

# Installation Manual

## Ventilating Bath Fan

- ▶ CFA-D110 (BPT18-34A)
- ▶ CFA-D200 (BPT18-54A)



## READ AND SAVE THESE INSTRUCTIONS

Please read these instructions carefully before attempting to install, operate or service the ventilating fan. Failure to comply with instructions could result in personal injury and /or property damage. Please retain this booklet for future reference.

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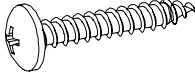

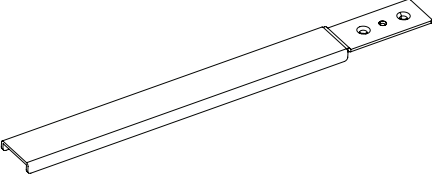
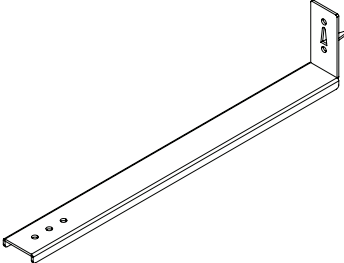
**Warning: This fan is not intended for vertical, wall-mount installation.**

**PLEASE READ PRIOR TO INSTALLING THIS FAN**

This line of ventilating fans employs state-of-the-art technology. Please read this entire instruction booklet prior to installation to realize the benefits the fan offers.

List of Parts and Accessories

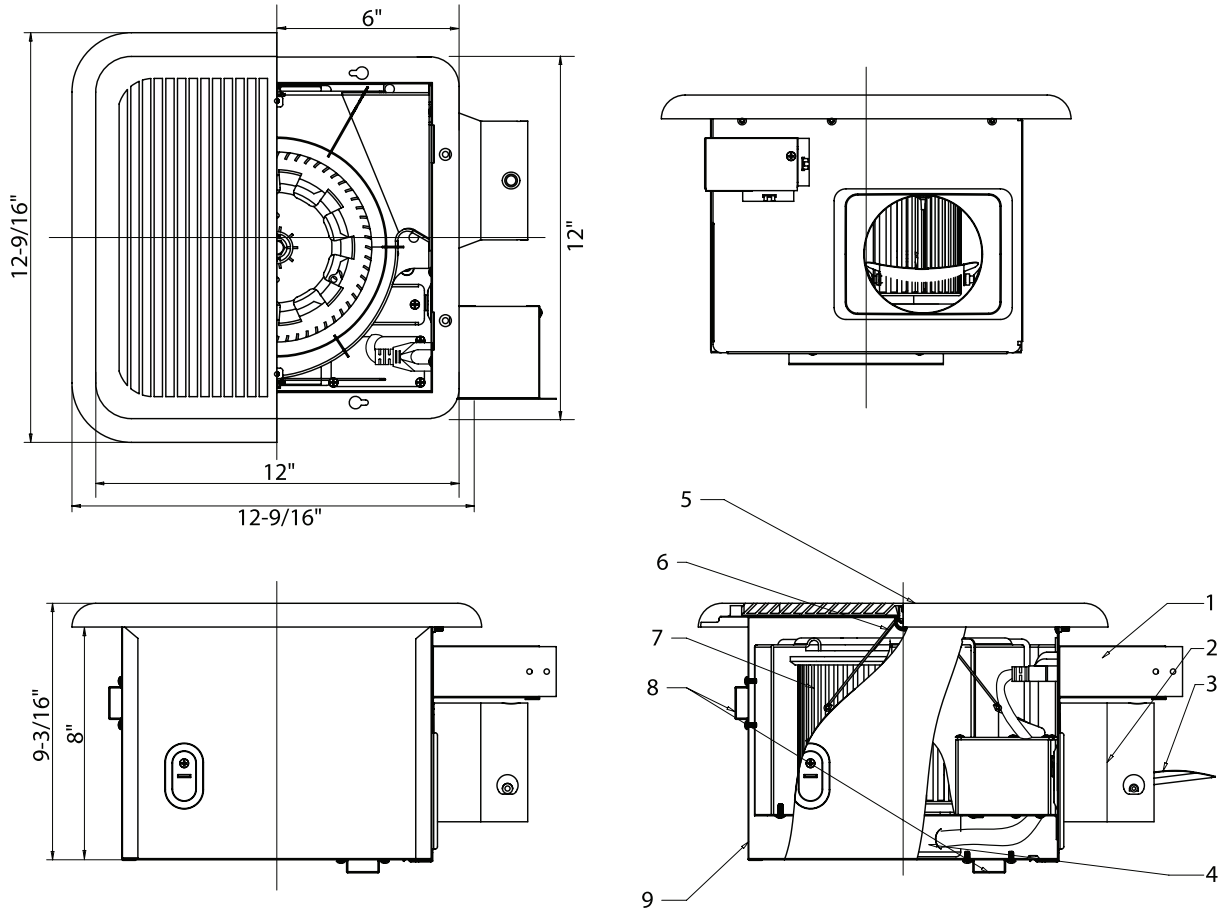
CFA-D110(BPT18-34A),CFA-D200(BPT18-54A)

PART NAME	APPEARANCE	QUANTITY
Grille		1
Long wood screw		8
Short machine screw		4
Suspension bracket I		2
Suspension bracket II		2

## DESCRIPTION

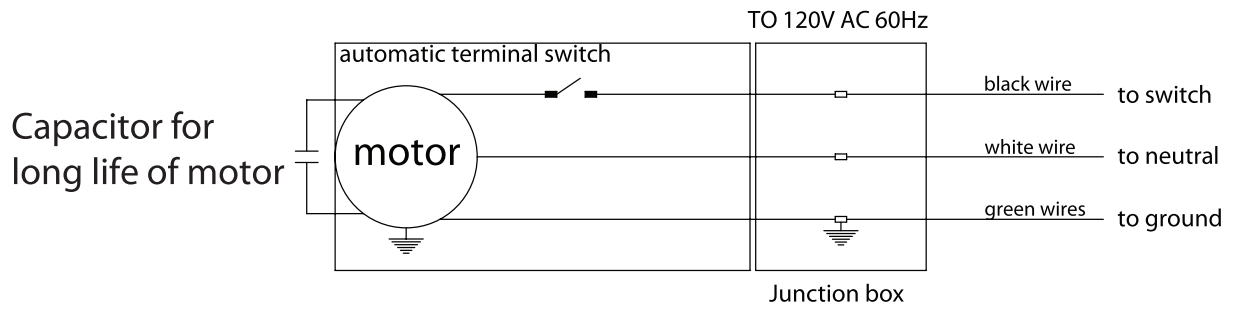
This ventilating fan uses a low-noise, fan-driven motor. The motor is designed and manufactured to have an extended service life and operates very efficiently. There is a thermal cut-off for safety. The grille that covers the housing is spring loaded.

## DIMENSIONS



NO.	Part Name	NO.	Part Name
1	Junction box	6	Spring clip
2	Outlet	7	Blower wheel
3	Damper	8	Bracket cover
4	Motor	9	Fan body
5	Grille		

## WIRING DIAGRAM



## FAN HOUSING

### SPECIFICATIONS

Model No.	Air direction	V	Hz	Duct diameter (inches)	Noise (sone)	Power consumption (W)	Speed (rpm)	Air deliver at 0.1" WG (cfm)	Weight lbs.
CFA-D110/ BPT18-34A	110CFM	120	60	6	0.9	33	560	110CFM	12.1
CFA-D200/ BPT18-54A	200CFM	120	60	6	2.5	48	850	200CFM	12.1

### DIMENSIONS

Ceiling Opening L	Ceiling Opening W	Ceiling Opening D	Housing Dimension L	Housing Dimension W	Housing Dimension D
10.8"	10.5"	8.5"	10.2"	10.2"	8.0"

Be careful to cut hole exactly. If the hole is too big the fan grille will not hide it.

## 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

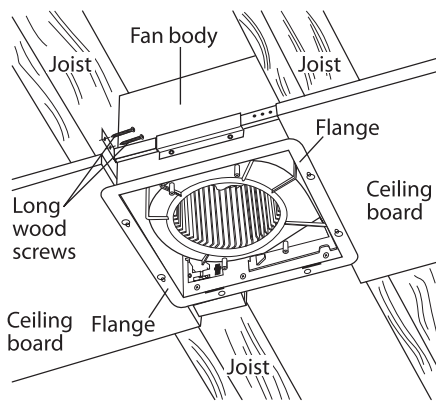
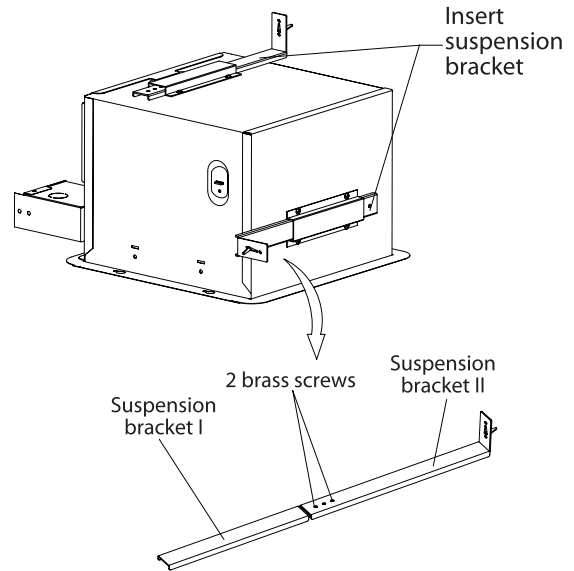
1. Electric Service supply must be 120V 60Hz.
2. Follow all local safety and electrical codes as well as NEC (National Electrical Code) and the OSHA(Occupational Safety and Health Act).
3. This unit must be properly grounded.
4. Always disconnect the power supply prior to servicing the fan, motor or 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.

**WARNING:** Turn off electricity at breaker box before beginning installation.

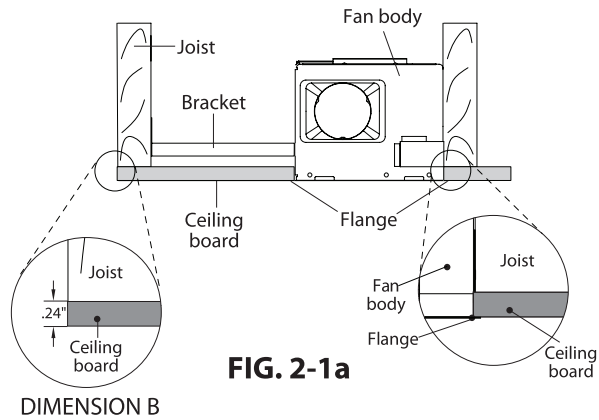
**INSTALLATION I (JOIST MOUNTING)**

1. Insert the suspension bracket into the fan body. (If spacing between joists is 21-1/4 to 23-1/2 inches (540 to 597mm), connect suspension bracket I and II) (FIG. 1)
2. Mount the fan body to joist using the suspension brackets and long wood screws. (FIG. 2-1 or FIG. 2-2/2-3)

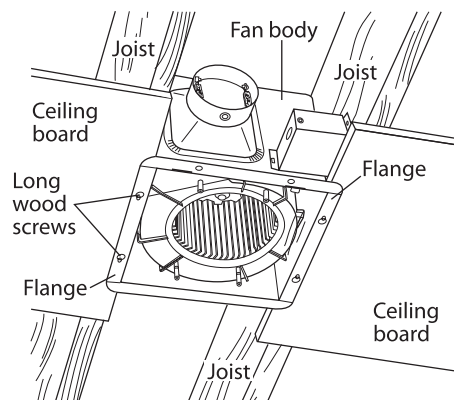
**CAUTION:** Dimension "B" should allow for thickness of ceiling board used in your applicaton. **DO NOT FLUSH MOUNT TO JOIST.** Flange should be flush with ceiling board. (FIG. 2-1a)



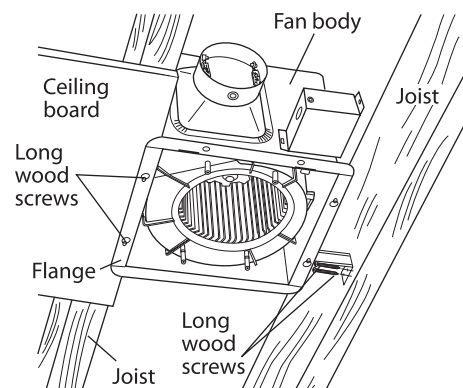
**FIG. 2-1**



**FIG. 2-1a**



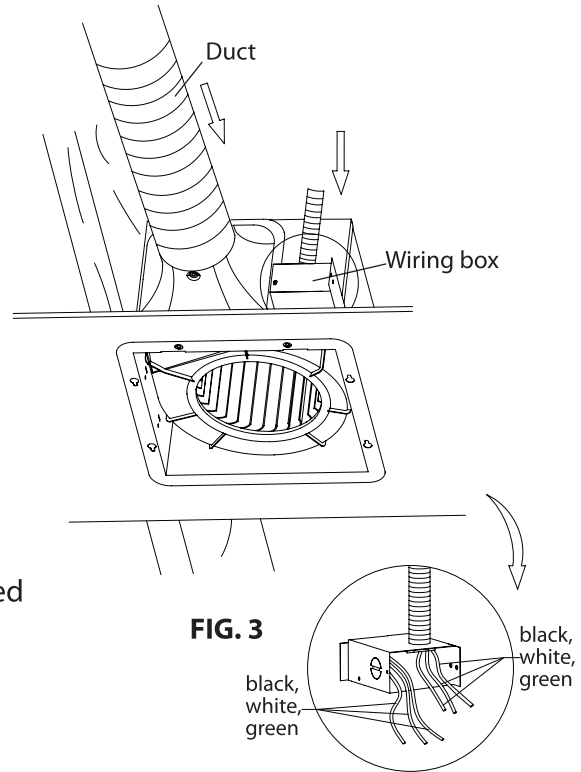
**FIG. 2-2**



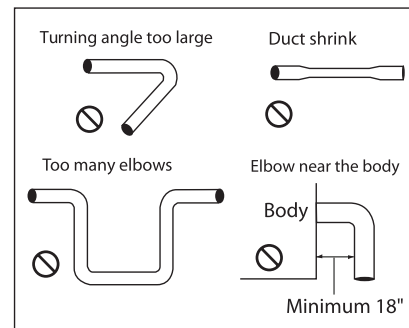
**FIG. 2-3**

3. Refer to wiring diagram on page 4. Remove the junction box cover. Using wire nuts, connect house wires to ventilating fan wires: black to black; white to white; green to green. Replace the junction box cover. (FIG. 3)

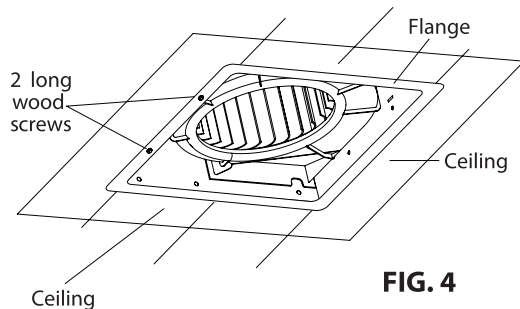
**CAUTION:** If your house wires do not match these colors, you must determine what each house wire represents before connecting and you may need to consult an electrical contractor to determine this safely. Mount junction box cover carefully so lead wires are not pinched.



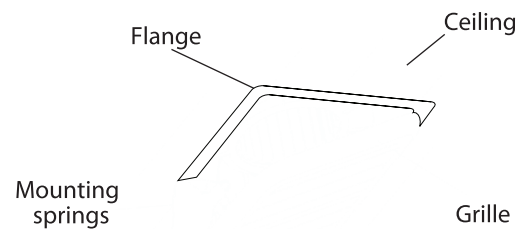
4. Do not install the unit where ducts are configured as shown in FIG. A.
5. Install a circular duct and secure it with duct tape or clamps.
6. Finish ceiling work. Ceiling hole should be flush with the edge of the flange. **(DO NOT FLUSH MOUNT TO JOIST. Flange should be flush with ceiling board.)** See dimensions for ceiling hole on page 4. (FIG. 4) If a joist is present, insert long wood screws through flange and through ceiling to secure fan to joist.
7. Pinch mounting springs and insert into narrow rectangular slots inside the fan housing next to the fan motor (FIG. 5).
8. Turn on electricity at breaker box after finishing installation.



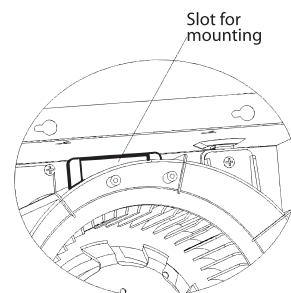
**FIG. A**



**FIG. 4**



**FIG. 5**



**FIG. 5a**

## INSTALLATION II (IN EXISTING CONSTRUCTION)

### 1. Installing the fan body in an existing building requires an accessible area (attic or crawl space) above the planned installation location and existing duct and wiring.

- (1) To install the fan body, follow the procedures described in Installation I. Center fan body on cut-out. Take the following precautions before installation.

#### **CAUTION:**

Check area above installation location to be sure that:

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

- (2) Inspect duct work and wiring before proceeding with installation.
  - (3) Plan suitable location for fan body (next to ceiling joist). **DO NOT FLUSH MOUNT FLANGE TO CEILING JOIST.**
  - (4) Before installation, provide inspection and future maintenance access at a location that will not interfere with installation work.
  - (5) Remove ceiling section using dimensions provided on page 4. Be careful to cut the hole exactly. If the hole is too big, the fan grille will not hide it.
  - (6) Install fan body. Center fan housing on cut-out.
  - (7) Continue steps 3-7 of Installation I (page 6-7) to complete the installation work.
2. Installation from accessible area (e.g. attic) above fan location.
- (1) Inspect duct work and wiring before proceeding with installation.
  - (2) Remove ceiling section using dimensions provided on page 4.
  - (3) Install fan body.
  - (4) Continue steps 3-7 of Installation I (page 6-7) to complete the installation work.



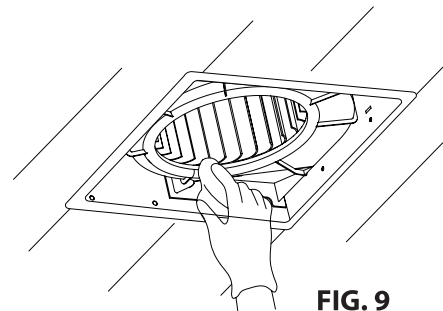
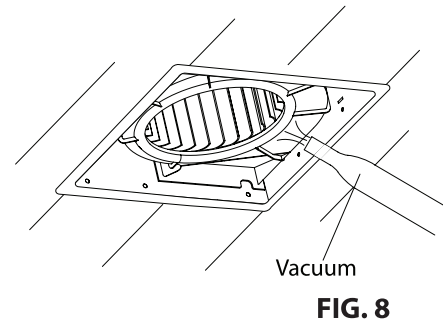
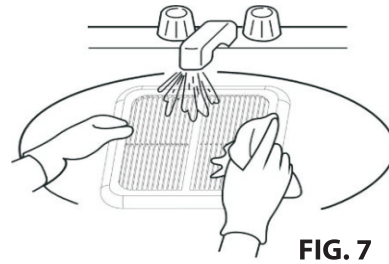
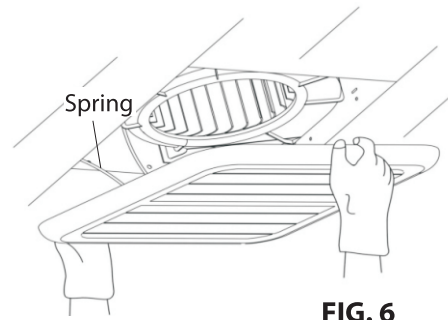
## MAINTENANCE

### ELECTRICAL WARNING

Disconnect power supply before servicing. See General Safety (Page 5) in this manual before proceeding. Routine maintenance should be done at least once a year.

### CAUTION

- Never use solvents, thinner or harsh chemicals for cleaning the fan.
  - Do not allow water to enter the motor.
  - Do not immerse resin parts in water over 140 degrees Fahrenheit.
1. Remove grille by squeezing spring and pull down . (FIG. 6)
  2. Wash and clean the grille in a sink and dry with a cloth. (FIG. 7)
  3. Remove dust and dirt from the fan housing with a vacuum cleaner. (FIG. 8)
  4. Dampen cloth with dish detergent, wipe the fan housing and dry with a cloth. (FIG. 9)
  5. Replace the grille.



Questions, problems? Please contact  
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