



## Ceiling Ventilating Fan

MODEL# SA-50E



### WARNINGS AND CAUTIONS

#### **WARNING**

To reduce the risk of fire, electrical shock, or injury, please observe the following precautions:

- Install and use this fan only as instructed by this manual. Any installation or use of this unit not indicated by the manufacturer may cause fire, electrical shock, or other injury. If you have any questions, contact the manufacturer or a sales associate at the store where you purchased this fan.
- Before servicing or cleaning the unit, switch off power at the service panel and lock the panel to prevent power from being switch on accidentally. If it is not possible to lock the panel, attach a prominent tag or other warning sign to the panel.
- Make sure that power is off during installation.
- To prevent dangerous gas leaks in your home, do not lay the ductwork together with the vent pipe of an air-fueled water heater connected to a flue.
- All installation, electrical wiring, maintenance, and repair of this unit must be done by qualified professionals in accordance with all applicable codes and standards, including fire-rated construction.
- When cutting or drilling into a ceiling, do not damage any electrical wiring or other hidden utilities.
- If you install this unit over a tub or shower enclosure, you must include a GFCI (ground fault circuit interrupter) to protect the branch circuit.
- Make sure the fan is properly grounded.
- Before you install this fan into a suspended ceiling, make sure the ceiling is strong enough to support the weight of the fan.

- Do not insert foreign particles, or allow them to enter, any ventilation or exhaust opening, as this may cause electrical shock or damage the unit.
- To reduce electrical hazards, keep the fan housing dry and prevent any water from leaking into it. Do not install the fan where it can be exposed to water leakage.
- To reduce the risk of fire or electrical shock, do not use this fan with any solid-state speed control device.
- Do not switch the fan on and off excessively if you are using it frequently. Switch the fan off if you do not plan to use it for an extended period.
- If anything unusual occurs with the fan when in operation, switch it off immediately. Contact the store where you purchased the unit or a qualified repair specialist for service.
- When cleaning the fan, do not use gasoline or corrosive chemicals. Do not rinse plastic parts in water warmer than 60° Celsius (140° Fahrenheit).
- For electrical supply connections, use No. 18 AWG or larger wires suitable for a minimum temperature of 90° Celsius (194° Fahrenheit).
- Do not install or use this fan outdoors.
- The discharge air from the fan should be diverted to ventilation outside the building.

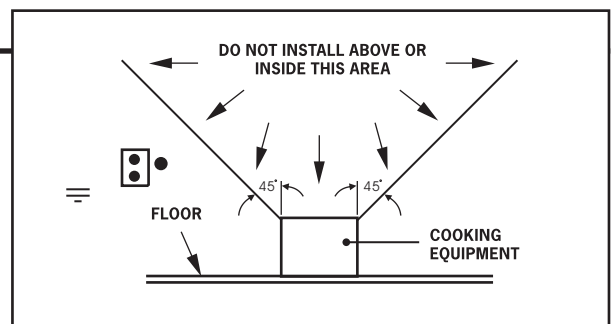
## CAUTION

- This fan is for general ventilating use only. Do not use it as an exhaust fan to blow out hazardous or explosive vapors or substances.
- This product is designed for installation in flat ceilings only. Do not mount it on a sloping ceiling or a vertical wall.
- To avoid fan motor damage or unbalanced impellers, which can make noise, keep the unit clean and protected from drywall spray, construction dust, and other contaminants.
- If you are remodeling, it is highly recommended that you install the fan before finishing the ceiling that will contain the fan.
- Do not install the fan into a ceiling with a thermal insulation rating greater than R40.
- Do not install the fan on any surface that projects outward at a 45-degree angle over a stove or any other cooking equipment element. See instructions below.
- Please read the specification label on the unit for additional information and requirements.

## PREPARATION

Before beginning assembly, installation or operation of product, make sure all parts are present. Compare parts with package contents list and diagram above. If any part is missing or damaged, do not attempt to assemble, install or operate the product. Contact customer service for replacement parts.

Estimated Assembly Time: 60 minutes  
 Tools Required for Assembly: Flat Head Screwdriver,  
 1-1/2 in. Wood Screws



The unit is designed for installation into a ceiling. For installation into a surface other than a ceiling, please consult a sales associate at the store where you purchased the fan. The joists should be at least 2 in. wide and 4 in. high. The space between joists should be 16 in. The gap between the ceiling and the roof should be at least 10 in. The ceiling drywall should be less than 3/4 in. thick.

## INSTALLATION INSTRUCTIONS

### INSTALL THE FAN HOUSING

1. Remove the motor plate from the housing before mounting the fan for installation. Insert the screwdriver between the motor plate and the side of housing where the duct collar is located. Gently pry the housing away from the motor plate while pulling up on the motor plate to disengage it from the housing. See Figure 1.
2. Locate housing next to ceiling joist.
3. Attach the housing to the ceiling joist with wood screws through the keyhole slots in mounting tabs. See Figure 2.
4. Adjust the housing to make it flush with the ceiling.
5. After properly adjusting the housing, tighten the screws. **NOTE:** Before completely tightening the screws, adjust the housing so that its outer edge is 1/8 in. to 1/4 in. recessed from the finished ceiling (see Figure 3). For the grille to fit properly, the fan housing must not extend outside the finished surface.
6. Install the ductwork (note: ductwork not included):
  - I. Place the outlet backdraft damper over the flanges at the discharge opening of the fan. Secure the damper by snapping the tabs into the slots in the flanges.
  - II. Run 3" dia. duct from the building exterior to the fan's discharge opening. See Figure 3.
  - III. Connect the duct to the outlet damper. Make sure that the fan housing is securely mounted to prevent the fan from vibrating and making noise.

### CONNECT THE WIRING

**NOTE:** All wiring must comply with local codes, and the unit must be properly grounded.

1. Run the power leads from the connection or timer switch to the unit.
2. Using approved wire connectors, connect supply wires to the fan wires: Black to black and white to white. Connect the ground wire (green to bare) to the green ground screw in the fan's junction box. See Figure 4.

### INSTALL THE FAN AND GRILLE

1. Insert the tabs into the housings slots.
2. Push the fan into the housing until it rests securely against the electrical box.
3. As illustrated, tighten the screw and insert the plug into the housing receptacle. **IMPORTANT:** Make sure the blower wheel turns freely.
4. Place the grille's spring mounting clips into the fan unit and install the clips on both sides. You may install the grille after finishing the ceiling.

FIGURE 1

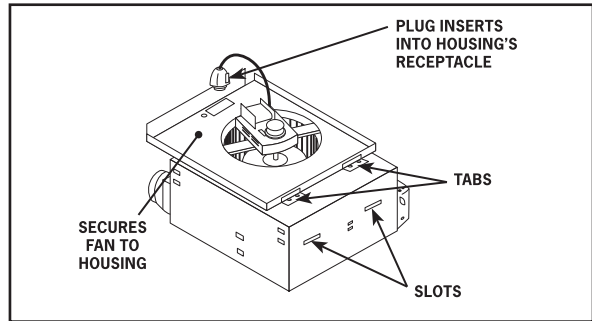


FIGURE 2

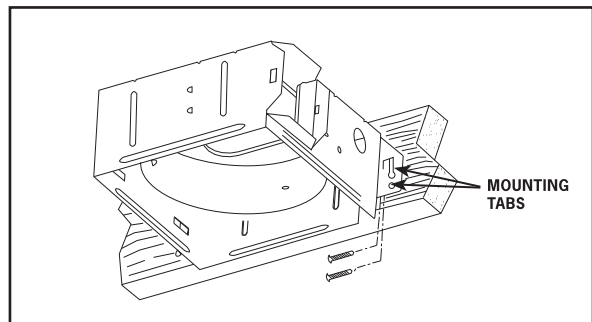


FIGURE 3

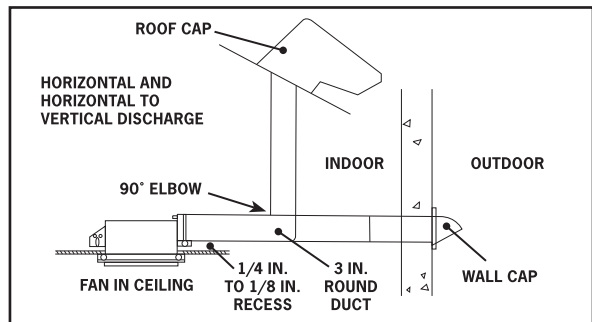
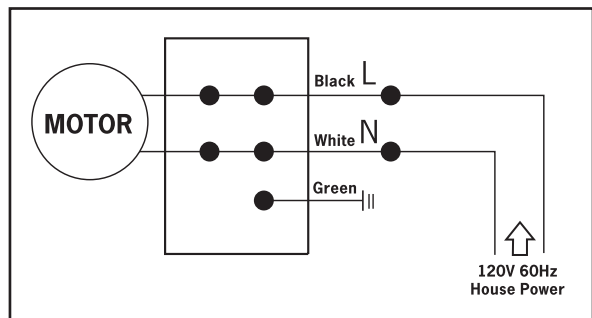


FIGURE 4



## CARE AND MAINTENANCE

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1. Shut off power before servicing or cleaning the fan.
2. Unplug the fan's plug-in power connection. Remove the screw on the motor plate, and then disassemble the motor, fan wheel, and wheel shell for washing and maintenance. NOTE: Do not get electrical parts wet. Do not use gasoline, corrosive chemicals, or water warmer than 60° Celsius (140° Fahrenheit) to clean plastic components.
3. After cleaning and maintenance are complete, make sure all components are dry. Then re-install them in the reverse of the order indicated in the preceding step.

## TROUBLESHOOTING

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Problem	Corrective Action
The fan makes unusual noise.	Shut off power immediately. Remove the fan from the housing. Check for any foreign particles inside blower wheel or duct and remove these particles. If no particles are present, dismount the motor plate and check for any grinding between the blower wheel and the housing. Make sure to maintain a 1/4 in. – 1/3 in. space between the blower wheel and housing.
The fan stops running when connected to a power source.	Disconnect the power. Remove the grille. Make sure the plug is properly connected to the power socket. If it is and the problem persists, remove the unit and check the power terminal to ensure that it is connected tightly.