



Installation, Operations, and Maintenance instruction

EN

bathfan Simple SMPL Series

Ceiling Mount Exhaust Fan with Metal Casing



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1 Introduction

1.1 Product Description

This product is a ceiling mount exhaust fan with a metal casing.

This fan has rotating parts and personnel must exercise safety precautions during installation, operations, and maintenance.

1.2 Intended Use

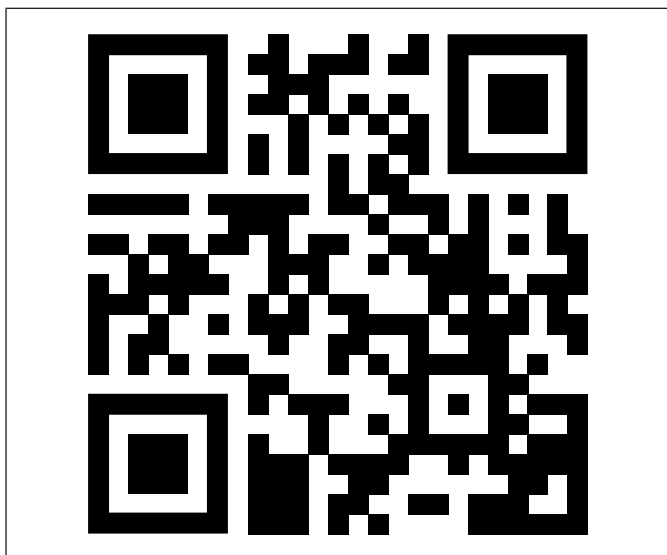
Use this product only in the manner intended by Fantech. If you have any questions, please contact a Fantech representative.

1.3 Document Description

This document contains instructions for installation, operation and maintenance of the product. The procedures must be done by approved personnel only.

Speak to a Fantech representative for more information on how to install the product in different installation locations.

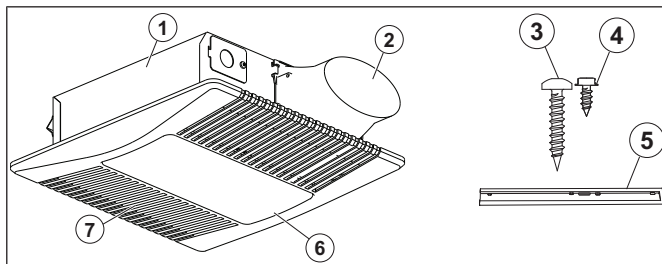
1.4 Fantech Warranty



Make a scan of the code above to access Fantech's warranty in English, French, or Spanish. This product has a 5 year warranty.

If additional support is needed to retrieve the warranty, visit fantech.net; call (800) 747-1762 (US), (800) 565-3548 (Canada), or +52 55 1328-7328 (Latin America); email support@fantech.net; or mail us at 10048 Industrial Blvd, Lenexa, KS 66215 United States or at 50 Kanfläkt Way, Bouctouche, NB E4S 3M5 Canada.

1.5 Product Overview



1. Casing, quantity 1
2. Duct Connector, quantity 1
3. B Screw, quantity 4 – Self-tapping 1 inch (25mm)
4. A Screw, quantity 2 – Self-tapping 1/2 inch (13mm)
5. Hanger Bars, quantity 1 – 13-3/8 inch (400mm)
6. Light (On Select Models)
7. Ceiling Grille

1.6 Type Designation

Product Name	Model Name	bathfan Simple (SMPL) Series
Duct Collar Dimensions in inches (mm)	bathfan Simple SMPL80, #484300	4 (102)
	bathfan Simple SMPL80L, #484301	
	bathfan Simple SMPL100, #484302	
	bathfan Simple SMPL100L, #484303	
Motor Type	AC: Alternating Current, 1–phase	

2 Safety

2.1 Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



Warning

If you do not obey these instructions, there is a risk of death or injury.



Caution

If you do not obey these instructions, there is a risk of damage to the product, other materials or the adjacent area.

Note:

Information that is necessary in a given situation.

2.2 Safety Instructions



Warning

This product is intended for general ventilation use only. If you have questions, contact Fantech. To decrease the risk of fire, electric shock, or injury, read and obey the following warning instructions before you do work on the product:

- The ventilation contractor and the operator are responsible for correctly installing the product.
- When installing the product, obey all applicable local conditions and laws, and fire-rated construction codes and standards.
- Because the product has rotating parts, exercise safety precautions when installing, operating, and maintaining the product.
- Before installing, servicing, troubleshooting, or cleaning, set the product's electrical power supply source in the OFF position, and lock the service disconnecting means. If the service disconnecting means cannot be locked, attach a large warning device to the service panel.
- To prevent the product from backdrafting, obey the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society for Heating, Refrigeration & Air Conditioning Engineers (ASHRAE), and the local code authorities.
- When cutting or drilling into walls or ceilings, watch for electrical wiring and other hidden utilities to prevent damage.
- Ducted exhaust fans must always be released to the outdoors
- When installing the product over a tub or shower, identify as appropriate for the application and connect to a GFCI (Ground Fault Circuit Interrupter) – protected branch circuit (ceiling installation only).
- Make sure the product is correctly grounded.

- Never place a switch where it can be reached from a tub or shower.
- Do not use this product with any solid-state speed control device.
- Do not block the air intakes or exhaust.
- Do not mount this product in an outdoor location.
- Install the product at least 7 feet (2.1 meters) above the floor.
- Do not start and stop the product quickly.
- Do not clean the product with chemicals that can cause corrosion or water more than 60° Celsius (140° Fahrenheit).
- Do not let unwanted objects enter the product.
- Do not use this product to remove hazardous or explosive material and vapours.
- This product is designed for installation in ceilings up to a 12/12 pitch (45 degree angle)
- Do not mount this product in kitchens.
- Do not release air into spaces within walls or into attics, crawl spaces, or garages.
- Do not install this product in a ceiling with a thermal insulation value more than R40.

Note:

Ducting has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

2.3 Personal protective equipment

Use personal protective equipment during all work on the product.

- Approved eye protection
- Approved protective helmet
- Approved hearing protection
- Approved protective gloves
- Approved protective shoes
- Approved work clothing

3 Installation

3.1 To Mount the Product

Note:

Before this product is mounted, and if applicable, Fantech recommends to install a Ceiling Radiation Damper (#98599) to this product. To see how to install a radiation damper to this product, refer to section [3.9 To Mount the Radiation Damper](#).

Note:

This product is designed for installation in ceilings up to a 12/12 pitch (45 degree angle).

Note:

This product is type IC (Inherently Protected).

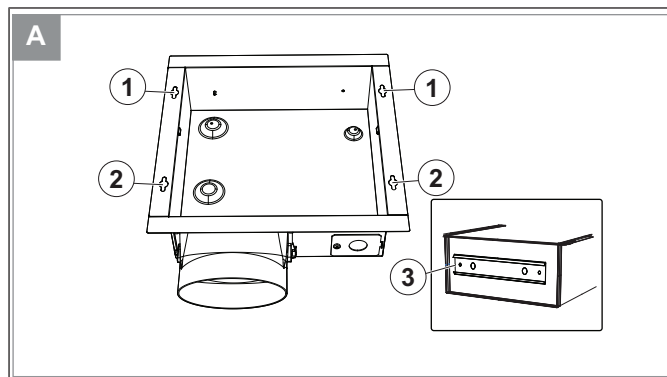
Note:

To make sure the product can be set correctly anywhere between the framing, hanger bars have been supplied.

Note:

The hanger bars can be used on all types of framing, such as: I-joists, standard joists, and truss construction.

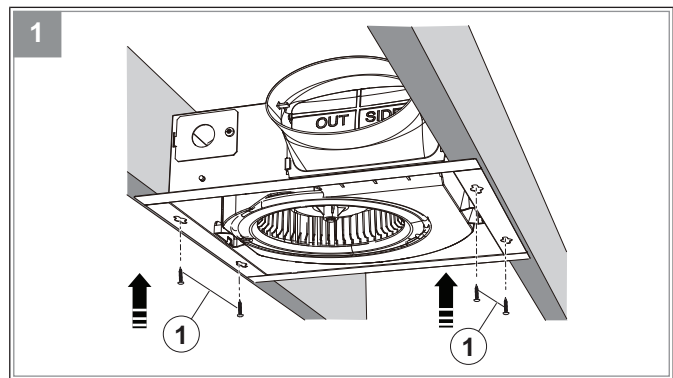
- 1 Before installation, remove the product from the packaging and set the packaging aside.
- 2 Identify the locations of Hole A & Hole B, and the channel on the side of the product's casing.



1. Hole B
2. Hole A
3. Casing Channel

3.2 To Mount with Mounting Holes

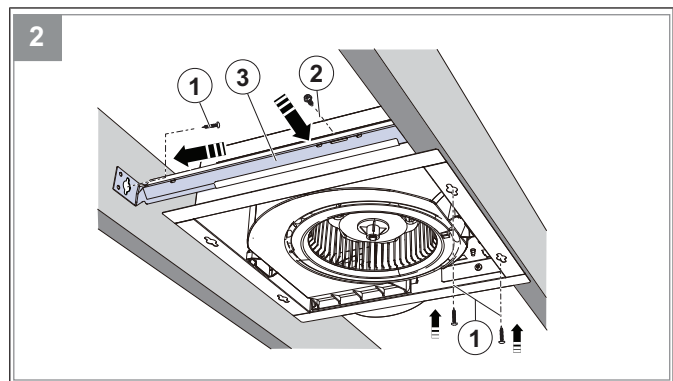
- 1 Align the product as necessary to mount the product between the framing.
- 2 Using (4) B screws, install the product onto the framing through Holes A & B.



1. B Screw

3.3 To Mount with Hanger Bar and Mounting Holes

- 1 Engage (1) hanger bar with the channel on the product's casing.
- 2 Adjust hanger bar as necessary to mount the product between the framing.
- 3 Align the hanger bar tab with the inner side of the framing.
- 4 Using (2) B Screws, install the product onto the framing through Holes A & B.
- 5 Using (1) B screw, attach the end tab of the hanger bar to the framing.
- 6 Using (1) A screw, attach the hanger bar onto the product's casing.

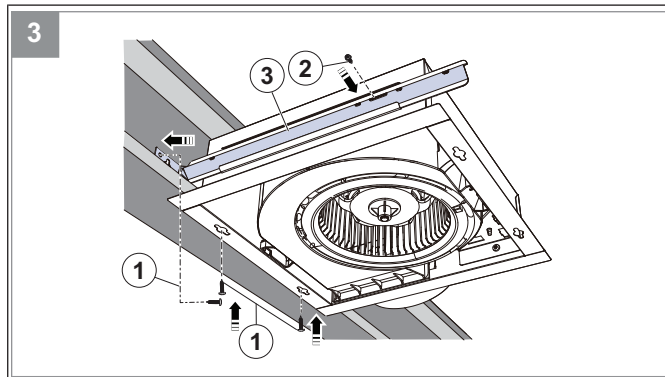


1. B Screw
2. A Screw
3. Hanger Bar

3.4 To Mount to One Side of the Framing

- 1 Engage (1) hanger bar with the appropriate channel on the product's casing.
- 2 Adjust hanger bar as necessary to mount the product between the framing.
- 3 Align the hanger bar tab with the inner side of the framing.
- 4 Using (2) B Screws, install the product onto the framing through Holes A & B.

- 5 Using (1) B screw, attach the end tab of the hanger bar to the framing.
- 6 Using (1) A screw, attach the hanger bar onto the product's casing.



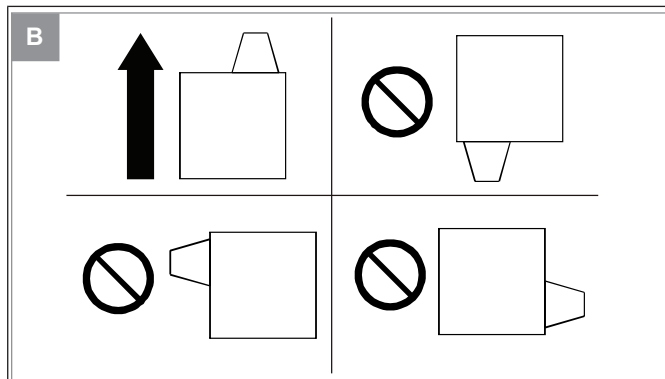
1. B Screw
2. A Screw
3. Hanger Bar

3.5 To Mount to the Wall



Caution

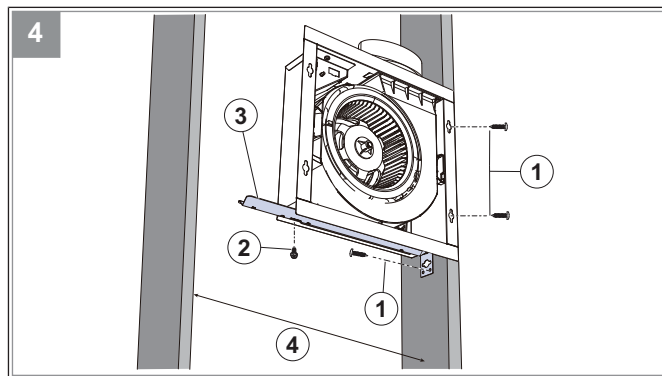
To install the product on the wall, the duct connector must face upwards.



Note:

The minimum installation distance between studs is 13–3/8 inch (340mm).

- 1 Engage (1) hanger bar with the appropriate channel on the product's casing.
- 2 Adjust hanger bar as necessary to mount the product between the framing.
- 3 Align the hanger bar tab with the inner side of the framing.
- 4 Using (2) B Screws, install the product onto the framing through Holes A & B.
- 5 Using (1) B screw, attach the end tab of the hanger bar to the framing.
- 6 Using (1) A screw, attach the hanger bar onto the product's casing.



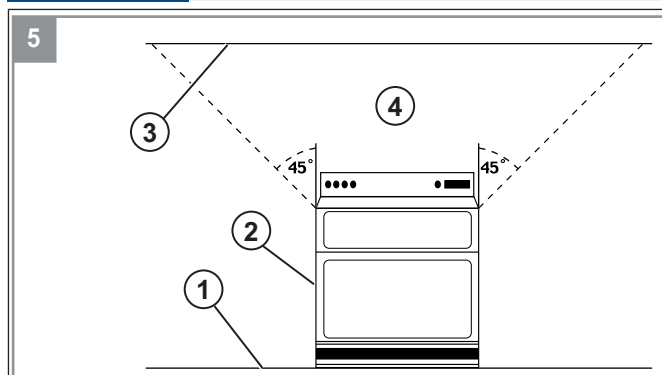
1. B Screw
2. A Screw
3. Hanger Bar
4. Minimum Distance 13–3/8 inch (340mm)

3.6 To Plan the Duct Run



Warning

Do not install the product above or inside the area within 45 degrees on either side of any kind of cooking equipment. Refer to Figure 5.



1. Floor
2. Cooking Equipment
3. Ceiling
4. Cooking Area

3.7 To Attach the Duct



Caution

To keep pressure losses to a minimum, and promote sufficient airflow, observe the following:

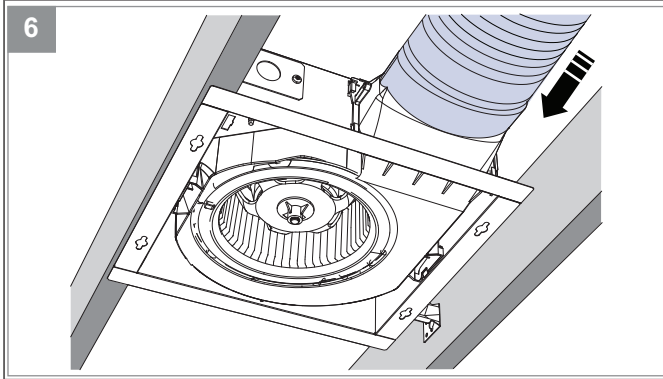
- Where possible, use short and straight duct run lengths.
- Do not install the product with existing duct.
- Do not install smaller than recommended duct on the product.

Note:

For quiet operation, and to maximize performance, Fantech recommends the following:

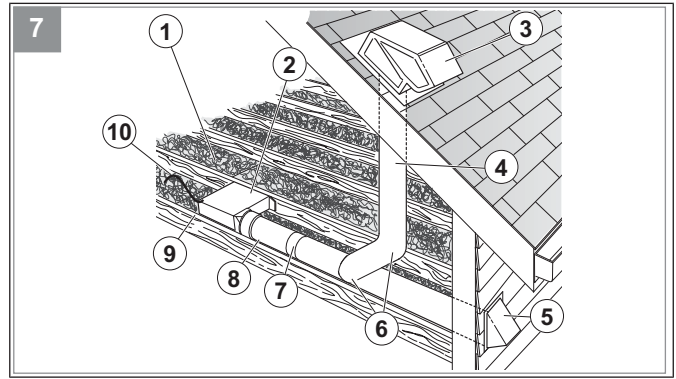
- Use insulated flexible duct for quiet operation
- If rigid duct is used, use 1–3 feet (0.3–0.91 meters) of insulated flexible duct.
- Insulate the duct to minimize energy losses.
- If installing in an unconditioned space, attach insulation to the product to prevent condensation

- 1 Using duct tape, attach the duct to the duct connector.
- 2 Examine the duct around the duct connector to make sure the seal is air tight.



3.8 To Manage the Duct Run

- 1 Using duct tape, attach additional ducts to the product to make sure air is released to the outdoors.
- 2 Depending on the shortest & straightest direction to the outdoors, place the duct run either through the roof or through the wall.
- 3 If the duct was installed through the roof, attach an applicable roof cap to the end of the duct run.
- 4 If the duct was installed through the wall, attach an applicable wall cap to the end of the duct run.
- 5 Place insulation around the product's casing.
- 6 With sealant, close all gaps between the framing and the product's casing.



1. Insulation
2. Product Casing
3. Roof Cap
4. Vertical Duct Run
5. Wall Cap
6. Round Elbows
7. Duct Tape Attached to Duct Joints
8. Horizontal Duct Run
9. Sealed Gaps
10. Power Cable

3.9 To Mount the Radiation Damper

Note:

This Fantech Ceiling Radiation Damper (#98599) is sold separately.

Note:

This radiation damper is UL classified for use in up to 3 hour rated floor/roof ceiling designs.

Note:

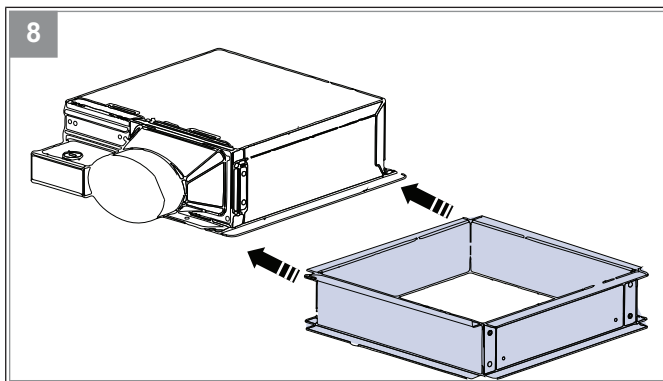
Make sure the arrow on the nameplate of the radiation damper points up.



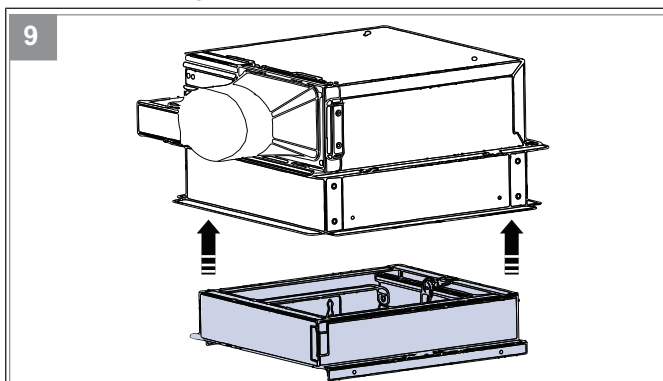
Caution

To avoid damage to exterior finishes and to allow for easier parts replacement, make sure screws are installed from the inside.

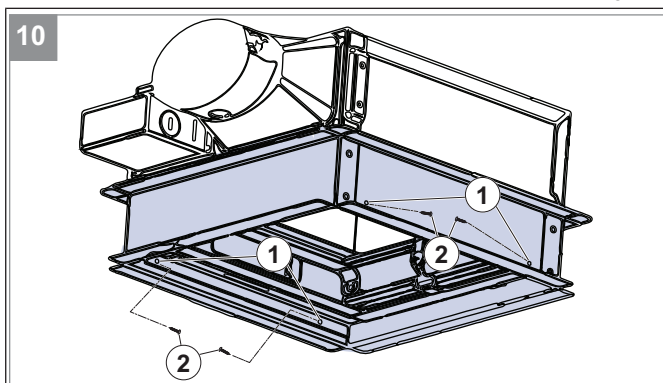
- 1 If the product has power, disconnect power at the source.
- 2 Engage the hemmed edges of the radiation damper casing onto the product's casing.



- 3 Align the (4) screw holes of the radiation damper with the (4) screw holes of the radiation damper casing.
- 4 With the arrow on the nameplate in the “up” position, engage the radiation damper with the bottom of the radiation damper casing.



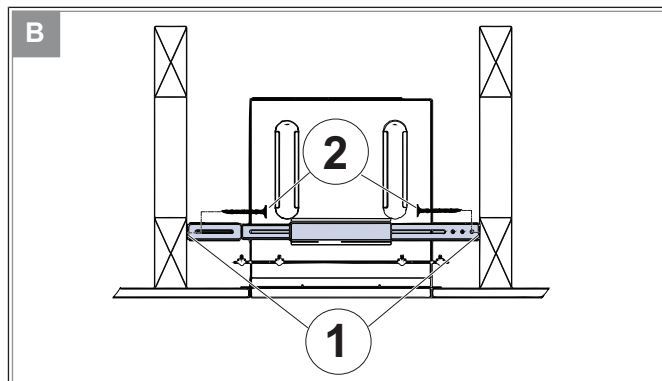
- 5 Using (4) screws provided with radiation damper assembly, attach radiation damper to the radiation damper casing.



1. Screw Hole
2. Provided Screws

Note:

Before this product is mounted, make sure all personnel knows that installing the radiation damper will increase the size of this product. Adjust how this product is installed as specified in the applicable procedure.



1. Screw Hole
2. Screw

4 Electrical connection

4.1 To do before the electrical connection

- Make sure that the electrical connection agrees with the product specification on the motor name plate.
- Make sure that the environment for electrical connection is clean and dry.
- Make sure that the wiring diagram that is included with the supply of the product agrees with the terminals in the connection box.

4.2 To connect the product to the power supply

- Complete the electrical connection for the motor. Refer to the motor wiring diagram that is included with the product.
- Make sure that the cross section of the protective grounding is equal to or larger than the cross section of the phase conductor.

4.3 Motor Protection

This product has integrated motor thermal overload protection. Reset the motor protection by disconnecting the fan from power supply for 60 seconds.

4.4 Wiring Diagrams



Caution

Do not place the power or light switch where it can be touched from a shower or tub.

Note:

To connect power to this product, use a minimum of 14 American Wire Gauge (AWG) conductor with temperature rating of at least 90° Celsius (190° Fahrenheit).

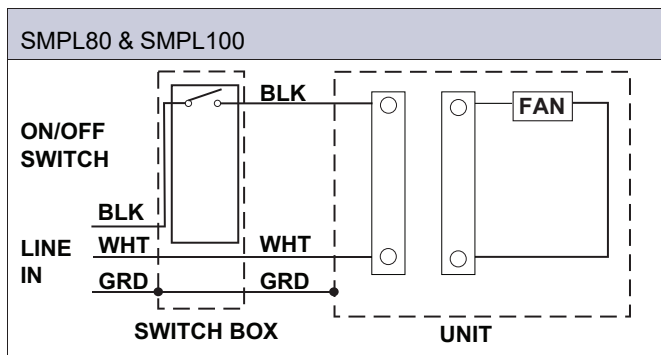
Note:

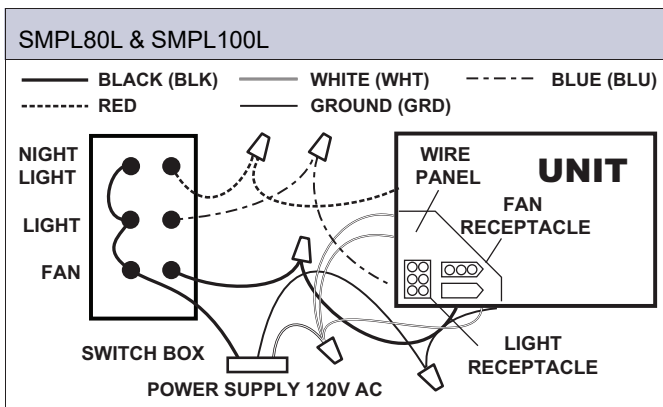
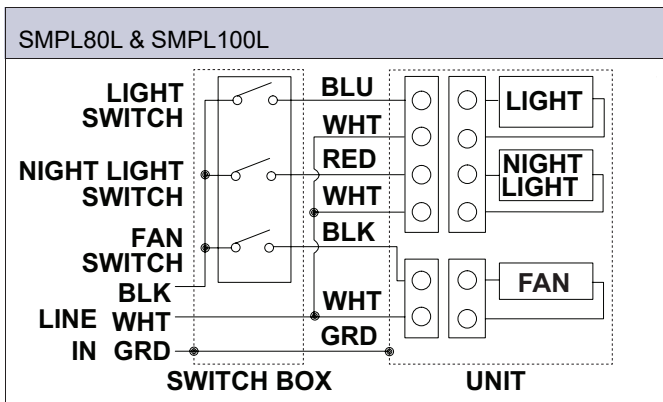
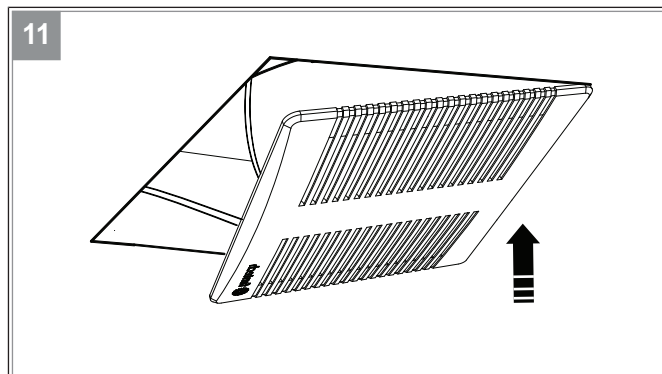
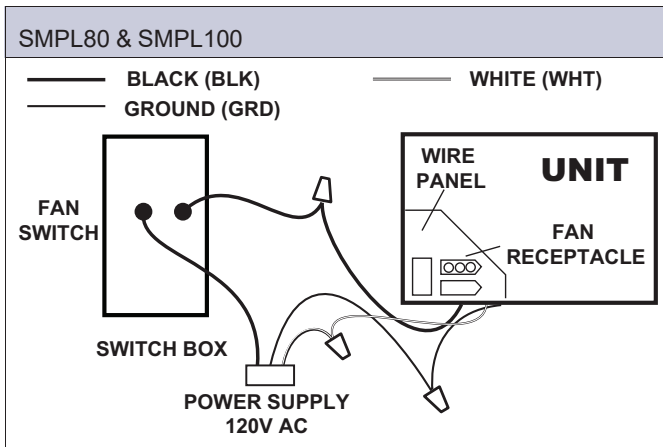
Refer to the following wiring diagrams to attach the wires of the product to the wires of the house.

Legend for Diagram	
English Terminology	Meaning
ON/OFF SWITCH	On/Off Switch
LINE IN	Line In
BLACK (BLK) (Line)	Black (Line)
WHITE (WHT) (Neutral)	White (Neutral)
GROUND (GRD)	Ground
BROWN (BRN) (Line)	Brown (Line)
RED (Line)	Red (Line)
BLUE (BLU) (Line)	Blue (Line)
UNIT	Unit
FAN	Fan
SWITCH BOX	Switch Box
POWER SUPPLY 120V AC	120 Voltage Alternating Current Power Supply
FAN RECEPTACLE	Fan Receptacle
WIRE PANEL	Wire Panel
LIGHT SWITCH	Light Switch
NIGHT LIGHT SWITCH	Night Light Switch
NIGHT LIGHT	Night Light
LIGHT	Light

To Do the Wiring

- 1 Take 120 Volt Alternate Current (AC) housing wires to the location of the product.
- 2 Using UL-approved connectors only, attach the wires of the product to the wires of the house.





4.5 To Attach the Ceiling Grille

- 1 Make a cut around the casing of the product.
- 2 For products with a light; attach the light plug from the ceiling grille onto the wire panel.
- 3 Attach (2) grille springs into the correct holes of the ceiling grille.
- 4 Align the ceiling grille with the casing of the product.
- 5 Push the ceiling grille into the casing of the product correctly.

5 Operation

5.1 To Start the Product

- 1 Make sure that 120 volts of Alternate Current (AC) wiring are attached to the product.
- 2 Set the switch to the ON position.
- 3 After a soft start (5–10 seconds), make sure that the product works as intended.

5.1.1 To Stop the Product

- 1 Set the switch to the OFF position.

6 Troubleshooting

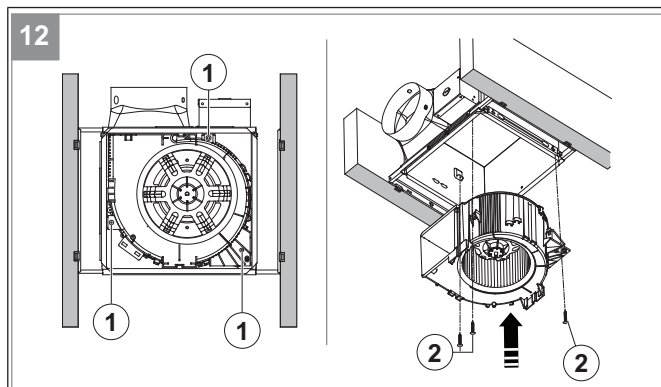
Problem	Cause	Solution
The product's blower needs to be replaced.	The blower assembly no longer works.	A new blower will need to be purchased. To mount the blower assembly, refer to the 6.1 To Replace the Blower Assembly section.
The product no longer works, and I want to replace the product.	The product no longer works.	To install a product where the old product is, observe the steps that follow: <ol style="list-style-type: none">1. Make a cut on the ceiling where the old product is.2. Remove the product.3. Working backwards from the 3 Installation section, install the new product.

6.1 To Replace the Blower Assembly

- 1 If the product has power, disconnect power at the source.
- 2 Remove the ceiling grille from the product's casing and set aside.
- 3 If applicable, remove the (4) screws that attach the radiation damper to the damper casing.
- 4 If applicable, remove the radiation damper and set aside.
- 5 Detach the blower assembly cable from the product.
- 6 Remove the (3) screws that attach the blower assembly to the product casing.
- 7 Remove and correctly dispose of the old blower assembly.
- 8 Align the opening of the new blower assembly with the opening of the product casing.
- 9 Using the (3) supplied blower assembly screws, mount the new blower assembly inside of the product casing.
- 10 Attach the blower assembly cable to the product.

- 11 If applicable, using the (4) removed screws, reattach the radiation damper.

- 12 Reattach the ceiling grille to the damper casing.



1. Screw Hole
2. Supplied Screws

7 Maintenance



Warning

Set the installed switch(es) in the OFF position before you do the maintenance unless the instructions tell you differently. Make sure that the switch(es) is not accidentally set in the ON position.

7.1 To Maintain the Product



Caution

If the product suddenly starts to make loud noises, or starts to vibrate in an unusual way, stop the product immediately. Contact a Fantech representative as the product will need to be replaced.

Note:

For quiet operation, long life, and to maximize performance, observe the following:

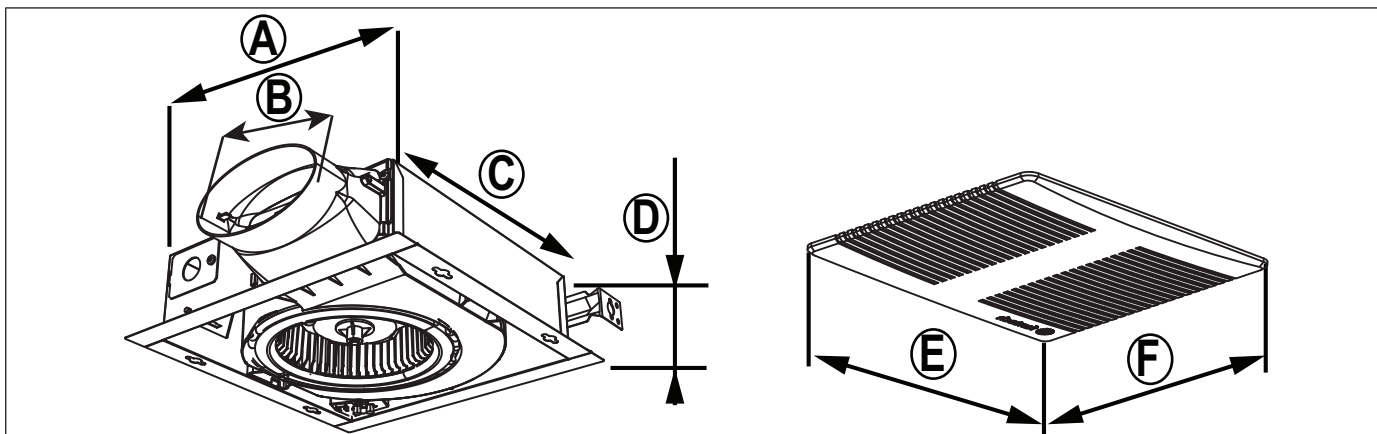
- Remove grille before carefully cleaning interior of product with a vacuum with a soft brush attachment or a soft cloth.
- No other maintenance is required.

8 Technical data

8.1 Technical Data Overview

Voltage, Motor Power, Frequency	Refer to the motor nameplate on the blower assembly.
Motor data	Refer to the motor nameplate or the technical documentation from the motor manufacturer.

8.2 Product Dimensions



Note:

Dimensions are given in inches (mm).

	A	B	C	D	E	F
bathfan Simple SMPL80, #484300	10-1/4 (260)	4 (102)	10-1/4 (260)	3-3/8 (86)	13-3/4 (349)	13 (330)
bathfan Simple SMPL80L, #484301						
bathfan Simple SMPL100, #484302						
bathfan Simple SMPL100L, #484303						



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