



# INSTALLATION INSTRUCTIONS

## Ventilating Fan

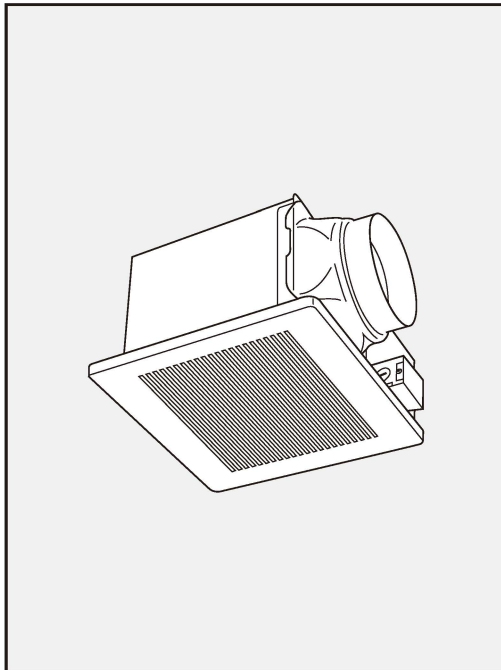
Availability of replacement parts, repair services, and information for maintenance or repair

Spare parts  
Sub assembly available through authorized parts distributor only

Repair services  
Limited to sub assembly

Information for maintenance or repair  
Customer maintenance covered in Owner's Manual

Model No. **FV-20VQ3** **FV-30VQ3**  
**FV-40VQ4**



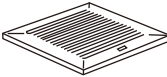







### Table of Contents

Supplied Accessories .....	2
Description .....	2
Wiring Diagram .....	2
Dimensions .....	3
Specifications .....	3
Unpacking .....	3
General Safety Information .....	4
Installation I (Suspended Ceiling) .....	5
Installation II (Wooden Header) .....	6
Installation III (In Existing Construction) .....	7
Maintenance .....	7-Back cover
Practical guide to installation .....	Back cover
Product Service .....	Back cover

### 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 personal injury or property damage. Please explain to users how to operate and maintain the product after installation, and this booklet should be presented to users.  
Please retain this booklet for future reference.

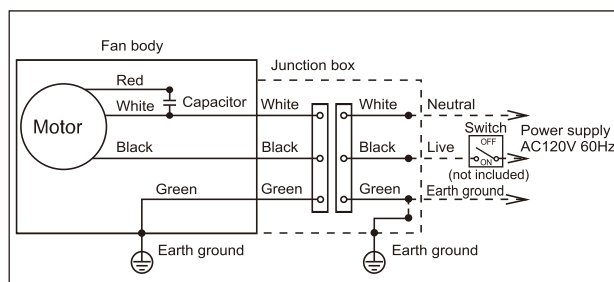
## SUPPLIED ACCESSORIES

		FV-20VQ3	FV-30VQ3	FV-40VQ4
Part name	Appearance			Quantity
Grille				1
Suspension bracket set	Suspension bracket			4
	Rubber 1			4
	Rubber 2			4
	Rubber 3			4
	Washer			8
	Screw (ST4.2X12)			8
Long screw (ST4.2X20)				6

## DESCRIPTION

These Panasonic ceiling mount ventilation fans use a low noise 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-cutoff for safety. The grille covering the main body is a spring-loaded, quick-release type. A damper for preventing counterflow is provided.

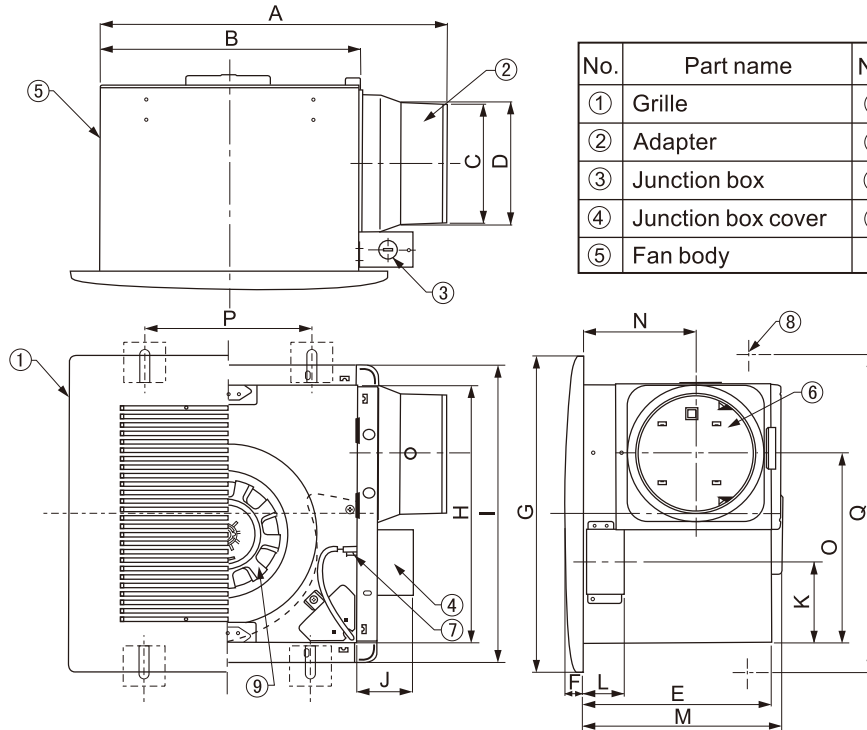
## WIRING DIAGRAM



## DIMENSIONS

FV-20VQ3    FV-30VQ3    FV-40VQ4

Unit: inches (mm)



No.	Part name	No.	Part name
①	Grille	⑥	Damper
②	Adapter	⑦	Plug connector
③	Junction box	⑧	Suspension bracket
④	Junction box cover	⑨	Blade
⑤	Fan body		

Model No.	A	B	C	D	E	F	G	H	I
FV-20VQ3	16 17/32	12 9/32	5 19/32	5 3/4	9 9/32	7/8	15□	12 3/16□	14 1/16□
FV-30VQ3	(420)	(312)	(142)	(146)	(236)	(22)	(380□)	(309□)	(357□)
FV-40VQ4	19 9/16	14 25/32	5 19/32	5 3/4	9 9/32	7/8	17 11/16□	14 23/32□	16 5/8□
	(484)	(376)	(142)	(146)	(236)	(22)	(450□)	(374□)	(422□)
Model No.	J	K	L	M	N	O	P	Q	
FV-20VQ3	2 19/32	3 13/16	1 31/32	9 5/16	5 7/16	8	6 7/8-8 7/8	13 5/16-15 1/32	
FV-30VQ3	(66)	(97)	(50)	(236)	(138)	(228)	(175-225)	(338-382)	
FV-40VQ4	2 19/32	6 11/32	1 31/32	9 27/32	5 7/16	11 1/2	9 5/16-11 7/32	15 7/8-17 19/32	
	(66)	(161)	(50)	(250)	(138)	(292)	(235-285)	(403-447)	

## SPECIFICATIONS

Model no.	Air direction	V	Hz	Power consumption (W)	Speed (rpm)	Air deliver at 0.1" WG (cfm)	Weight lb. (kg)
FV-20VQ3	Exhaust	120	60	43.5	590	190	16.1 (7.3)
FV-30VQ3				66.5	780	290	17.0 (7.7)
FV-40VQ4				119	725	380	27.1 (12.3)

Specifications are based on HVI standard.

## UNPACKING

Unpack and carefully remove unit from carton.

Refer to the supplied accessories list to verify that all parts are present.

## GENERAL SAFETY INFORMATION

1. Do not install this ventilating fan where air temperature may exceed 40°C (104°F).
2. Make sure 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 (NEC) and the Occupation Safety and Health Act (OSHA).
4. Always disconnect the power source before working on or near the fan, motor or junction box.
5. Protect the power cord from sharp edges, oil, grease, hot surfaces, chemicals or other objects.
6. Do not kink the power cord.
7. Do not install the unit where ducts are configured as shown in Fig. A.
8. Provide suction parts with proper ventilation.
9. This unit is UL listed for use over a bathtub or shower when installed in a GFCI protected branch circuit.



Prohibition



Prohibition



Prohibition



### 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. This product must be properly grounded.

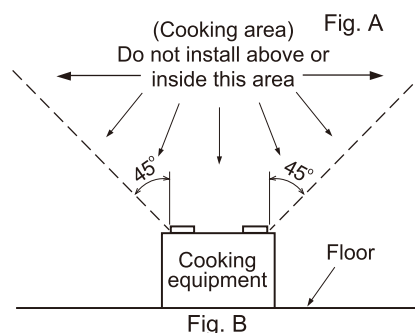


Fig. B

### 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 have any questions, contact to the manufacturer.
- B. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- C. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. 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 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 and other hidden utilities.
- E. Ducted fans must always be vented to the outdoors.
- F. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application.
- G. Solid state controls may cause harmonic distortion which can cause motor humming noise. To reduce the risk of fire or electric shock, do not use this unit with any solid-state control device.
- H. 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.
- I. NEVER place a switch where it can be reached from a tub or shower.
- J. Not to be installed in a ceiling thermally insulated to a value greater than R40. (This is required for installation in Canada only.)
- K. Do not disassemble the unit for reconstruction. It may cause fire or electric shock.
- L. 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.
- M. Ceiling joist must be subjected to static load more than five times the weight of the product.
- N. The special-purpose or dedicated parts, such as mounting fixtures, must be used if such parts are provided.
- O. Do not install the product as the method which is not approved in the instruction.

# INSTALLATION I (SUSPENDED CEILING)

1. Disconnect plug connector from receptacle before starting installation.
2. Assemble suspension bracket and rubber 1 to fan body. (Fig. 1)
3. Suspend body with anchor bolts. (not supplied) (Fig. 2)
4. Remove junction box cover and secure conduit to junction box knockout hole. (7/8 inch) (Fig. 3)
5. Refer to wiring diagram  
Using wire nuts, connect house power wires to ventilating fan wires (Fig. 3): black to black; white to white; green to green.  
Replace junction box cover.

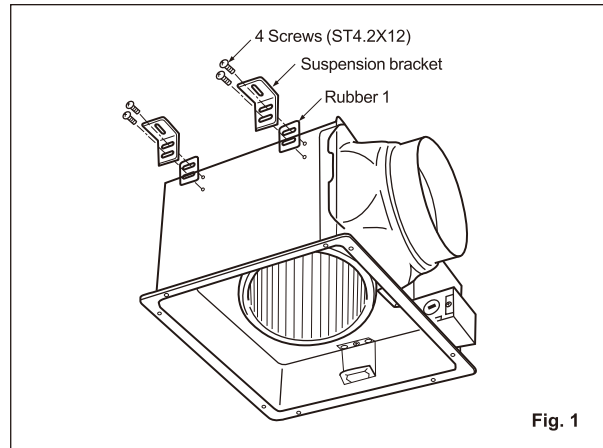


Fig. 1

## CAUTION

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

## Wiring Diagram

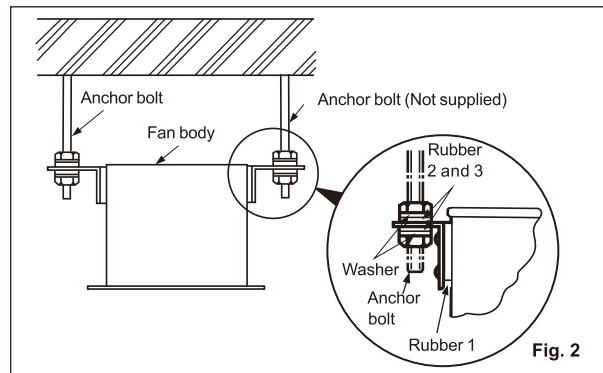
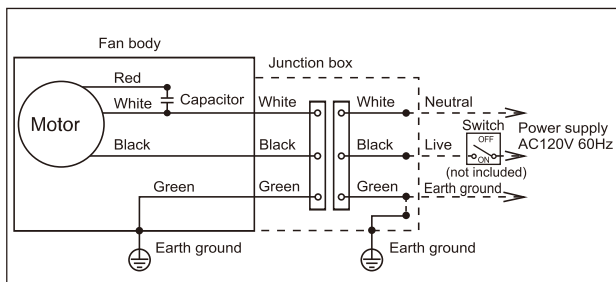


Fig. 2

6. Install circular duct (6 inches) and secure it with tape.
7. Finish ceiling work. Ceiling hole should be aligned with fan opening.
8. Connect plug connector to receptacle.
9. Insert mounting springs into slots as shown and mount grille to fan body. (Fig. 4)

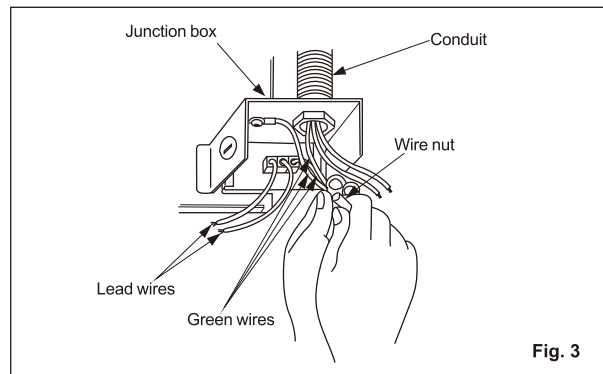


Fig. 3

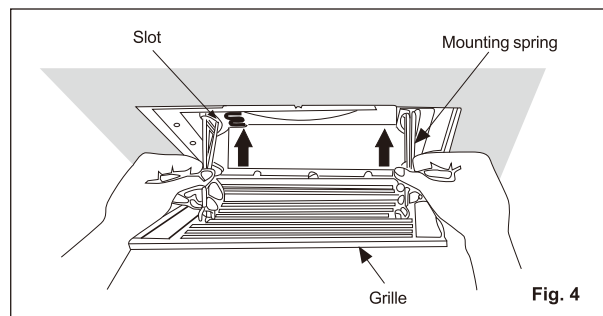


Fig. 4

## INSTALLATION II (WOODEN HEADER)

1. Install header between ceiling joists using nails or screws. (Fig. 5)
2. Install the ventilating fan to the header with long screws (ST4.2X20). (Figs. 5 & 6)

inches (mm)

Model No.	A	B
FV-20VQ3	12 13/32	17 7/8
FV-30VQ3	(315)	(454)
FV-40VQ4	15	20 13/32
	(380)	(518)

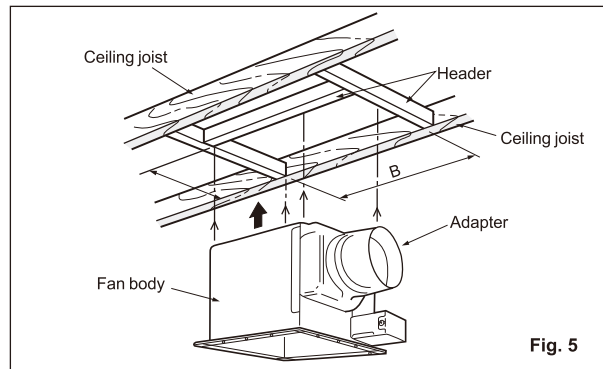


Fig. 5

3. Insert the circular duct (6 inches) to the adapter, Seal duct to duct adapter with mastic or mastic tape. Remove the junction box cover and secure conduit to junction box knockout hole. (7/8 inch) (Fig. 6)
4. Refer to wiring diagram.

Using wire nuts, connect house power wires to ventilating fan wires: black to black; white to white; green to green. Replace junction box cover.

### CAUTION

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

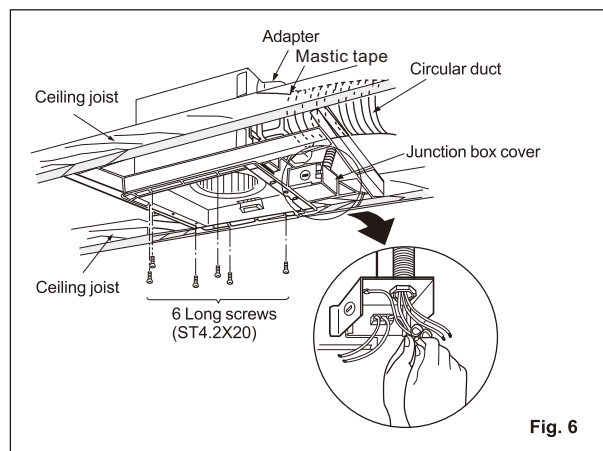


Fig. 6

### Wiring Diagram

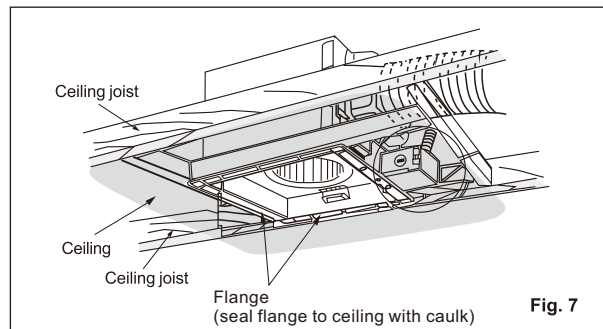
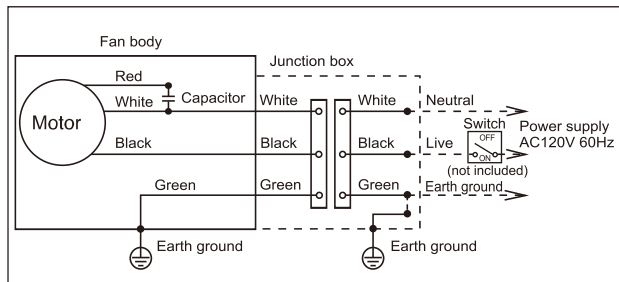


Fig. 7

5. Finish ceiling work by sealing gaps between flange and ceiling with caulk or approved sealant. (Fig. 7)
6. Mount grille to fan body. (Fig. 4 of page 5).

---

## INSTALLATION III (IN EXISTING CONSTRUCTION)

---

Installing the fan body in an existing building requires an accessible area (attic or crawl space) above the planning installation location, or existing ducting and wiring.

1. To install the fan body, follow the procedures described in Installation II. Take the following precautions before installation.

### CAUTION

Check area above planning installation location to be sure that:

1. Duct work can be done and that area is sufficient for proper ventilation.
2. Wiring can be run to planning location.
3. No wiring or other obstructions will interfere with installation.

2. Inspect duct work and wiring before proceeding with installation.
3. Plan suitable location for fan body (next to ceiling joist).
4. Before installation, ensure there is sufficient space available (no obstruction or interference).

---

## MAINTENANCE

---

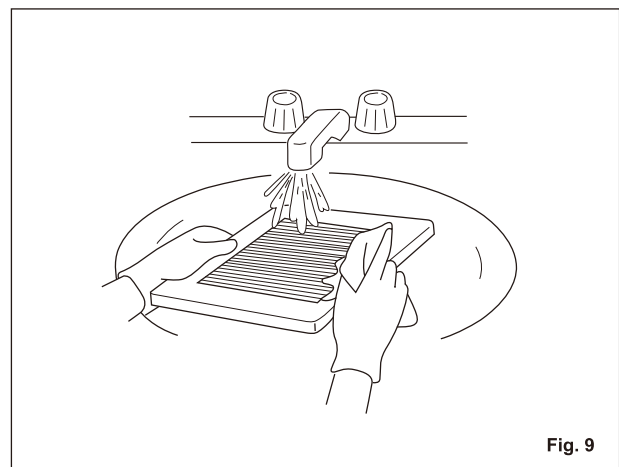
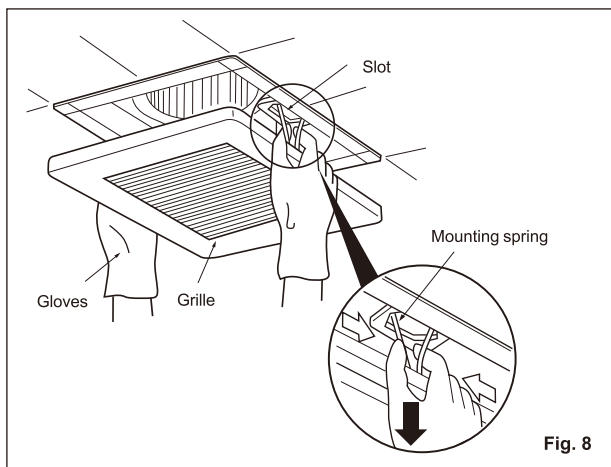
### WARNING

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

### CAUTION

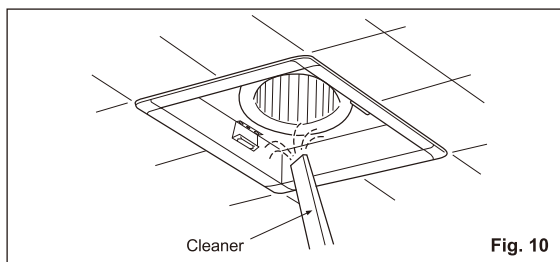
1. Never use petrol, benzene, thinner or any other such chemicals for cleaning the ventilating fan.
2. Do not damp water to enter motor.
3. Do not soak resin parts in water over 60°C (140°F).

1. Remove grille. (Squeeze mounting spring and pull down.) (Fig. 8)
2. Wash and clean grille. (Use non-abrasive kitchen detergent.) Wipe dry with new cloth. (Fig. 9)

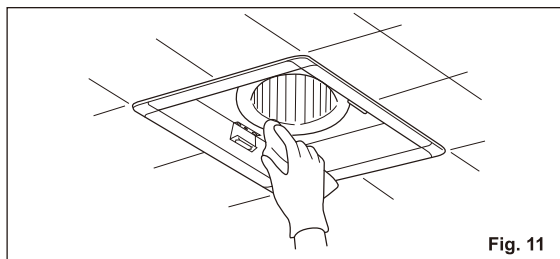


## MAINTENANCE (CONT.)

3. Remove dust and dirt from fan body using a vacuum cleaner. (Fig. 10)



4. Using a cloth dampened with kitchen detergent, remove any dirt from fan body. Wipe dry with new cloth. (Fig. 11)
5. Replace grille.

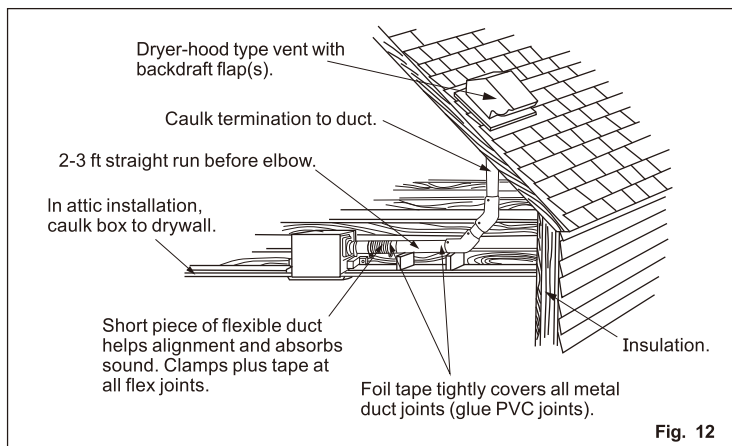


## PRACTICAL GUIDE TO INSTALLATION

Proper insulation around the fan to minimize building heat loss and gain.(Fig. 12)

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 bulbs 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.



## 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).

**Panasonic Corporation of North America**

Two Riverfront Plaza, Newark, NJ 07102

[www.panasonic.com](http://www.panasonic.com)

© Panasonic Corporation 2002-2015

Printed in China

**Panasonic Canada Inc.**

5770 Ambler Drive, Mississauga, Ontario L4W 2T3

[www.panasonic.ca](http://www.panasonic.ca)