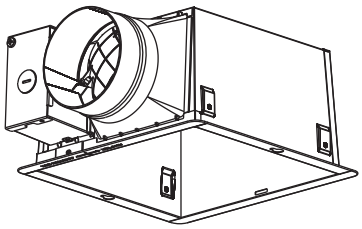
PESMX1910001CE
Version: 1901

Service Manual

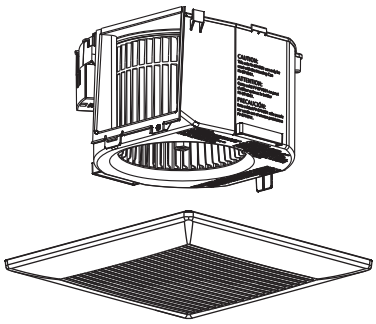
Ventilating Fan

(North America Market)

Model No: FV-07VB1



Housing Can:
FV-07VBA1 / FV-07VBA1A



Motor / Grille Assembly:
FV-07VBB1

Frame Assembly Replacement Method

If the frame assembly(lot no.<512) was damaged,please order the new frame assembly (FFV1600147S) to replace original frame assembly.Please refer to P8-P10 for replacement guide.

⚠ WARNING

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 ⚠ 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 permission of manufacture.
We suggest to handle such parts after the static electricity prevention.
It is forbidden to touch the PCB parts by bare hands during the repairing process.

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2.Parts Identification ---- 2 ~ 5
3.Wiring Diagram ---- 6
4.Parts List ---- 7, 8
5.Replacement Guide ---- 9 ~ 13

Panasonic®

1. Parts Identification

FV-07VB1

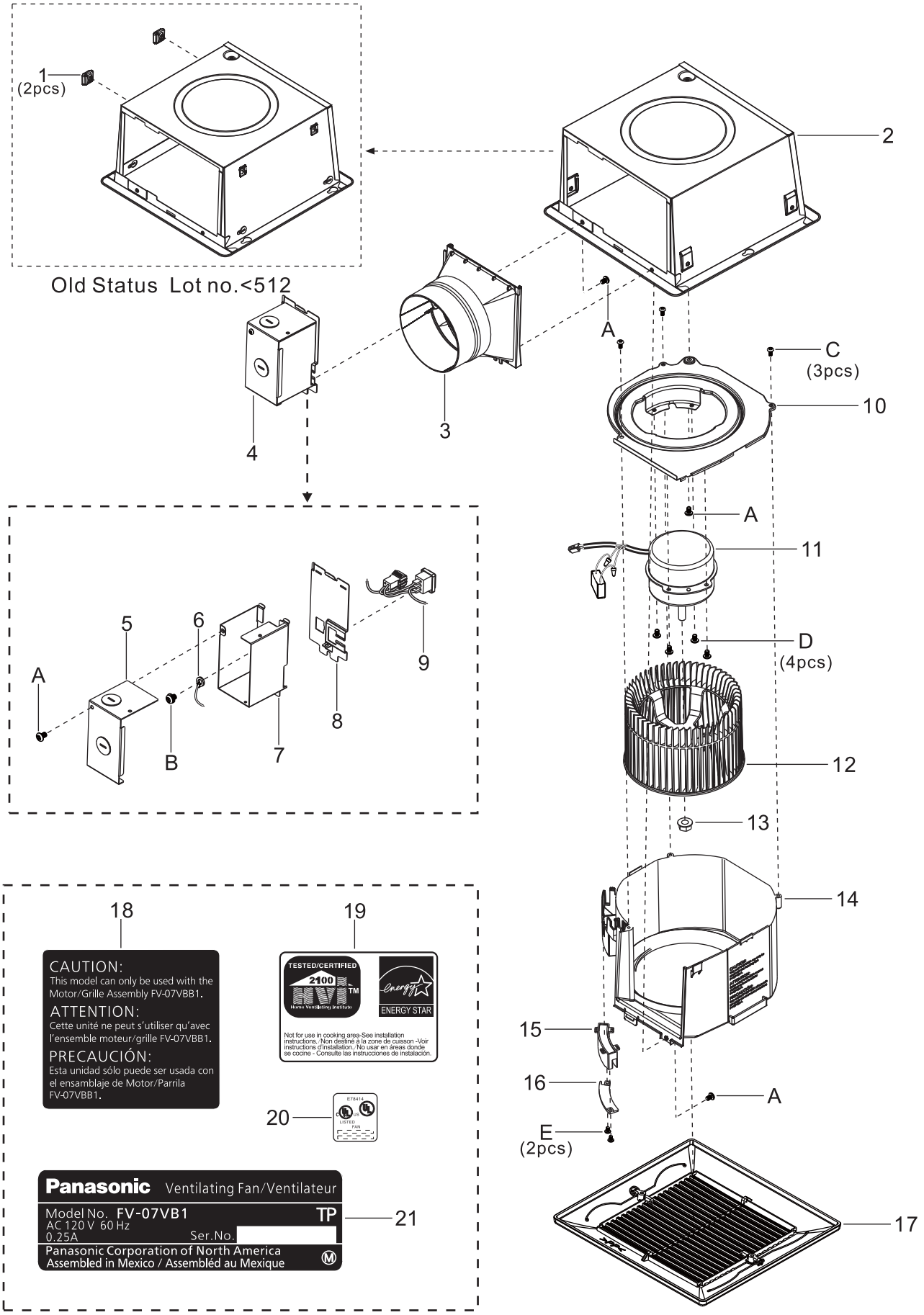
Speed	Air direction	Voltage (V)	Frequency (Hz)	Duct diameter (inches)	Power consumption (W)	Noise (sones)		Air volume at 0.1"WG (CFM)		Speed (rpm) 0.1"WG	Weight (lb./kg)
						0.1"WG	0.25"WG	0.1"WG	0.25"WG		
I (Standard)	Exhaust	120	60	4	20	1.1	1.4	70	50	907	4.4/2.0
II (Boost)	Exhaust	120	60	4	24	1.5	2.0	90	70	1019	

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

2. Parts Identification

FV-07VB1

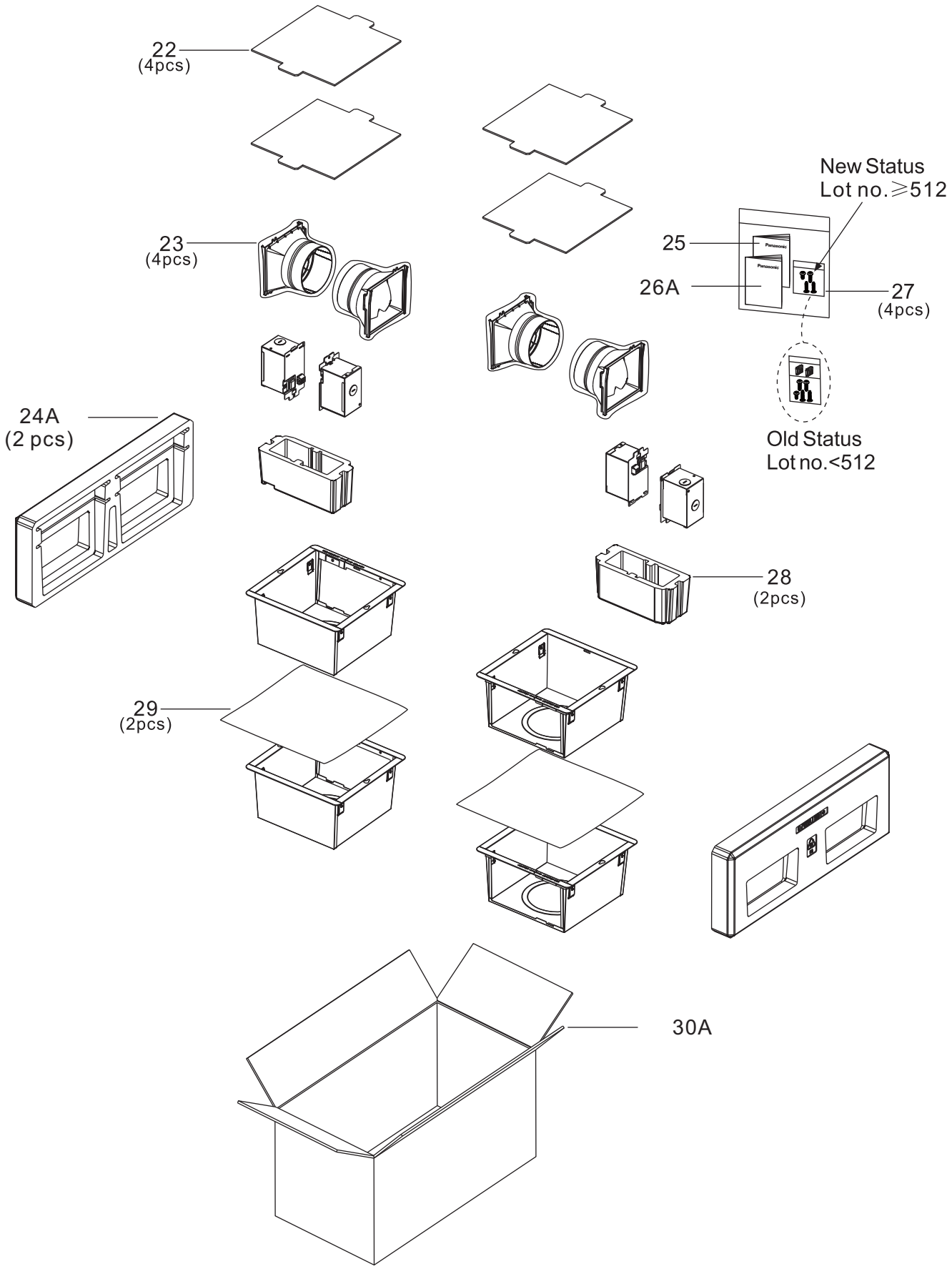
Main Body Section



2. Parts Identification

FV-07VB1

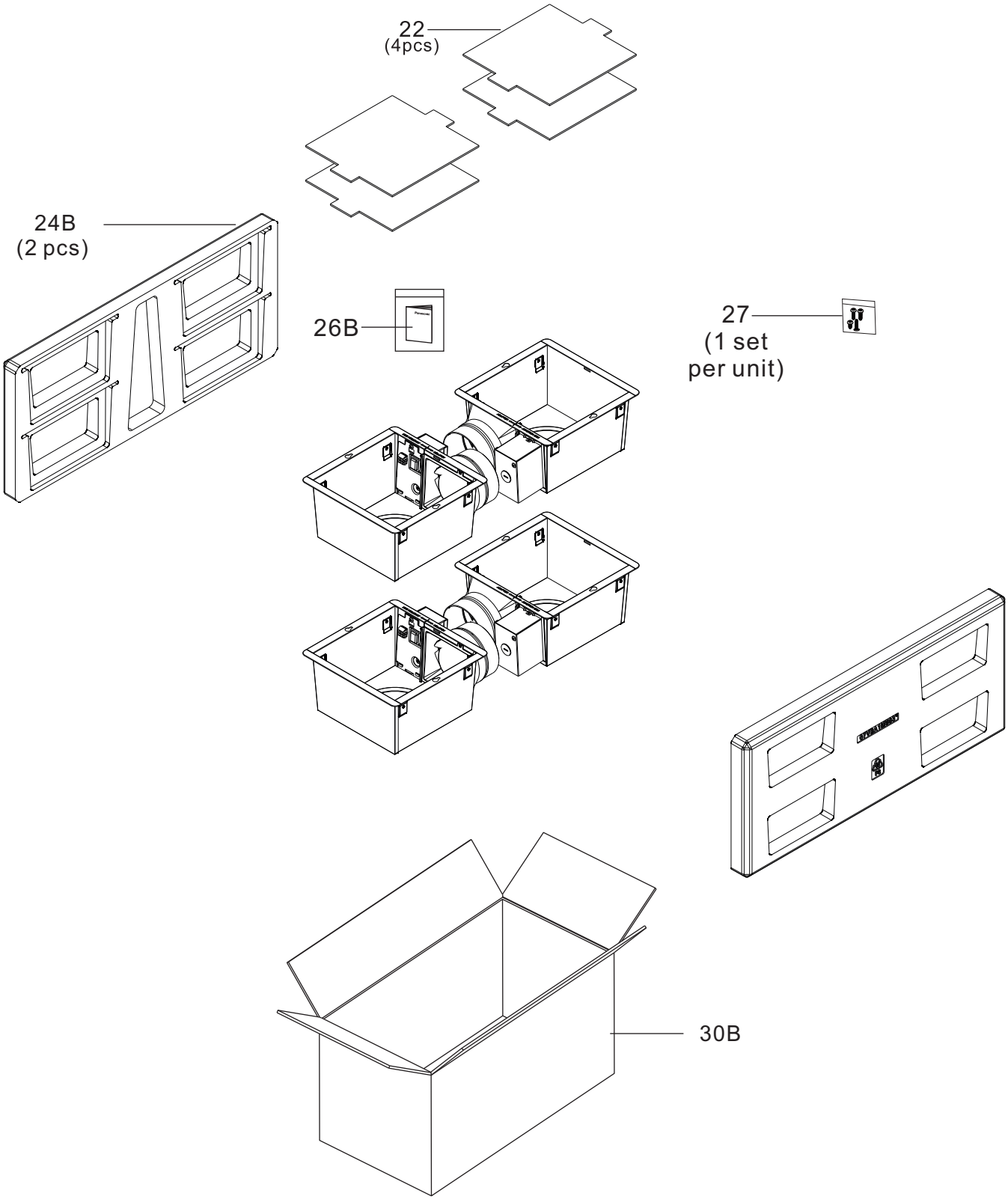
Packing Section (FV-07VBA1)



2. Parts Identification

FV-07VB1

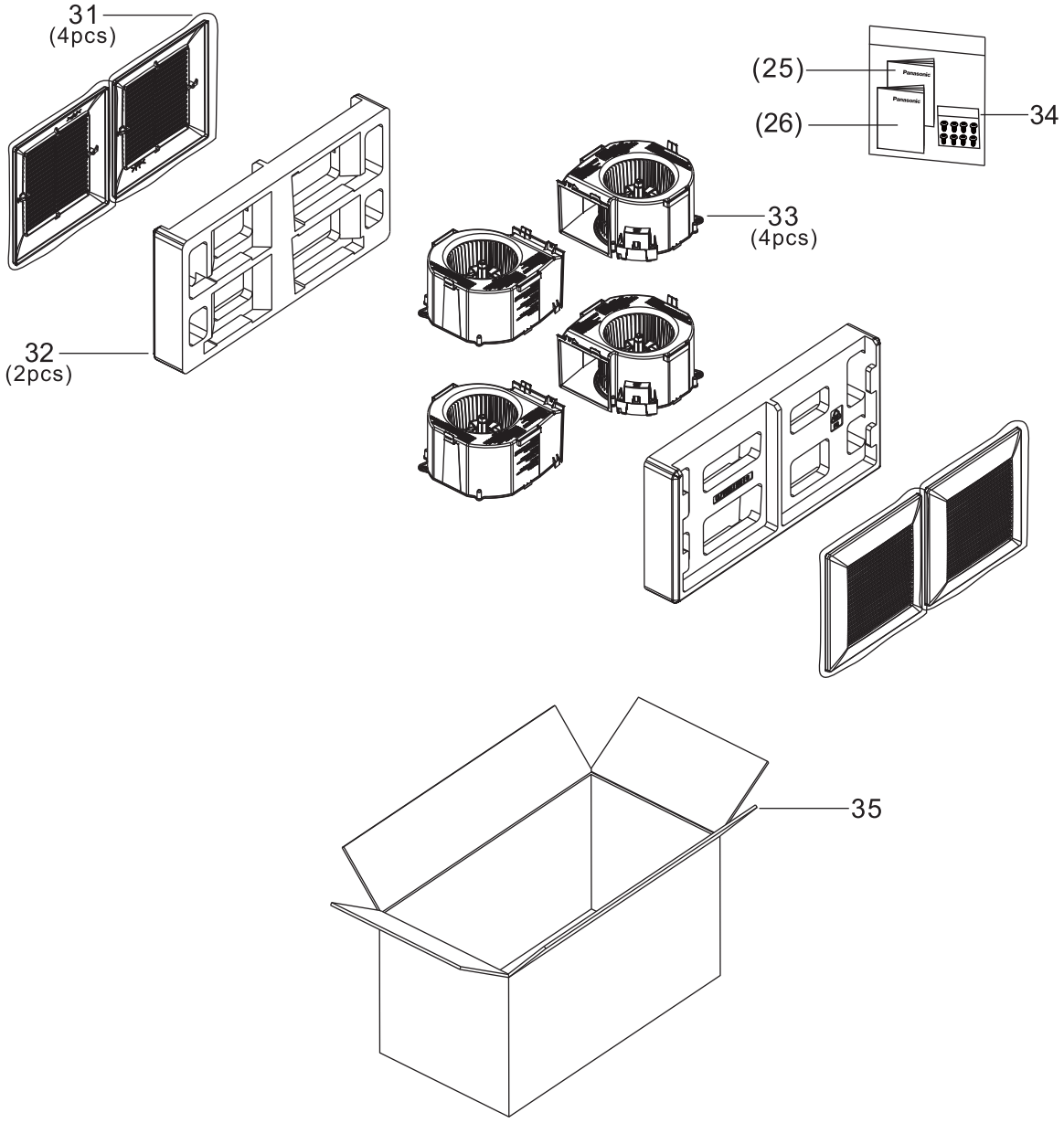
Packing Section (FV-07VBA1A)



2. Parts Identification

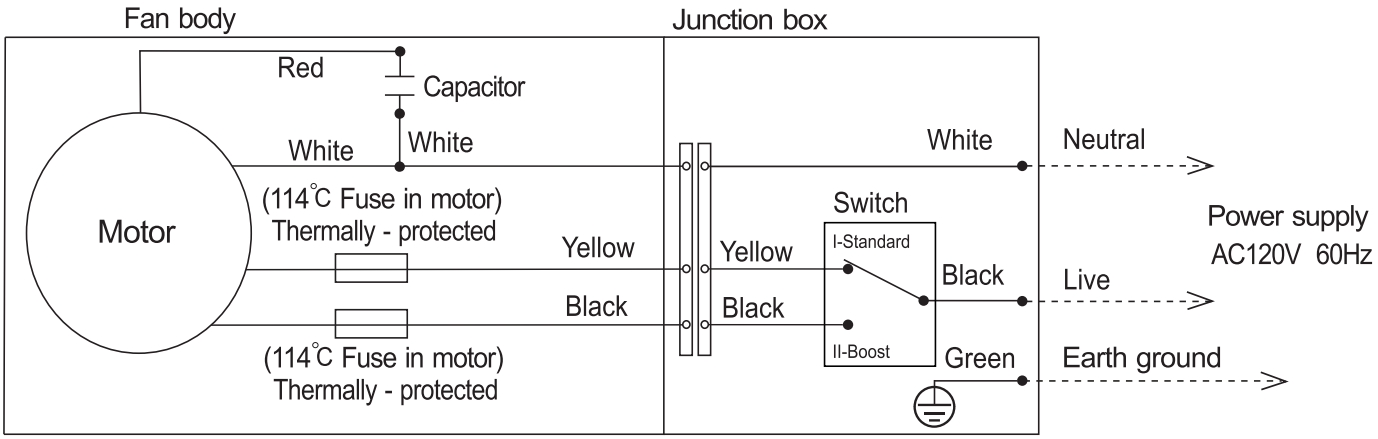
FV-07VB1

Packing Section(FV-07VBB1)



3. Wiring diagram

FV-07VB1



4. Parts List

FV-07VB1

Main Body Section

No.	Part No.	Part Name	Q'ty	Remark
1	FFV5710026S	Spacer	2	Lot No<512
2	FFV1600147S	Frame Assembly	1	Lot No≥512
3	FFV0000149S	Adapter Assembly	1	
4	FFV2800022S	Electric Section	1	⚠
5	FFV2800023S	Junction Cover	1	
6	FFV3450010S	Earth Lead Wire	1	⚠
7	FFV2800024S	Junction Box	1	
8	FFV0900064S	Connector Plate	1	
9	FFV0900065S	Connector Assembly	1	⚠
10	FFV3730118S	Motor Support	1	
11	FFV3730119S	Motor Unit	1	⚠
12	FFV0400116S	Blade	1	
13	FFV7020021S	Nut	1	For Fixing Blade
14	FFV0790110S	Casing	1	
15	FFV0900066S	Connector Box	1	
16	FFV0900017S	Connector Box Cover	1	
17	FFV3402169S	Louver Assembly	1	
18	FFV6730084S	Warning Label	1	Stuck On Frame
19	FFV0810011S	Caution Label 1	1	Stuck On Frame
20	FFV2260003S	UL Mark	1	Stuck On Frame
21	FFV4020824S	Name Plate	1	Stuck On Casing
A	FFV7000202S	Bind Tap Screw	4	
B	FFV7000211S	Earth Screw Assembly	1	For Fixing Earth Lead Wire ⚠
C	FFV7000089S	Truss Tap Screw	3	For Fixing Motor Support
D	FFV7000074S	Truss Tap Screw	4	For Fixing Motor Unit
E	FFV7000095S	Pan Tap Screw	2	For Fixing Connector Box Cover

4. Parts List

Packing Section (FV-07VBA1)/(FV-07VBA1A)

No.	Part No.	Part Name	Q'ty	Remark
22	FFV4710384S	Cover Pad	4	
23	FFV4650021S	Poly Cover	4	For Adapter Assembly Packing
24A	FFV4710385S	Pad A	2	FV-07VBA1
24B	FFV7VBA1A	Pad A	2	FV-07VBA1A
25	FFV2540181S	Installation Instructions	1	English,For USA/CA Market.Lot No<512
(25)	FFV2540193S	Installation Instructions	1	English,For USA/CA Market.Lot No≥512
26	FFV2540182S	Installation Instructions	1	Spanish,For USA Market.Lot No<512
(26)	FFV2540194S	Installation Instructions	1	Spanish,For USA Market.Lot No≥512
(26)	FFV2540192S	Installation Instructions	1	French,For CA Market.Lot No<512
(26)	FFV2540195S	Installation Instructions	1	French,For CA Market.Lot No≥512
26A	FFV7VBA420	Installation Instructions	1	English & Spanish for USA Market FV-07VBA1A
27	FFV0010239S	Accessory A	4	Lot No<512
(27)	FFV0010252S	Accessory A	4	Lot No≥512
28	FFV4710386S	Pad B	2	
29	FFV4650035S	Poly Plate	2	
30A	FFV9001116S	Packing Case Assembly	1	FV-07VBA1
30B	FFV7VBA412	Packing Case Assembly	1	FV-07VBA1A

Packing Section(FV-07VBB1)

No.	Part No.	Part Name	Q'ty	Remark
31	FFV4650037S	Poly Cover	4	For Louver Assembly Packing
32	FFV4710387S	Pad A	2	
33	FFV0790111S	Casing Section	4	⚠
34	FFV0010240S	Accessory A	1	
35	FFV9001117S	Packing Case Assembly	1	

5. Replacement Guide

INSTALLATION FOR FV-07VBA1(JOIST MOUNTING)

1. Affix the fan housing to joist with 3 long screws (ST4.2X20) by affixing first 1 screw on the bottom of the joist, hang up the fan housing through the key hole, tighten the screw, then affix other 2 screws. (Fig.1)
2. Install the ventilation duct and secure it with a clamp and seal it with mastic or approved foil tape. A 4 inch circular duct is needed to connect to the relevant part of adaptor. (Fig.2)
3. Slide the clamps of the adaptor to the top of the fan housing and then snap the clamps of the adaptor into the bottom of the fan housing opening. (Fig. 2)

⚠ CAUTION

- Install the adaptor and secure ventilation duct before installing junction box.
- The clamps of the adaptor should be clipped on fan housing correctly.

4. Remove junction box cover and secure conduit or strain relief to junction box cover knock-out hole (Ⓐ or Ⓑ). (Fig.3)
5. Refer to wiring diagram.
   Follow all the local electrical safety codes as well as the National Electrical Code(NEC). Using UL approved wire nuts, connect house power wires to ventilating fan wires.
6. Affix the junction box cover to junction box. If the knock-out hole is used Ⓑ , this step must be performed after step 8.
7. Insert the tongue on the bottom of the junction box so that it is on the outside of the fan housing.
8. Affix the junction box to the top of the fan housing with screw Ⅰ (ST4.2X8). (Fig.4)

⚠ CAUTION

- Before affixing screw Ⅰ (ST4.2X8), make sure the tongue of the junction box is clipped on fan housing correctly. (Fig.3)
- Mount junction box cover carefully so that lead wires are not pinched.

9. Select the air volume speed by adjusting the switch. Factory setting is "I" (Standard) position; pressing "II" (Boost) selects the high airflow position. (Fig.4)
10. Finish ceiling work. Ceiling hole should be aligned with the inside edge of the flange. (Fig.5)

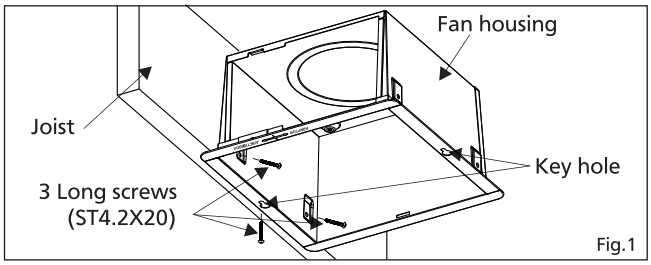


Fig.1

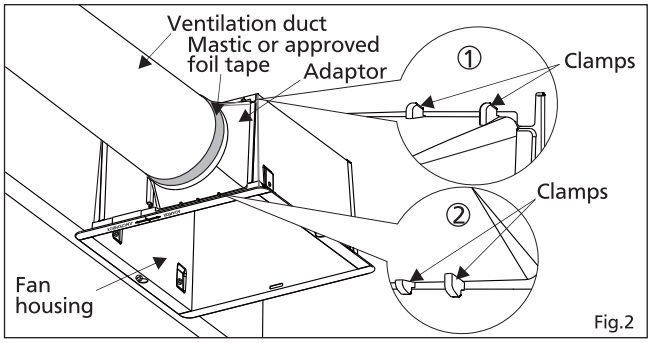


Fig.2

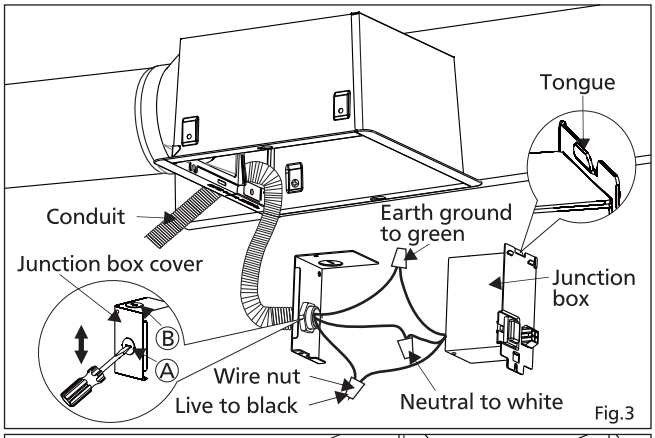


Fig.3

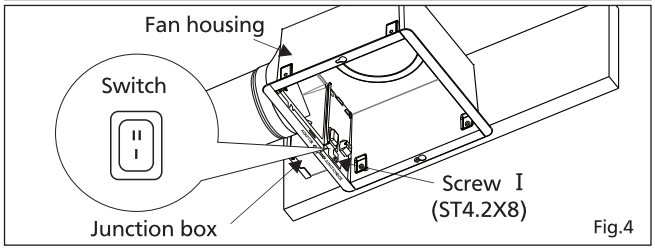
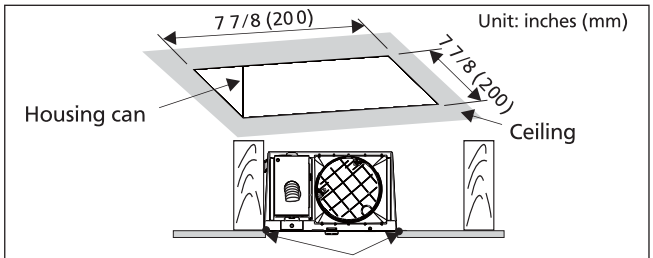


Fig.4



After finishing the ceiling job, fill gap between flange and ceiling with caulk or other sealant to prevent air leakage.

Fig.5

5. Replacement Guide

INSTALLATION FOR FV-07VBA1(WALL MOUNTING)

1. Affix the fan housing to stud with 3 long screws (ST4.2X20) by affixing first 1 screw in front of the stub, hang up the fan housing through the key hole, tighten the screw, then affix other 2 screws. (Fig.6)
2. Install the ventilation duct and secure it with a clamp and seal it with mastic or approved foil tape. A 4 inch circular duct is needed to connect to the relevant part of adaptor. (Fig.2 of page 8)
3. Slide the clamps of the adaptor to the top of the fan housing and then snap the clamps of the adaptor into the bottom of the fan housing opening. (Fig. 2 of page 8)

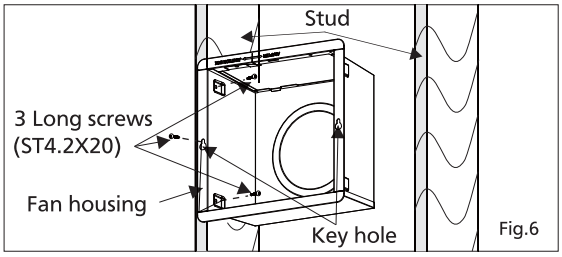


Fig.6

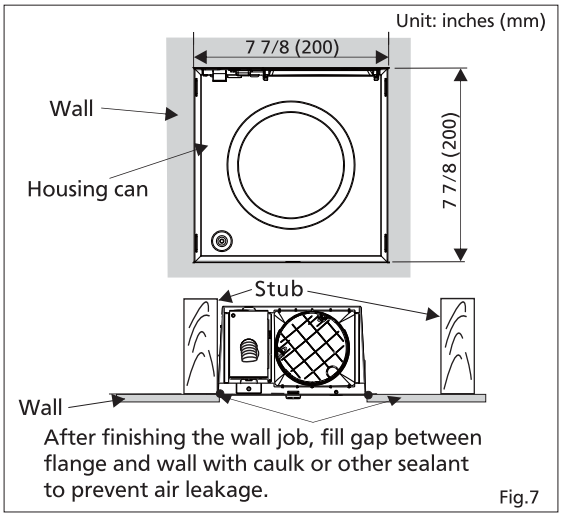


Fig.7

CAUTION

Install the adaptor and secure ventilation duct before installing junction box.

The clamps of the adaptor should be clipped on fan housing correctly.

4. Remove junction box cover and secure conduit or strain relief to junction box cover knock-out hole (Ⓐ or Ⓑ). (Fig.3 of page 8)
5. Refer to wiring diagram.
   Follow all the local electrical safety codes as well as the National Electrical Code(NEC).
   Using UL approved wire nuts, connect house power wires to ventilating fan wires.
6. Affix the junction box cover to junction box.
   If the knock-out hole is used Ⓑ , this step must be performed after step 8.
7. Insert the tongue on the bottom of the junction box so that it is on the outside of the fan housing.
8. Affix the junction box to the top of the fan housing with screw Ⅰ (ST4.2X8). (Fig.4 of page 8)

CAUTION

Before affixing screw Ⅰ (ST4.2X8), make sure the tongue of the junction box is clipped on fan housing correctly. (Fig.3 of page 8)

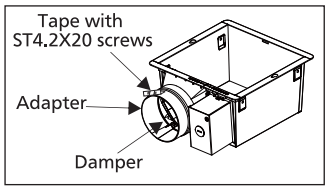
Mount junction box cover carefully so that lead wires are not pinched.

9. Select the air volume speed by adjusting the switch. Factory setting is "Ⅰ" (Standard) position; pressing "Ⅱ" (Boost) selects the high airflow position. (Fig.4 of page 8)
10. Finish wall work. Wall hole should be aligned with the inside edge of the flange. (Fig.7)

5. Replacement Guide

INSTALLATION FOR FV-07VBA1A (JOIST MOUNTING)

IMPORTANT:
Remove the tape from damper and adapter before installation. As shown bellow:



1. Affix the fan housing to joist 3 long screws (ST4.2X20) by affixing first 1 screw on the bottom of the joist, hang up the fan housing through the key hole, tighten the screw, then affix other 2 screws. (Fig. 1)

2. Install the ventilation duct and secure it with a clamp and seal it with mastic or approved foil tape. A 4 inch circular duct is needed to connect to the relevant part of adapter. (Fig. 2)

3. Remove screw ST4.2X8 from junction box cover and secure conduit or strain to knock-out hole (Ⓐ or Ⓑ). (Fig. 3)

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

5. Affix the junction box cover to junction box with ST4.2X8 screw.

6. Select the air volume speed by adjusting the switch. Factory setting is "I" (Standard) position; preseting "II" (Boost) selects the high airflow position. (Fig. 4)

⚠ CAUTION

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

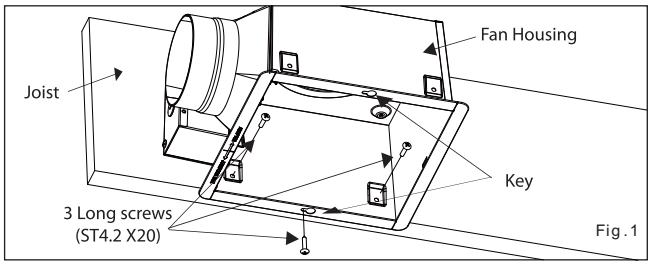


Fig.1

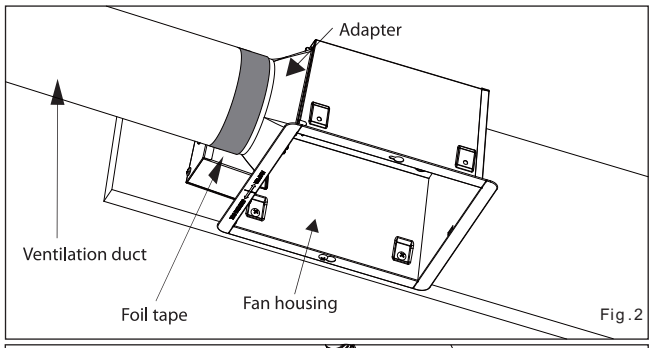


Fig.2

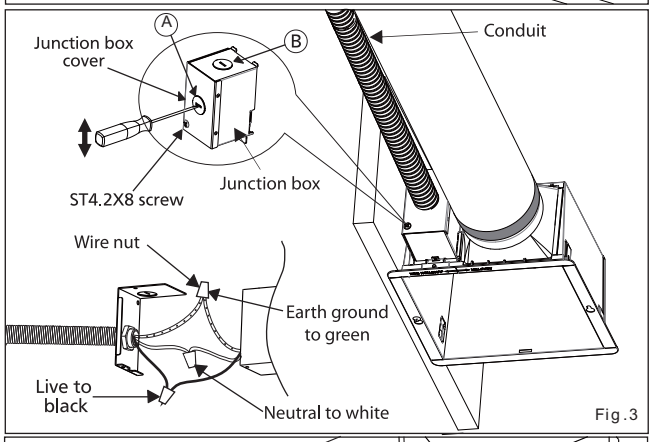


Fig.3

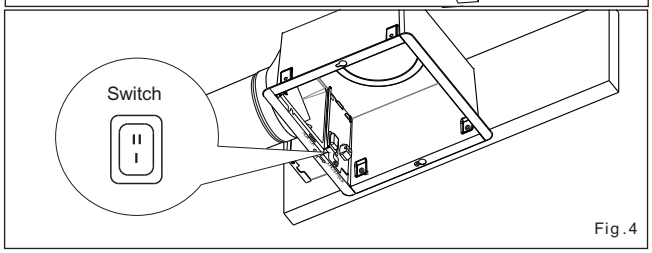


Fig.4

INSTALLATION FOR FV-07VBA1A (WALL MOUNTING)

1. Affix the fan housing to stud with 3 long screws (ST4.2X20) by affixing first 1 screw in front of the stud, hang up the fan housing through the key hole, tighten the screw, then affix other 2 screws. (Fig. 6)

2. Install the ventilation duct and secure it with a clamp and seal it with mastic or approved foil tape. A 4 inch circular duct is needed to connect to the relevant part of adaptor. (Fig 2 of page 5)

3. Remove screws ST4.2X8 from Junction box cover and secure conduit or strain to knock-out hole (Ⓐ or Ⓑ). (Fig. 3 of page 5)

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

5. Affix the junction box cover to junction box with ST4.2X8 screw.

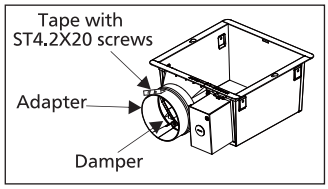
6. Select the air volume speed by adjusting the switch. Factory setting is "I" (Standard) position; preseting "II" (Boost) selects the high airflow position. (Fig. 3 of page 5)

7. Finish the wall work. Ceiling hole should be aligned with the inside edge of the flange. (Fig. 7)

⚠ CAUTION

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

IMPORTANT:
Remove the tape from damper and adapter before installation. As shown bellow:



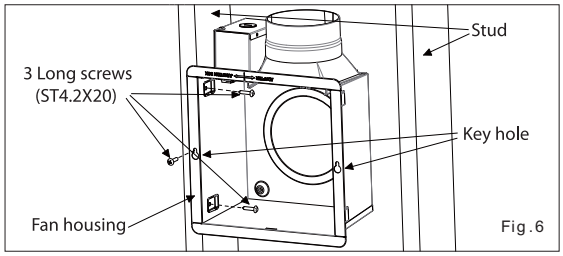


Fig.6

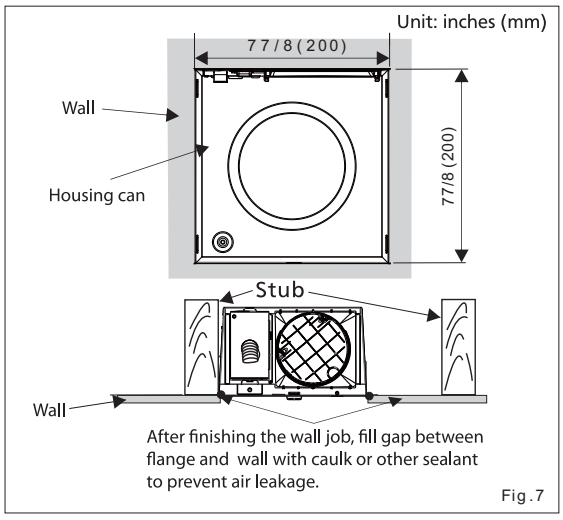


Fig.7

5. Replacement Guide

INSTALLATION FOR FV-07VBB1

1. Insert the blower / motor assembly by sliding it into adaptor flanges. Then press lock the blower / motor assembly into the housing can until the blower "clicks" into place for temporary fixation. (Fig.8)
2. Secure the blower / motor assembly with 2 screw Ⅰ and connect the molex plug connector from the blower to the junction box. (Fig.9)

⚠ CAUTION

- Before turning on the fan, make sure the connector is inserted at the correct position. Failure to properly connect will result in fan not working.(Fig.9)
- The claw of connector must latch to the rib completely.(Fig.9)

⚠ WARNING

- The blower / motor assembly must be installed into housing can tightly by the 2 screw Ⅰ. failure to secure with screw will affect the grounding.

3. Insert the grille assembly mounting springs into the slots as shown and mount grille assembly to fan body . (Fig.10)

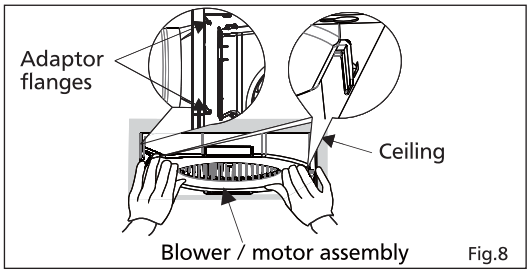


Fig.8

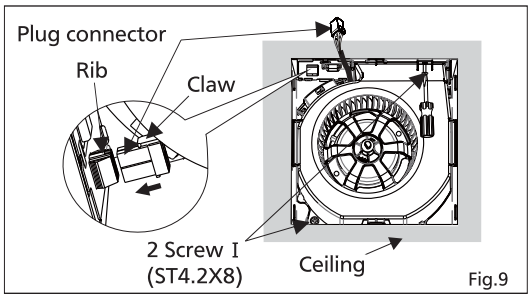


Fig.9

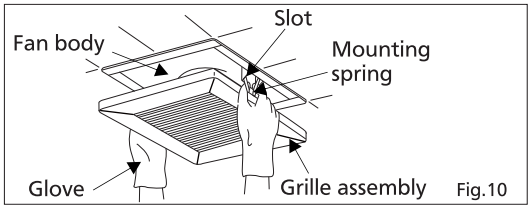


Fig.10