

# Pre-Installation

## PLANNING FOR SUCCESSFUL INSTALLATION

When installing the ventilation fan in a new construction site, install the main body of the fan and duct work during the rough-in construction of the building. The grill should be installed after the finished ceiling is in place.

When installing in existing construction, use the dimensions on page 12 to determine the required hole size for the ceiling. Grill edges should overlap finished ceiling.



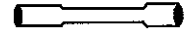
**NOTE:** If installing in existing construction, you must have access to space above and below the installation location.

Do not install ventilation fan in areas where the duct work will require configuration as shown.

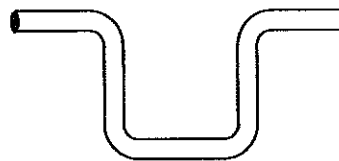
Turning angle too sharp



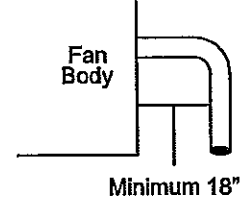
Avoid duct shrink



Too many elbows



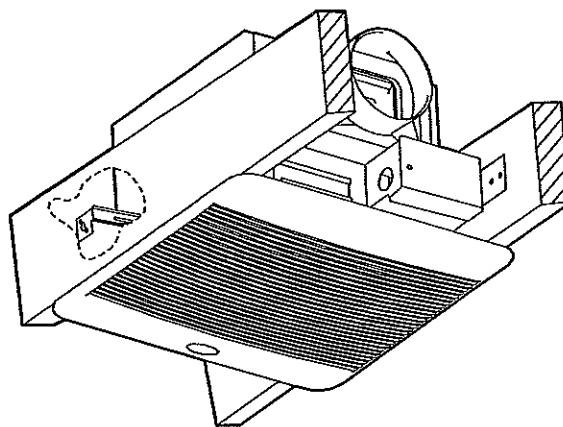
Elbow near the body



## INSTALLATION OPTIONS

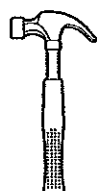
We recommend installing the ventilation fan by securing the main body of the fan against one ceiling joist and using the header bars as necessary for support of the adjoining joist.

There are multiple installation configurations possible for this ventilation fan. Not all configurations are shown. If your installation requires a variation other than those shown, consult with a licensed contractor to determine the best installation for your project. If you are replacing an existing fan, ensure that the new grill will adequately cover the existing opening.



# Pre-Installation (continued)

## TOOLS REQUIRED



Hammer



Safety goggles



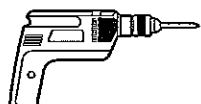
Phillips screwdriver



Level

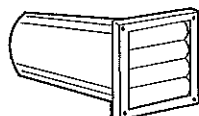


Electrical tape



Drill

## MATERIALS REQUIRED



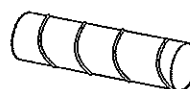
Duct vent



Duct clamp



Duct tape

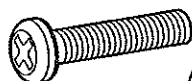


Duct piping

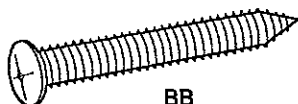
## HARDWARE INCLUDED



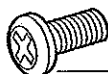
NOTE: Hardware shown to actual size.



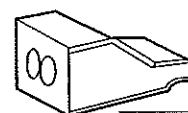
AA



BB



CC

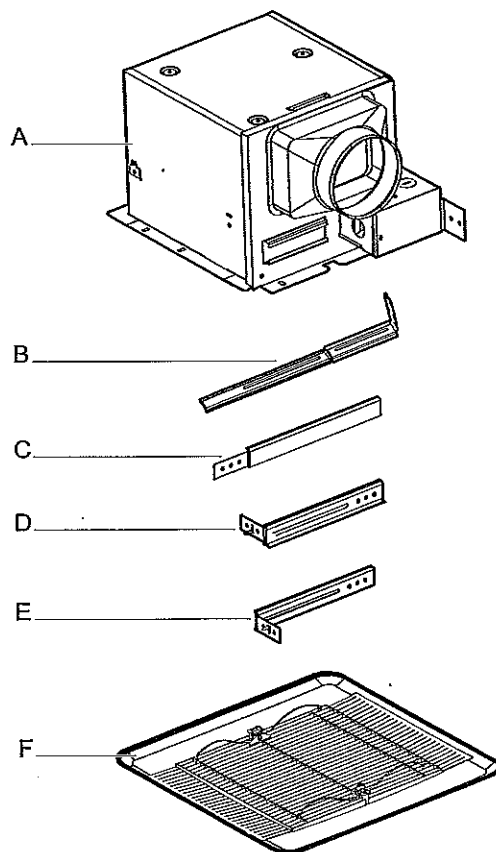


DD

Part	Description	Quantity
AA	Short screw (M4x12)	2
BB	Long wood screw (ST4x30)	8
CC	Screw (M4x6)	2
DD	Quick connect	3

# Pre-Installation (continued)

## PACKAGE CONTENTS



Part	Description
A	Fan body
B	Installation bracket IV
C	Installation bracket II
D	Installation bracket I
E	Installation bracket III
F	Grill



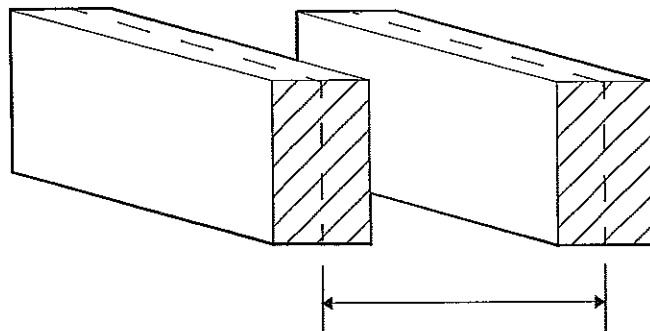
# Installation

## 1 Determine joist width

- Measure the distance from the center of the two ceiling joists where you will be installing the ventilation fan.
- Use the table to determine the header bar installation.
  - For configuration 1, proceed to step 2.
  - For configuration 2, proceed to step 3.
  - For configuration 3, proceed to step 4.

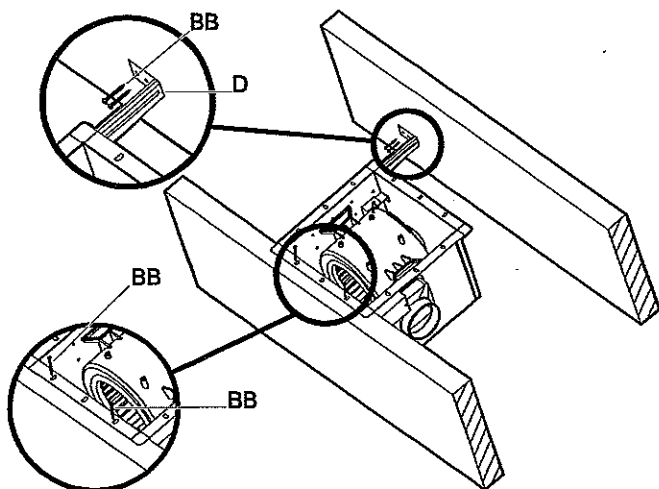
Use the following to determine the proper installation configuration:

Width between the Joists	Brackets Used	Configuration
12 in.	I	1
16 in.	I, IV	2
19.2 in.	I, II	3



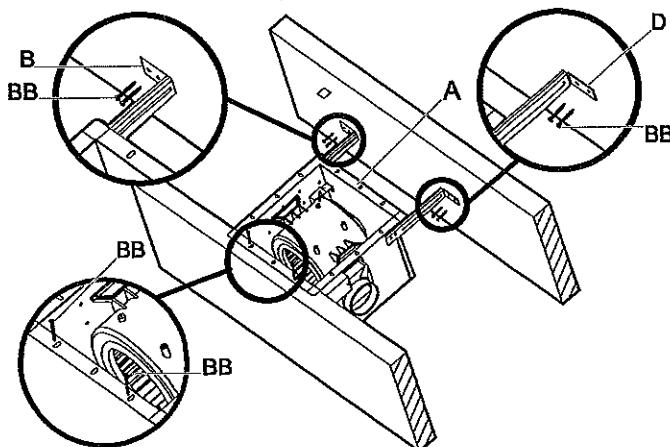
## 2 Configuration 1, initial install

- Use long wood screws (BB) to loosely attach the main body of fan (A) to ceiling joist in the four locations shown.
- Fit bracket I (D) against the main body of fan, ensuring the bracket is snug against the opposite ceiling joist.
- Use long wood screws to loosely attach bracket I to the opposite ceiling joist as shown.
- Proceed to step 6.



## 3 Configuration 2, initial install

- Use long wood screws (BB) to loosely attach the main body of fan (A) to the ceiling joist in the four locations shown.
- Fit bracket IV (B) against the main body of fan, ensuring bracket I is snug against the opposite ceiling joist.
- Fit bracket I (D) against main the body of fan, ensuring bracket IV is snug against the opposite ceiling joist.
- Use long wood screws to loosely attach bracket I to opposite ceiling joist as shown.
- Proceed to step 6.

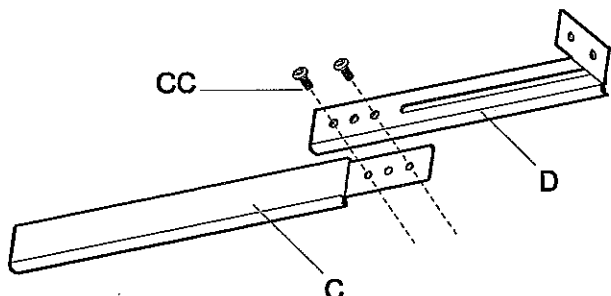


# Installation (continued)

## 4

### Configuration 3, preparation

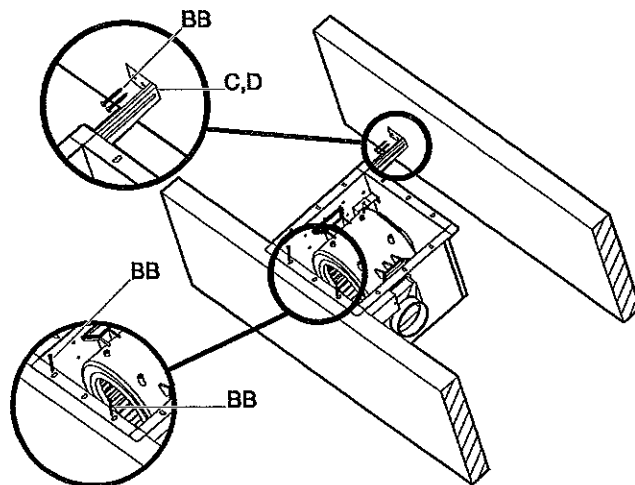
- Connect bracket I (D) to bracket II (C) using two M4x6 screws (CC).



## 5

### Configuration 3, initial install

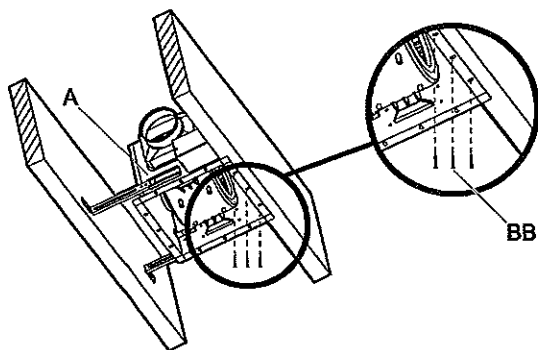
- Use long wood screws (BB) to loosely attach the main body of fan (A) to the ceiling joist in the four locations shown.
- Fit connected brackets (C, D) against the main body of fan, ensuring they are snug against the opposite ceiling joist.
- Use long wood screws to loosely attach bracket 1 and 2 (C, D) to the opposite ceiling joist as shown.
- Proceed to step 6.



## 6

### Final installation

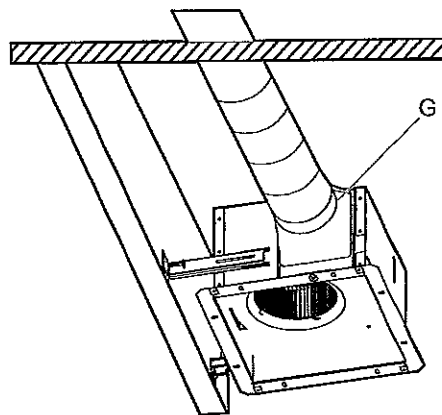
- Ensure the main body (A) is level.
- Ensure the flange on the main body is flush with the ceiling joist.
- Firmly secure all screws on the main body and any installed brackets.
- Use long wood screws (BB) to secure the main body flange to bottom of ceiling joist as shown.



## 7

### Connect duct

- Install a circular duct to outlet and secure it with duct tape or clamps.
- Install the duct (G) to the outlet with a gradient 1°~2° to the outside as shown.



# Installation (continued)

## 8 Using quick connect



**WARNING:** Wiring must comply with all applicable electrical codes. Turn OFF power before removing or installing connectors.



**WARNING:** COPPER TO COPPER ONLY. Do not use on Aluminum wire.

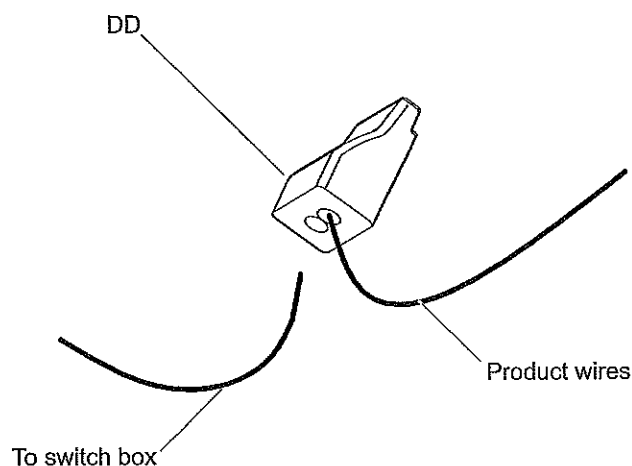


**CAUTION:** Accessory part DD (quick connect) should meet installation instructions below.



**NOTE:** Connector is reusable on solid wires of the same wire gage or smaller. Do not reuse connector on stranded wires.

- Strip the wires so half of the bare wire is showing.
- Grip the wire firmly and push the stripped end of the wire into the open port of connector (DD). Use only one stripped end of the wire per port.
- Verify the stripped end of the wire is fully inserted to the back of the connector (DD).



**NOTE:** Important wire information. Maximum temperature rating 105°C (221°F). 600 volts maximum for building wire and 1000 volts maximum in signs and lighting fixtures. Flammability rating of the wires must meet UL94-V2. The acceptable wire range includes: Solid: 12-20 AWG, Stranded: 12-16 AWG (≤19 STRAND); 18AWG (7 STRAND), Tin bonded: 14-18 AWG (≤19 STRAND).

## 9

## Connect wiring from house to box

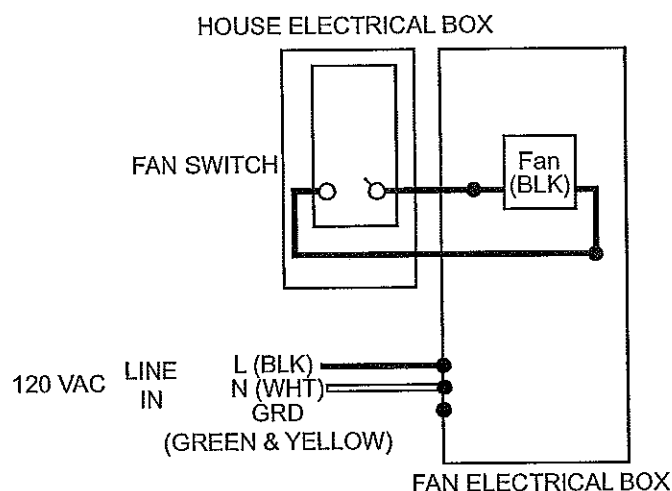


**WARNING:** Follow all local electrical and safety codes.



**CAUTION:** Never place a switch where it can be reached from a tub or shower.

- Connect house wires to ventilation fan wires.
- Match colors as shown.



**CAUTION:** If your house wires do not match these colors, determine what each house wire represents before connecting. You may need to consult a licensed electrician to determine this safely.

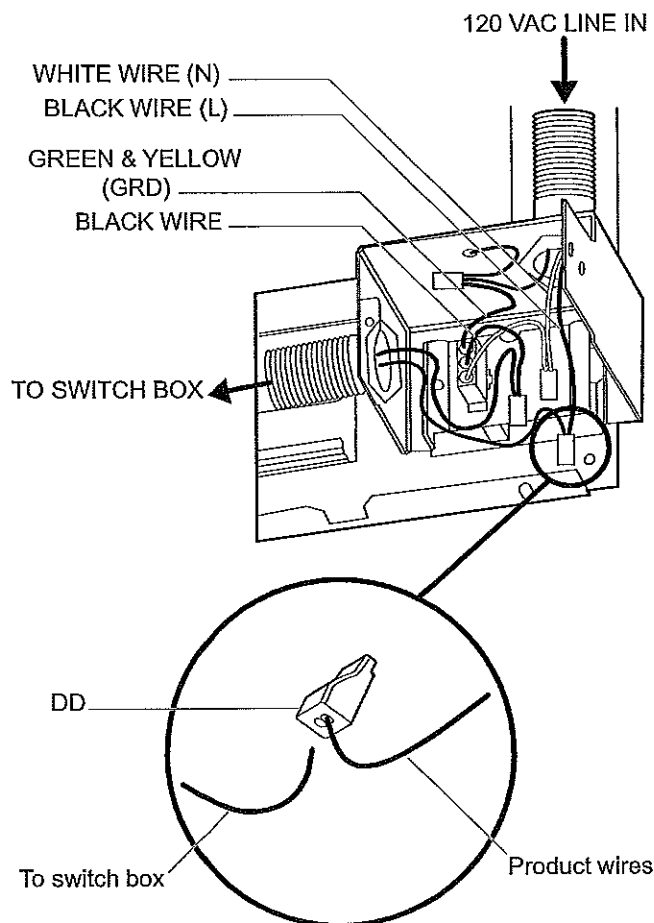
# Installation (continued)

## 10 Connect wiring from box to switch



**WARNING:** Follow all local electrical and safety codes.

- ❑ Connect wires to switch using the quick connect (DD) or wire nuts (not provided).
- ❑ Match colors as shown.



**WARNING:** Failure to wire product correctly could result in electrical shock, fire hazards, or damage to the product. Consult a licensed electrician if you are unsure of your ability to correctly install wiring.

## 11 Attach grill

- ❑ Insert the mounting springs into the slots in the grill (F).
- ❑ Squeeze springs together and insert into the main body.

