Before operating this product, please read the instruction carefully and keep this instruction for future use. Please give this instruction to the end user.

使用本產品前請詳細閱讀本說明書，及保存本說明書以供將來參考用。
請把這份說明書交給最終用戶。
ACCESSORY LIST 包裝附件清單

Please find enclosed some accessories in the package and contact our after-sales service center or franchiser if it is short of quantity.

隨附氣扇產品包裝箱有以下附件，開箱後請清點是否齊全，若不齊全，請與我公司售后服務中心或經銷商聯系。

<table>
<thead>
<tr>
<th>Code 代號</th>
<th>Photo 圖樣</th>
<th>Name and function 名稱及用途</th>
<th>Quantity 數量</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Installation and operating instruction 安裝使用說明書</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Thumb screw 手擰螺釘</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Tapping screws 固定框架和接頭組合到木構的自攻螺釘</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Louver 百葉窗</td>
<td>1</td>
</tr>
</tbody>
</table>

SAFETY INSTRUCTIONS 安全指引

To avoid any injury or damage, please follow the rules as mentioned below:

任何裝置使用前，應詳細閱讀並注意以下使用說明，切勿任意更動或拆卸，以免發生事故。

- Any damage happened due to NOT following the rules or by mis-use, the levels of damage are categorized and explained as indicated below:
  没有遵守指示或錯誤地使用時，所引起的危害或損傷的程度，用下列符號進行分類、說明。

  ![WARNING 警告](image)
  Those things shown in this column indicate that there is possibility of causing death or severe injury.
  本標志所表示的內容為“可能造成人員重傷或傷亡”。

  ![CAUTION 注意](image)
  Those things shown in this column indicate that there is possibility of causing injury to the users or damage.
  本標志所表示的內容為“可能造成人身傷害和其它物品損害”。

- Those rules which are expected to be followed are illustrated and explained by the below diagrams:
  對希望遵守的內容和種類，用下列符號進行分類、說明。

- ![This symbol indicates the item “PROHIBITED” to do.](image)
  此標志表示為禁止事項

- ![This symbol indicates the “COMPULSORY” item that must be followed without fail.](image)
  此標志表示為強制事項

- ![This symbol indicates the item need to “PROVOKING ATTENTIONS”](image)
  此標志表示為提示注意事項

---

**WARNING 警告**

All installation and maintenance shall be done by quantified person.
Neither unauthorized modification, repair nor disassembly is allowed.

禁止擅自改裝、修理、拆分。

Prohibit using water or other liquids to clean this product directly, may cause short circuit or electric shock.

禁止用水及其它液體直接清潔本產品，可能會引起短路或觸電。

Disconnect power supply before inspection, may cause injury or electric shocks.

檢查前，必須切斷電源，可能會引起受傷或觸電。

Prohibit turning on or off this product when gas is leaking, electric spark might have caused an explosion.

當發生燃氣泄漏時，禁止開、關本產品，可能會產生電火花而引起爆炸。
**INSTALLATION CAUTIONS 安裝注意事項**

**WARNING 警告**
- Grounding should be connected, may cause electric shocks.
  必須有接地裝置，當出現故障或漏電時，可能會觸電。
- Any voltages other than 220V can not be used, may cause fire or electric shock, may cause the product damage.
  請勿使用220V以外的電源，可能會引起火災、觸電，可能會損壞本產品。

**CAUTION 注意**
- Prohibit installing in places with high temperatures.
  禁止安裝在高溫場所。
- Prohibit installing in places with oil fumes.
  禁止安裝在有油煙的場所。
- Prohibit installing in places with steam.
  禁止安裝在有蒸氣的場所。
- Install securely.
  安裝要牢固。
- Provide a suction hole.
  設有一個吸入孔。
- Provide an 45cm access door for inspection and maintenance.
  應有一個45cm以上的方形檢查孔。
- Prohibit forming the duct as shown below.
  禁止把管道做成如下所示的外型。
- Use a device for disconnection from the supply, having a contact separation of at least 3mm in all poles (switch), which must be incorporated in the fixed wiring in accordance with the local electrical wiring rules.
  在安裝時，需在供電線路中安裝其觸點開距不少于3mm的雙極斷開裝置(雙極開關)，必須按照當地的電氣設備技術規程進行連接。
- The precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliance.
  必須防止煙道敞開或其他明火的器具產生的氣體回流進入房間。
- This product is applicable to the places with low humidity, such as living room, lavatory etc.
  本產品適用於起居室、盥洗室等溼度不太高的場所。
- The lowest surface of this ventilating fan should be mounted above 2.3m from the floor after installation.
  安裝之後，本產品的最低面至地面距離不少于2.3m。
- Prohibit vertically or aslant installation of the ventilating fan.
  禁止將排氣扇傾斜或垂直地安裝。
- Prohibit installing the ventilating fan on window or outer wall.
  禁止將排氣扇安裝於窗戶或牆壁外。
- Movable distance of power cord not less than 300mm after installation.
  安裝之後，電源線的可移動距離不少于300mm。
1-A Body enclosure installation (with ceiling joist)

1. Removed the adaptor, warning label and tape on the adaptor 按指示方法拆下接头组合，并撕掉接头组合上的警告标签及胶带。

2. Construct the wood frame and attach it horizontally to the ceiling joist. Prohibit attaching the frame in other direction. The space should not be less than 20mm between the ceiling and the top of the body.

3. Attach the adaptor to the wood frame. 將接頭組合安裝在木框上。

4. After fixing temporarily with thumb screw, secure with tapping screws (4 pcs.). 在使用手擰螺釘臨時地固定后，用自攻螺釘（4顆）牢固地固定起來。

Ceiling joist must be subjected to static load more than five times the weight of the product. 天花板歌舞必須承受大於本產品的5倍重量。

4. Insert the body enclosure into the wood frame and connect it to the adaptor. 將機體安裝在木框內，並將機體跟接頭組合連接起來。
1-B  Body enclosure installation (with anchor bolts install)

1. Attach the suspension bracket FV-KB021C (optional) with tapping screws (suspension bracket accessories).
   The space should not be less than 20mm between the ceiling and the top of the body.
   用自攻螺釘固定懸掛托架 FV-KB021C (需要另外選購)。(懸掛托架附件)
   注意應保持機體頂部和天花板的距離不應小於20mm。

2. Mount the body enclosure on the anchor bolts (M8 to M10).
   將機體安裝在地腳螺栓上 (M8-M10)。

2  Power cord connection

Connect the power cord (included earth) to lead wire in accordance with the wiring diagram.

Wiring should be firmly connected without any loose.

<table>
<thead>
<tr>
<th>Connection example as follows:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
</tr>
<tr>
<td>Power cord from product</td>
</tr>
<tr>
<td>(機體電源線)</td>
</tr>
</tbody>
</table>

**WARNING**

All wiring shall be done by qualified person, wiring method should follow the local electrical wiring rules.

Any mis-wiring may cause fire or electric shock.

Wiring is required to use terminal (not included) that complies IEC 60998, wiring box (not included) that complies BS 4662.

Make sure all connections are fastened firmly after wiring is finished.

接線完成後，必須檢查所有連接是否牢固。
3 Duct connection and adhesion of ceiling plate

1. Insert the duct into the adaptor and secure it with tape. (Suspend the duct from the ceiling so that no force is applied to the body enclosure.)

2. Adhere the ceiling plate to the flange, leaving a space of 2 to 5mm in between.

3. Mount the pipe hood and vent cap (optional) on the outer wall.

Install the duct horizontally with a gradient downwards to the outside. And the outlet of duct shall be located to avoid the rain ingress. (The opening size of the walling is at least $\varnothing 168mm$)

Pipe Hood 管罩
Pipe hood 管罩

Vent Cap 管蓋
Vent cap 管蓋

FV-MCX150P FV-VCX150P

4 Test run and louver attachment

1. When the power is turned on, check for malfunctions as follows:
   - Fan rotation normal?
   - No abnormal sound or vibration?

2. Insert the mounting springs into the slots and mount the louver to the body enclosure. (Install with gloves)

在接通電源後，檢查一下是否發生以下各種異常現象：
- 風扇是否正常地旋轉？
- 有否發生不正常的聲音或者震動？

Mounting spring 固定彈簧
Louver set plate 百葉窗固定片
Gloves 手套
Routine maintenance must be done every year. Disconnect power source before maintenance.

If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. It is recommended to use 227 IEC 53 (RVV) (0.75mm²) X3.

Cleaning the product

① Remove louver.
② Wash and clean louver, please dried the louver with a dry soft cloth or by air.
③ Remove dust and dirt on ventilating fan body using a cleaner.
④ Using a cloth dampened with kitchen detergent, remove any dirt from ventilating fan body. Wipe dry with new cloth. Replace louver.

Repairing wiring

① Remove louver, tapping screws (8 pcs) and thumb screw (1 pcs).
② Remove casing assembly, then routine maintenance. (No need remove frame) It must be maintained by manufacturer or its service agent, or a similarly qualified person. Remove screws, then follow diagrams for maintenance. (不需要拆下框架)必须由制造商或其维修部或有资格的专业人员维修。
MAINTENANCE 維修保養 (續)

WARNING 警告

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 during maintenance.

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，除非在負責他們安全的人士的看護或指導下使用。

Children in maintenance期间，應該有人進行看護，以防將產品當作玩具。

SPECIFICATIONS 規格

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FV-27CMD1</td>
<td>220</td>
<td>50</td>
<td>26</td>
<td>300</td>
<td>32</td>
<td>140</td>
<td>5.6</td>
</tr>
<tr>
<td>FV-27CMH1</td>
<td>220</td>
<td>50</td>
<td>43</td>
<td>400</td>
<td>38</td>
<td>170</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Notes:
1. The values of power consumption, air delivery and noise are specified at the static pressure of 0 Pa.
2. The values of noise level are A weighted average sound pressure level, the mean value measured by our company, within ±3dB and -7dB tolerance.
3. The values of noise level are measured the test result when tested at the 1m of left side, right side, bottom side in the max air delivery in noise test room.
4. The values of air delivery and static pressure are the mid-points of results measured by our company, with ±10% tolerance.
5. Any changes in these values will not be further noticed.

注意:
1. 排氣量、功率、噪音值等數據是在靜壓為0Pa狀態下的數值。
2. 噪音值是A計量平均聲壓級，是本公司測試結果的中心值，有±3dB、-7dB的公差範圍。
3. 噪音是指在噪音測試室內，最大排氣量時，在本體的左側、右側、下方各1m處測定的噪音值的平均值。
4. 排氣量和靜壓是本公司測試排氣量結果的中心值，有±10%的公差範圍。
5. 以上各項如有變動恕不另行通知。

Insulation class E
E級絕緣

Wiring diagram 接線示意圖

Panasonic Corporation
http://panasonic.net