

# Installation Manual



## Ventilation Fan

- ▶ CFA-S50 (BPT14-02A)
- ▶ CFA-S70 (BPT14-13A)
- ▶ CFA-S90 (BPT14-14A)
- ▶ CFA-S110 (BPT14-24A)

It is very important that you read this manual before installation for your safety and efficiency of the unit.  
Please be advised that all units should be installed by a licensed electrician.

### **READ AND SAVE THESE INSTRUCTIONS**

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## UNPACKING

Unpack and carefully remove unit from carton.  
Refer to the supplier Accessories list to verify that all parts are present.—

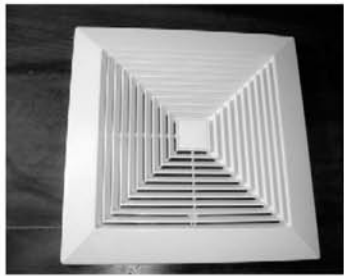
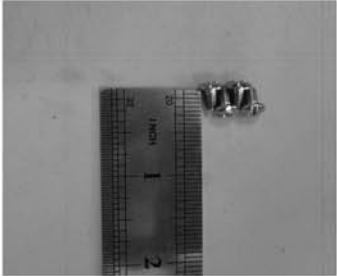



## GENERAL SAFETY INFORMATION & WARNING

1. Electric Service supply must be 120V 60Hz.
2. Follow all local safety and electrical codes as well as NEC (National Electrical Code) and the OSHA(Occupational Safety and Health Act).
3. This unit must be properly grounded.
4. Always disconnect the power supply prior to servicing the fan, motor or junction box.
5. Do not bend or kink the power wires.
6. Do not install where the air temperature will exceed 40°C(104°F).
7. This ventilating fan is approved for use over a bathtub or shower when installed in a GFCI protected circuit.
8. Do not use to exhaust hazardous or explosive vapors.
9. Do not install in a cooking area.
10. Use this unit in the manner intended by the manufacturer. If you have any questions please call the manufacturer .Customer service number located on last page.
11. Installation work must be carried out by qualified person(s) in accordance to all local and safety codes including the rulers for fire-rated construction.
12. Sufficient air supply is required for proper combustion and the exhausting of gases through the chimney(flue) of fuel burning equipment to prevent back –drafting .See the standards of NFPA (National Fire Protection Association ) and ASHRAE(American Society for Heating Refrigeration and Air Conditioning Engineers) and the local building code authorities.
13. Exercise care to not damage existing wiring when cutting or drilling into walls or ceilings.
14. Fans should always be vented to the exterior.
15. If this ventilating fan is installed over a tub or shower, it must be marked as approved for the application.
16. Prior to service or cleaning this unit, shut off power supply at the panel and lock to prevent the power from being turned on. If the panel cannot be locked clearly mark the panel with a warning tag not to turn on the power.
17. Do not install in a ceiling with insulation greater than R40.
18. Ductwork should be installed in a straight line with minimum bends.
19. Duct work size must be a minimum of the discharge and should not be reduced.
20. For UL: the fan is intended to be mounted at least 2.1m(7feet) above the floor.

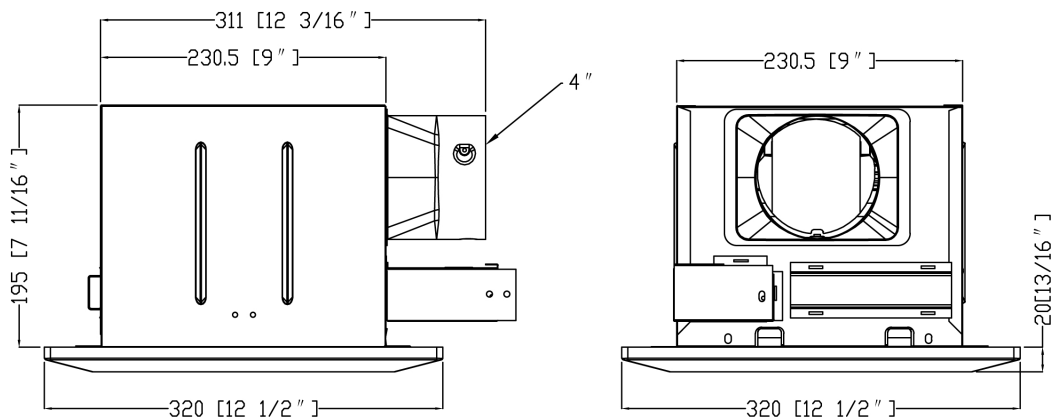


## List of Parts and Accessories

CFA-S50(BPT14-02A),CFA-S70(BPT14-13A),CFA-S90(BPT14-14A),  
CFA-S110(BPT14-24A)

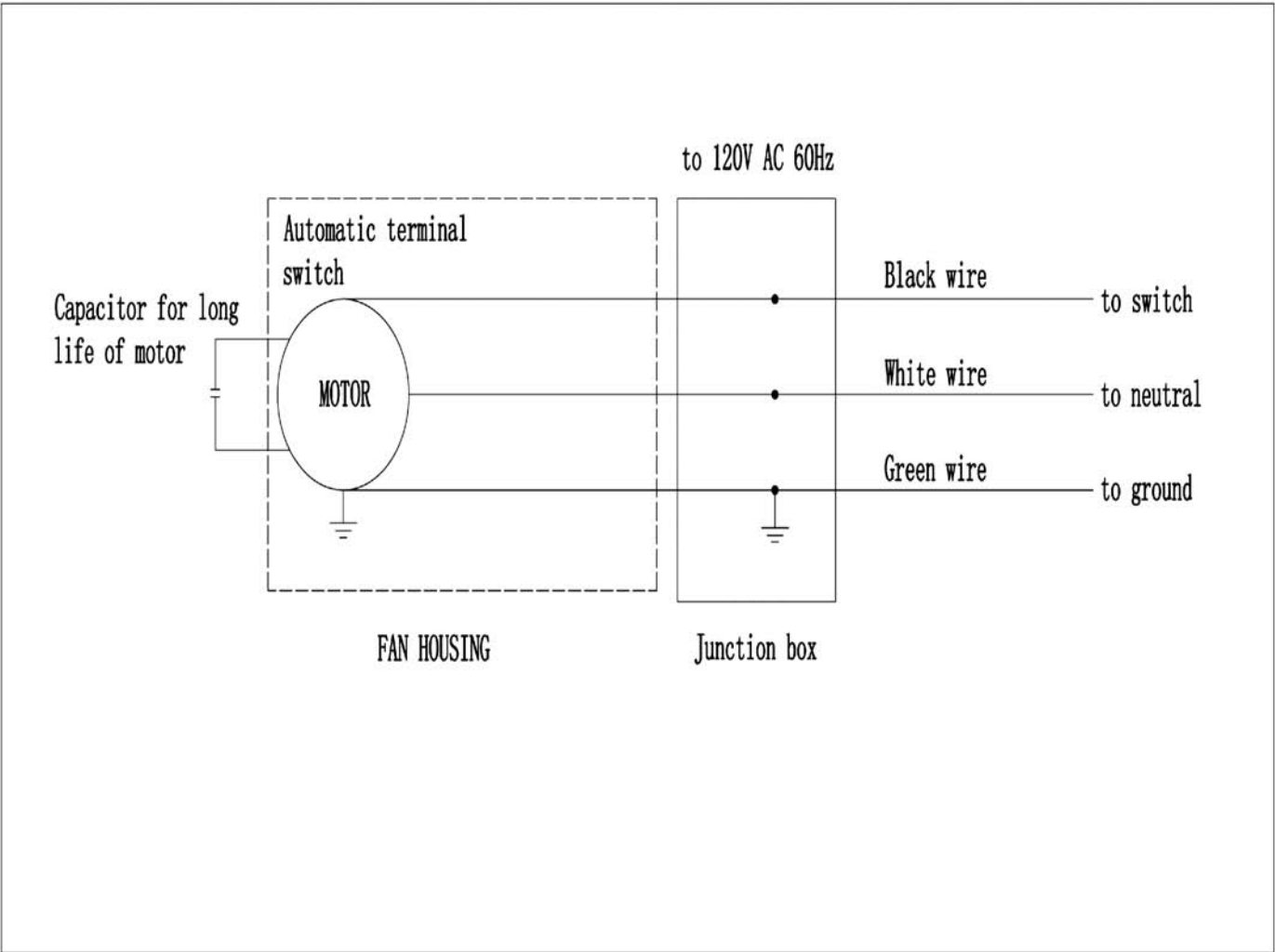
Figure #	Picture	Description	Figure #	Picture	Description
1		Grille for Fan without light	5		Short Screw
2		Bracket	6		
3		Bracket Extension	7		
4		Long Wood Screw	8		

## Dimensions



## Specifications

Model No.	Air direction	v	HZ	DUCT diameter (inches)	Noise (sone)	Motor Current (Amp)	Speed (rpm)	Air deliver at 0.1" WG (cfm)	Weight Kg(lb.)
CFA-S50/ BPT14-02A	50CFM	120	60	4	0.6	0.14	700	50CFM	4.5
CFA-S70/ BPT14-13A	70CFM	120	60	4	0.7	0.16	780	70CFM	4.5
CFA-S90/ BPT14-14A	90CFM	120	60	4	1.0	0.20	1000	90CFM	4.5
CFA-S110/ BPT14-24A	110CFM	120	60	4	1.2	0.25	1100	110CFM	4.5



## Installation I (Joist mounting for units with light or lightless units)

1. For ideal ventilation use, hold the body of the fan with the exhaust side facing the desired duct direction.

DIAGRAM A



2. Place the body of the fan in-between joist in designated area.

DIAGRAM B



3. If convenient to secure the unit to the joist (otherwise go to step 4), place the unit against joists and push the fan to the proper depth and use long screws (*Figure #3*) in diagram.

DIAGRAM C



4. Add the provided brackets (*Figure #6*) to the sides that are not connected to the joists.

DIAGRAM D



con't.... **Installation I**

5. If the brackets are too short to reach the joist, the provided extensions (*Figure #7*) can be used for stronger attachment.

DIAGRAM E



- 6.) Attach the duct to the exhaust outlet of the fan. Secure with duct tape or clamps (*Diagram F*) and make sure there is no air leak. Make sure that there are no sharp bends in the duct line (*Diagram G*). For 90 degree angles, use smooth curves or break into two smaller angles or curves (*Diagram H*).



DIAGRAM F  
SECURE WITH DUCT TAPE



DIAGRAM G  
WRONG SUPPORT



DIAGRAM H  
RIGHT SUPPORT & ANGLE

◆ **For safety & efficiency of the ventilation system, avoid sharp angles & loose support.**

7. (A) *Electrical installation (for fan only)*  
Wires from the power supply to the unit should not be smaller than size 14 AWG. The **ground** wire must be connected to the **green** wire in junction box. The **neutral** wire must be connected to the **white** wire in the junction box. The **hot** wire must be connected to the **black** wire in the junction box.
- (B) *Units with two separate switches (for fan and light)*  
Wires from the power supply to the unit should not be smaller than size 14AWG. The **neutral** wire from the power supply must be connected to both **white** wires. The **hot** wire from the fan switch must be connected to the **black** wire of the fan. The **hot** wire from the light switch must be connected to the **black** wire of light.
- (C) *Units with light & fan operating with one switch*  
The **neutral** wire from the power supply must be connected to **white** wires of fan & light.  
The **hot** wire from the switch must be connected to both **black** wires of fan & light.  
The **green** wire from the power supply is to be connected to both green wires.

## **Installation II**

**(Unit for remodeling or existing homes)**

1. In case there is a ventilation unit with the same dimensions in the ceiling, proceed as below:
  - ◆ Remove the old unit.
  - ◆ Check the existing duct work and electrical wiring.
  - ◆ Install the unit as described in **Installation I**.
  
2. In case you want to make a new opening in the existing ceiling:
  - ◆ Find the best location for the ventilation purpose.
  - ◆ Make sure the chosen place has easy access to exterior air outlet (wall cap or roof jack) and there won't be the need to use sharp angles or very long duct.
  - ◆ Make sure the chosen place duct work will not interfere with any other existing duct work in the building.
  - ◆ Make sure there is no electrical wiring or any pipes behind the chosen place.
  - ◆ Open the optimal place.
  - ◆ Make the strong support beams for the unit (make sure it is strong enough for the weight of the unit).
  - ◆ Provide the duct system.
  - ◆ Provide the electrical wiring.
  - ◆ Follow the instructions on **Installation I**.



## Maintenance

### ► Cleaning of the ventilation fan

Unit cleaning periodically is very advisable since dust, molds, grease and other dirt particles can affect the conductivity of the air in the unit.

The procedure should be done as follows:

- ◆ Remove the plastic cover/grille.
- ◆ Wash the cover with luke warm water and use mild detergent (like liquid soap) (avoid harsh detergent or boiling water).
- ◆ Dry the cover with a cloth or kitchen towel.
- ◆ Clean inside the unit with vacuum cleaner (motor shouldn't be in contact with any water or harsh chemicals & liquids.)
- ◆ Dry the body with paper towel.
- ◆ Put the cover back in place.

Questions, problems? Please contact

Factory Service Department

Phone: 1-866-784-6900

Fax: 1-919-554-9374