



WARNING

WARNING — THE INSTALLATION MUST BE CARRIED OUT BY A QUALIFIED ELECTRICIAN.

1. For general ventilating use only. DO NOT use to exhaust hazardous or explosive materials and vapours
2. This product is designed for installation in ceilings up to a 12/12 pitch (45°) Duct connector MUST point up
3. Read specification label on product for further information and requirements
4. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit

Application Notice

1. Use this unit only in the manner intended by the manufacturer. Contact the manufacturer in case of questions
2. 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. Ducted fans must always be vented to the outdoors
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards,
4. including fire-rated construction codes and standards. Not for use in kitchens
5. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. 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
6. When cutting or drilling into wall or ceiling, DO NOT damage electrical wiring and other hidden utilities
7. 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. To reduce the risk of fire or electric shock, DO NOT use this fan with any solid-state speed control device
8. 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. DO NOT mount this product in a wall
9. The fan MUST NOT be installed in a ceiling thermally insulated to a value greater than R40

CAUTION

PLEASE READ INSTRUCTION BEFORE COMMENCING INSTALLATION AND RETAIN FOR FUTURE REFERENCES.

Electrical products can cause death or injury, or damage to property.

If in any doubt about the installation or use of this product, consult a competent electrician.

CLEANING & MAINTENANCE

For quiet and efficient operation, long life, and attractive appearance — lower or remove grille and vacuum interior of unit with the dusting 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

Sensitivity Adjustment

See WIRING DIAGRAM on page 4 of this instruction manual for details. The control box, located inside the fan housing, has three separate adjustments:

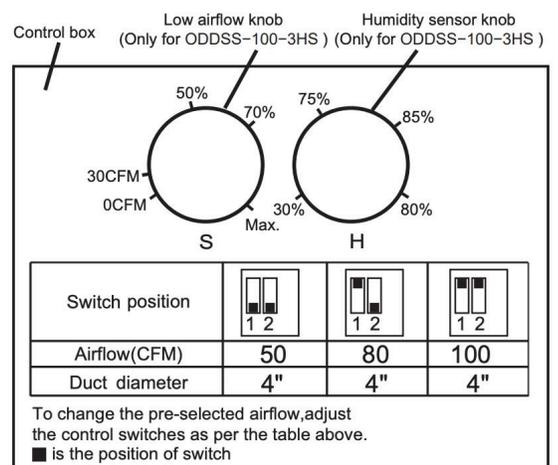
- 1) Only for ODDSS-100-3HS the low airflow knob adjusts the lower airflow from 30 CFM up to the airflow rate of the high fan speed determined by the toggle switch setting
- 2) Only for ODDSS-100-3HS the humidity sensor knob set user-adjustable setpoint
- 3) The toggle switch will adjust the upper fan speed setting from 50 to 100 CFM (factory set to 100 CFM)

ODDSS-100-3HS

To Turn Fan ON

Turn the switch I (according to the WIRING DIAGRAM on page 4) 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



OPERATION

ODDSS-100-3HS

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 time delay has elapsed, and then will automatically change to the user-adjustable airflow rate

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 runs continuously at a preset lower level (set by Low airflow knob) and automatically boosts up to certified airflow rate when environmental conditions change. If the fan continuously responds to changing environmental conditions, "H" (means "humidity") adjustment may be required. This figure is factory-set for about 80%. (ambient temperature is 25°C)

Motion Sensor Operation

Plug the motion sensing grille into the fan control module and when powered ON, the fan will automatically start sensing motion. Turn ON the switch to activate sensor and continuous ventilation system. The fan will run continuously at the preset low speed. 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 min). After the time delay, the fan speed is reduced to the continuous ventilation rate. Installation distance: 5-7ft. Sensing range is within the cone angle of 90°

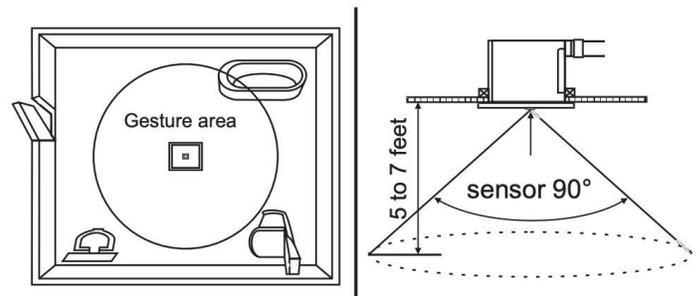
To Turn Fan OFF

Turn the switch I OFF. Fan runs continuously at a low speed (adjustable by low airflow knob) and automatically boosts up to high speed when either of these conditions is detected: a) Humidity above a user-adjustable set point (30-80% relative humidity). b) rapid increases in humidity. After delay timer (20 min) returns to fan to the default low speed. Humidity sensor description according to HUMIDITY SENSOR OPERATION and SENSITIVITY ADJUSTMENT

Sensitivity Adjustment

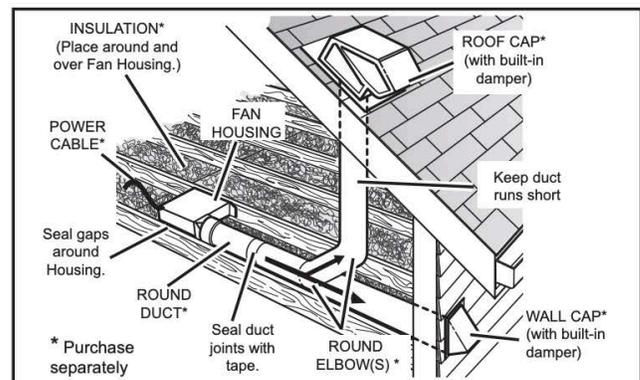
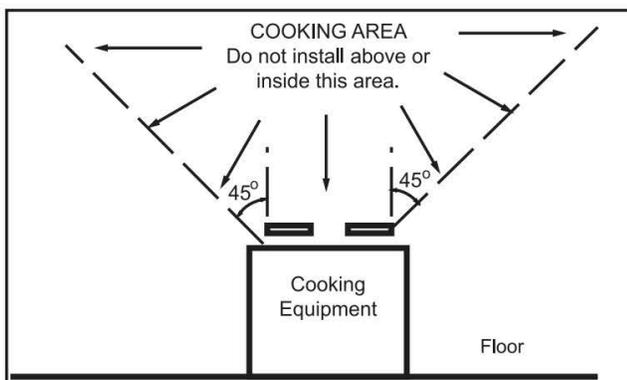
The "H" has been factory set for most shower applications. However, if the fan is in a tub area or is being used for dampness control, the "H" may need to be increased toward maximum. If the control is responding too often to changing environmental conditions, movement toward minimum, "H" may be required. To adjust "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 temperature changes, humidity sensor values will have deviation



INSTALLATION GUIDE

Plan the Installation



1. DO NOT use in a cooking area
2. Two ways to connect ductwork to a factory-shipped unit

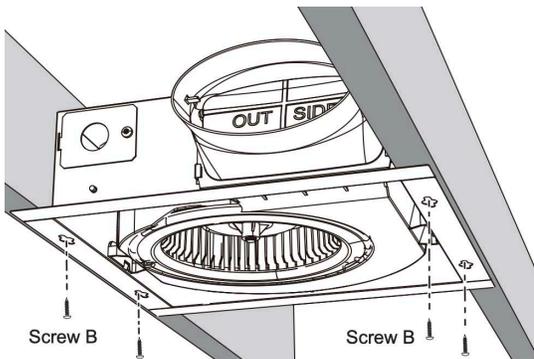
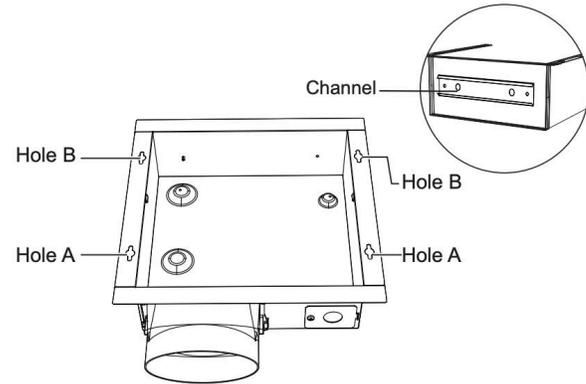
INSTALLATION GUIDE

Assembly Instructions

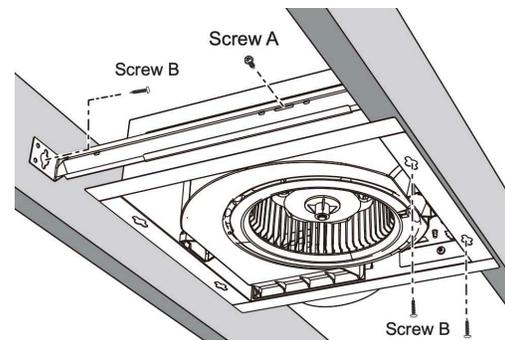
1. Before installation, you need to know:

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

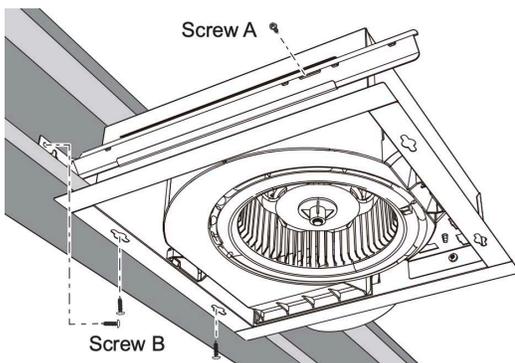
When installing contractor packs, make sure to install any optional module such as speed controls or humidity sensors with the fan housing to ensure wiring is completed properly. Module and grille plugs come packaged with the optional accessory and **MUST** be installed with the fan housing



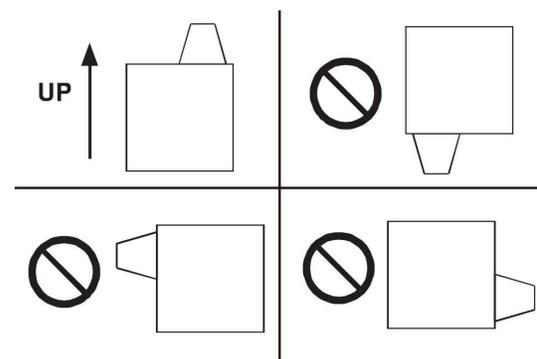
2. Mount with Mounting Holes
Hold housing in place so that the housing contacts the bottom of the joist. Screw housing to joist through the hole A and hole B



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



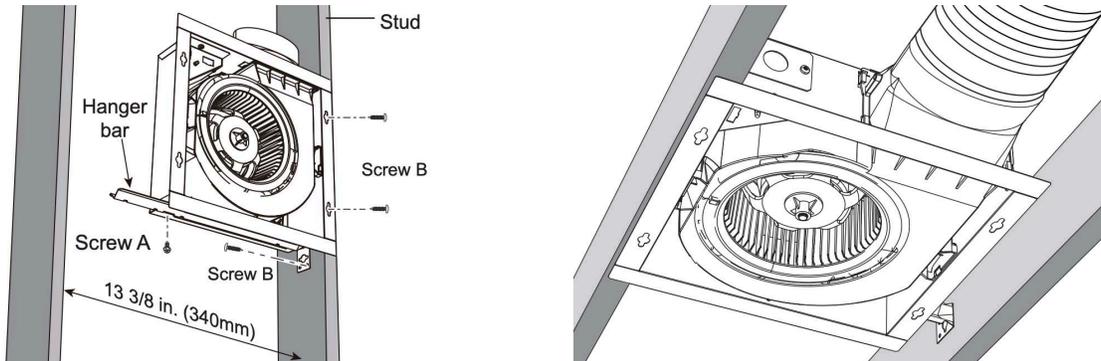
4. Mount to I-joist
Slide hanger bar into the channel on the housing and adjust as needed to fit I-joist. Hold housing in place so that the housing contacts the bottom of joist. Screw housing to joist through the hole A and hole B. Screw the hanger bar onto the joist through its hole. Screw hanger bar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



5. Wall Installation
When the product is installed on the wall, the adapter shall be faced upward.

INSTALLATION GUIDE

Assembly Instructions



6. 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" (340 mm)

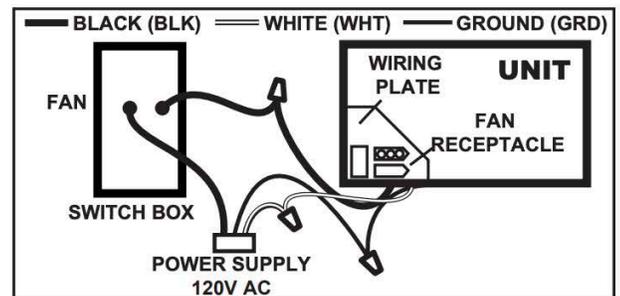
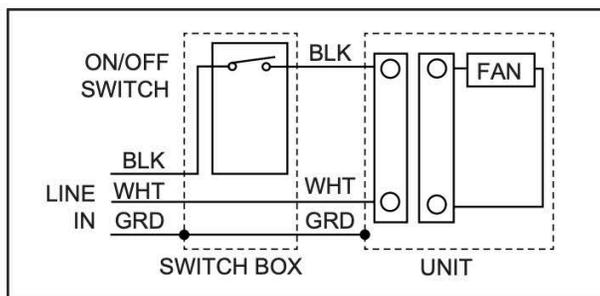
7. Install Round Ductwork

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 airtight. The ducting from this fan to the outside of 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

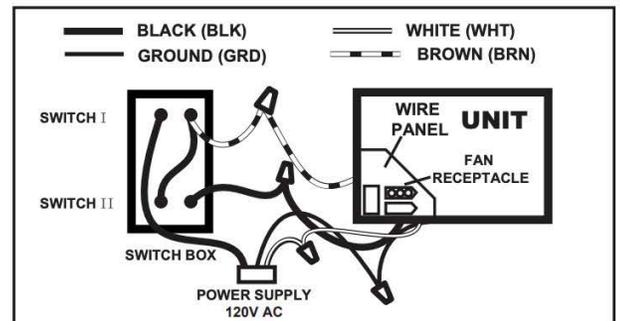
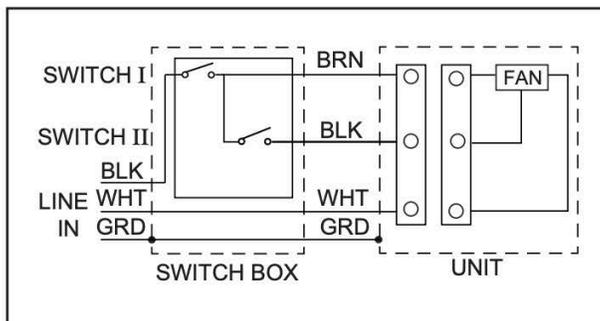
Connect Electrical Wiring

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

ODDSS-100-3



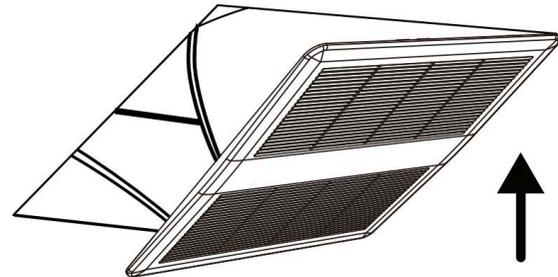
ODDSS-100-3HS



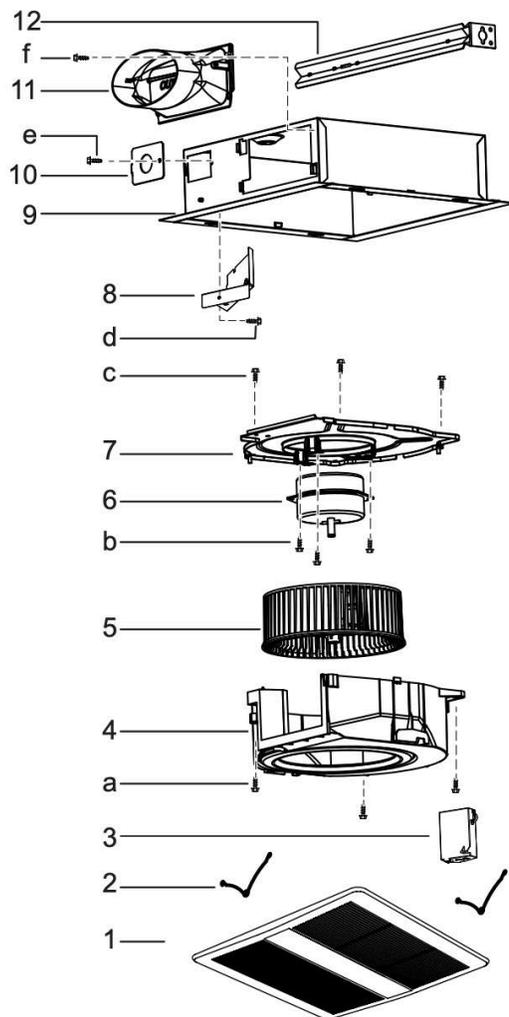
INSTALLATION GUIDE

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 side 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



WARNING

Before replacing, be sure to turn OFF power at power source.

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, b, c

ORTECH reserves the right to modify at any time, without notice, any or all of our product's features, designs, components and specifications to meet market changes.