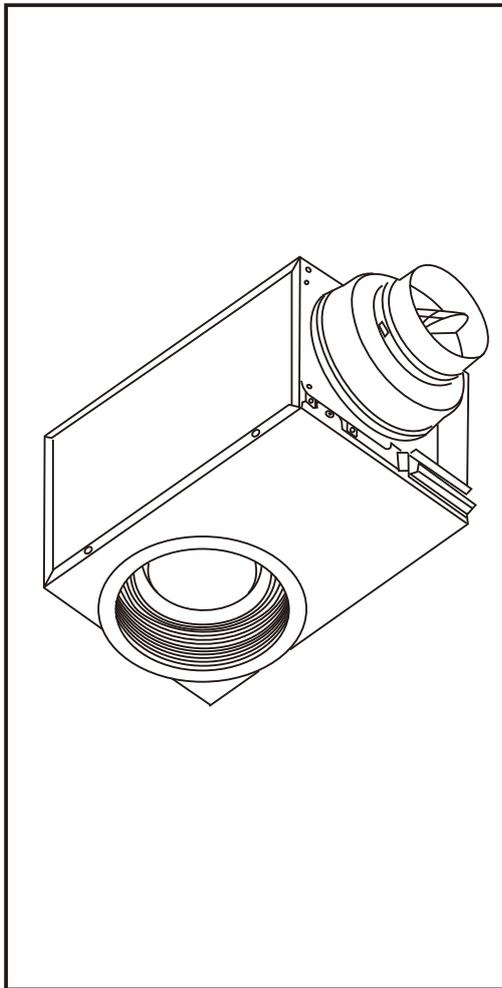




INSTALLATION INSTRUCTIONS

Ventilating Fan

Model No. FV-08VRL1



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READ AND SAVE THESE INSTRUCTIONS

Thank you 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 person 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.

GENERAL SAFETY INFORMATION

WARNING:

To reduce the risk of fire, electric shock or injury to persons, observe the following:

1. Use this unit only in the manner intended by the manufacturer. If you have any questions, contact to the manufacturer.
2. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
3. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) and the local code authorities.
5. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
6. Ducted fans must always be vented to the outdoors.
7. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter)-protected branch circuit.
8. These models are UL listed for tub and shower enclosures.
9. Not to be installed in a ceiling thermally insulated to a value greater than R40. (This is required for installation in Canada only.)
10. To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.
11. This product must be properly grounded.
12. Do not install the unit where ducts are configured as shown in Fig. A.

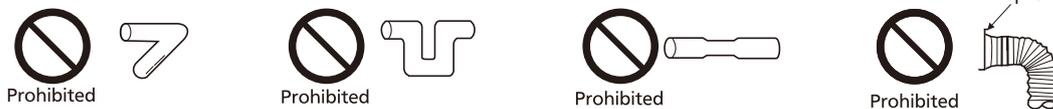


Fig. A

CAUTION:

1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
2. Not for use in cooking area. (Fig.B)
3. Do not install this ventilating fan where interior room temperature may exceed 104 °F (40 °C).
4. Make sure that the electric service supply voltage is AC 120V, 60Hz.
5. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupation Safety and Health Act (OSHA).
6. Always disconnect the power source before working on or near the fan, motor, light fixture or junction box.
7. Protect the power cord from sharp edges, oil, grease, hot surfaces, chemicals or other objects.
8. Do not kink the power cord.
9. Provide make up air for proper ventilation.
10. A statement to the effect that when the product is to no longer be used, it must not be left in place but removed, to prevent it from possibly falling.

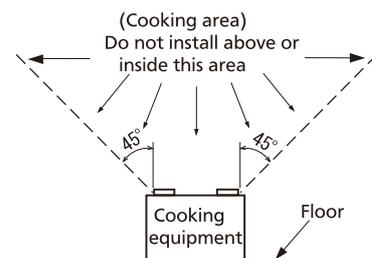


Fig. B

DESCRIPTION

This product is UL listed E78414.

This product uses a sirocco fan driven by a capacitor motor.

The motor is designed to have an extended service life with reduced energy consumption.

It also incorporates a thermal-cut off for safety. The trim ring is a spring-loaded, quick remove type.

A damper for preventing air counterflow is provided. The blower uses a high-capacity sirocco fan developed to reduce the noise level.

The lighting unit is an energy-saving, lighting device that uses one 18W fluorescent lamp and produces almost the same illumination as a standard 75W incandescent lamp.

This product contains a self-ballasted fluorescent lamp and complies with Part 18 of the FCC rules as consumer RF lighting device. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45-30MHz. If interference should occur, try to increase spacing between this product and the other product.

Doc Responsible Party: Panasonic Corporation of North America
Two Riverfront Plaza, Newark, NJ 07102

Sales Company: Panasonic Corporation of North America
Two Riverfront Plaza, Newark, NJ 07102

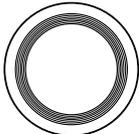
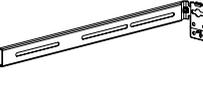
Customer Call Support: 1-866-292-7299

UNPACKING

Unpack and carefully remove the unit from carton.

Refer to the Supplied Accessories list to verify that all parts are present.

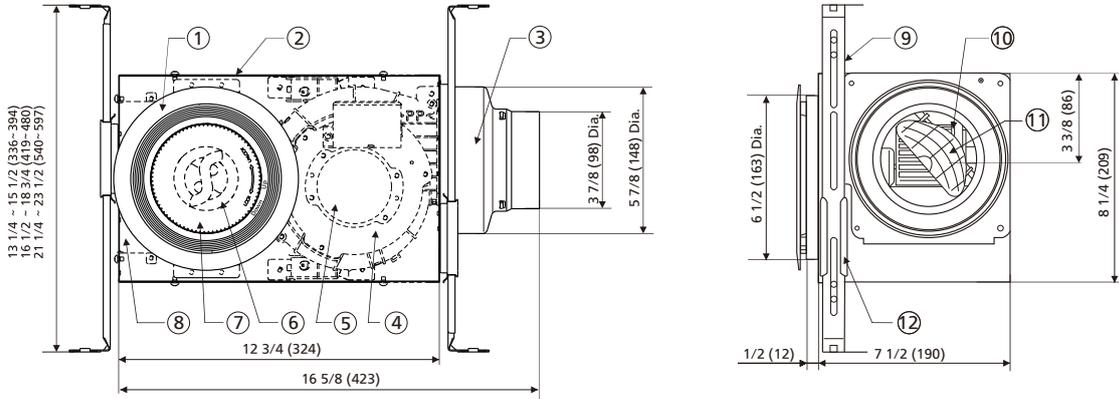
SUPPLIED ACCESSORIES

Part name	Appearance	Quantity
Trim ring		1
Suspension bracket I		2
Suspension bracket II		2
18W Fluorescent lamp (Self-ballasted)		1

Part name	Appearance	Quantity
Screw I (ST4.2X6)		2
Screw II (ST4.2X18)		2
Long screw (ST4.2X20)		8
Installation instructions		2
Warranty sheet		1

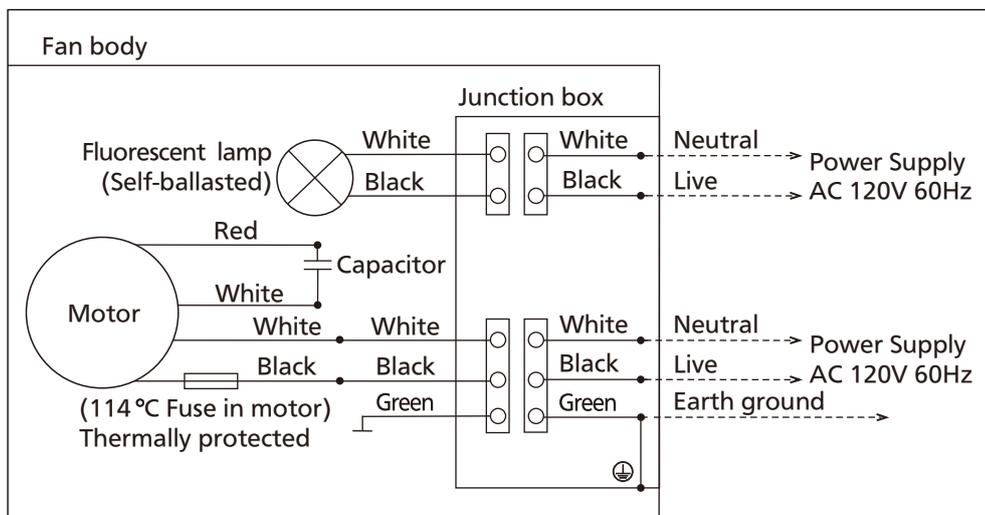
DIMENSIONS

Unit: inches (mm)



No.	Part name	No.	Part name
①	Trim ring	⑦	Lamp cover
②	Housing	⑧	Junction box
③	Adaptor	⑨	Suspension bracket
④	Blower unit	⑩	Fan
⑤	Motor	⑪	Damper
⑥	Fluorescent lamp	⑫	Bracket cover

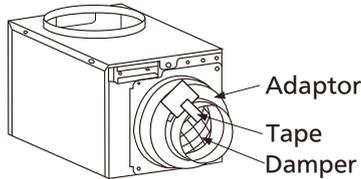
WIRING DIAGRAM



INSTALLATION (BETWEEN JOISTS MOUNTING)

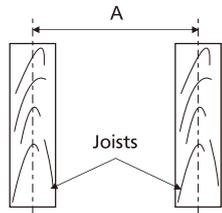
IMPORTANT:

Remove the tape from damper and adaptor before installation. As shown below:



Joist situation:

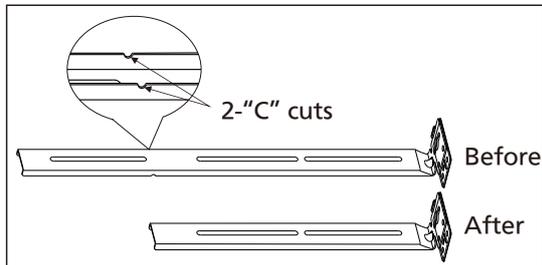
Spacing A is 12 inches (305mm) to 24 inches (609mm) on center joists



Please follow the installation steps as below:

1. Insert the suspension brackets into the fan body from each side of the bracket cover. (Fig. 1)

If spacing A between center joists is 12 inches, cut all suspension brackets along the two "C" cuts with a hacksaw or other tools.



2. Fix suspension brackets I and II with screws I (ST4.2X6), but remember not to tighten the screws up yet. (Except that the spacing is 12 inches between joists.) (Fig. 1)
3. Position the fan body between joists, and hold it properly. Mark the long holes of all the four suspension brackets on joists. (Fig. 2)
4. Fix four long screws (ST4.2X20) partially into joists at the four marked locations. (Fig. 3)
5. Hang the fan body down from the four long screws, and adjust the suspension brackets if necessary. Then, tighten the four long screws up. And that, fix the other four long screws (ST4.2X20) to other holes. Make sure the fan body is level and square with the joists. (Fig. 4)
6. Tighten the two screws I (ST4.2X6) up (Except that the spacing is 12 inches between joists.). Then secure suspension bracket I and II to the fan body with screws II (ST4.2X18). (Fig. 4)

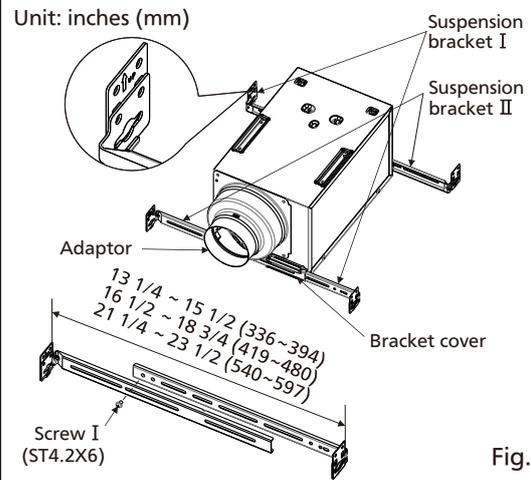


Fig. 1

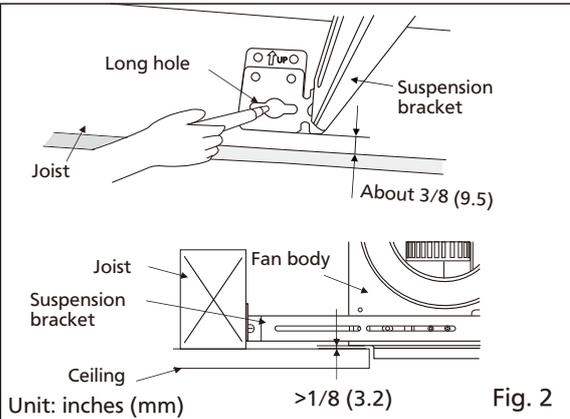


Fig. 2

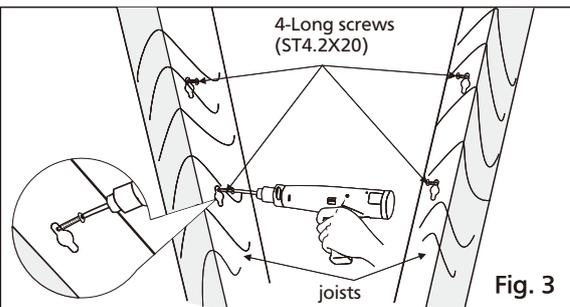


Fig. 3

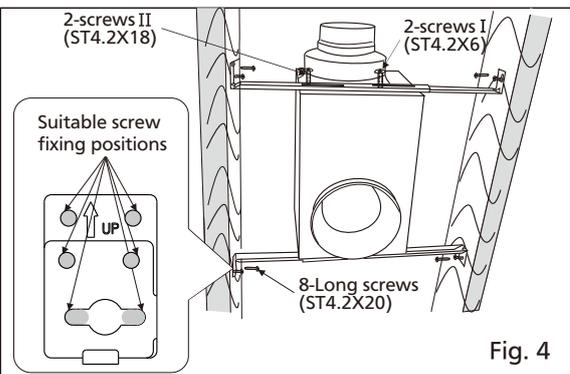


Fig. 4

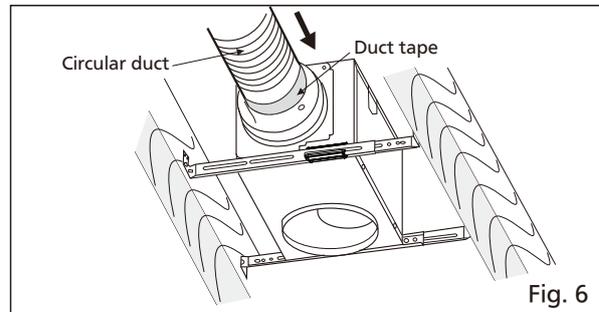
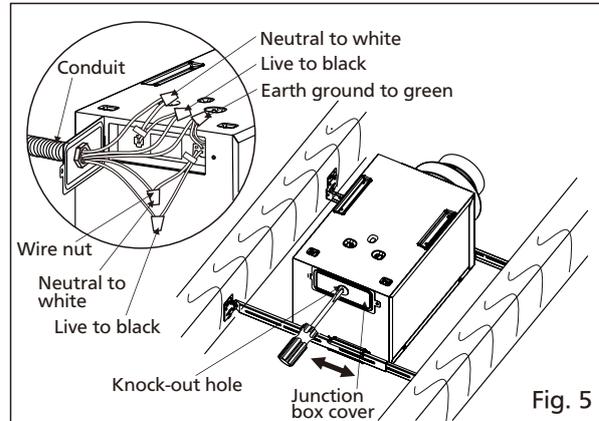
INSTALLATION (BETWEEN JOISTS MOUNTING) CONTINUED

7. Remove the knock-out hole from the junction box cover, and remove the junction box cover. Then secure the conduit or stress relief to the junction box knock-out hole. (Fig. 5)
8. Refer to wiring diagram (Page 4). Follow all the local electrical safety codes as well as the National Electrical Code (NEC). Using UL approved wire nuts, connect house power wire to ventilating fan wires. (Fig.5)

CAUTION:

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

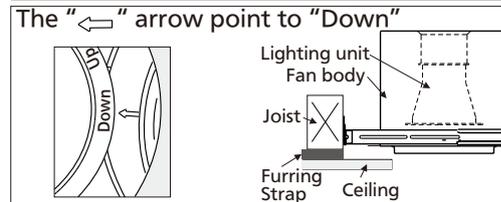
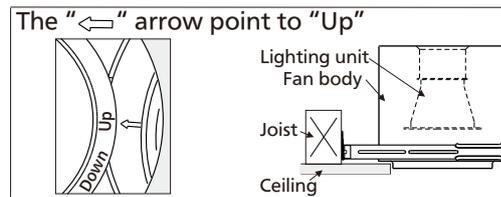
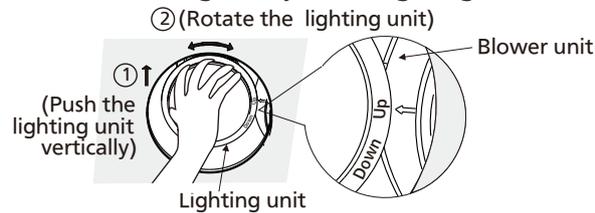
9. Install a circular duct and secure it with clamps or wire ties, and seal it with mastic or approved duct tape. A 4 or 6-inch circular duct is needed to connect to the relevant part of adaptor. (Fig. 6)
10. Finish ceiling work. A circle ceiling hole (6 1/2 inches (165mm) dia.) should be cut. And make sure there will be a gap (>1/8 inches (3.2mm)) between bottom of fan body and ceiling. (Fig. 7)
11. Unlock the lamp cover.(Fig.8)



LIGHTING UNIT POSITION

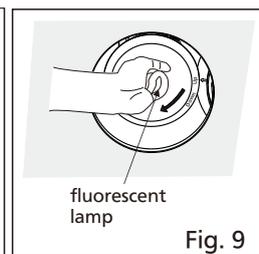
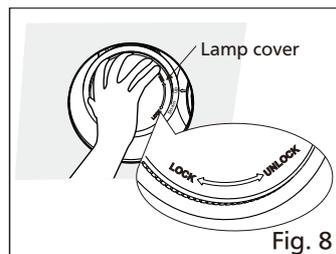
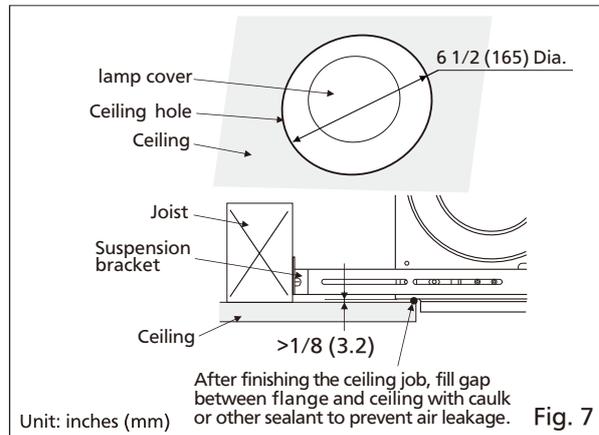
The lighting unit position is adjustable in the range of 1/2 inches (12.7mm). The "Up" position (the factory setting) is recommended for normal installation. In case of Furring Strap Joist installation, the "Down" position is acceptable.

Do the following to adjust the lighting unit:



Caution:

Failure to follow the above method may result in poor performance.



12. Install the fluorescent lamp. (Fig. 9)

INSTALLATION (BETWEEN JOISTS MOUNTING) CONTINUED

13. Lock the lamp cover.

CAUTION:

Make sure the lamp cover is locked securely. Otherwise the lamp cover may drop.

14. Insert the mounting springs into the slot as shown in the figure and attach the trim ring to the fan body. (Fig. 10)

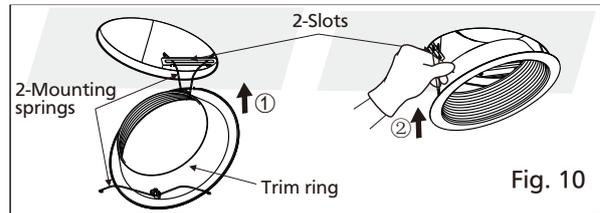


Fig. 10

MAINTENANCE (CLEANING)

WARNING:

Disconnect power source before working on unit. Routine maintenance must be done every year.

CAUTION:

1. Never use gasoline, benzene, thinner or any other such chemicals for cleaning the ventilating fan.
2. Do not immerse motor in water when cleaning.
3. Do not soak resin parts in water over 140°F (60°C).

1. Remove the trim ring by pulling down the mounting springs. (Squeeze mounting spring and pull down carefully.) (Fig. 11)
2. Clean the trim ring. (Don't put into hot water. Use non-abrasive kitchen detergent, wipe dry with clean cloth.) (Fig. 12)
3. Dry the trim ring after cleaning.
4. Remove dust and dirt from fan body using a vacuum cleaner. (Fig. 13)
5. Using a cloth dampened with kitchen detergent, remove any dirt from fan body. Wipe dry with clean cloth. (Fig. 14)
6. Replace the trim ring.

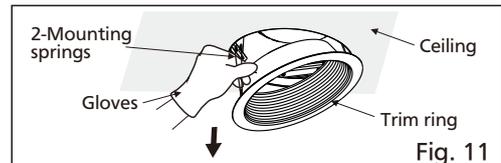


Fig. 11

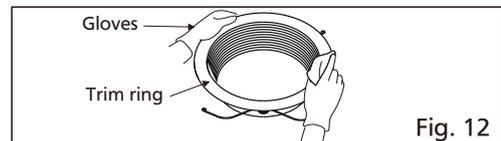


Fig. 12

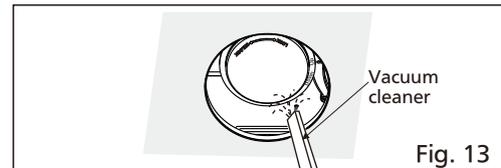


Fig. 13

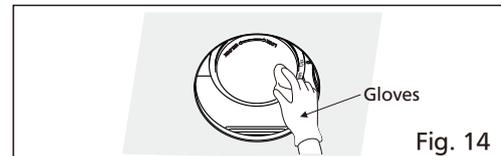


Fig. 14

MAINTENANCE (REPLACEMENT OF FLUORESCENT LAMP)

WARNING:

1. Disconnect power source before working on unit.
2. This is a GU24 type lamp base and the lamp's glass is fragile. Please handle with care.
3. Make sure the temperature of lens and lighting unit has cooled down before maintenance (cleaning) or replacement of lamp.

4. For Canada:

Contains mercury

For more information on safe handling procedures, the measures to be taken in case of accidental breakage and safe disposal options visit: ec.gc.ca/mercure-mercury/.

Dispose of or recycle in accordance with applicable laws.

For the USA:

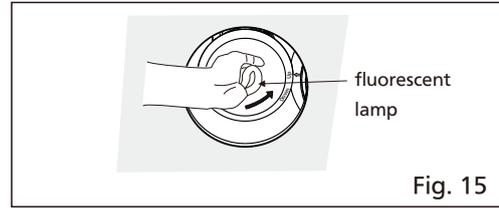
This product has a fluorescent lamp that contains mercury. Disposal may be regulated in your community due to environmental considerations.

For disposal or recycling information, please contact your local authorities or visit Panasonic website:

<http://www.panasonic.com/environmental> or call 1-888-769-0149.

MAINTENANCE (REPLACEMENT OF FLUORESCENT LAMP)

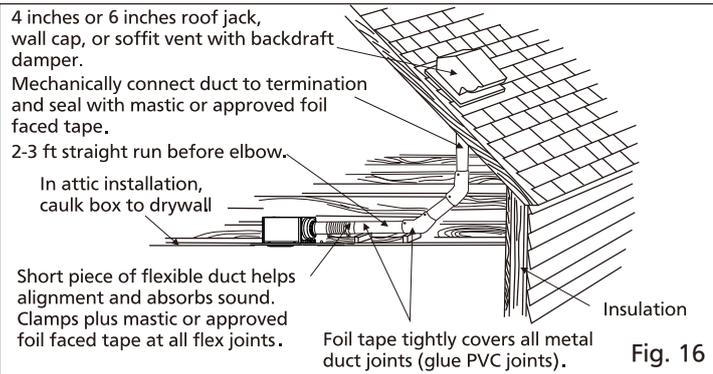
1. Remove the trim ring by pulling down mounting springs. (Squeeze mounting spring and pull down carefully.) (Fig. 11)
2. Unlock the lamp cover. (Fig. 8)
3. Replace the fluorescent lamp (GU24 type, 18W). (Fig. 15)
4. Lock the lamp cover.
5. Replace the trim ring.



PRACTICAL GUIDE TO INSTALLATION

Properly insulate the area around the fan to minimize building heat loss and gain. (Fig. 16)

Loose fill or batt insulation can be placed directly over the fan housing in the attic. Panasonic fans and fan / light combination units do not create excessive heat that is a common problem with recessed light fixtures or some competitors' fan / light combinations. Our efficient, cool-running motors and our fluorescent lamp do not create enough ambient heat to be subjected to these limitations.



The ducting from this fan to the outside of the building has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

SPECIFICATIONS

Model No.	Air direction	Voltage (V)	Frequency (Hz)	Duct diameter (inches)	Noise at 0.1" WG (sones)	Power consumption (W)	Speed at 0.1" WG (rpm)	Air volume at 0.1" WG (CFM)	Weight lb.(kg)
FV-08VRL1	Exhaust	120	60	4	0.8	20.5	1378	80	8.2(3.7)
				6	0.8	20.5	1378	80	

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

PRODUCT SERVICE

Warning Concerning Removal of Covers.

The unit should be serviced by qualified technicians only.

Your product is designed and manufactured to ensure a minimum of maintenance.

Should your unit require service or parts, call Panasonic Call Center at 1-866-292-7299(USA) or 1-800-669-5165 (Canada).

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