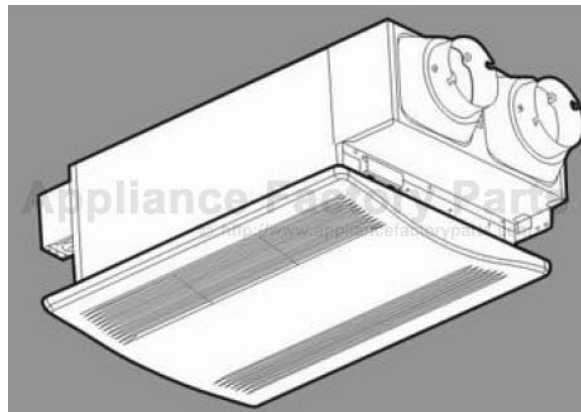


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PANASONIC FV-04VE1 Owner's Manual

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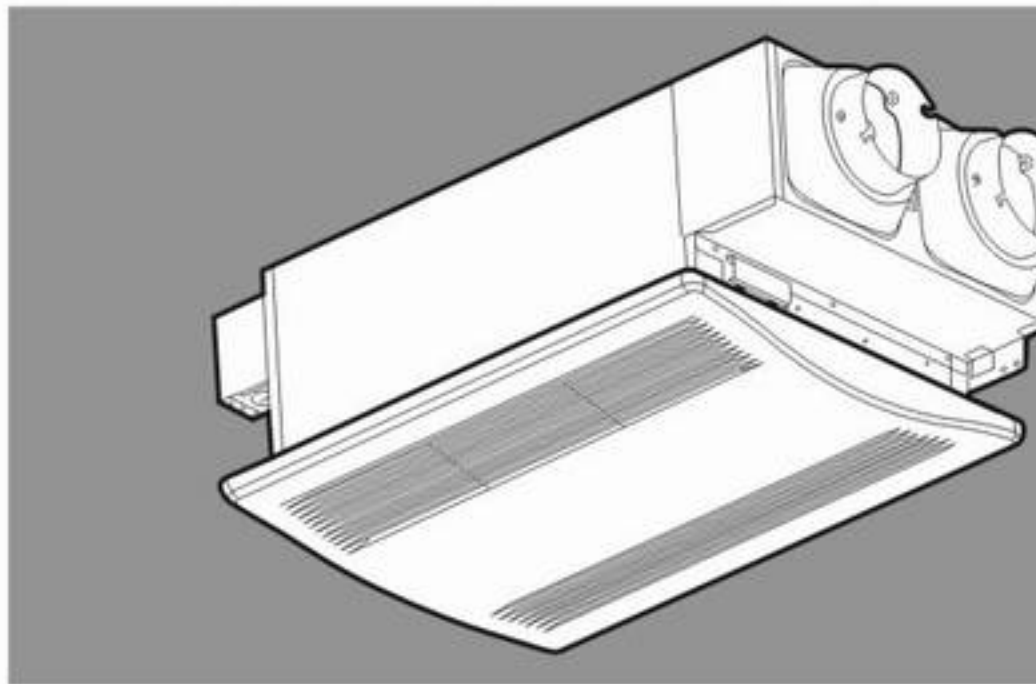


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----- Manual continues below -----

INSTALLATION INSTRUCTION

Spot Energy Recovery Ventilator (ERV)



Panasonic[®]









READ AND SAVE THESE INSTRUCTIONS

Please read these instructions carefully before attempting to operate or service the Panasonic Spot Energy Recovery Ventilator. Failure to comply with Instructions could result in personal injury and/or property damage. Please retain this booklet for future reference.

Table of Contents

SUPPLIED ACCESSORIES

FV-04VE1

Part name	Appearance
Grille	
Suspension bracket I	
Suspension bracket II	
Suspension bracket III	
Screw I (ST4.2X12)	
Screw II (ST4.2X10)	
Long screw (ST4.2X30)	
Switch Label	

DESCRIPTION

The Panasonic Spot Energy Recovery Ventilator uses two sirocco fans motor is designed to have an extended service life with reduced energy

SPECIFICATIONS

<Ventilation Performance>

- Factory setting for 40 CFM

Model	Air Direction	V	Hz	Duct	Speed	Gross Air Deliver at 0.1"WG (cfm)		Power
						Exhaust	Supply	
FV-04VE1	Exhaust & Supply	120	60	4"X2	High	40	30	
					Low	20	20	

- Optional setting for 20 CFM

Air Direction	V	Hz	Duct	Speed	Gross Air Deliver at 0.1"WG (cfm)		Power
					Exhaust	Supply	
Exhaust & Supply	120	60	4"X2	High	20	20	
				Low	10	10	

Selected only at installation. (Refer to Page 8)

<Energy Performance>

Mode	Supply Temperature		Net Air Flow		Total Recover Efficiency
	°F	°C	I/S	cfm	
Heating	32	0	14	30	N/A
Cooling	95	35	14	29	36

1. The testing of the ventilation performance is in general accordance with HVAC
2. The testing of the energy performance is in accordance with CSA-C439 standard

PRODUCT OPERATION

- <Main Switch>
- Power on/off for unit.
 - Turn off the Main Switch when the unit is not in use.

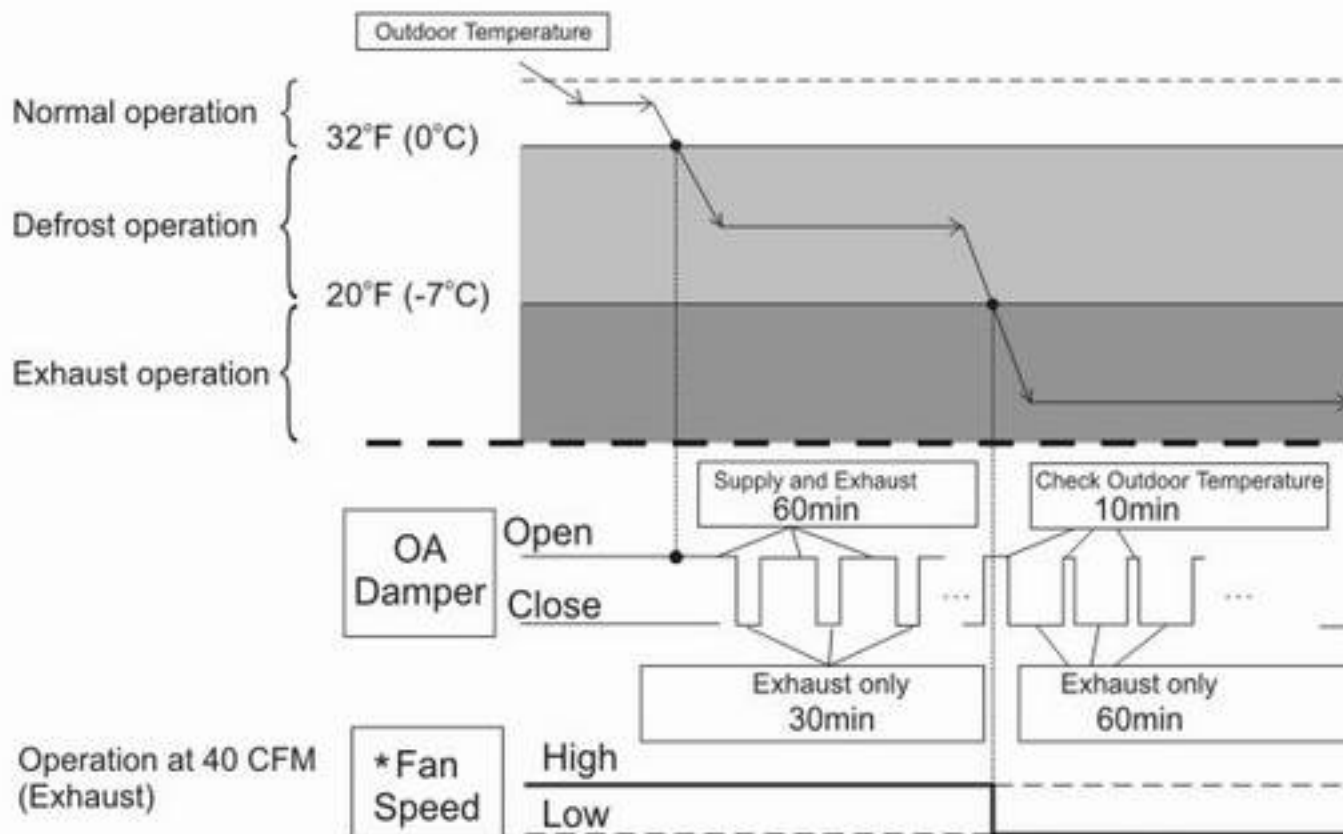
IMPORTANT: Unless you turn off the main switch, the unit will be in standby mode and will consume some electricity.
When turning on or off the main switch, push it completely to the end.

<Operation Mode>

- Normal operation
- Defrost

PRODUCT OPERATION CONTINUED

Introduction of OA Damper's movement



- * The High speed is automatically changed to Low speed during Exhaust operation. Another speed and optional setting (High and Low) are not changed speed.

UNPACKING


Unpack and remove unit carefully from carton.
Refer to the Supplied Accessories list to verify that all parts are presented.

GENERAL SAFETY INFORMATION

1. Do not install this ERV where air temperature may exceed 104°F (40°C).
2. Make certain that the electric service supply voltage is 120 V, 60 Hz.
3. Follow all local electrical and safety codes, as well as the National Electrical Code and Occupational Safety and Health Act (OSHA).

GENERAL SAFETY INFORMATION CONTINUED

CAUTION:

1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
 2. Do not install in cooking area or connect directly to any appliance. (Fig.B)
 3. This product must be properly grounded.
 4. The unit must be used in a space provided with heated and cooled air, such as a living room, dining room, bedroom, etc.
 5. The ducts must be connected directly to the outside.
- 

WARNING:

- To reduce the risk of fire, electric shock or injury to persons, observe the following:
- A. Use this unit only in the manner intended by the manufacturer. If you do not follow these instructions, the manufacturer is not responsible for any injury or damage.
 - B. Installation work and electrical wiring must be done by a qualified person in accordance with applicable codes and standards, including fire-rated construction.
 - C. Sufficient air is needed for proper combustion and exhausting of gas from fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturer's installation 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.
 - D. When cutting or drilling into wall or ceiling, do not damage electrical wiring.
 - E. Ducted fans must always be vented to the outdoors.
 - F. Solid state controls may cause harmonic distortion which can cause motor overheating. To reduce the risk of fire or electric shock, do not use this unit with any solid-state controls.
 - G. Before servicing or cleaning unit, switch power off at service panel and lock or tag the service panel to prevent power from being switched on accidentally. When the cover is locked, securely fasten a prominent warning device, such as a tag, to the lock.
 - H. Not to be installed in a ceiling thermally insulated to a value greater than 15 R-value. (Installation in Canada only.)
 - I. Never install in the area where the temperature falls below -13°F (-25°C).
 - J. Never install the unit in a high humidity space, such as a bathroom, kitchen, or laundry room.
 - K. Install the unit in a ceiling where air temperature is above 50°F (10°C) to avoid condensation.

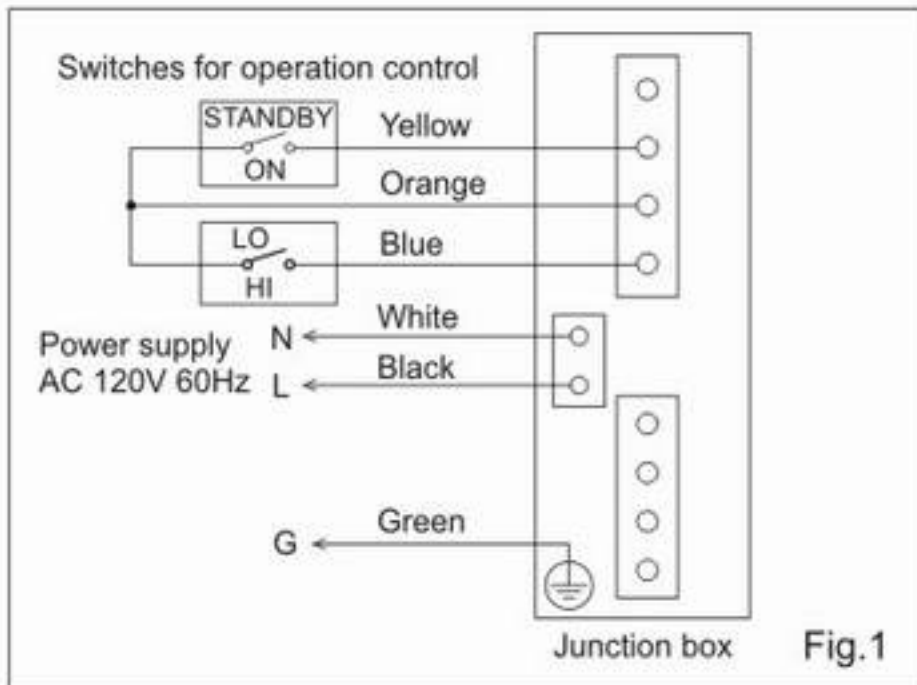
RECOMMENDED ZONES MAP

Recommended zones map

As shown on page 5, this unit has an automatic frost prevention mode, which and allows the unit to work as a normal ventilation fan. (Fresh air will not come prevention mode.) The following map outlines the recommended use zones of the Panasonic Spot Energy Recovery Ventilator.



WIRING CONNECTIONS

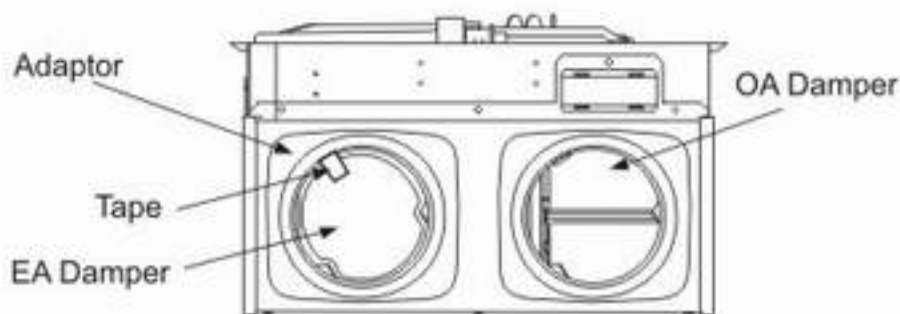


- Optional setting (20 CFM Exhaust):
If you need to change to 20/10 CFM Exhaust, move the connector to the 20 CFM Exhaust side of the receptacle.
Note: Selected only at installation (Fig.2).

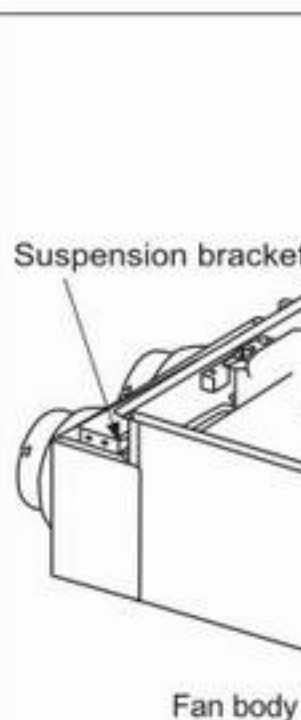
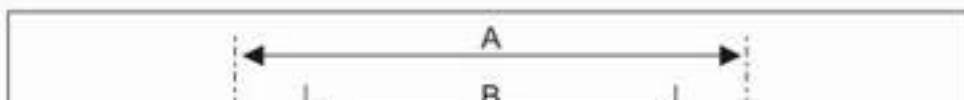
INSTALLATION I (JOIST MOUNTING-I)

IMPORTANT:

Remove the tape as shown below:



1. Insert Suspension bracket I, II, III and adjust the width to fit inside of the joists. (Fig.1)

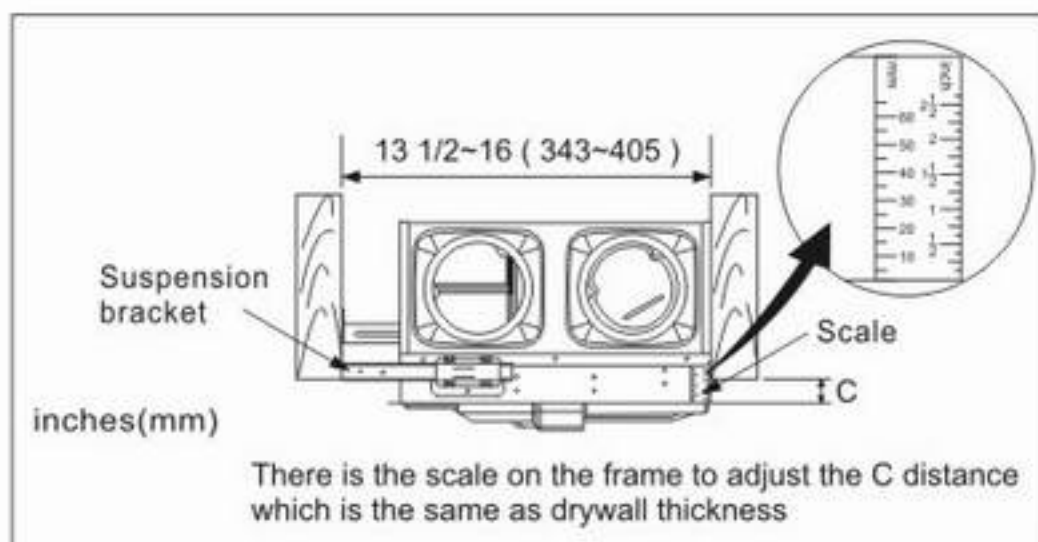


INSTALLATION I (JOIST MOUNTING-I) CONTINUED

3. Install the suspension bracket and fix the adaptor frame by using long screws (ST4.2X30) (According to Fig.2-1, Fig.2-2 & Fig.2-3 to install the product.) During installation the distance C (bottom flange) should be kept the same as the drywall thickness.

CAUTION:

If the bottom flange is not the same level as the drywall, the performance of the unit will be affected.



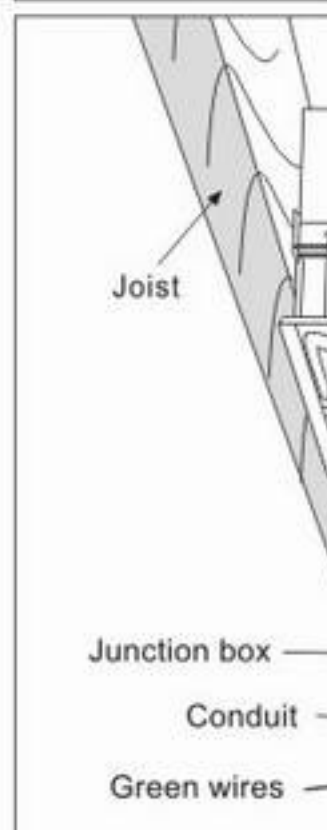
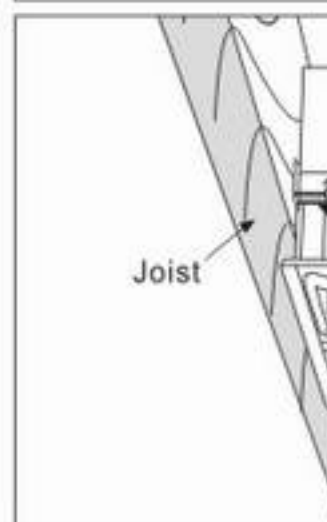
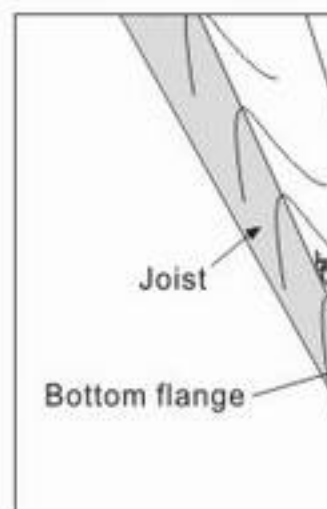
4. Fix Screw I & II on suspension bracket I and II firmly.
5. Remove Junction box cover and secure conduit or stress relief to Junction box knock-out hole. (Fig.3)
6. Refer to wiring diagram (Page 6).
Use wire nuts to connect the house power wires to the ERV wires.

CAUTION:

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

Optional Air flow setting:

- Factory setting 40/20 CFM Exhaust

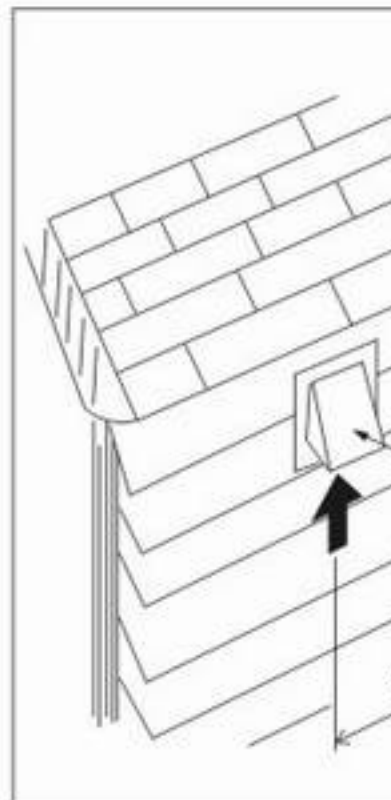


INSTALLATION I (JOIST MOUNTING-I) CONTINUED

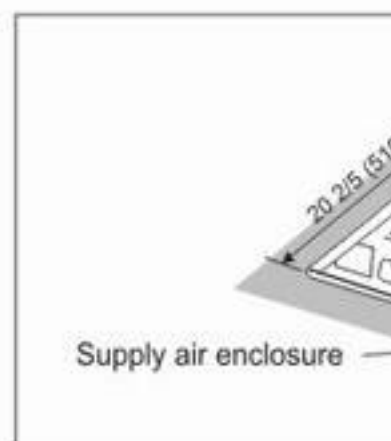
9. Locate the intake hood and the exhaust hood at least 3' (920mm) away from each other. (Fig.4-2)

CAUTION:

The intake air side duct must be connected to the outside and at least 6' (2m) away from the exhaust of appliances such as furnace, dryer, fuel burning appliances, etc.

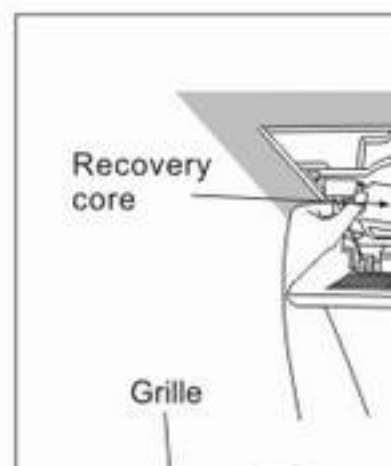


10. Finish ceiling work. Ceiling hole should be aligned with the edge of the flange. (Fig.5-1)
In attic installation, caulk the body to drywall.



11. Turn the grille to the appropriate direction to fit the supply air side. Insert mounting springs into slots as shown and mount grille to fan body. During installation of the grille, keep the recovery core to the left and keep the RA filter in front from your position. (Fig. 5-2)

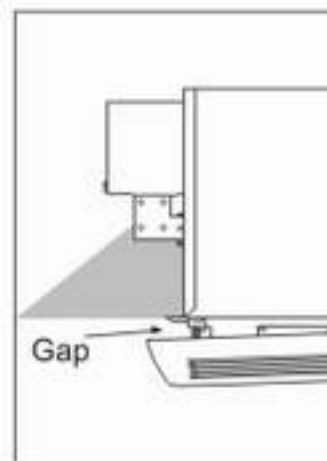
Note: If grille has a gap from the ceiling, adjust the grille position to fit the supply air enclosure on the grille with the one on the fan body



INSTALLATION I (JOIST MOUNTING-I) CONTINUED

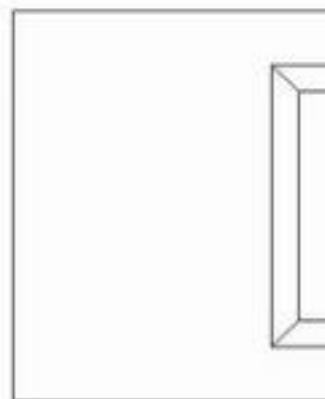
Note:

If the grille is mounted in the opposite direction, the grille can not be fitted to the ceiling (Fig. 6-2), so then reverse the grille position and try to mount again.



[Optional]

Attach the given switch labels (in accessories) on the wall switch (not included) as shown in the diagram for clearer indication.

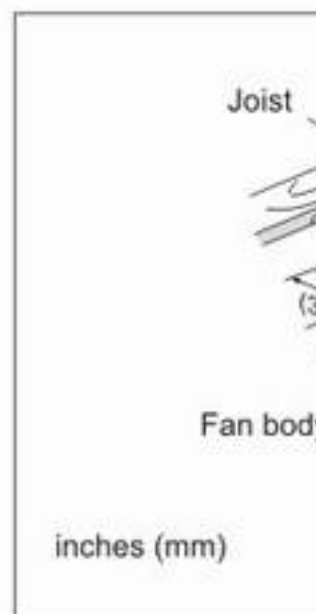


INSTALLATION II (WOODEN HEADER)

1. Install header between joists by using nails or screws. (Fig.7)
Insert Suspension bracket I,II,III and adjust the width to fit inside of the joist and header. (Fig.1)
Insert the fan body between joists and header. Make sure the fan body is horizontal and vertical to the joists. (Fig.7)

CAUTION:

If the bottom flange is not the same level as the drywall, the performance of the unit will be affected.



MAINTENANCE (CLEANING)

WARNING:

- Disconnect power source by switching off at service panel before working on unit.

CAUTION:

- Routine maintenance must be done every 2 or 3 months.
- Clogged filters may cause the condensation on the unit due to air flow reduction.

CAUTION:

1. Never use petrol, benzene, thinner or any other such chemicals for cleaning the ERV.
2. Do not allow water to enter motor.
3. Do not immerse resin parts in water over 60°C.

1. Remove the Grille. (Squeeze mounting spring and pull down carefully.) (Fig.10)

2. Remove the RA Filter from the Grille. (Fig.11)

3. Wash and clean Grille. (Use non-abrasive neutral kitchen detergent, wipe dry with new cloth.) (Fig.12)

Recovery c

Gloves

RA Filter
(Tab side

MAINTENANCE (CLEANING) CONTINUED

5. OA Filter cleaning:

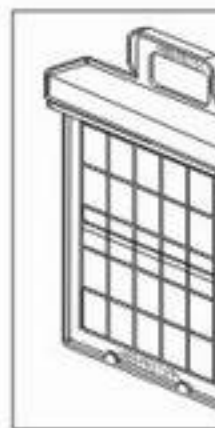
Remove the OA Filter.(Fig.14) And Vacuum-clean, wash softly within warm water with non-abrasive neutral detergent and allow to air dry. (Fig.15)

After cleaning, replace the OA Filter according to Filter direction on Fig.14. Make sure the OA Filter has been installed securely.

The filter can only be installed in one direction.

CAUTION:

Be careful when removing the filter in case condensation water and/or dust has accumulated and may fall out.



6. Remove dust and dirt from fan body using a vacuum cleaner. (Fig 16)

7. Element cleaning:

- ① Turn the knob to the right.(Fig.17)

MAINTENANCE (CLEANING) CONTINUED

④ Vacuum-clean carefully. (Fig.19)

IMPORTANT:

When cleaning the recovery core, do not push strongly by the nozzle. It may get damaged.

⑤ Replace the recovery core according to the direction mark "Δ" and turn the knob to lock in place.

CAUTION:

Insert the Recovery core completely then turn the knob to prevent the core dropping.

CAUTION:

- Do not wash the Recovery core to prevent causing damage to the recovery core.
- Make sure that the knob holds the recovery core securely.

8. Turn the grille in the appropriate direction to fit on the air supply side. Insert the mounting springs into the slots, as shown, and mount the grille to the fan body. When installing the grille, keep the recovery core to the left and keep the RA filter in front of your position. (Fig. 20)

CAUTION:

If the grille is mounted in the opposite direction, the grille can not be fitted to the ceiling (Fig. 22), so then reverse the grille position and try to mount again.

