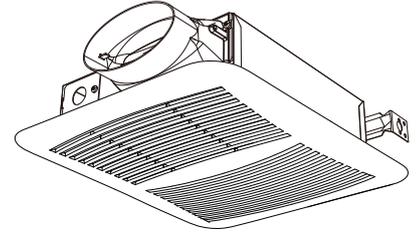


Models: AESD100-3

AESD100H-3



WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switching on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
- Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. 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.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- Ducted fans must always be vented to the outdoors.
- Acceptable for use over a tub or shower when connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit (ceiling installation only).
- This unit must be grounded.
- Not for Use in Kitchens.
- To reduce risk of fire and to properly exhaust air, be sure to duct air outside – Do not vent exhaust air into spaces within walls or ceilings or into attics, crawl spaces, or garages.
- WARNING: To Reduce The Risk Of Fire Or Electric Shock, Do Not Use This Fan With Any Solid-State Speed Control Device.**
- The fan must not be installed in a ceiling thermally insulated to a value greater than R40.

CAUTION

- For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
- This product is designed for installation in ceilings up to a 12/12 pitch (45 degree angle). Duct connector must point up.
- To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
- Please read specification label on product for further information and requirements.

CLEANING & MAINTENANCE

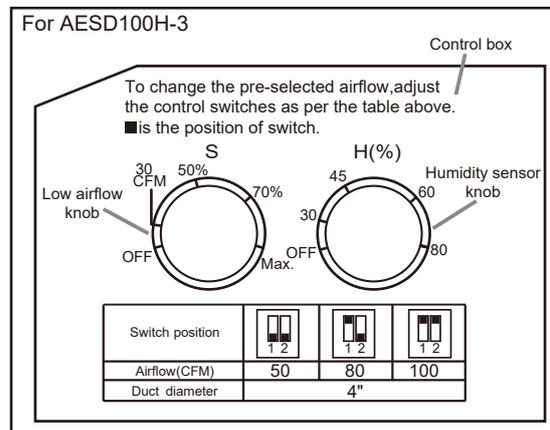
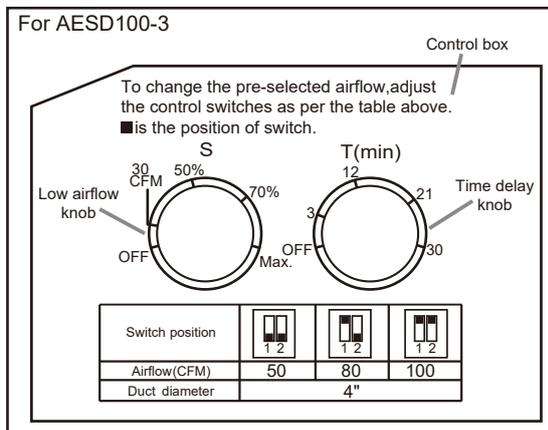
For quiet and efficient operation, long life, and attractive appearance - lower or remove grille and vacuum interior of unit with the dust brush attachment. The motor is permanently lubricated and never needs oiling. If the motor bearings are making excessive or unusual noises, replace the motor with the exact service motor. The impeller should also be replaced.

OPERATION

See "Connect Wiring" for details.

The control box, located inside the fan housing, has three separate adjustments:

- The low airflow knob adjusts the lower airflow from 30 CFM up to the air flow rate of the high fan speed determined by the toggle switch setting. The low speed is de-activated when set between OFF-30 CFM (factory set to OFF).
- (For AESD100H-3) The humidity sensor knob set user-adjustable setpoint. The humidity sensor is de-activated when set between OFF-30% (factory set to 80% (Ambient temperature of 25 °C)).
- (For AESD100-3) The time delay knob is adjustable from 3 to 30 minutes and will switch the fan to the low speed setting after the switch II is turned off for the set period of time. The time delay setting is de-activated when set between OFF-3 mins (factory set to OFF).
- The toggle switch will adjust the upper fan speed setting from 50 to 100 CFM. (factory set to 100CFM).



READ AND SAVE THESE INSTRUCTIONS
 Installer: Leave this manual with the homeowner.

OPERATION

To Turn Fan ON

Turn the switch I (according to the following "CONNECT ELECTRICAL WIRING") ON.

- Fan will run at the certified airflow rate if the switch II is ON.
- Fan will run at the user-adjustable airflow rate if the switch II is OFF.

To Use Fan Time Delay Airflow Rate Change

1. Turn the switch I ON.
2. Turn the switch II ON - fan will run at the certified airflow rate.
3. When the switch II is turned OFF, fan will continue to run at the certified airflow rate until the user-adjustable time delay (For AESD100H-3, the time delay is 20 mins) has elapsed, and then will automatically change to the user-adjustable airflow rate.

To Turn Fan OFF

Turn the switch I OFF

For AESD100H-3

HUMIDITY SENSOR OPERATION

The humidity-sensing fan uses a sophisticated humidity sensor that responds to: (a) rapid increases in humidity or (b) humidity above a user-adjustable set-point (30%-80% relative humidity). Fan run continuously at a pre-set lower level (set by Low airflow knob) and automatically boost up to certified airflow rate when environmental conditions change. After delay timer (20 minutes) returns fan to the default low speed. If the fan continuously responds to changing environmental conditions, "H" (means "humidity") adjustment may- be required.

SENSITIVITY ADJUSTMENT

The "H" has been factory set for most shower applications. However, if the fan is in a tub area or is being used for dampness control, the "H" may need to be increased toward maximum. If the control is responding too often to changing environmental conditions, movement toward maximum, "H" may be required.

To adjust the "H":

1. Disconnect power at service entrance.
2. Through the grille, locate the slot marked "H".
3. Carefully rotate the "H" adjustment toward maximum or minimum.
4. Turn on power and check operation by turning on the shower or other humidity source until the fan turns on.
5. Repeat above steps if necessary.

When the temperature changes, humidity sensor values will have deviation.

MOTION SENSOR OPERATION

Plug the motion sensing grille into the fan control module and when powered on, the fan will automatically start sensing motion.

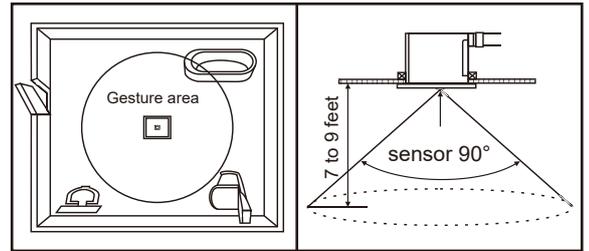
When motion is detected, the fan speed increases to high speed.

When the person exits the area, the fan remains working at high speed until the delay time has passed (20 minutes).

After the time delay, the fan speed is reduced to the continuous ventilation rate.

Installation distance: 7 to 9 feet.

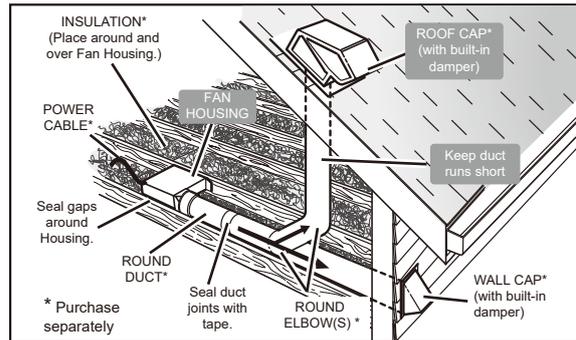
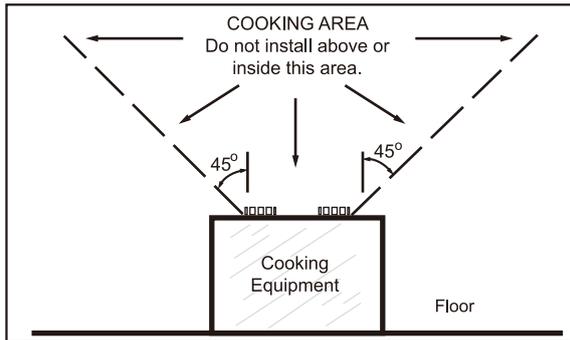
Sensing range is within the cone angle of 90°.



PLAN THE INSTALLATION

1. Do not use in a cooking area.

2. Two ways to connect ductwork to a factory-shipped unit.

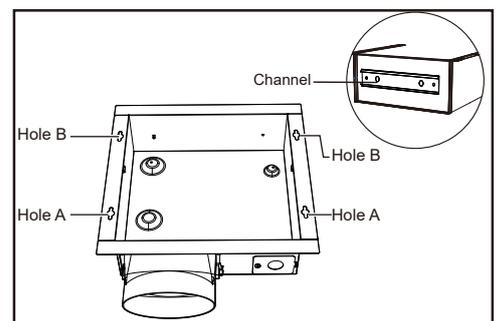


ASSEMBLY INSTRUCTIONS

1. Before installation, you need to know:

- | | | |
|------------|---|--------------------|
| Screw A |  | ST4.2*13mm |
| Screw B |  | ST4.2*25mm |
| Hanger bar |  | 13 3/8 in. (340mm) |

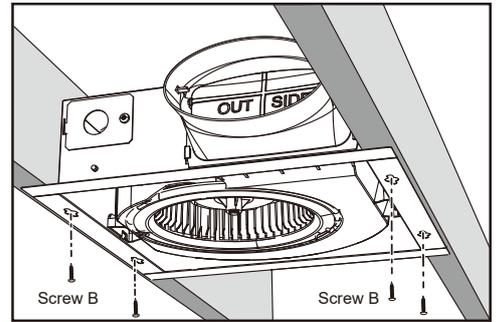
When installing contractor packs, make sure to install any optional modules such as speed controls or humidity sensors with the fan housing to ensure wiring is completed properly. Module and grille plugs come packaged with the optional accessory and must be installed with the fan housing.



ASSEMBLY INSTRUCTIONS

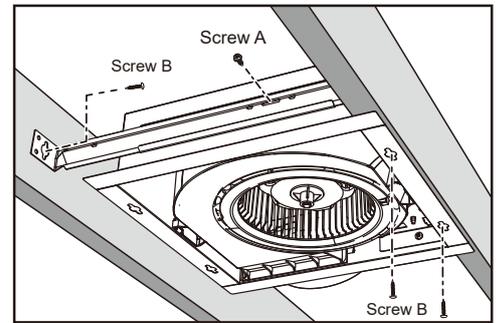
2. Mount with mounting holes

Hold housing in place so that the housing contacts the bottom of the joist, Screw housing to joist through the hole A and hole B.



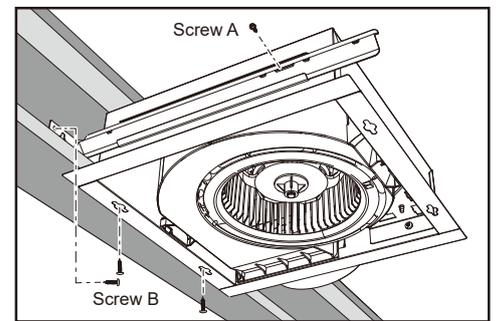
3. Mount with mounting holes

Slide one hanger bar into the channel on the housing and adjust as needed to fit between framing. Hold housing in place so that the housing contacts the bottom of the joist, Screw housing to joist through the hole A and hole B. Screw the hanger bar onto the other side of joist through its hole. Screw hanger bar to housing with screw A.



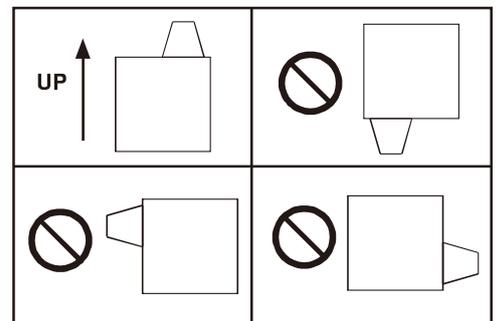
4. Mount to I-joist

Slide hanger bar into the channel on the housing and adjust as needed to fit I-joist. Hold housing in place so that the housing contacts the bottom of joist. Screw housing to joist through the hole A and hole B. Screw the hanger bar onto the joist through its hole. Screw hanger bar to housing with screw A.



5. Wall installation

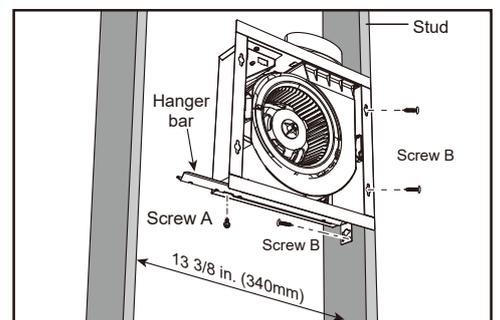
5a. When the product is installed on the wall, the adaptor shall be faced upward.



5b. Slide hanger bar into the channel on the housing. Hold housing in place so that the housing contacts the bottom of stud. Screw housing to stud through the hole A and hole B on the same side. Screw the hanger bar onto the stud through its hole.

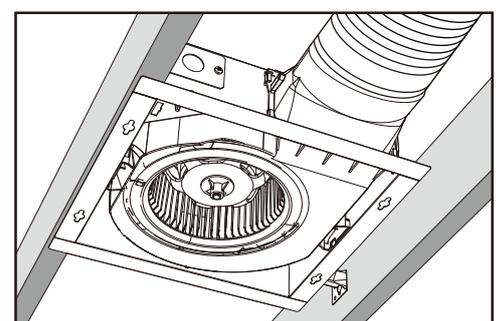
Screw hanger bar to housing with screw A.

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



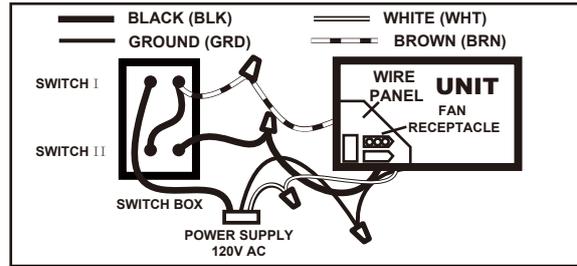
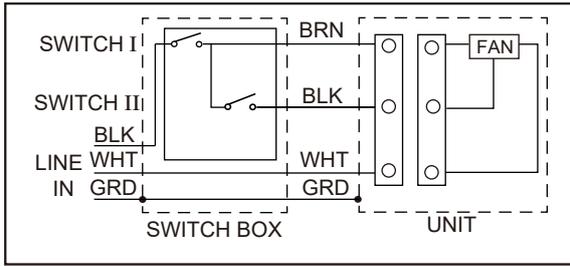
6. INSTALL ROUND DUCTWORK

Connect the round ductwork (not included) to the damper/duct connector, and run the ductwork to a roof or wall cap (not included). Using tape (not included), secure all the ductwork connections so that they are air tight. The ducting from this fan to the outside of building 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.



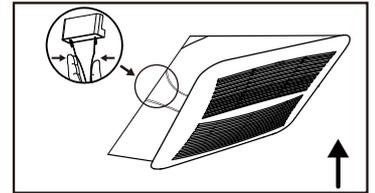
CONNECT ELECTRICAL WIRING

Run 120V AC house wiring to the location of the fan. Use only UL-approved connectors (not included) to attach the house wiring to the wiring plate. Refer to the wiring diagram, and connect the wires as shown.



INSTALL GRILLE

Install ceiling material to complete the ceiling construction. Then, cut around the fan housing. To attach the grille assembly to the fan housing, pinch the grille springs on the sides of the grille assembly, and position the grille into the housing with the grille springs in the appropriate slots. Push the grille assembly towards the ceiling to secure.



SERVICE PARTS

| PART | PART NAME | Qty. |
|------|-----------------------------------|------|
| 1 | Grille Assembly (includes part 2) | 1 |
| 2 | Grille Spring | 2 |
| 3 | Power box | 1 |
| 4 | Blower | 1 |
| 5 | Blower Wheel | 1 |
| 6 | Motor | 1 |
| 7 | Motor plate | 1 |
| 8 | Wire Panel / Harness Assembly | 1 |
| 9 | Housing | 1 |
| 10 | Wiring plate | 1 |
| 11 | Damper / Duct Connector | 1 |
| 12 | Hanger Bar | 1 |
| a | Screw | 3 |
| b | Screw | 3 |
| c | Screw | 3 |
| d | Screw | 1 |
| e | Screw | 1 |
| f | Screw | 1 |

* Blower Assembly includes part 3, 4, 5, 6, 7, a, b, c.

WARNING: Before replacing, be sure to turn off power at power source.

