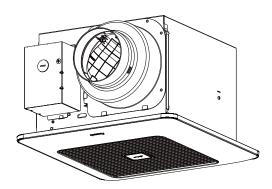
# Service Manual

## Ventilating Fan (North America Market)

PAGE



FV-0511VK2

## 

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

#### IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  $\triangle$  in the Schematic Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without the manufacturer's approval. Please have a static electricity depletion process in place before handling these components.. Please use gloves when handling PCB parts during the repair process..

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#### Specification for base Model fans

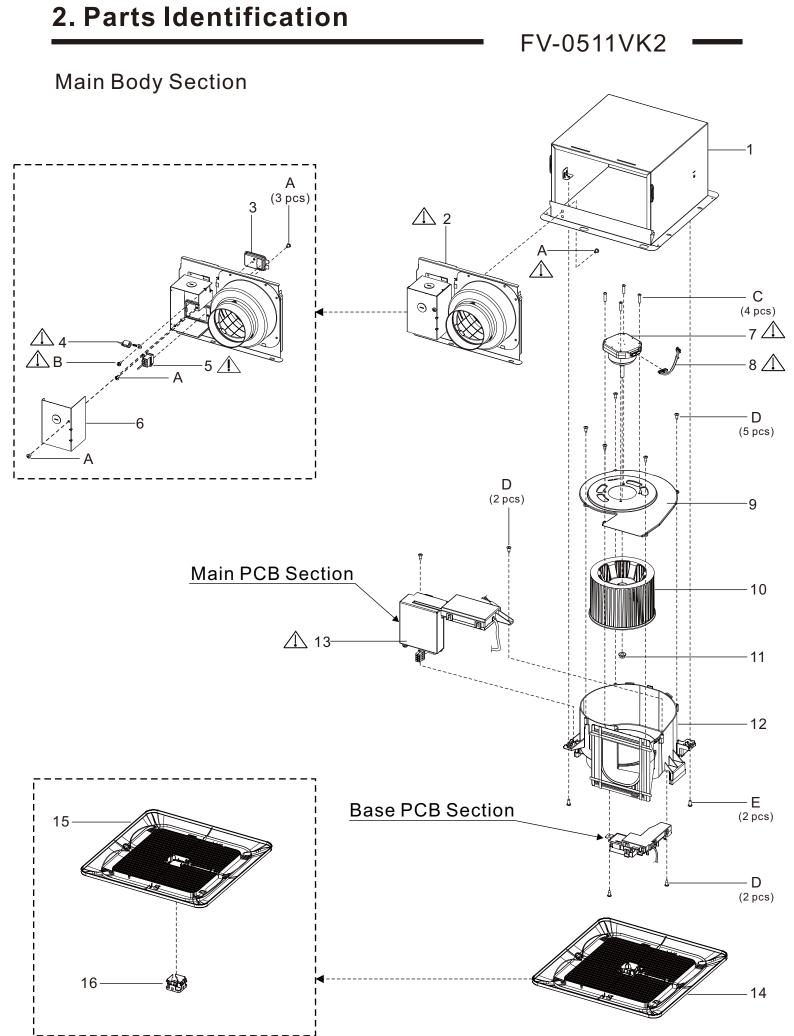
| Model No.  | Air<br>Direction |     | Frequency<br>(Hz) | Duct<br>Diameter<br>(inches) | Air Volume<br>at 0.1 "WG<br>(CFM) | Noise<br>(sones) | Speed<br>(rpm) | Power (W) | Weight<br>Lb. (Kg) |
|------------|------------------|-----|-------------------|------------------------------|-----------------------------------|------------------|----------------|-----------|--------------------|
|            |                  |     |                   |                              | 110                               | <0.3             | 920            | 9.9       |                    |
| FV-0511VK2 | Exhaust          | 120 | 60                | 4 or 6                       | 80                                | <0.3             | 795            | 5.1       | 10.1 (4.5)         |
|            |                  |     |                   |                              | 50                                | <0.3             | 722            | 3.1       |                    |

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

#### Specifications for Multi Speed fans

| Model No.  | Air<br>Direction | Voltage<br>(V) | Frequency<br>(Hz) | Duct<br>Diameter<br>(inches) | Air Volume<br>at 0.1 "WG<br>(CFM) | Noise<br>(sones) | Speed<br>(rpm) | Power (W) | Weight<br>Lb. (Kg) |
|------------|------------------|----------------|-------------------|------------------------------|-----------------------------------|------------------|----------------|-----------|--------------------|
|            |                  |                |                   |                              | 100                               | <0.3             | 889            | 7.9       |                    |
|            |                  |                |                   |                              | 90                                | <0.3             | 839            | 6.5       |                    |
|            |                  |                |                   |                              | 80                                | <0.3             | 795            | 5.1       |                    |
|            |                  |                |                   |                              | 70                                | <0.3             | 760            | 4.3       |                    |
| FV-0511VK2 | Exhaust          | 120            | 60                | 4 or 6                       | 60                                | <0.3             | 751            | 3.7       | 10.1 (4.5)         |
|            |                  |                |                   |                              | 50                                | <0.3             | 722            | 3.1       | · ,                |
|            |                  |                |                   |                              | 40                                | <0.3             | 707            | 2.7       |                    |
|            |                  |                |                   |                              | 30                                | <0.3             | 711            | 2.4       |                    |
|            |                  |                |                   |                              | 0                                 |                  |                | 0.5 (*)   |                    |

Reference performance based on HVI Procedures 915, 916, and 920. [(\*) Standby wattage.]



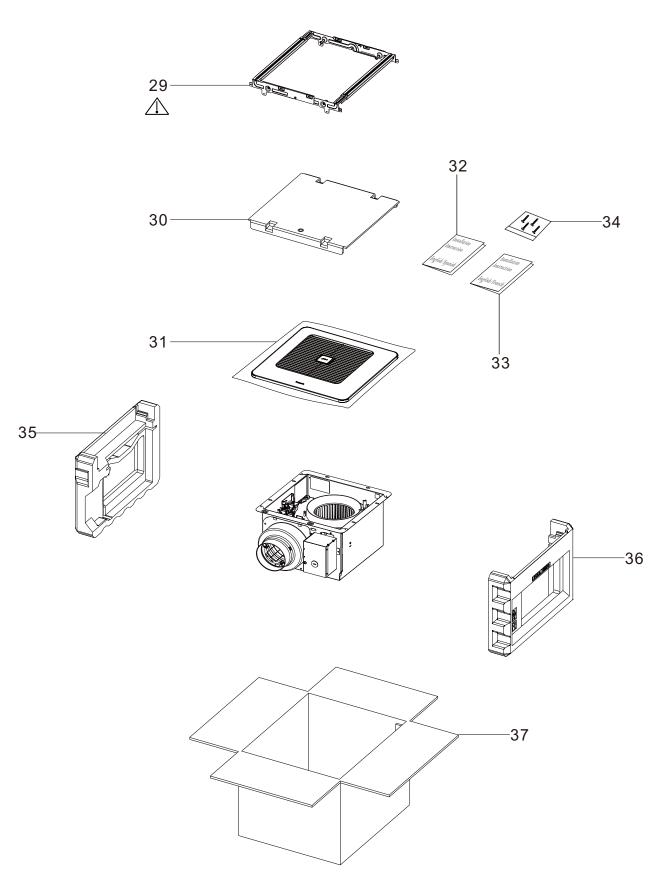
## 2. Parts Identification

### FV-0511VK2

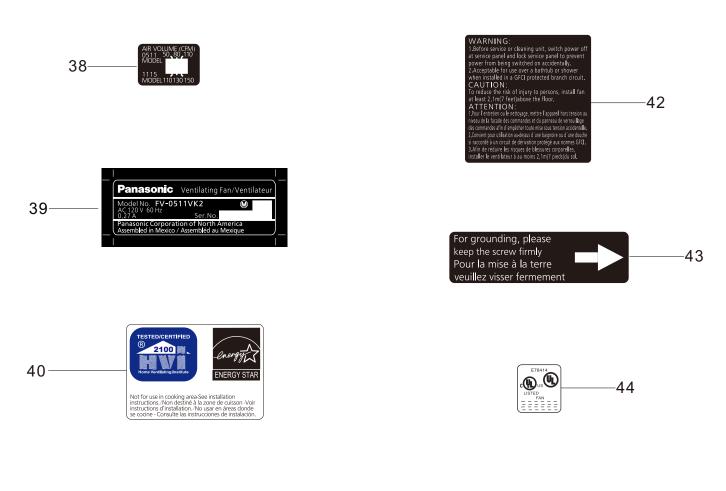
## **Main PCB Section** F (3 pcs) 17 19 D F 18 (4 pcs) **Base PCB Section** 25 F ⚠ 26 23 24 $\Lambda$ 21 (3 pcs) **Condensation Sensor Module** 22 Sensor Cover 27 <u>^</u>28 ⚠ 20-Multi-Speed Control Module Motion Sensor Module

- 1, Please note that above parts with (No. 20, 26, 28) are the optional parts base on Different customer's request.
- 2, If install the motion sensor control, please remove the ornamental cover and Replace the sensor Cover.

## Packing Section



#### Main Label

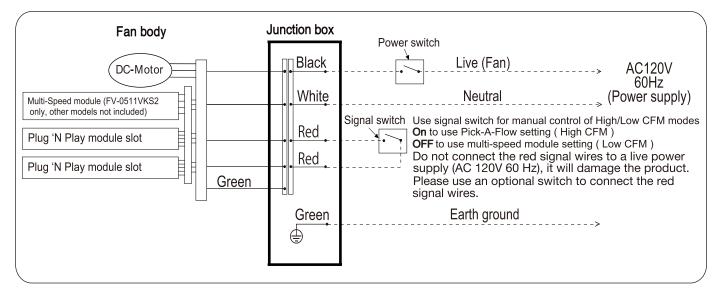


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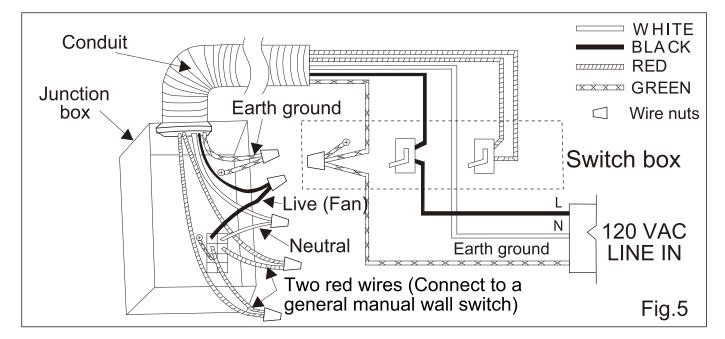


# 3.Wiring Diagram





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FV-0511VK2

## **Main Body Section**

| No. | Part No.      | Part Name                | Q'ty | Remark                   |
|-----|---------------|--------------------------|------|--------------------------|
| 1   | FFV11QCL1900C | Frame Assembly           | 1    |                          |
| 2   | FFV11VKS2910  | Adapter Assembly         | 1    | $\triangle$              |
| 3   | FFV11VK20913  | Connector Plate          | 1    |                          |
| 4   | FFV1340008S   | Ground Wire              | 1    | $\triangle$              |
| 5   | FFV11KSL2301  | Connector Assy           | 1    | $\triangle$              |
| 6   | FFV11QCL1912A | Junction Cover           | 1    |                          |
| 7   | FFV11KSL2M20  | Motor                    | 1    | $\triangle$              |
| 8   | FFV4620109S   | Motor Lead Wire Assembly | 1    | $\triangle$              |
| 9   | FFV11KSL2904  | Motor Support            | 1    |                          |
| 10  | FFV0400114S   | Blade                    | 1    |                          |
| 11  | FFV7020021S   | Nut                      | 1    |                          |
| 12  | FFV11QCL1906B | Casing section           | 1    |                          |
| 13  | FFV0511VK2PCB | Main PCB Section         | 1    | Include Base PCB Section |
| 14  | FFV1115VK2    | Grill Assembly           | 1    |                          |
| 15  | FFV0511VQC1S  | Grill Section            | 1    |                          |
| 16  | FFV2220074S   | Ornamental Cover         | 1    |                          |
| Α   | FFVXTT4-8FFJ  | Screw (ST4-8)            | 4    | $\triangle$              |
| В   | FFVXYM4DC8BN  | Screw w/washer(M4-8)     | 1    |                          |
| С   | FFV7000109S   | Stainless Steel Screw    | 4    |                          |
| D   | FFV7000089S   | Screw (ST4-12)           | 9    |                          |
| Е   | FFV7000065S   | Bind Screw               | 2    |                          |

## **Main PCB Section**

| No. | Part No.     | Part Name       | Q'ty | Remark      |
|-----|--------------|-----------------|------|-------------|
| 17  | FFV3740027S  | Main PCB Box    | 1    |             |
| 18  | FFV11KSL2310 | Power Lead Wire | 1    | $\triangle$ |
| 19  | FFV3740014S  | Main PCB Cover  | 1    |             |
| D   | FFV7000089S  | Screw (ST4-12)  | 1    |             |
| F   | FFVXTN3-8GFJ | Screw (M3-8)    | 7    |             |

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## **Base PCB Section**

| No. | Part No.     | Part Name                  | Q'ty | Remark                 |
|-----|--------------|----------------------------|------|------------------------|
| 20  | FFV5530071S  | Multi-Speed Module         | 1    | $\land$                |
| 21  | FFV0900063S  | Connector Cover            | 3    |                        |
| 22  | FFV0410001S  | Base PCB Cover             | 1    |                        |
| 23  | FFV5530072S  | Variable Speed Switch      | 1    |                        |
| 24  | FFV0410002S  | Base PCB Assembly          | 1    | $\land$                |
| 25  | FFV0410003S  | Base PCB Box               | 1    |                        |
| 26  | FFV0010237S  | Condensation Sensor Module | 1    | $\land$                |
| 27  | FFV2220051S  | Sensor Cover               | 1    |                        |
| 28  | FFV3740029S  | Motion Sensor Module       | 1    | Include Sensor Cover 🔬 |
| F   | FFVXTN3-8GFJ | Screw (M3-8)               | 2    |                        |

## Packing Section

| No. | Part No.       | Part Name         | Q'ty | Remark                             |
|-----|----------------|-------------------|------|------------------------------------|
| 29  | FFV11QCL1920   | Hanger Assy       | 1    | $\land$                            |
| 30  | FFV4710381S    | Grill Pad Assy    | 1    |                                    |
| 31  | FFV4650016S    | Poly Cover        | 1    |                                    |
| 32  | FFV15VK20420   | Installation Inst | 1    | English / Spanish For USA Market   |
| 33  | FFV15VK20421   | Installation Inst | 1    | English / French For CANADA Market |
| 34  | FFV11KSL1M031A | Accessory A       | 1    |                                    |
| 35  | FFV11QCL1891   | Left Pad          | 1    |                                    |
| 36  | FFV11QCL1892   | Right Pad         | 1    |                                    |
| 37  | FFV11VK20400   | Packing Case Assy | 1    |                                    |

## Main Label

| No. | Part No.     | Part Name       | Q'ty | Remark |
|-----|--------------|-----------------|------|--------|
| 38  | FFV11KSL2012 | CFM Label       | 1    |        |
| 39  | FFV11VKS2050 | Name Plate      | 1    |        |
| 40  | FFV0810011S  | Caution Label 1 | 1    |        |
| 41  | FFV11KSL2055 | QR Code Label   | 1    |        |
| 42  | FFV0810010S  | Caution Label   | 1    |        |
| 43  | FFV6730045S  | Warning Label   | 1    |        |
| 44  | FFV2260003S  | Holograph Label | 1    |        |