



Bathroom exhaust fan

User Manual & Installation Instructions

IMPORTANT SAFETY INSTRUCTIONS
Carefully read the important information
regarding installation, safety and maintenance.
Keep these instructions for future reference.

MAAN4808-01
2020-07-17

Safety Information

READ AND SAVE THESE INSTRUCTIONS

1. **WARNING** — TO REDUCE THE RISK OF FIRE ELECTRIC SHOCK OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:
 - a. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
 - b. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
2. This ventilation fan is approved for use over a bathtub or shower when installed in a GFCI protected circuit. Do not use unapproved fans over a bathtub or shower that is not approved for that application.
3. Installation work must be carried out by a qualified person(s) in accordance with all local and safety codes including the rules for fire-rated construction.
4. Always vent fans to the exterior and in compliance with local codes.
5. Install ductwork in a straight line with minimal bends.
6. Use 120 V, 60 Hz for the electrical supply and properly ground the unit. Follow all local safety and electrical codes.
7. Do not use this fan with any solid-state control device; such as a dimmer switch. Solid-state controls may cause harmonic distortion, which can cause a motor humming noise.
8. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
9. To reduce the risk of fire or electric shock, do not block air entry grill.
10. Sufficient air is needed for proper combustion and exhausting of gases through the flute (chimney) of fuel burning equipment to prevent back drafting.
11. Ducted fans must always be vented to the outdoors.
12. Mount with the lowest moving parts at least 2.5 meters above floor or grade level.
13. To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.

Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.



WARNING Not suitable for use as a range hood.



NOTE Make sure duct work size is a minimum of the discharge. Do not reduce. Reducing the duct size can increase fan noise.



CAUTION For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.



IMPORTANT You may want to consult with a professional electrician regarding the wiring of your ventilation fan.



CAUTION Do not install in locations where the air temperature will exceed 104°F (40°C).



WARNING To reduce the risk of electric shock, please disconnect the electrical supply circuit to the fan before installing light kit.



IMPORTANT Exercise care to not damage existing wiring when cutting or drilling into walls or ceilings.



CAUTION This product must be properly grounded.

Pre-Installation

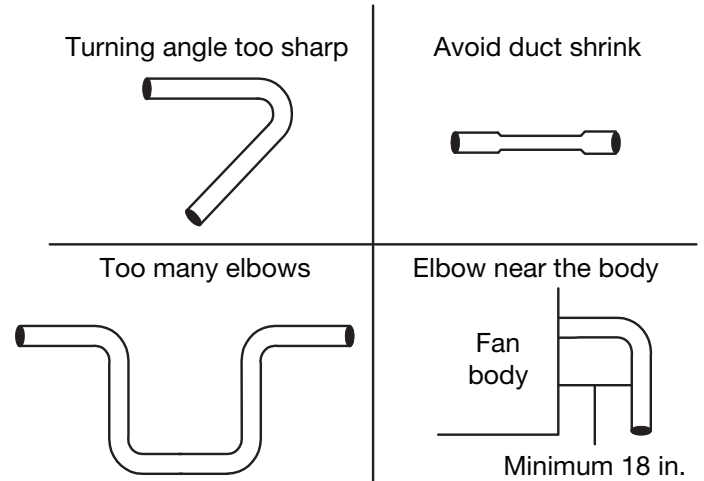
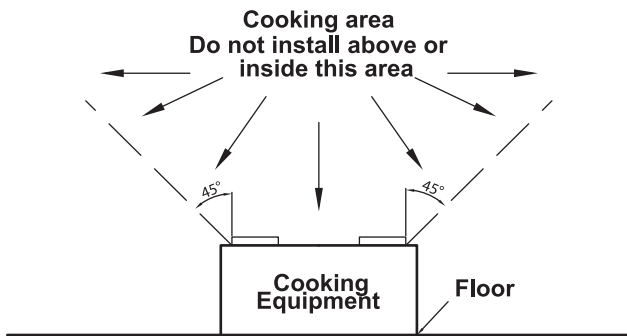
PLANNING FOR SUCCESSFUL INSTALLATION

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 grille should be installed after the finished ceiling is in place.

When installing in existing construction, use the dimensions on page 7 to determine the required hole size for the ceiling. Grille edges should overlap finished ceiling.

Not for use in cooking area - see installation instructions.

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

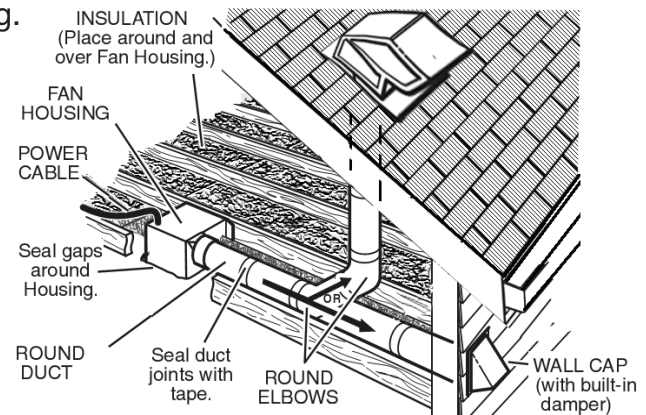
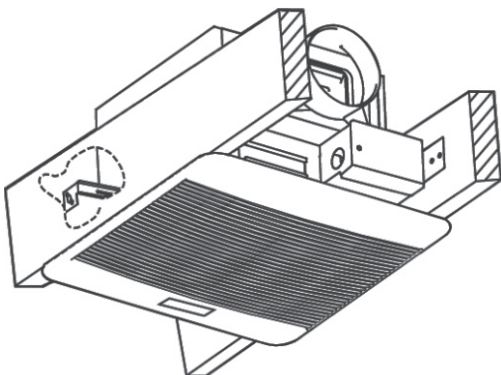


IMPORTANT The ducting from this fan to the outside of the building has a strong effect on the airflow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated airflow.

INSTALLATION OPTIONS

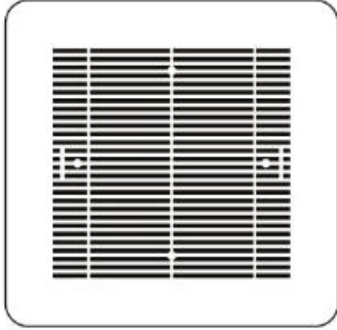
We recommend installing the ventilation fan by securing the main body of the fan against one ceiling joist and using the hanger bars as necessary for support of the adjoining joist.

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 grille will adequately cover the existing opening.

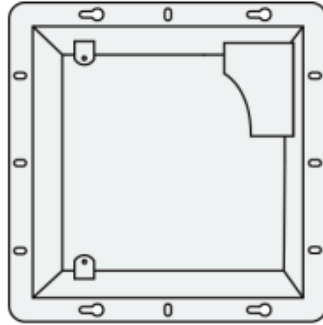


Pre-Installation

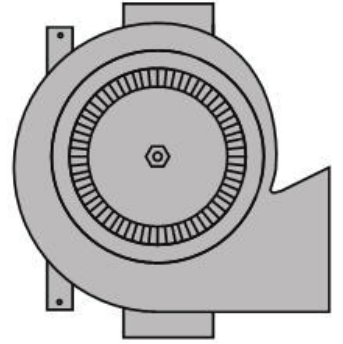
Package contents



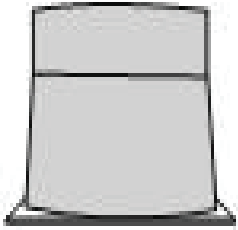
1 × grille



1 × housing



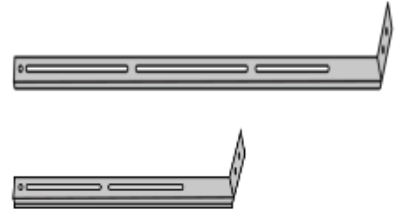
1 × blower



1 × damper



1 × screw kit



3 × bracket

Installation - New Construction

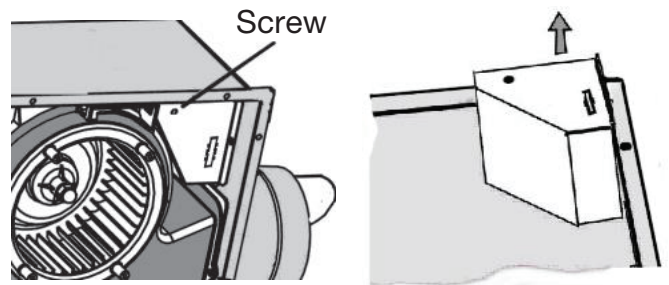
CAUTION:

1. Make sure power is switched off at service panel before installation.
2. Do not install in cooking area.
3. Choose the location of your fan to ensure the best air and sound performance. It is recommended that the length of ducting and the number of elbows be kept to a minimum, and that insulated hard ducting be used. Larger duct sizes will reduce noise and airflow restrictions.
4. Fan must not be installed in a ceiling thermally insulated to a value greater than R40.

STEP 1

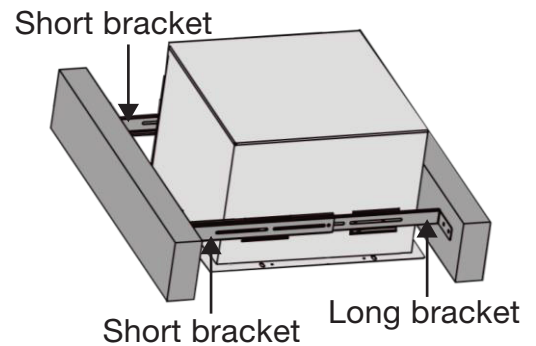
Remove the junction box

1. Unplug the motor.
2. Remove the screw on top.
3. Take out the wiring panel.



STEP 2

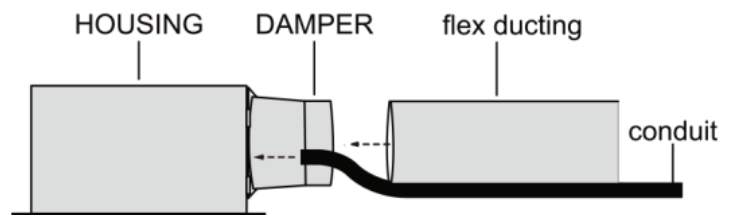
Mount housing to ceiling joist with brackets



STEP 3

Attach the duct and conduit to the fan

4 inch round flexible duct is recommended. This type of duct can provide the best performance.



CAUTION: All ducting must comply with local and national building codes. Connect the duct to the fan's duct collar. Secure in place with tape or screw clamp. Always duct the fan to the outside through a wall or roof cap.

STEP 4

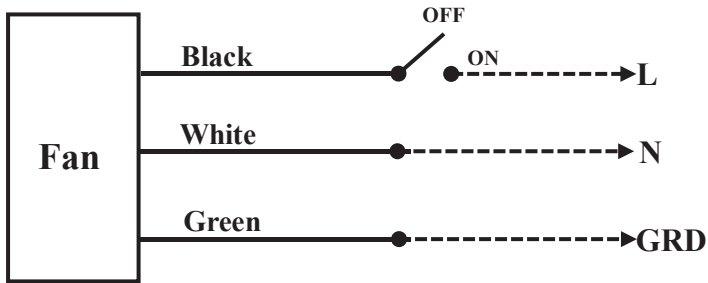
Connect wiring

1. Make sure power is switched off at service panel before installation. All electrical connections must be made in accordance with local code, ordinances or national electric code.
2. If the electrical wires do not match the colors shown, you must determine what each house wire represents before connecting. You may need to consult an electrical contractor to determine safety.
3. **Connect wires as shown on wiring diagrams on page 6.**
4. Use wire nuts (not provided) to connect house cable to ventilating fan.
5. Reinstall wiring panel and secure with screw.

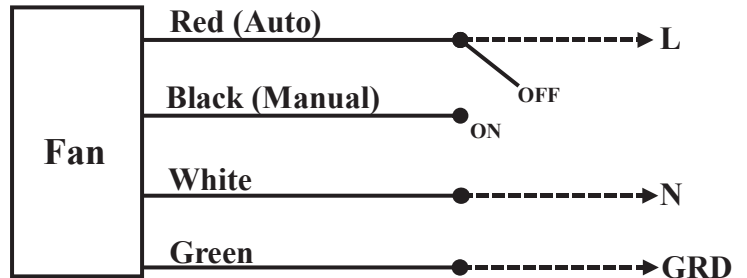
Installation - New Construction

Wiring diagrams

AN-4808 / AN-4809



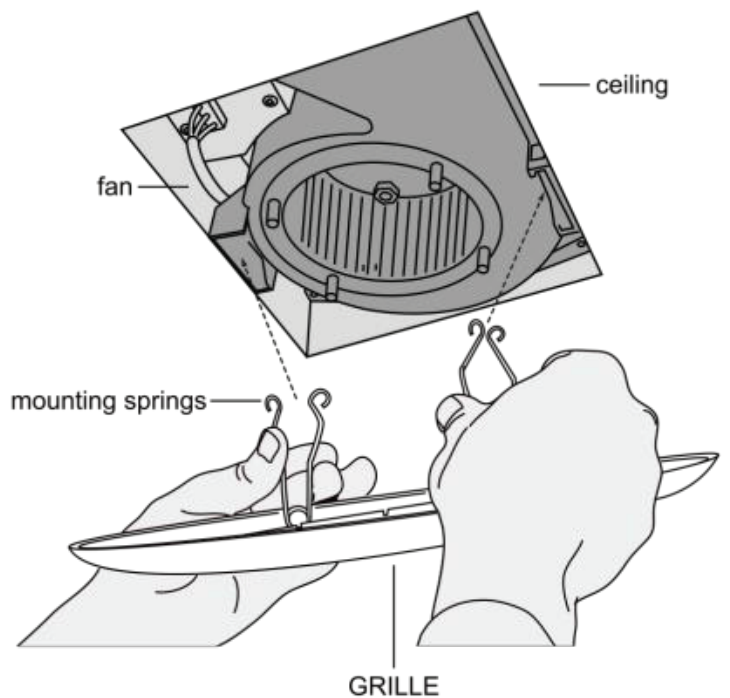
AN-4810



STEP 5

Attach the grille

1. Rotate the blower wheel by hand to ensure it spins freely.
2. Plug the motor cord back into receptacle.
3. Squeeze grille springs and insert into housing slots, and then push grille up against the ceiling.
4. Restore power and test your installation.

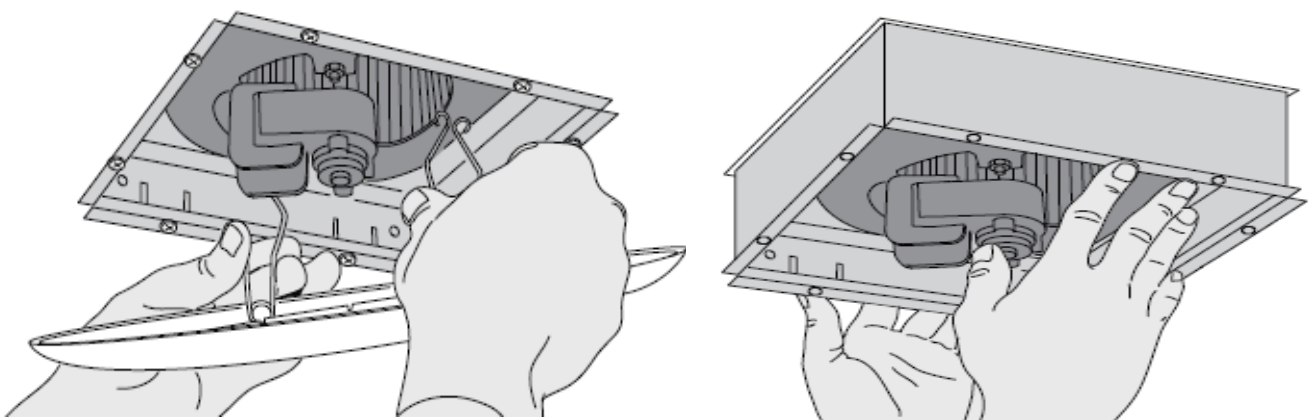


Installation - Existing Construction

STEP 1

Remove the existing fan

Remove the old fan from the ceiling.



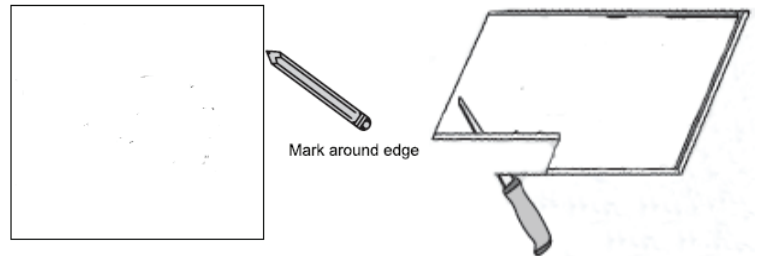
Installation - Existing Construction

STEP 2

Measure the ceiling opening

Measure the ceiling opening to make sure it is large enough to accommodate the new fan body. If this fan is not replacing an old fan, please enlarge the opening.

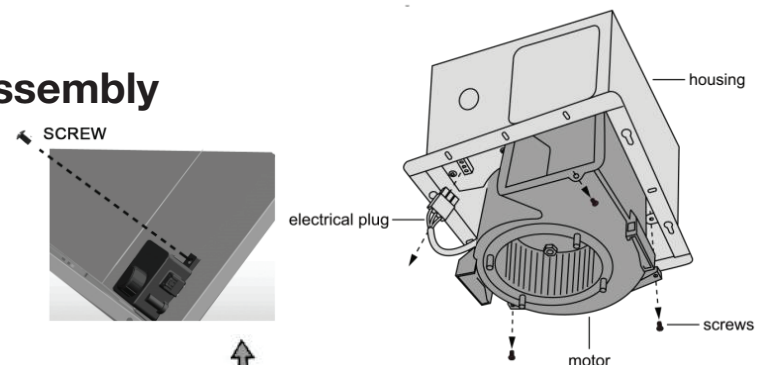
1. The size of the opening for AN-4808 fan should be 9.7 in. × 8.7 in. (24.6 cm × 22.1 cm). The 9.7 in. side of the opening should be flush with the joist for installation.
2. The size of the opening for AN-4809 and AN-4810 fans should be 9.6 in. × 9.6 in. (24.3 cm × 24.3 cm)



STEP 3

Remove the fan motor and sensor assembly

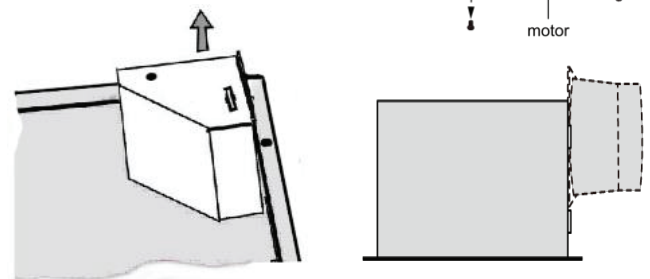
1. Disconnect electrical plug from the housing.
2. Remove the three motor assembly screws and then take out the motor assembly.
3. Remove the sensor screw and then take out the sensor (for humidity sensing models only).



STEP 4

Remove the wiring box and damper

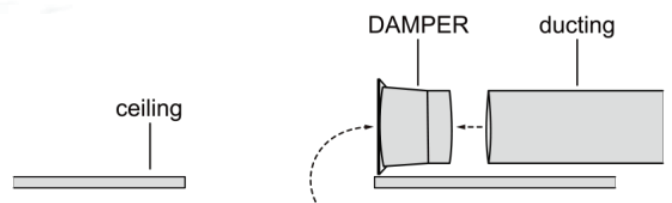
1. Remove the wiring box screw.
2. Remove the box cover from the fan housing.
3. Remove the damper from the housing.



STEP 5

Connect 4 in. round duct

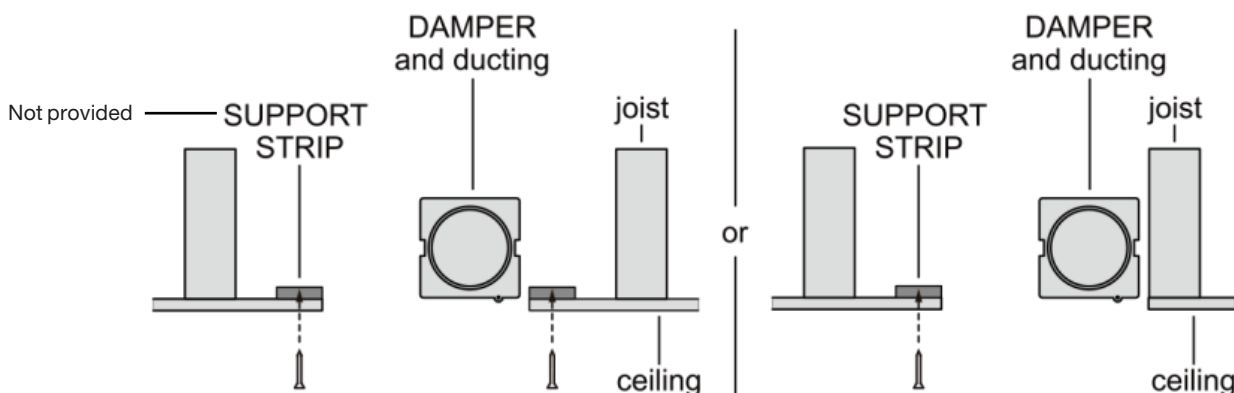
Connect the duct to the damper through the opening.



STEP 6

Place support strips on the sides of cut-out opening

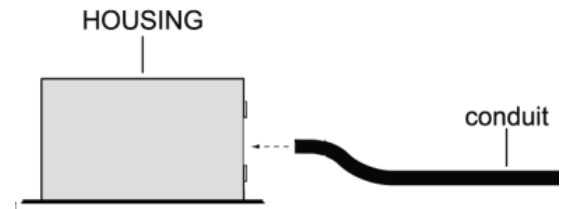
If one of the joists is already on the edge of the cut-out opening, only one support strip is needed.



Installation - Existing Construction

STEP 7

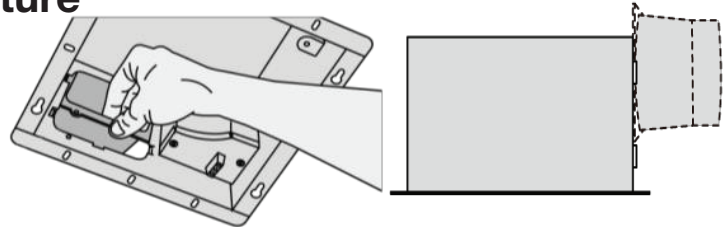
Attach conduit with wiring from control, to the fan housing



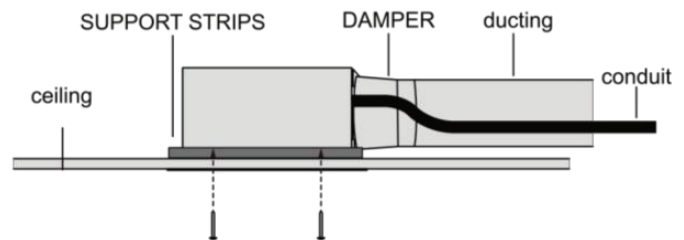
STEP 8

Mount the fan housing to ceiling structure

1. Reattach the damper back to the metal housing through the hole in the housing.



2. Use wood screws to screw housing into ceiling, where support strips are placed.



STEP 9

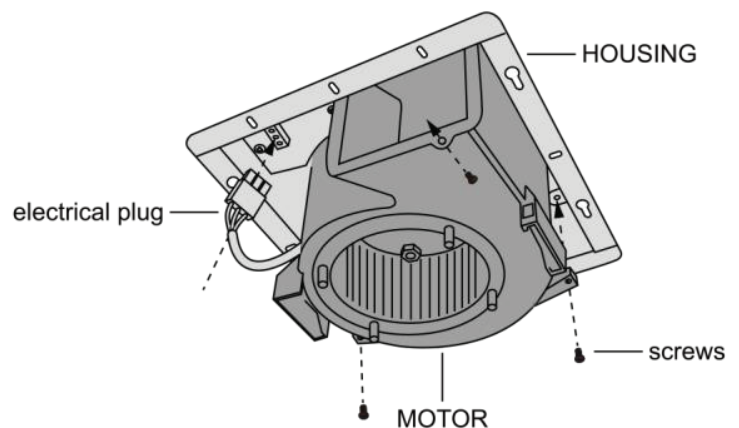
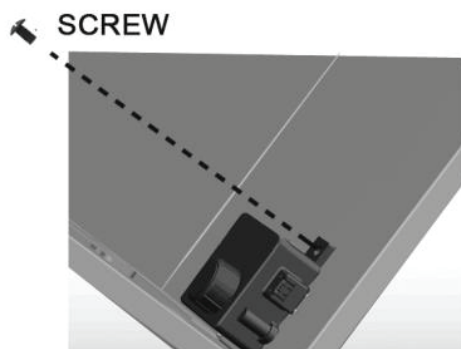
Connect wiring

1. Use wire nuts (not provided) to connect house power cable to ventilating fan, as shown on page 6.
2. Reinstall junction box cover and secure with screw.

STEP 10

Reattach the motor assembly and the grille

1. Reinstall the sensor and secure with screw (for humidity sensing models only).
2. Reinstall the motor assembly back by using the three screws.
3. Plug the motor cord into receptacle.
4. Squeeze grille springs and insert into slots in housing, then push grille up against ceiling as shown on page 6.



Humidity Sensor Operation (Humidity Sensing Models Only)

The humidity sensing fan is equipped with a humidity sensor that can turn on the fan automatically when the humidity level in your bathroom rises above your setting point (40 ~ 80 RH % continuously adjustable).



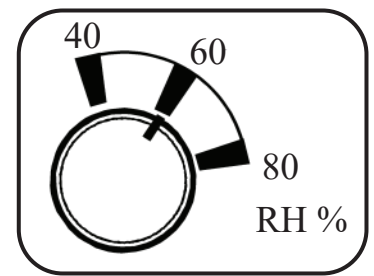
CAUTION: Humidity tolerance is about $\pm 10\%$. Long-time operation will influence the detecting precision as dust accumulates. The humidity switch may need to be adjusted.

Humidity sensing mode

1. Pre-set a trigger point from 40 ~ 80 RH %.
2. When you finish the wiring, the fan will be on the humidity sensing mode. The fan will automatically run when the humidity level in the room is above your setting point. If the humidity level drops below your setting point, the fan will stop automatically.

Full speed mode

1. Flip the ON/OFF switch to the “ON” position.
2. The fan will be set to the full speed mode. The fan will run continuously regardless of the humidity level.
3. Flip the ON/OFF switch to the “OFF” position, the fan will be set back to the humidity sensing mode.



Humidity setting

Use and Care



CAUTION: Make sure power is switched off at service panel before servicing the unit.

Cleaning the grille

Remove grille and use a mild detergent, such as dishwashing liquid, and dry with a soft cloth. Never use any abrasive pads or scouring powder. Completely dry grille before reinstalling. Refer to instructions on page 6 to reinstall grille.

Cleaning the fan assembly

Unplug the motor cord. Wipe all parts with a dry cloth or gently vacuum the fan. Never immerse electrical parts in water. Plug the motor cord back in and restore power.

Specifications

Model	AN-4808	AN-4809	AN-4810
Duct	4 in. (10.1 cm)	4 in. (10.1 cm)	4 in. (10.1 cm)
Sound level	0.7 sones	1.4 sones	1.4 sones
Airflow (CFM@0.1" SP)	80	110	110
For bathroom size up to	75 sq. ft. (6.9 m ²)	105 sq. ft. (9.7 m ²)	105 sq. ft. (9.7 m ²)
Humidity sensor	No	No	Yes
Lighting	No	No	No
Housing dimension	9.25 × 8.5 × 5.75 in. (23.5 × 29.6 × 14.6 cm)	9.4 × 9.4 × 6.2 in. (23.8 × 23.8 × 15.7 cm)	9.4 × 9.4 × 6.2 in. (23.8 × 23.8 × 15.7 cm)
Grille size	12.6 × 12.6 in. (32 × 32 cm)	12.6 × 12.6 in. (32 × 32 cm)	12.6 × 12.6 in. (32 × 32 cm)
Certification	UL, HVI, Energy star	UL, HVI, Energy star	UL, HVI, Energy star

Troubleshooting Guide

Problem	Possible cause	Solution
1. Fan does not operate when the switch is on.	<ul style="list-style-type: none"> a. A fuse may be blown or a circuit tripped. b. Connector plug from motor is not plugged in. c. Wiring is not connected properly. d. Motor has stopped operating. 	<ul style="list-style-type: none"> a. Replace fuse or reset circuit breaker. b. Turn off power to unit. Remove grille and plug motor into receptacle in housing. Restore power to unit. c. Turn off power to unit. Check that all wires are connected. d. Replace motor.
2. Fan is operating, but air moves slower than normal.	Obstruction in the exhaust ducting.	Check for any obstruction in the ducting. The most common are bird nests in the roof cap or wall cap where the fan exhausts to the outside.
3. Fan is operating louder than normal.	<ul style="list-style-type: none"> a. Motor is loose. b. Fan blade is hitting housing of unit. 	<ul style="list-style-type: none"> a. Turn off power to unit. Remove grille and check all screws are fully tightened. Restore power to unit. b. Call your dealer for service.
4. The fan keeps running even though the room humidity level is lower than the set point.	<ul style="list-style-type: none"> a. The sensor tolerance is about ±10% RH. b. Outdoor humidity is back drafted to the fan. 	<ul style="list-style-type: none"> a. Continue to let the fan run since it is good to keep venting the house and the electric bill is minimal. b. Turn the fan off manually when not in use.

Please register your product warranty by visiting the Ancona Home website.



Canada & USA

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MAAN4808-01

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