

# **BATH FAN**

## **INSTALLATION INSTRUCTIONS**

#### Model No.

ABFS0511D1

ABFS0511DL1

ABFS0511D6

AVS0511DL6









### READ AND SAVE THESE INSTRUCTIONS

Thank you very much for purchasing our bath fan. Please read the instructions carefully before attempting to install, operate, or service our bath fan. Failure to comply with instructions could result in personal injury or propertydamage. Please retain this booklet for future reference.

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## **UNPACKING**

Unpack and carefully remove the unit from carton. Refer to the supplied accessories list to verify that all parts are present.

## **SUPPLIED ACCESSORIES**

Part name		Quantity
Grille	ABFS0511D1 Or Or Or Or ABFS0511DL6	1
Long screw (ST4X30)		5
Wire Protector Nut		1
Installation instructions		1

## **DESCRIPTION**

These bath fan models are listed by ETL under ETL file No.5011292.

These bath fan models use a sirocco fan driven by a brushless DC motor.

The motor is designed to have an extended service life with reduced energy consumption.

The grille covering the fan body is a spring-loaded, quick-attach type. A damper for preventing air counterflow is provided.

The bracket can be used for both joist mounting and wall mounting.

The light uses high brightness SMD LED.

## **GENERAL SAFETY INFORMATION**

- 1. Do not install this bath fan where interior room temperature may exceed 104°F (40°C).
- 2. Make sure that the electric service supply voltage is AC 120V, 60Hz.
- 3. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC), and the Occupation Safety and Health Act (OSHA).
- 4. Always disconnect the power source before working on or near the fan, motor, light fixture, or junction box.
- 5. Protect the power cord from sharp edges, oil, grease, hot surfaces, chemicals, or other objects.
- 6. Do not kink the power cord.
- 7. Do not install the unit where ducts are configured as shown in Fig.A.
- 8. Provide make up air for proper ventilation.
- 9. Install the fan at least 1.5m (5 feet) above the floor.







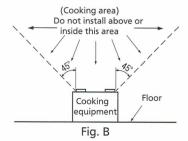




Fig. A

### **CAUTION:**

- 1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
- 2. Not for use in cooking area. (Fig.B)
- 3. This product must be properly grounded.

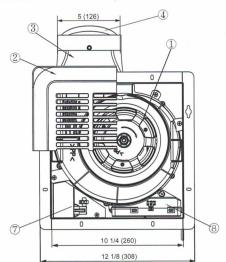


#### **WARNING:**

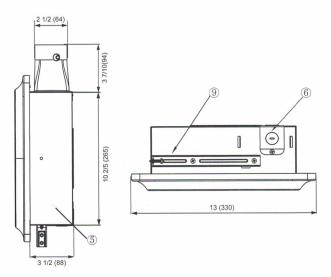
To reduce the risk of fire, electric shock, or injury to persons, observe the following:

- 1. Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
- 2. 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.
- 3. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- 4. 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 manufacture's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society of Heating, Refrigeration, and air conditioning Engineers (ASHRAE) and the local code authorities.
- 5. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- 6. Ducted fans must always be vented to the outdoors.
- 7. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter)-protected branch circuit.
- 8. These models are ETL listed for tub and shower enclosures.
- 9. Not to be installed in a ceiling thermally insulated to a value greater than R40. (This is required for installation in Canada only).

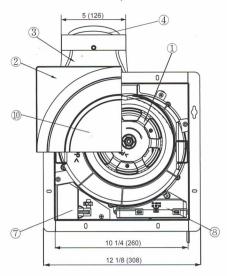
Model: ABFS0511D1, ABFS0511DL1

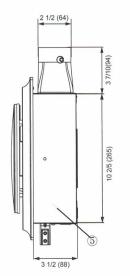


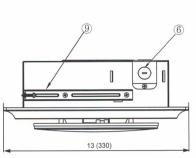
Unit:inches(mm)



Model: ABFS0511D6, ABFS0511DL6



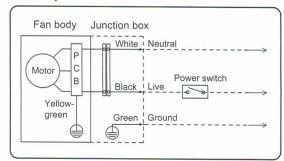




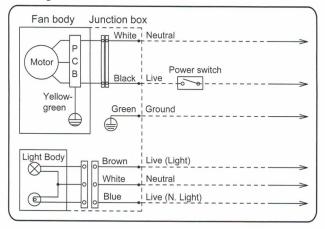
No.	Part name	No.	Part name
1	Blade	6	Knockout plate
2	Grille	7	Junction box
3	Adaptor	8	Base PCB box
4	Damper	9	Bracket
5	Frame assy	10	LED light

## **WIRING DIAGRAM**

#### Fan only model: ABFS0511D1/ ABFS0511D6



#### With light model: ABFS0511DL1/ABFS0511DL6



## **FEATURES**

## High Energy Efficiency

The fan uses a brushless DC motor to ensure high energy efficiency, which is 2 to 3 times of the ENERGY STAR requirements.

#### Constant Air Flow

Duct length, elbows and other factors increase static pressure which affect the performance of most ventilation fans. This fan utilizes the technology that monitors the static pressure in the system and speeds up or slows down the rpm of the motor depending upon the amount of resistance within ducts. This feature allows the fan to perform as rated and avoid potential installation issues.

## CFM Flow Selection

The fan comes with CFM Flow Selection switch. Choose 50-80-110CFM.

Air volu	me optior	Factory setting	
50	50 80		80



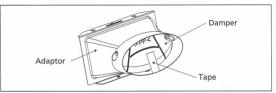
## INSTALLATION I (JOIST MOUNTING)

### D CAUTION:

Please wear gloves during installation work.

#### IMPORTANT:

Remove the tape from damper and adaptor before installation. As shown below:

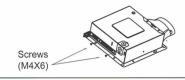


1. Fix the flange of frame to joist by two long screws (ST4\*30), and fix the bracket to joist by 2 long screws (ST4\*30). (Fig.1)

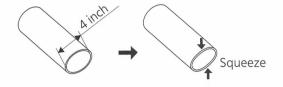


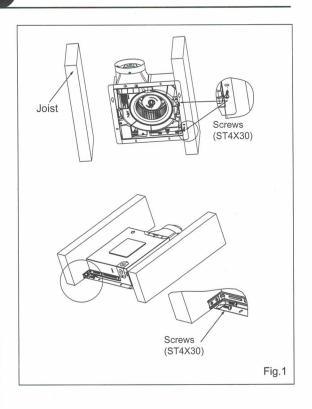
#### CAUTION:

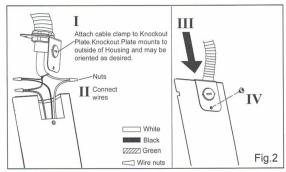
The screws for fixing bracket should not be replaced by other screws, otherwise the cord in PCB box may be damaged and cause fire.

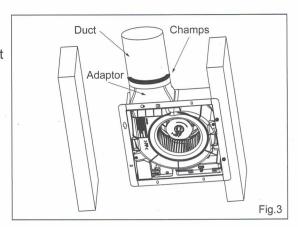


- 2. Refer to wiring diagram in page 5. Follow all local electrical safety codes as well as the National Electrical Code (NEC). Using UL approved wire nuts, connect house power wires to ventilating fan wires. (Fig.2)
- 3. A 4-inch circular duct is needed to connect to the relevant part of adaptor. Squeeze a circular exhaust duct to fit the adaptor, then slip it onto adaptor and secure with clamps or ties, and seal it with mastic or approved foil tape. (Fig.3) Do not over tighten duct work to adaptor to prevent binding the flapper.







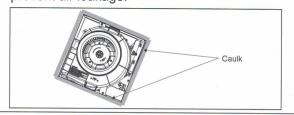


## INSTALLATION I ( JOIST MOUNTING ) CONTINUED

4. Finish ceiling work. Ceiling hole should be aligned with the inside edge of the flange. (Fig.4)

#### **IMPORTANT**:

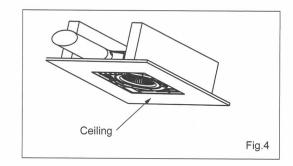
After finishing installation, fill gap between flange and ceiling with caulk or other sealant to prevent air leakage.

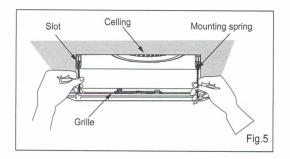


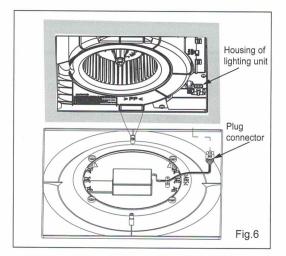
- 5. Insert the mounting springs into slots as shown and mount grille to fan body. (Fig.5)
- 6. For grille with LED light, refer to the following installation method.

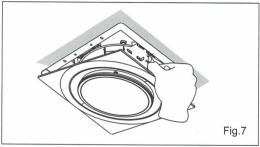


- ① Before turning on the light, make sure the connector is at the correct position. if not, the lighting will not work.
- ② The claw of connector must latch the rib completely.
- ③ Mount carefully so that lead wire of light unit can not be pinched.
- Insert the grille mounting spring on the wiring side into the slot, then insert the plug connector into the housing of the lighting unit. (Fig.6)
- Insert the other mounting spring into the slot as shown and mount grille to fan body. (Fig. 7)









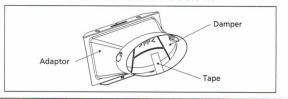
## INSTALLATION II (WALL MOUNTING)

### CAUTION:

Please wear gloves during installation work.

#### **IMPORTANT:**

Remove the tape from damper and adaptor before installation. As shown below:



1. Fix the flange of frame to stud by two long screws (ST4x30), and fix the bracket to stud by two long screws (ST4x30). (Fig.8)



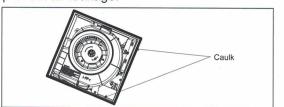
## CAUTION:

The adaptor of product must be installed upward.

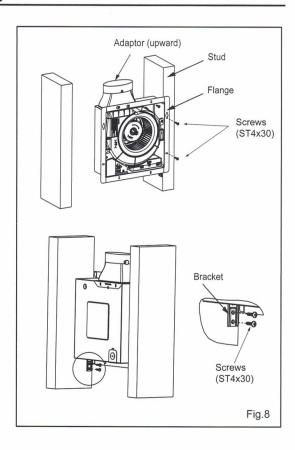
- 2. Complete the wiring and duct work, referring to step 2 to step 3 of installation I (page 6) to complete the adaptor installation.
- 3. Finish the wall work. Wall hole should be aligned with the inside edge of the flange. (Fig.9)

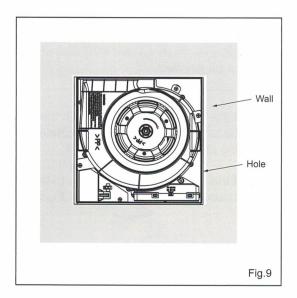
#### IMPORTANT:

After finishing installation, fill gap between flange and ceiling with caulk or other sealant to prevent air leakage.



4. Install the grille, referring to step 5 to step 6 of installation I (page 7).





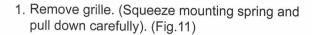
## MAINTENANCE (CLEANING)

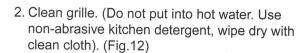
### WARNING:

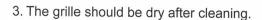
Disconnect power source before working on unit. Routine maintenance must be done every year.

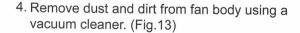
## **CAUTION:**

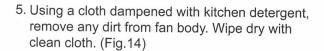
- 1. Never use gasoline, benzene, thinner, or any other such chemicals for cleaning the Bath Fan.
- 2. Do not immerse motor in water when cleaning.
- 3. Do not soak resin parts in water over 140°F (60°C).



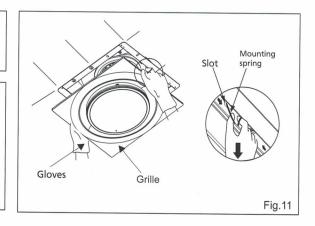


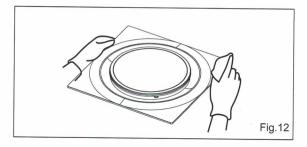


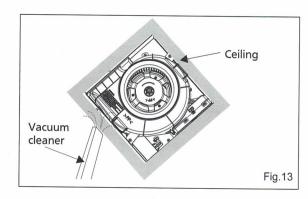


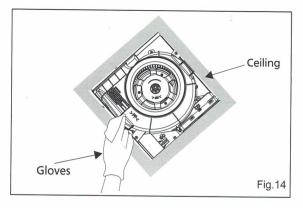


6. Reinstall grille.









## PRACTICAL GUIDE TO INSTALLATION

Properly insulate the area around the fan to minimize building heat loss and gain. (Fig.15)

Loose fill or batt insulation can be placed directly over the fan housing in the attic.

The fans and fan/light combination units do not create excessive heat that is a common problem with recessed light fixtures or some competitors' fan/light combinations. Our efficient, cool running motors, and LED lighting unit do not

4 inches or 6 inches roof jack, wall cap, or soffit vent with backdraft damper

Mechanically connect duct to termination and seal with mastic or approved foil faced tape

2-3 ft straight run before elbow
In attic installation, caulk box to drywall

Short piece of flexible duct helps alignment and absorbs sound. Clamps plus mastic or approved foil faced tape at all flex joints

Foil tape tightly covers all metal duct joints (glue PVC joints)

Fig.15

create excessive ambient heat to be subjected to these limitations.

The ducting from this fan to the outside of the 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. Avoid installing the fan with smaller ducts than recommended. Insulating around the ducts may reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

## **SPECIFICATIONS**

Model No.	Air direction	Voltage (V)	Frequency (Hz)	Duct diameter (inches)	Noise (Sones)	Power consumption (W)			Speed (rpm)	Air volume (CFM)				
						Fan	light	N.light	(Ipili)	0.1" SP	0.25"SP			
ABFS0511D1	Exhaust	120	60	4"	< 0.3	4.4			752	50	50			
					0.7	6.7			810	80	80			
					1.5	12.7			981	110	110			
×	Exhaust	120	60	4"	< 0.3	4.4	10	0.7	752	50	50			
ABFS0511DL1					0.7	6.7	10	0.7	810	80	80			
					1.5	12.7	10	0.7	981	110	110			
	Exhaust	Exhaust 120	60	4"	< 0.3	4.6			764	50	50			
ABFS0511D6					0.4	7.4			852	80	80			
												1.4	14.2	
ABFS0511DL6	Exhaust	xhaust 120	60	4"	<0.3	4.6	10	0.7	764	50	50			
					0.4	7.4	10	0.7	852	80	80			
					1.4	14.2	10	0.7	1024	110	110			

## WARRANTY

#### This warranty covers all defects in workmanship or materials for:

The mechanical and electrical parts contained in this product for a period of 72 months from the date of purchase. You must keep and be able to provide your original sales receipt as proof of date of purchase from an authorized seller of Aero Pure Fans.

This warranty is covered to the original purchaser of this product only. The manufacturer will replace any mechanical or electrical part that proves defective in normal household use for a period of 72 months.

#### THIS WARRANTY DOES NOT COVER:

- · Damages from improper installation.
- · Damages from shipping.
- Damages from misuse, abuse, accident, alteration, lack of proper care and maintenance.
- Damages from service by persons other than a licensed electrician.
- Does not cover any labor or transportation charges related to the repair of this product.
- · Does not cover product purchased as used.
- Does not cover product purchased from an unauthorized seller of Aero Pure Fans.

THIS LIMITED WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy provided in this warranty is exclusive and is granted in lieu of all other remedies. This warranty does not cover incidental or consequential damages. Some states do not allow the exclusion of incidental or consequential damages, so this limitation may not apply to you.

Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you. This warranty gives you specific legal rights; you may also have other rights, which vary from state to state.

All Aero Pure Fans MUST be installed by a licensed electrician. Otherwise warranty is null and void.

#### **Aero Pure LLC**

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