誌表示為提示注意事項。

## INSTALLATION CAUTIONS

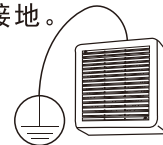
### 安裝注意事項

For service man  
供安裝人員閱讀



**WARNING**  
**警告**

- Do not disassemble the unit for reconstruction.  
不得擅自進行產品的改造。
- It may cause fire or electric shock.  
容易導致火災或觸電。
- Repairing should be serviced by authorized service centre.  
修理時必須到指定的維修店進行修理。
- Do not install the product using any method which is not approved in the instruction.  
不得進行指定方法以外的安裝。
- May cause unpredictable accident.  
可能會產生不可預測的事故。
- This ventilating fan must be grounded.  
必須使換氣扇接地。
- Abnormality or current leakage may cause electric shock.  
當出現異常或漏電時，可能會觸電。
- The ventilating fan should be installed by a qualified person.  
換氣扇必須由有專業資格的人員進行安裝。
- Incorrect installation may cause the product to fall and result in injuries.  
安裝不正確，可能導致產品掉落，造成人員受傷。



# INSTALLATION CAUTIONS

## 安裝注意事項

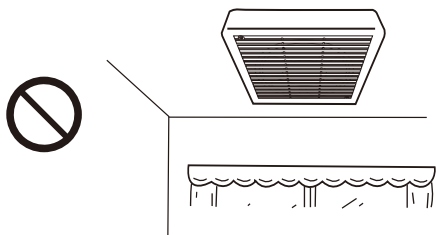
For service man  
供安裝人員閱讀



CAUTION

注意

- Do not install the ventilating fan on the ceiling.  
不要把換氣扇安裝在天花板上。

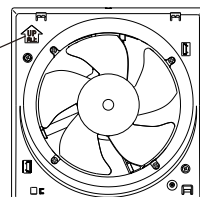


May cause the product to fall and result in injuries.  
可能會導致產品掉落而造成人員受傷。

- During installation, make sure the "UP" mark which on the orifice points upward.  
安裝換氣扇時，使換氣扇面罩上的“向上”標記向上。

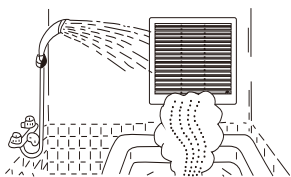


UP mark  
向上標記



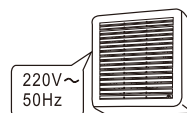
Rain may enter the live parts, causing electric shock.  
雨水可能進入帶電部品，引致觸電。

- Do not expose the ventilating fan directly to water or excessive steam.  
不要把換氣扇安裝在直接暴露於水或過分潮濕的地方。



May result in electric shock.  
可能會導致觸電。

- Operate the ventilating fan at the voltage and frequency indicated on the nameplate.  
必須根據銘牌上標明的額定電壓及頻率使用換氣扇。



May cause fire or shorten the life of motor.  
可能會導致火災或縮短馬達壽命。

- The product must be mounted on a glass which is strong enough. If it can not be ensured that the glass will bear the weight of the mounted product, that glass must be reinforced for it to be strong enough.

產品必須安裝在足夠強度的玻璃上。  
當不能確保安裝強度時，務必採取加固措施，以確保足夠強度。



May cause the product to fall and result in injuries.  
可能會導致產品掉落而造成人員受傷。

- The special-purposes or dedicated parts, such as mounting fixtures, must be used if such parts are provided.  
有安裝五金件等專用零部件時，應使用專用的。



Insecure installation may cause the product to fall and result in injuries.  
安裝不牢固，可能導致產品掉落，造成人員受傷。

- Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other flue-burning appliances.  
必須注意氣體從敞開的氣道或其他燃燒燃料的設備回流進室內。



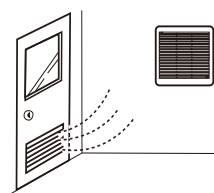
Countercurrent gas in the room may cause carbon monoxide poisoning.  
煤氣在室內逆流，可能會引起一氧化碳中毒。

# INSTALLATION AND OPERATING REQUESTS

## 安裝使用要求

For service man  
供安裝人員閱讀

- Be sure to provide an appropriate opening for air intake.  
必須安裝在有通風口的地方。

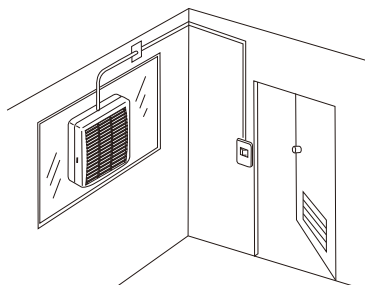


Better ventilation effect.  
換氣效果更佳。

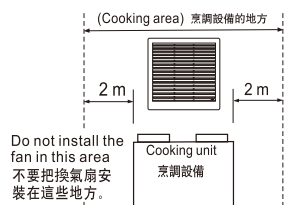
- This ventilating fan can be mounted on outside-facing window from the inside of room.  
此換氣扇可以從室內安裝於外窗戶上。

- Use a device for disconnection from the supply, having at least 3mm contact separation of in all poles ("08" Model).  
安裝時，需在供電線路中安裝其觸點間距不小於3mm的全極斷開裝置("08"型號)。

- Connect a wall switch (available in the market) to operate the ventilating fan. Use it as the power switch. (Turning on or off the wall switch to control the ventilating fan)  
連接一個牆壁開關(市場上有售)作為本機的電源開關。  
(通過啟動或關閉該開關來控制換氣扇)



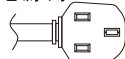
- Do not install the ventilating fan near the cooking unit in a kitchen.  
不要把換氣扇安裝在接近廚房或烹調設備的地方。



May cause damage and shorten the life of motor.  
可能會引起損壞，縮短馬達壽命。

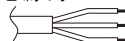
- Do not install the ventilating fan in areas where a large amount of oily smoke is produced.  
不要把換氣扇安裝在有大量油煙產生的地方。  
May cause damage and shorten the life of motor.  
可能會引起損壞，縮短馬達壽命。

Supply Cord  
電源線



"07" Model (With plug)  
07型號(電源線帶插頭)

Supply Cord  
電源線



"08" Model (without plug)  
08型號(電源線不帶插頭)

## SUPPLIED ACCESSORIES

### 包裝附件清單

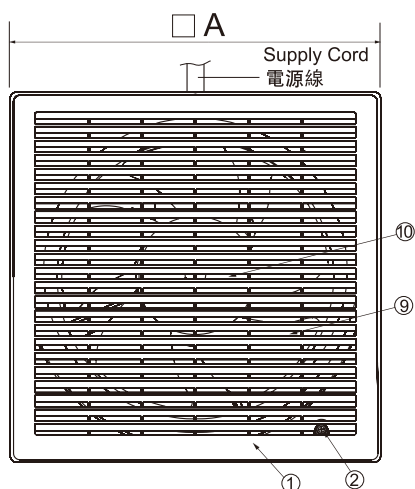
The following accessories are provided with the ventilating fan in the package. When you unpack, check if the accessories are all included. If not, please contact your dealer.

隨換氣扇包裝箱有以下附件，開箱後請清點是否齊全。若不齊全，請與經銷商聯繫。

No. 編號	Appearance 簡圖	Name 名稱	Quantity 數量
①		Installation and Operating Instructions 安裝使用說明書	1

# PARTS NAME AND DIMENSIONS

## 部件名稱及尺寸



Dimensions  
尺寸

Unit: mm  
單位: 毫米

Model No. 型號	A	B	C	D
FV-15WH3 07 FV-15WH3 08	224	182	111	72
FV-20WH3 07 FV-20WH3 08	288	243	117	74

Parts Name  
部件名稱

①	Louver	百葉
②	Machine Screw(M3)	機械螺絲(M3)
③	Orifice	面罩
④	Frame	框架
⑤	Hood	防風雨罩
⑥	Shutter	開關簾
⑦	Installation Plate	安裝片
⑧	Installation Screw	安裝螺絲
⑨	Blade	扇葉
⑩	Spinner	旋蓋

## HOW TO INSTALL

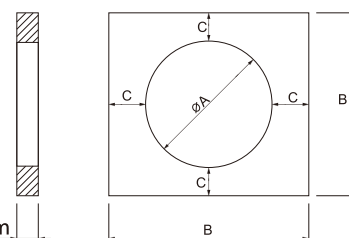
### 安裝方法

For service man  
供安裝人員閱讀

1. Make an installation hole on the window glass according to the dimensions shown in the table.

(Applicable to signal-glass or double-glass, and the single block thickness of double-glass must be not less than 3mm.)

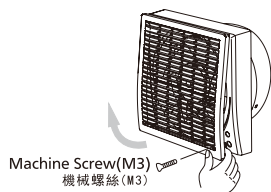
1. 在玻璃窗上按表中所示的尺寸開一個安裝孔。  
(適用於單層玻璃或雙層玻璃上, 其中雙層玻璃中的單塊玻璃厚度必須不小於3mm。)



Model/型號	A	B	C
FV-15WH3 07 FV-15WH3 08	186~188mm	390mm Min/最小	100mm Min/最小
FV-20WH3 07 FV-20WH3 08	247~250mm	450mm Min/最小	100mm Min/最小

2. Remove the screw of louver and retain it, then pull the louver out of the lower- right corner.

2. 卸下百葉上的螺絲並將其保管好, 然後從百葉的右下角向外拉, 將百葉取出。

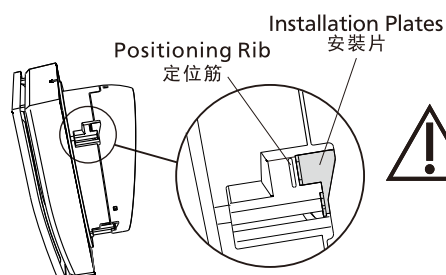


Louver can be pulled out only from the lower-right corner.  
or it may be damaged.

百葉只能從右下角拉出來, 否則可能會損壞百葉。

3. Before installation, please ensure every installation plate is at the position as shown below.

3. 安裝產品前, 請先確認每個安裝片是否位於如下圖所示的初始位置。



As shown in the diagram, the installation plates must be positioned in the slot between the frame and the hood.  
Its front edge should not exceed the positioning rib,  
or installation may fail.

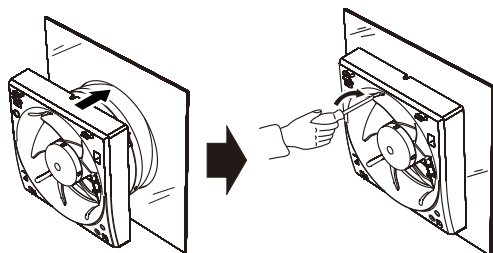
如圖所示, 安裝片必須位於槽內並且不超出定位筋的位置,  
否則可能會導致無法安裝。

# HOW TO INSTALL

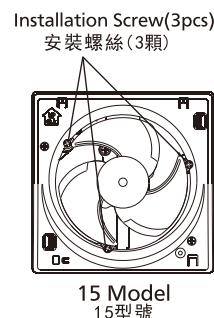
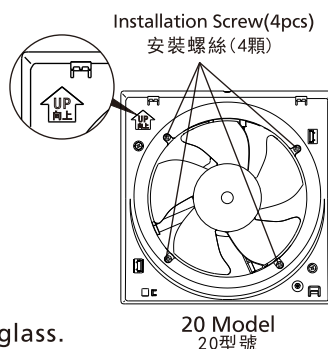
## 安裝方法

For service man  
供安裝人員閱讀

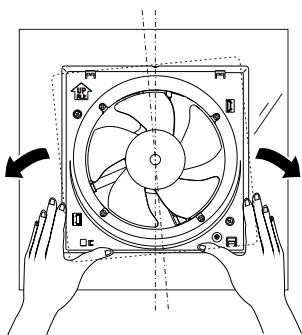
4. Keep the "UP" mark on the orifice on the top position. Insert the ventilating fan body into the installation hole completely. Be sure to keep the back of the body closed to the glass evenly, then twist each installation screw clockwise until the installation plates slightly compress the glass.
4. 使面罩上的“向上”標記朝上，將機體裝入安裝孔內，並務必保持機體背面均勻地緊貼在玻璃上，然後順時針擰轉各顆安裝螺絲至安裝片稍微壓緊玻璃。



Please do not use the electric screwdriver which may damage the glass.  
請不要使用電動螺絲刀進行安裝，否則可能會損壞玻璃。



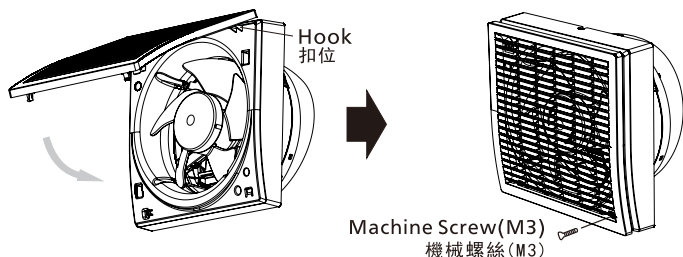
5. Rotate the body to adjust its horizontal and vertical direction. Then tighten each installation screw completely.
5. 旋轉機身以調節其水平和豎直方向，然後再將各顆安裝螺絲完全擰緊。



To ensure the installation strength, please make sure the tighten torque must be in the range of 90cN·m to 180cN·m. If the tighten torque is not large enough, it may result in rain water ingress through the gap; If the tighten torque is too large, it may damage the glass.

為確保產品的安裝強度，請保證安裝螺絲扭緊力必須在90cN·m至180cN·m的範圍內。如果扭緊力不足時，可能產生雨水滲入室內；如果扭緊力過大，可能會損壞玻璃。

6. Hang the louver on the hook of orifice, rotate downward and insert it into the orifice. Fix the louver with the screw which was removed at installation step 2 (Page 5).
6. 將百葉掛在如圖的面罩扣位上，並沿扣位旋轉至下方插入面罩。然後用從安裝步驟2(第5頁)拆下來的螺絲將百葉固定。



Must use the above specified screw to fix.  
Otherwise it may damage the product or lead to installation failure.  
必須使用如上指定的螺絲來安裝，否則可能會損壞產品或無法安裝。



# HOW TO REMOVE 拆卸方法

For service man  
供安裝人員閱讀

1.Remove the screw and retain it, then pull the louver out of the lower- right corner.

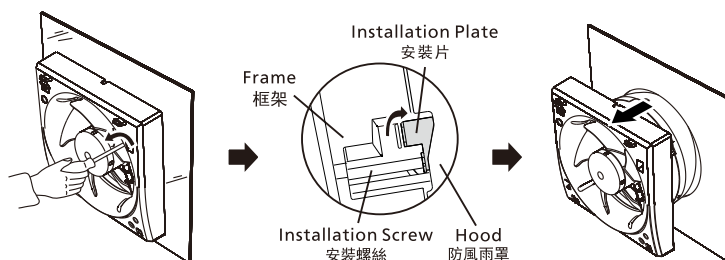
1. 卸下面罩上的螺絲並將其保管好，然後從百葉的右下角向外拉，將百葉取出。

For more detail, please refer to the installation step 2 (Page 5).

詳情請參考安裝步驟2 (第5頁)。

2.Twisting the installation screws anticlockwise, the installation plates will loosen and rotate back to the slot between the frame and the hood. Turn the screws until the ventilating fan body can be taken out.

2. 沿逆時針方向擰動安裝螺絲，安裝片會鬆開並旋轉至框架與防風雨罩的槽裏面，擰動安裝螺絲至產品機體能被取出。



# MAINTENANCE 日常使用及維護

For user  
供使用人員閱讀



- Disconnect the power supply and make sure the blade is stationary before clean and maintenance.

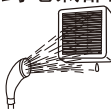
在清潔和維護前，請確保換氣扇的電源已經關閉且扇葉停止轉動。



May cause electric shock and injuries.  
可能造成觸電及人員受傷。

- Do not allow water to contact the electrical parts, such as the motor.

請不要讓水接觸到電氣部品，例如馬達。



May cause electric shock or product damage.  
可能造成觸電或產品損壞。

- Please turn off the ventilating fan during typhoon or similar weather with strong wind and rain.

颱風等強風雨天氣時請停止使用該換氣扇。

- This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety. Children should be supervised to ensure that they do not play with the product. 本產品不適合有殘障、智障或精神障礙的人士，或缺乏經驗、常識者(包括兒童)維護使用，除非在監護人的看護或指導下使用。應確保兒童不把本產品當作玩具玩。



May cause unpredictable accident.  
可能會產生不可預測的事故。

- 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.

如果電源軟線損壞，為避免危險，必須由製造廠商，其維修部或類似的專業人員更換。



May cause electric shock and injuries.  
可能造成觸電及人員受傷。

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

使用結束後，為防止在萬一的情況下掉落，不得放置不管，應予以拆除。



May cause injuries.  
可能造成人員受傷。



May cause unpredictable accident.  
可能會產生不可預測的事故。

# MAINTENANCE

## 日常使用及維護

For user  
供使用人員閱讀

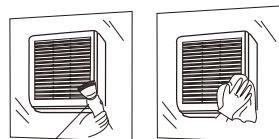
- Please use a vacuum cleaner to remove the dust on the surface of the ventilating fan. Then clean it with a rag. Please wear rubber gloves when cleaning. Do not use steel wire or hard tool to clean so as to avoid scratching the surface of the ventilating fan. Recommend monthly cleaning.

請先用吸塵器吸取換氣扇表面的灰塵，再用抹布擦乾淨。清潔時請戴上膠手套，不可用鋼絲等硬質工具清洗，以免刮花百葉表面。建議每月清潔一次。



Do not remove the louver when cleaning, or it may cause injuries.

清潔時請不要拆下百葉，否則可能造成人員受傷。



吸塵器  
vacuum cleaner

- Never use petrol, benzene, thinner or any similar chemicals to clean the ventilating fan.

切勿使用汽油、苯、稀釋劑或任何類似的化學品清洗換氣扇。

Easy to damage the product.

容易損壞產品。



## SPECIFICATIONS AND WIRING DIAGRAM

### 規格及電氣原理圖

#### SPECIFICATIONS

##### 規格

Model No. 型號	Voltage 電壓 [V]	Frequency 頻率 [Hz]	Power Consumption 耗電量 [W]	Speed 轉速 [ r/min ]	Air Delivery 風量 [ m³/h ]	Weight 重量 [ kg ]
FV-15WH3 07 FV-15WH3 08	220	50	13	2290	230	1.4
FV-20WH3 07 FV-20WH3 08	220	50	20	1370	445	2.6

Insulation class: E

絕緣等級：E級

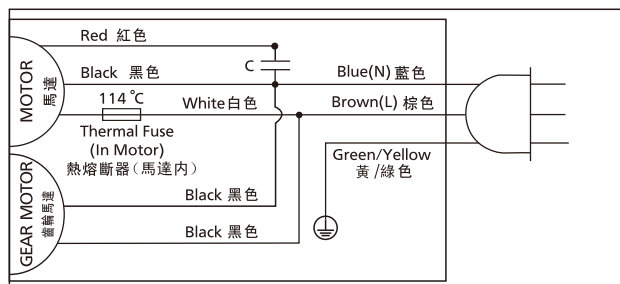
IP code: IPX4 (outside)

IP號碼：IPX4 (戶外側)

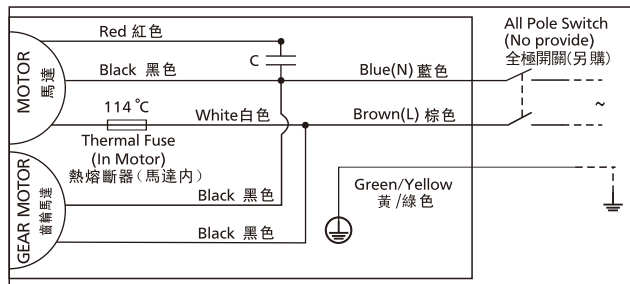
#### WIRING DIAGRAM

##### 電氣原理圖

FV-15WH3 07/FV-20WH3 07



FV-15WH3 08/FV-20WH3 08



Panasonic Corporation

Web Site: <http://www.panasonic.com/>

©Panasonic Corporation 2012-2016

P0412-10116 20WH34610A07