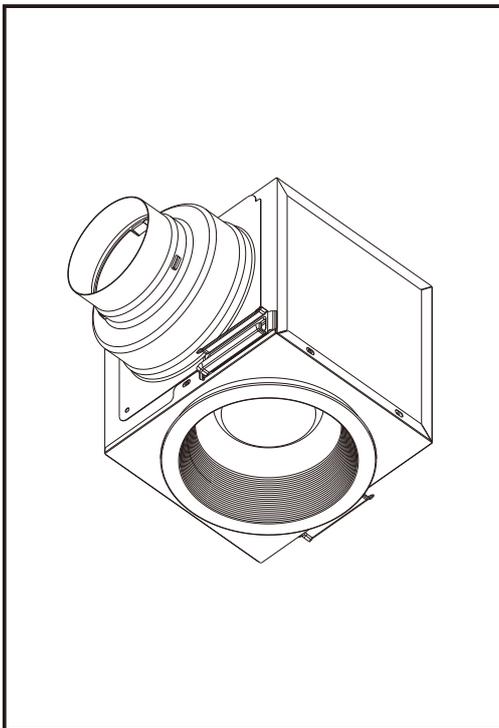


## INSTALLATION INSTRUCTIONS Recessed Luminaire

Model No. FV-NLF46RES



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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 personal 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.

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## GENERAL SAFETY INFORMATION

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### For your safety

To reduce the risk of injury, loss of life, electric shock, fire, malfunction, and damage to equipment or property, always observe the following safety precautions.

### Explanation of symbol word panels

The following symbol word panels are used to classify and describe the level of hazard, injury, and property damage caused when the denotation is disregarded and improper use is performed.

 <b>WARNING</b>	Denotes a potential hazard that could result in death or serious injury.
 <b>CAUTION</b>	Denotes a hazard that could result in minor injury.
<b>NOTICE</b>	Denotes a hazard that could result in property damage.

The following symbols are used to classify and describe the type of instructions to be observed.

	This symbol is used to alert users to a specific operating procedure that must not be performed.
	This symbol is used to alert users to a specific operating procedure that must be followed in order to operate the unit safely.
	This symbol is used to alert users not to disassemble the equipment.
	This symbol is used to alert users to make sure of grounding when using the equipment with the grounding terminal.

## **WARNING**

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

-  Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
-  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.
-  Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
-  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 for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and the local code authorities.
-  When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
-  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.
-  Canada only: Not to be installed in a ceiling thermally insulated to a value greater than R40.
-  Do not disassemble the unit for reconstruction. It may cause fire or electric shock.
-  When this product is no longer being operated, please remove the product to prevent the possibility of falling.
-  Ceiling joist must be subjected to static load more than five times the weight of the product.
-  Do not install with a method which is not approved in the instructions.

## GENERAL SAFETY INFORMATION CONTINUED

### WARNING

 This product must be properly grounded.

### CAUTION

 Do not install this recessed luminaire where interior room temperature may exceed 104 °F (40 °C).

 Make sure that the electric service supply voltage is AC 120 V, 60 HZ.

 Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupation Safety and Health Act (OSHA).

 Always disconnect the power source before working on or near the light fixture or junction box.

 Protect the supply wiring from sharp edges, oil, grease, hot surfaces, chemicals or other objects.

 Do not kink the supply wiring.

 Provide make up air for proper ventilation.

 For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.

 Do not install the unit where ducts are configured as shown in Fig A.

 Not for use in cooking area. (Fig B)

 The special-purpose or dedicated parts, such as mounting fixtures, must be used if such parts are provided.

 The product must use LED lamp (model: 11BR30G4DIM/927/GU24) from the company Green Creative.

 Please wear gloves when installing or cleaning this recessed luminaire.

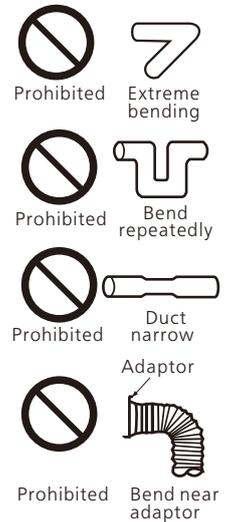


Fig A

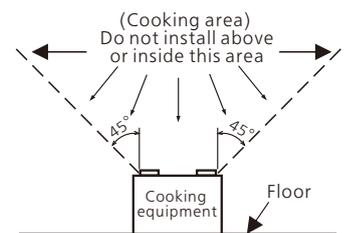


Fig B

## DESCRIPTION

This Panasonic recessed luminaire model is listed by UL under UL file No. E484859. The trim ring is a spring-loaded, quick remove type. A damper for preventing air counterflow is provided.

The lighting product is a lighting device that uses one 11 W BR30 shape LED lamp (model: 11BR30G4DIM/927/GU24, from the company Green Creative) and produces almost the same illumination as a standard 65 W incandescent lamp.

FCC Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning this product on and off, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect equipment into outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## DESCRIPTION CONTINUED

Warning: This equipment must be installed by qualified person in accordance with the provided installation instructions; and all applicable codes and standards. Also, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

Customer Support: 1-866-292-7299

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This product may be used with optional dimmer switch in accordance with dimmer switch instruction instructions.

Risk of Fire: Type IC-Inherently Protected, Only Use LED Lamp , Max 11W, Type GU24.

## UNPACKING

Unpack and carefully remove the unit from carton.

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

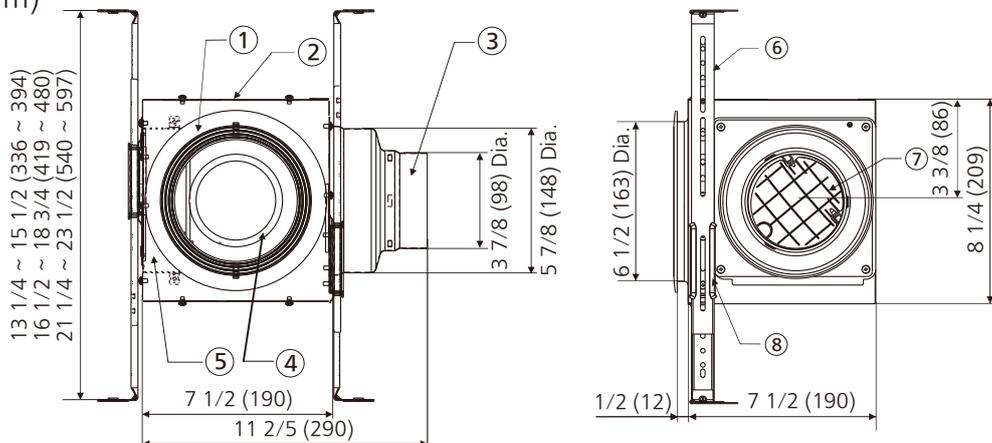
## SUPPLIED ACCESSORIES

Part name	Appearance	Quantity
Trim ring		1
Suspension bracket I		2
Suspension bracket II		2
11 W LED lamp (model: 11BR30G 4DIM/927/GU24)		1
Adaptor panel		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

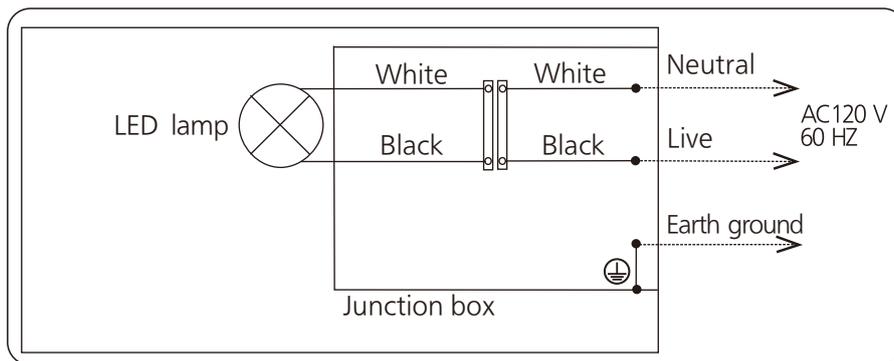
## DIMENSIONS

Unit: inches (mm)



No.	Part name	No.	Part name
①	Trim ring	⑤	Junction box
②	Luminaire body	⑥	Suspension bracket
③	Adaptor	⑦	Damper
④	LED lamp	⑧	Bracket cover

# WIRING DIAGRAM



# INSTALLATION (BETWEEN JOISTS MOUNTING)

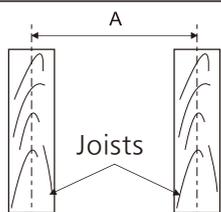
## IMPORTANT

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

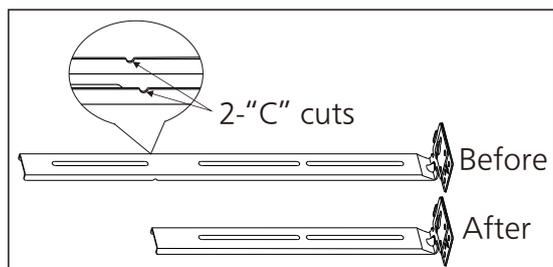


If recessed luminaire only is used for lighting, please remove the damper and adaptor (first move them down, then move them forward), then use the adaptor panel to cover the hole of recessed luminaire. (Fig. 1)

Please follow the installation steps as below (based on the product with damper and adaptor):

1. Insert the suspension brackets into the luminaire body from each side of the bracket cover. (Fig. 2)

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. 2)

3. Position the luminaire body between joists, and hold it properly. Mark the long holes of all the four suspension brackets on joists. (Fig. 3)

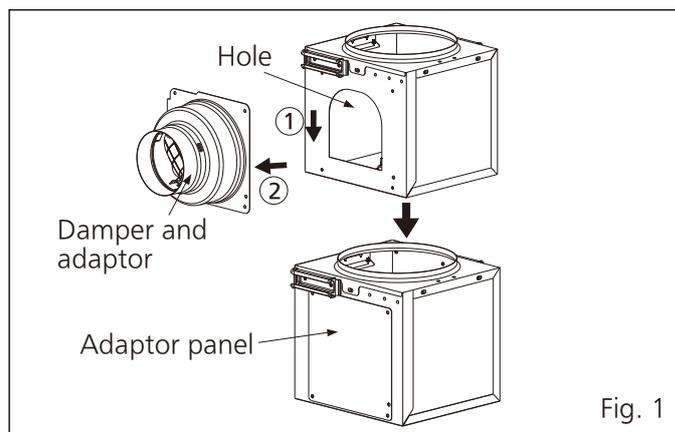


Fig. 1

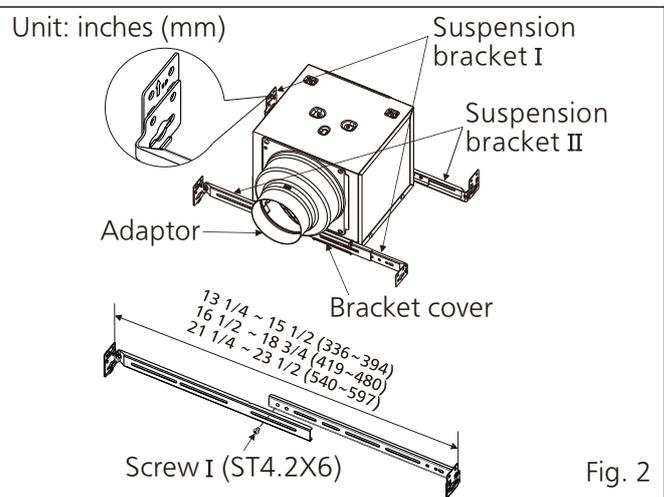


Fig. 2

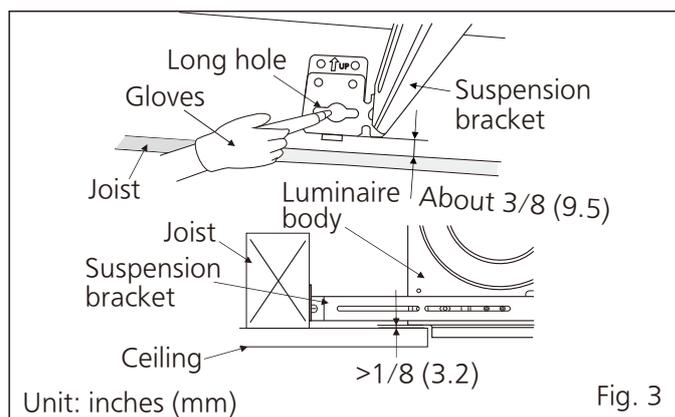


Fig. 3

## INSTALLATION (BETWEEN JOISTS MOUNTING) CONTINUED

4. Fix four long screws (ST4.2X20) partially into joists at the four marked locations. (Fig. 4)

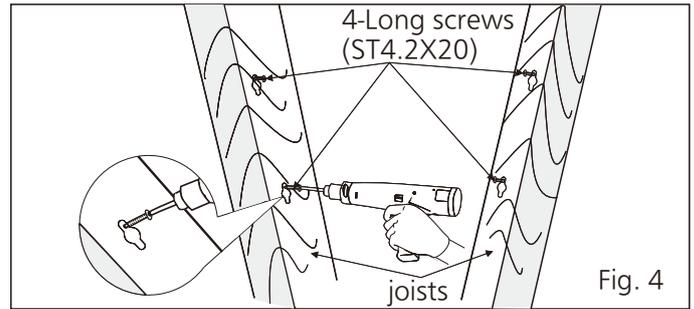


Fig. 4

5. Hang the luminaire 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 luminaire body is level and square with the joists. (Fig. 5)

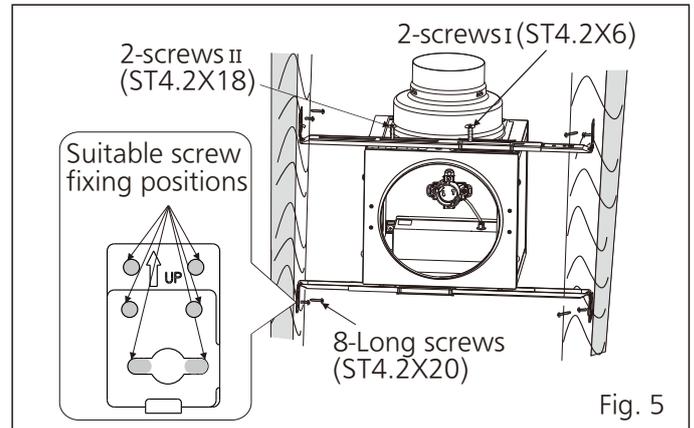


Fig. 5

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 luminaire body with screws II (ST4.2X18). (Fig. 5)

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. 6)

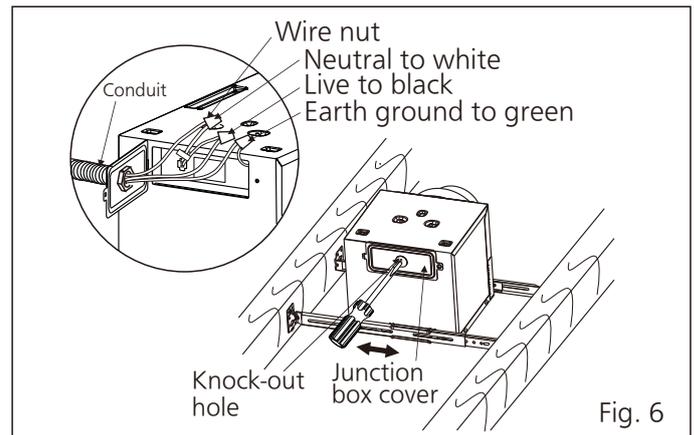


Fig. 6

8. Refer to wiring diagram (Page 5). 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 recessed luminaire wires. (Fig. 6)

9. Mount back the junction box cover.

### CAUTION

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

10. Install a circular duct and secure it with clamps or wire ties, and seal it with mastic or approved foil tape. A 4 or 6-inch circular duct is needed to connect to the relevant part of adaptor. (Fig. 7)

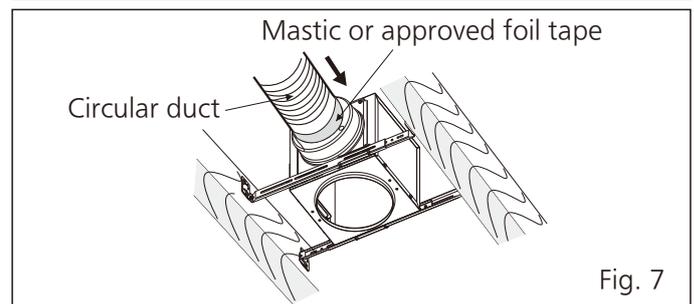
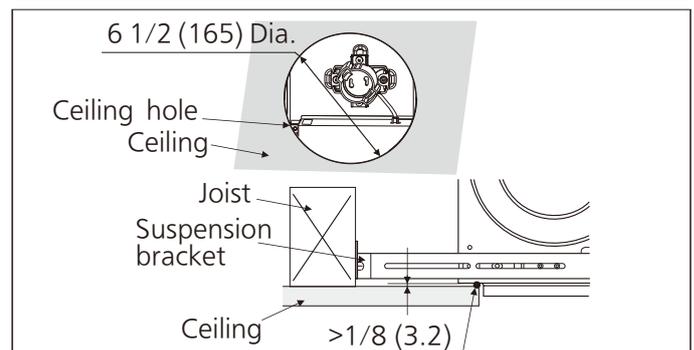


Fig. 7

### NOTICE

If recessed luminaire is used for lighting, please ignore step 9. (Fig 1 of page 5)

11. 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 luminaire body and ceiling. (Fig. 8)



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

Unit: inches (mm)

Fig. 8

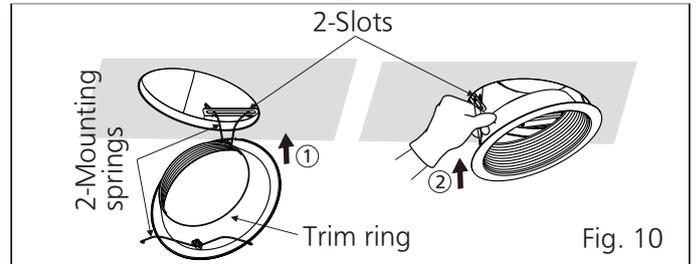
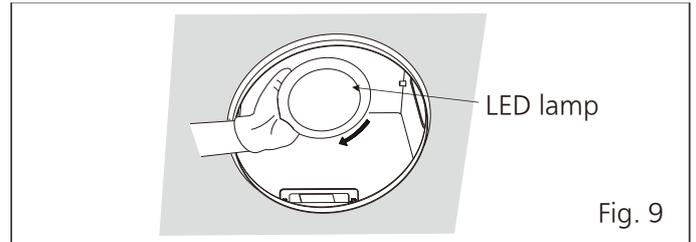
## INSTALLATION (BETWEEN JOISTS MOUNTING) CONTINUED

12. Install the supplied LED lamp. (Fig. 9)

### CAUTION

-  Use other lamp may result in poor performance or risk of fire.
-  The supplied LED lamp is not intended for other use.

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



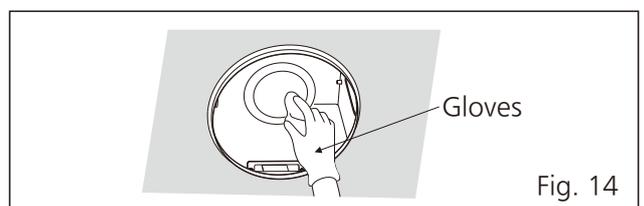
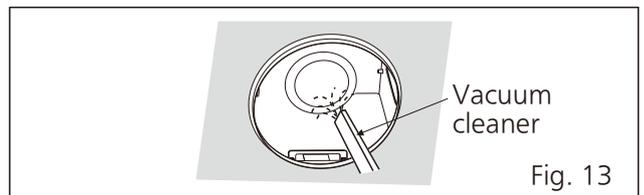
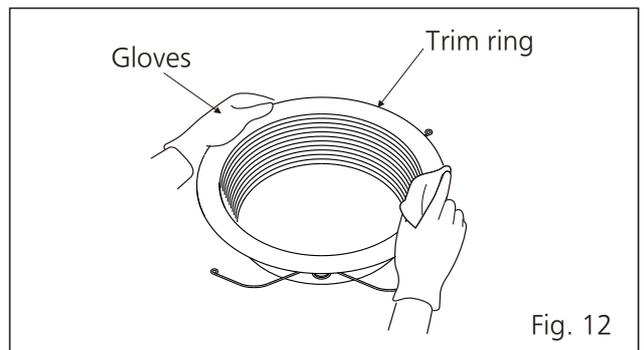
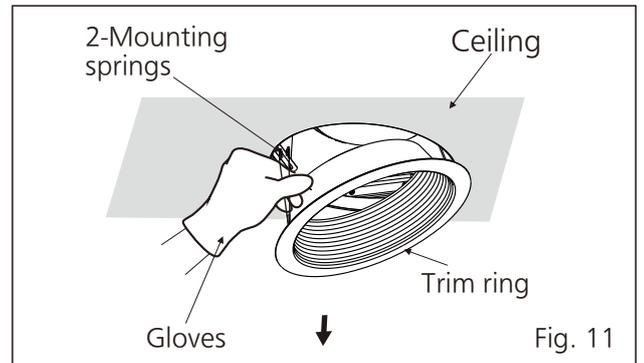
## MAINTENANCE (CLEANING)

### WARNING

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

### CAUTION

-  Never use gasoline, benzene, thinner or any other such chemicals for cleaning the recessed luminaire.
  -  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 luminaire body using a vacuum cleaner. (Fig. 13)
  5. Using a cloth dampened with kitchen detergent, remove any dirt from luminaire body. Wipe dry with clean cloth. (Fig. 14)
  6. Replace the trim ring. (Fig. 10)



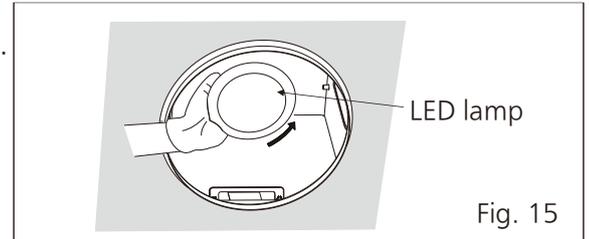
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## MAINTENANCE (REPLACEMENT OF LED LAMP)

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### WARNING

-  Disconnect power source before working on unit.
  -  This is a GU24 type lamp base and the lamp is fragile and heavy. Please handle with care.
  -  Make sure the temperature of lens and lighting unit has cooled down before maintenance (cleaning) or replacement of lamp.
1. Remove the trim ring by pulling down mounting springs. (Squeeze mounting spring and pull down carefully.) (Fig. 10 of page 7)
  2. Remove the LED lamp. (Fig. 15)
  3. Replace the 11 W BR30 shape LED lamp (model: 11BR30G4DIM/927/GU24, from the company Green Creative). (Fig. 9 of page 7)
  4. Replace the trim ring. (Fig. 10 of page 7)



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## PRACTICAL GUIDE TO INSTALLATION

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1. When recessed luminaire is used with damper and adaptor, it need to be operated together with Panasonic product with ventilation function. Please contact the local dealer to get the specific product models. Otherwise, the use effect of recessed luminaire may be not so good.
2. The recessed luminaire without damper and adaptor can be used as a down light alone.

### WARNING

-  The recessed luminaire is designed only for air exhaust(not air supply). If used otherwise, it may cause electric shock.

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## SPECIFICATIONS

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Model No.	Air direction	Voltage (V)	Frequency (Hz)	Duct diameter (inches)	Power consumption (W)	Weight lb. (kg)
					Lamp	
FV-NLF46RES	Exhaust	120	60	4	11.0	5.3(2.4)
				6	11.0	

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## COMPATIBLE DIMMERS (NOT SUPPLIED)

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If you want to connect a dimmer, please get the suitable dimmer's information from the website which is written on the lamp's packaging.

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## PRODUCT SERVICE

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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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