



# BFN-HFN9 IONIZING AIR NOZZLE MANUAL

BFN-HFN9 IONIZING AIR NOZZLE is a light static control device, used to eliminate the dusts and charges. Applied in precision electronic production, electronic device assembly site, spread equipment, pharmacy manufacture area.

**⚠ Note:** Carefully read this manual before equipping and using.

## Safety

- Unsuitable to use BFN—HFN9 under the flammable and explodable environment;
- Keep out the humidity, causticity, flammable and dirty surroundings, no water allow enter the product body;
- The pressed air must be clean and dry;
- Cut the power supply before you do cleaning and maintaining, if clean the air gun with alcohol or other solvent, have to wait until they fully dry than to connect the power and use;
- Not to open and repair this high voltage device by yourself

## Features & Advantages

- Modern industrial design, ergonomical thought-out, easy installation, bring you high efficiency;
- In-built piezoelectric transformer, no high voltage wire reveal, insure the safety use;
- Perfect decay time and balance, also have failure indicator;
- Special tungsten alloy ion pin, long lasting and abrasion resisting, easy to clean;
- Optional snake shape stand, for make a ionizing snake;
- Convenient optional high effective filter allow to be use in clean circumstance.

## Application

Precision electronic production, electronic device assembly site, spread equipment, pharmacy manufacture area.

## Specification

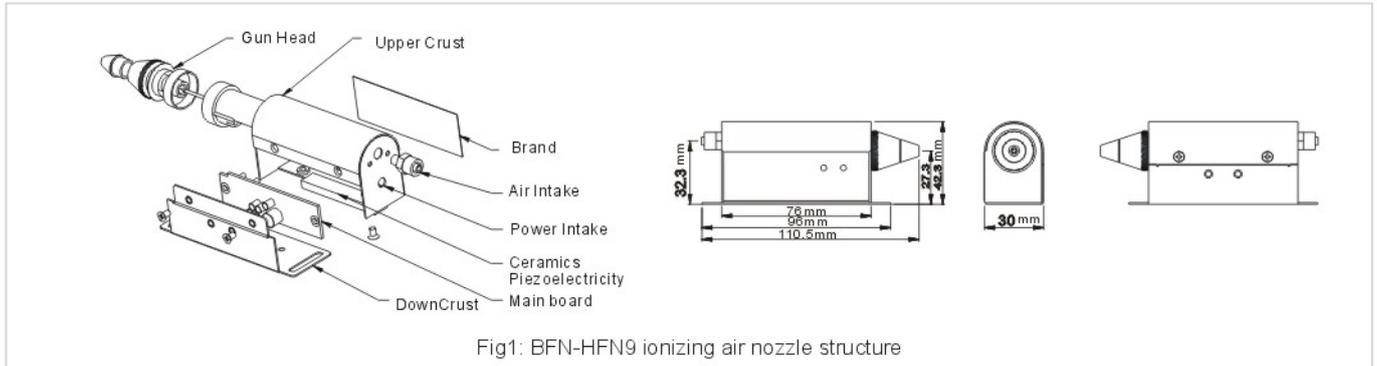
- Power supply: DC24V/500mA (AC input: 220V/50Hz, 110V/60HZ alternatively)
- Pressure of air:  $\leq 0.6$ MPA
- Windpipe connector spec: Diameter  $\phi 6$  mm
- Available Range: 100mm~800mm
- Balance:  $< \pm 15$ V
- Decay Time:  $\leq 1.0$ S  
Test condition: 25°C, rH55%, 30cm to wind outlet, according to EOS/ESD S3.1-2006
- Ozone concentration: 0.002PPM
- Operating condition: Temperature 0~50°C, rH20%~80% (without frost)
- Material: Cold roll steel
- Colour: Light grey
- Dimension: W30mmxH43mmxD110mm  $\pm 3$ mm
- Cable length: 2M
- Weight: 146g

## Packing list

- BFN-HFN9 IONIZING AIR NOZZLE 1 set
- BFN-HFN9 power supply 1 set

■ High effect filter (option)	1 set
■ Snake shape stand	1 set
■ Manual	1 set
■ Factory proof test	1 set
■ Warranty Cord	1 copy

## Configuration



## Equipping and using area

Fix the air nozzle properly with M3 bolt, put in operating range of 100mm~800mm, let ionised air fully cover the position or the area to be protected.

he pressed air for must lass than 0.6Mpa, exceed this could reduce the efficiency of air nozzle, or damage it.

Decay time relate to the strength of ionised air current, the more the distance to the air outlet, the long the decay time. Suggested distance of BFN-HFN9 using is 100mm~800mm..

**▲ Caution:** Before use, make sure the pressure of pressed air lass than 0.6Mpa, exceed this could reduce the efficiency of air nozzle, or damage it; If the red alarm LED lights up, stop use the air nozzle; Keep out the humidity, causticity, flammable and dirty surroundings, no water allow enter the air nozzle body; The pressed air must be clean and dry .

## Operation direction

### ■ Use

Make sure the power supply of BFN-HFG9 is power on, insert the power plug to air nozzle power jack, then connect the pressed air windpipe, the green LED (power) of the air gun lights up, ionized air come out, now the air nozzle can be use.

**▲ Caution:** Before use, make sure the pressure of pressed air lass than 0.6Mpa, exceed this could reduce the efficiency of air nozzle, or damage it. when the red alarm LED lights up, stop use it. Inform the maintenance engineer to clean the air nozzle.

### ■ Connect to the stand

BFN-HFN9 air nozzle have the snake shape stand, in different work area, adjust the snake shape stand, let the nozzle pointed to the protecting area.

Fix the air nozzle to the snake port on top of the snake shape stand with M3 bolt, connect the snake port power plug to air nozzle power socket, connect the air pipe to air connector, now the air nozzle was fixed. Put the stand on the operation area, connect the pressed air pipe to the air connector at bottom, plug in the power supply to the power socket of stand. Switch on, now the green LED on air nozzle lights up, ionizing air comes out, the air nozzle is ready for use.

### ■ High effective filter connection

BFN-HFN9air nozzle can add high effective filter to double insure the clean of the ionized air meet the clean room request.

The 2 ends of high effective filter is quick windpipe connector, when applying, connect one end to pressed air, another end connect to BFN-HFN9 air juncture.

**⚠ Caution:** High effective filter have single way air through request, the connection of the air-in and air-out must follow the direction.

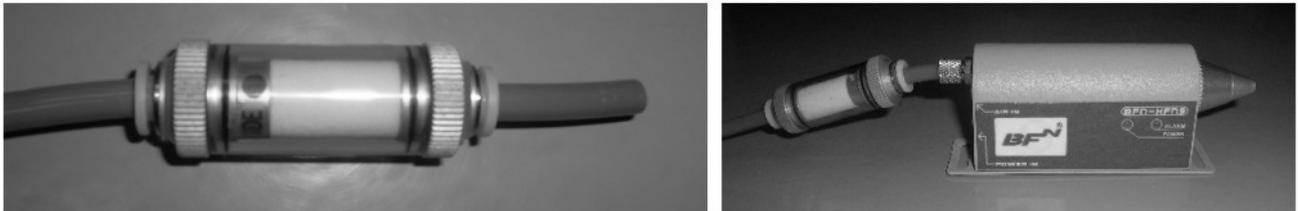


Fig2: BFN-HFN9 High effective filter

### Daily maintenance

BFN-HFN9 doesn't release the particle itself, suitable to use in any class clean room. Some time the particle could accrete on the air gun body in some circumstance. The water and oil in the pressed air also could pollute the air gun from inside, therefore, it's very important to clean the air gun, make it work properly.

When you clean and maintain it, disconnect the power supply and windpipe connector. Clockwise turn the nozzle out, reveal the ion pin, clean it with sticker or wiper fully, if clean with alcohol or other solvent, have to wait until they fully dry than to connect the power and use (normally 24 hours later) Otherwise could injure the individual or damage the air nozzle. Be careful when you dismantle the air gun head, the ion pin is sharp could be hurt.

Suggest clean it once per week, or in accordance with your work condition.

**⚠ Caution:** When clean and maintain, must disconnect the power supply. If clean (even outside) with alcohol or other solvent, have to wait until they fully dry than to connect the power and use. Otherwise could injure the individual or damage the air gun. Be careful when you dismantle the air gun head, the ion pin is sharp could be hurt.

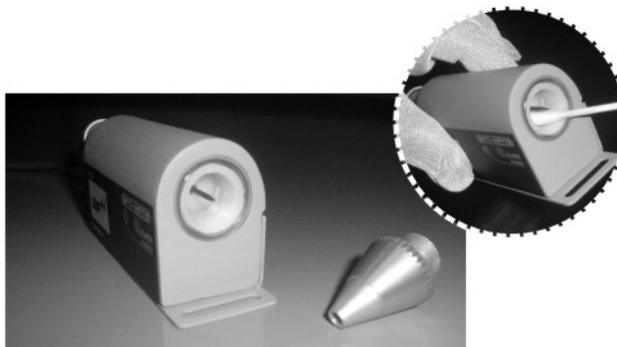


Fig3: BFN-HFN9 Head dismantling

### Calibration

BFN-HFN9 ionizing air nozzle is reliable, sometimes, the parameter could change due to the AC voltage undulation and temperature, humidity of environment.

Must use charge plate monitor to do the decay time and balance test in lab. Suggest have once calibration per year.

The operation manual only for BFN-HFN9 users, it includes the components, operation and some concerning information, some upgrading property with continuing stability, slightly difference will be allowed with operation and manual.



Suppliers Information



2012 HORB Corporation/printed in China.  
P/N:1.001.02.103