



# OPERATING INSTRUCTION MANUAL

## BFN-8412 (AC TYPE IONIZER)

### PRODUCT INTRODUCTION

Air ionizers are widely used by manufacturing industries today. The air ionizers' concept is to add very nearly equal numbers of positive and negative ions to the air enable to increase the electrical conductivity of the air. It neutralized the static charge on insulated and isolated objects by producing a balanced source of positively and negatively charged ions.

BFN-8412 Horizontal AC Ionizing Blower has outstanding Ion-eliminating performance; it is your ideal device to prevent static pollution and damage in the ESD area for electronic production lines and maintenance platforms. 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



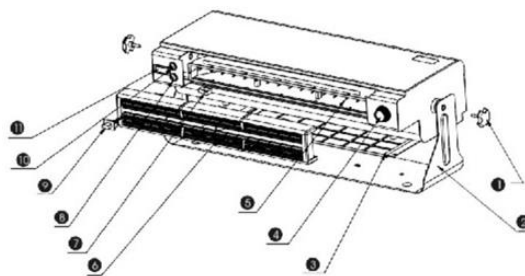
#### Notes:

Please read the user guide carefully before operation. All BFN static eliminate series cannot be used under flammable and explosive environment. Don't use temporary common socket as power, all BFN ionizing blower series must be used with the power socket which has a standard power cable, and do not use the socket that has no grounding.

### SPECIFICATION

<b>Power Supply</b>	AC110 ( $\pm 15\%$ )/60Hz AC220 ( $\pm 15\%$ )/50Hz	<b>Working Condition</b>	Temperature: 0°C – 50°C Humidity: 20% – 85%
<b>Working Current</b>	0.35A (Max Fan Speed)	<b>Working Distance</b>	300mm ~ 1200mm
<b>Dimension (mm)</b>	W550 x H200 x D200	<b>Decay Time</b>	$\leq 2.0$ sec @ 300mm
<b>Material</b>	Cold Rolled Steel Plates	<b>Ion Balance</b>	$\leq \pm 10V$
<b>Weight</b>	6.6kg	<b>Air Output</b>	150CFM ~ 230CFM

### STRUCTURE



No	Description	No	Description	No	Description	No	Description
1	Angle Axis Knob	4	Fan Speed Knob	7	Jiggle / Toggle Switch	10	Power Indicator Light
2	Ionizer Bracket	5	Ion Needle	8	Ion Indicator Light	11	Heater Switch
3	Air Inlet Cover	6	Front Cover	9	Cleaning Brush		

## **PACKING LIST**

- BFN-8412 Horizontal Ionizer
- Warranty Card
- Power Cable
- User Manual
- Calibration Certificate

## **SAFETY**

BFN-8412 is reliable and has safe loop design, excellent grounding distribution, has toggle switch installed at the position of detachable covers to prevent accident by automatic power cut-off when covers fall-off.

- Do not operate the ionizer in flammable and explosive environment
- Do not insert object into the air outlet
- Make sure it is grounded well before using
- Make sure power is cut-off before conducting cleaning and maintenance. Make sure the ionizer is completely dry (include the metal crust) before using after cleaned by alcohol or other preparations.
- Do not disassemble or repair the ionizer by yourself.

## **FEATURES**

- Fashionable and novel appearance
- Reasonable design, convenient and practical
- With large ion output that can eliminate static voltage quickly
- Adjustable air speed of the fan, built-in heater
- Detachable front and underneath covers for easy and convenient cleaning and maintenance
- With safety toggle switch for security protection

## **INSTALLATION AND APPLICATION**


Put BFN-8412 on the table-board or fix the bracket of the blower by M6 bolts on proper plane; make sure of the effective distance is between 300mm to 1200mm. The air should blow to the controlled area and not directly pointed to human body.

Decay time is related to the strength of air flow provided by the ionizer, the farther the ionizer the longer the decay time. We strongly advise user to keep the BFN-8412 at a distance between 300mm to 1000mm for better ionization effect.

## **OPERATION GUIDE**


### **TURN ON THE BLOWER**

When the ion blower is installed and fixed, please check the power cable and turn on the fan speed knob. The blower is turned on upon hearing a click sound when turning the fan speed knob. At this time, the ionizer indicator is on. At the beginning, the air speed is at maximum level enable to provide full-pressure start. Then adjust the speed according to the practical situation.

 **Attention:** Do not insert objects into air inlet, and make sure ionizer is grounded well before using. The heater switch should be turned off before the fans are turned on.

### **ANGLE ADJUSTMENT**

Loosen the turning axis knob which locks up the bracket, then adjust to the required angle. Then finally, lock the two turning axis knobs tightly.

 **Attention:** Do not adjust the angles of the ionizer blower in a situation that the turning axis knob is loosen completely enable to avoid possible damage to the ionizer blower.

## REGULAR MAINTENANCE

Cleaning and checking periodically (using CPM) to make sure BFN-8412 is working properly.

### ■ Ion Needle Cleaning

BFN blower series do not release dusts themselves; they can completely measure up the different requirements of cleanroom environment. But it is necessary to clean blowers to ensure it can work normally due to the particles and dust floating around which may pollute the blowers.

The unique design makes the cleaning easy and convenient for inner parts.

#### 1. Cleaning the ion needle by installed brush:

Repetitively slide the cleaning brush sideways until the ion needles are clean. Please do not settle or push the cleaning brush at the edge after cleaning process in order not to affect the air output.

Recommendation: one time per day cleaning.

### ■ Internal Cleaning Instructions

The unique design of BFN-8412 is very convenient for cleaning the inner parts of the blower.

#### 1. Take off the front cover



A. Press the two buttons on the bottom of the plastic front cover and make the buttons separate from the metal crust.

B. Lightly pull the cover upward and make it separated from the metal crust of the blower.

C. Make it completely separated from the blower.

#### 2. Now you can use soft brush and compressed air to clean, or use tampons/cotton swabs with 35% industrial alcohol. You can clean according to the periodic checking data or at practical situation.

**! Attention:** Make sure that power is cut off before cleaning and maintenance. Make sure that the ionizer is completely dry before using to avoid any damage to the product and to the user as well. Please be careful when disassembling the ionizer.

#### 3. Install the front cover after cleaning.

**! Attention:** To avoid damage, please be careful when installing the covers. There are pressed blocks protecting safety loop under the covers which push the jiggle switch. The ionizer will not work properly if jiggle switch is not pressed by the block pin.



Pressed block on the back side of the plastic cover as encircled in the picture.

## **CALIBRATION**

BFN-8412 has stable performance, but the parameters may change according to the affection of operating temperature and humidity, and fluctuation of voltage.

Users can test ion balance or offset voltage and static decay time by portable ionizer testing device such as Charged Plate System (CPS) at the working area. Periodic checking is requested.

User is requested to calibrate the CPS equipment that used to verify the performance of the ionizer at least one time a year.

Operating manual is only for BFN-8412 users. It includes the tester's components, operation and some concerning information, some upgrading property with continuing stability, slightly difference will be allowed with operation and manual.



### Suppliers Information

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