



# BFN8412 HORIZONTAL AC IONIZING BLOWER MANUAL

BFN-8412 horizontal ionizing blower has outstanding static-eliminating performance of maximal scope and protecting sensitive electronics parts from being polluted and destroyed.

BFN 8 series have acquired the patents of the People's Republic of China. The patent codes are as follows: ZL200420045280.X; ZL200530053181.6; ZL200530053182.0; ZL200530053183.5.

**▲ Note:** Please read this operating instruction manual thoroughly and completely before installing and operating the devices. BFN series electrostatic elimination device should not be used in flammable and explosive environments. Don't use common and temporary socket as power source. All the BFN series ionizing blowers must use the power socket equipped with safety standard power cord and mustn't change Or use other power socket with bad grounding system.

## Safety

BFN-8412 ionizing blowers have reliable safety loop design and excellent grounding equipments. In the meantime, there are jiggle switches under the front and back covers. If the front and back covers fall off, they can cut off the power supply by themselves immediately to avoid the accident.

- Forbid to operate the blowers under flammable and explosive environments;
- Forbid to insert objects into the air outlet;
- Reliable grounding is necessary before operating;
- Ensure that the power is cut off when cleaning and maintenance;
- After you wipe the blowers (including metal crust) by alcohol and other preparations, please don't operate the blowers unless the blowers are completely dry;
- Don't take apart and repair blowers by yourself.

## Features

- Fashionable and novel appearance;
- Reasonable design, convenient and practical;
- With large ion output volume, can eliminate static quickly;
- Optional air speed(you can choose any air speed you like), built-in heater can adjust the air temperature;
- Convenient maintenance, assemble and disassemble front and back cover, easy to clean;
- Strict safety protection fittings;

## Application

Used for electronics production line, clean room, and so on.

## Specification

- Power Supply: AC 220V( $\pm 15\%$ )/50Hz or AC 220V( $\pm 15\%$ )/50Hz
- Operating Current: 1.3A (when at the highest speed/open the heater)  
0.35A (when at the highest speed/without open the heater)
- Air Output: 150CFM~230CFM
- Effective Coverage: 300mm~1400mm
- Ion Balance:  $\leq \pm 10V$
- Decay time:  $\leq 2.0s$  (decrease from  $\pm 1000V$  to  $\pm 100V$ , at 300mm away from the air mouth)  
Test Condition: 25°C, humidity 55%, measure up with the EOS/ESD criterion.
- Operating Condition: 0°C~50°C(temperature), 20%~85%(relative humidity)
- Colour: off white +sky blue (plastic)
- Dimensions: W550mm x H200mm x D200mm
- Material: cold rolled steel plates
- Net Weight: 6.6kg

## Packing list

- BFN-8412 ionizing blower: 1 set
- Instruction manual: 1 copy
- Warranty card: 1 copy
- power supply: 1 piece
- Ex-work inspection report: 1 copy

## Structure

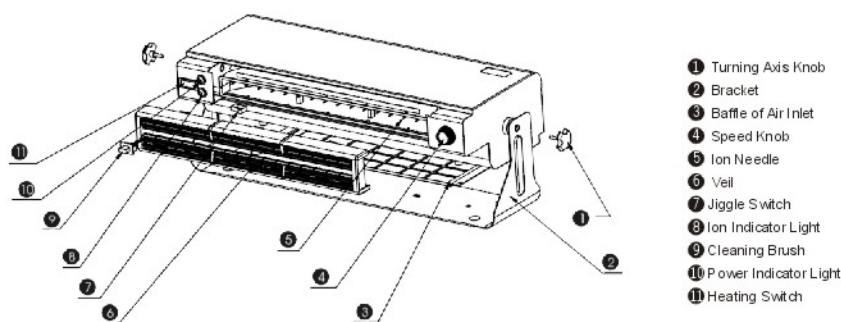


Figure 1: BFN-8412 AC Ionizing Blower Structure Sketch Map.

## Installation and application

Put blowers on the table-board or fix the bracket of blowers on the proper plane by using M6 bolts. Ensure the protected area in the effective coverage from 300mm to 1200mm. And then, you can adjust the angles of ionizing blower in order to ensure the air covers the protected area. The air should blow the hands and area needed to be protected rather than human body.

Elimination time is closely related to the strength or weakness of the ion air. Farther from the air outlet and weaker the air bunch is, longer the elimination time will be, if the air speed is same. We suggest that BFN-8412 work most efficiently at the distance of 300mm~1000mm.

## Operating guide

### ■ Turn on the blowers

When the ionizing blower is installed and fixed, please check the power cords and turn the speed knob clockwise to “on”. You can hear a “pa” sound when the blower is turned on. At this time, the ion indicator light is on. At the beginning, the air speed is maximal. You can adjust the speed according to the practical situation. Please turn on the heater, if warmer air is needed.

**▲ Note:** Inhibit to insert any objects into air inlet or outlet and must have good grounding system before operating. The heater switch will be no effect before the fans are turned on.

### ■ Angles adjustment:

First, loose the turning axis locking up the bracket and then loose the left gear thoroughly. And then, adjust the angles you need. Finally, don't forget to lock up the turning axis knob.

**▲ Note:** Prohibit to adjust the angles of the ionizing blower in the situation of not loosening the turning axis completely to avoid any damage to blower.

## Regular maintenance

Ensure ionizing blower can work normally by periodical cleaning and calibration.

### ■ Cleaning

BFN series blowers themselves don't release dusts. They can completely measure up the requirements of clean environments. While it is necessary to clean them to ensure they can work normally due to the particles and dusts floating around, which may pollute the ionizing blowers.

#### ● Internal cleaning instructions to disassemble the air inlet or outlet.

Cleaning for ion needle (the projecting points of ionizer): slide the cleaning brush on the slideway right and left until the ion needles are clean. Suggest one time a day. After finishing the cleaning work, please push the cleaning brush to the edge in order not to affect the air output.

Cleaning for fan and ion needle rack. The unique structure design is very convenient for cleaning the inner parts of BF-8412 blowers. Please take the following pictures for reference:





- Ⓐ Press the two buttons on the bottom of plastic cover and make the buttons separate from metal crust.
- Ⓑ Lightly pull the front cover upwards and make it completely break away from metal crust.
- Ⓒ Separate from metal crust

After taking apart the cover, the inside ion needle rack of BFN 8412 will expose outside. At this time, we can use soft brush or compressed air to remove the dust or use tampons with 35% industrial alcohol to wipe dust. Suggestion: one time each month. Of course, you can clean the blower according to practical pollution situation.

**⚠ Note:** to ensure power supply to be turned off before cleaning and maintenance. When using alcohol and other solvents to clean (including metal crust), please make the blower completely dry and then allow the blower to operate. Otherwise, it is possible to cause damage to blower or hurt to human body. To avoid Damage, please be careful.

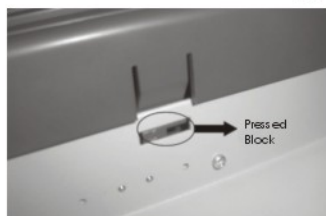
### ● Air inlet and outlet installation instructions after cleaning.

It is easy to assemble plastic cover. Please take the following pictures for reference:



- Ⓐ Press the buttons on the top of the plastic cover into the grooves in the metal crust.
- Ⓑ Press the buttons on the bottom of the plastic cover upwards and push them into metal crust.
- Ⓒ Push the whole cover into metal crust

**⚠ Note:** To avoid damage, please be careful in the course of assembling. In the meantime, there are pressed blocks used for protecting the safety loop beneath cover and this pressed block can pin the jiggle switch. In the course of assembling, it is necessary to pin the jiggle switch, or the devices equipped can't work normally. Please take the following pictures for reference:



Pressed block on the back of plastic cover (black circle as shown in picture).

### Calibration

BFN-8412 ionizing blowers has excellent steady capability, the parameters may vary with the affections of operating temperature and humidity and fluctuation of voltage.

Ion balance and static decay time test: can be tested at the working post by portable ionizer verification kit. We suggest one time each day at least.

Ion balance and static decay time calibration: can be carried out in labs by flat-plate electrostatic analysis instrument. Suggestion: one time each year at least.

This operation manual only for BFN-8412 users, it includes the components, operation and some concernin information, some upgrading property with continuing stability, slightly difference will be allowed with operation and manual.



Suppliers Information



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