



# ECO-G03 SUPER IONIZING AIR GUN INSTRUCTION MANUAL

## 1 INTRODUCTION

SUPER GUN is an ionizing air gun that produces an intense air flow which is rich in both positive and negative ions. Directing the air flow on an item that has static electricity will neutralize the static charges and clean the item. Typical uses include cleaning items that have generated static charges due to handling or fabricating processes. If the item has a negative static charge, it will draw positive ions from the air flow. If the item has a positive static charge, it will draw negative ions from the airflow. The air ions are attracted to the oppositely charged item thereby neutralizing the static charge on the item.

SUPER GUN should use clean compressed air, nitrogen or inert gases at pressures up to 100 PSI. The nozzle has been specially designed to yield maximal airflow while the least noise levels.

SUPER GUN supplies low current, high voltage to ionizer, which is beneath the filter. Ion balance is controlled by a adjustment ring outside the ionizer.

SUPER GUN uses a light touch trigger for operation. Pressing the trigger activates a control circuit to supply high voltage. When the valve is turned on, the air blows out and LED indicator in the gun indicates stand-by / operation status.

## 2 SAFETY RULES

- Read instruction manual before operation and installation.
- Qualified service personnel must do installation and repairs.
- Do not operate unit in excess of specifications.
- Do not operate unit in flammable or explosive atmospheres.
- Do not operate unit in wet environment.
- Do not allow filter-nozzle to touch alcohols or glycols.
- Do not repair by yourself. If any question, do contact supplier.

## 3 FEATURES

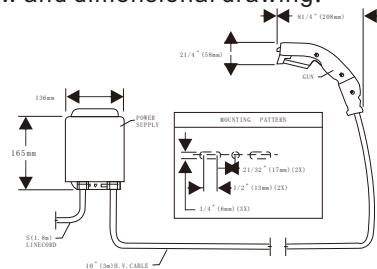
- Filter at the exit of the gun ensures air blowing to the target surface is clean.
- Light and reasonable design make operation more comfortable.
- Airflow control valve adjusts air flow fit for each specific application.
- Ionizing indicator light verifies the state of ion-generating.

## 4 SPECIFICATION

- Power Supply: AC220V 50Hz or AC110V 60Hz ※
- Operating Current: 0.05Amps
- Ion Balance:  $\leq |\pm 15| V$
- Air input pressure:  $\leq 100\text{PSI}(7\text{bar})$
- Ozone content: 0.001PPM
- Working temperature:  $0^{\circ}\text{C} \sim 50^{\circ}\text{C}$
- Weight: 3.5kg
- Material: ABS blend gun body, shielding cable, powder coated steel

※Please confirm the voltage of ionizing blower and use the suitable one before power on.

- Gun overview and dimensional drawing:



## 5 PACKING LIST

- 1 G03 Ionizing Gun
- 1 G03H High-voltage Ion Generator
- 1 Instruction Manual
- 1 Inspection Report
- 1 Warranty Card

## 6 INSTALLATION

### ■ Mounting the power box

The power unit can be mounted on any convenient surface such as a wall or work bench leg, etc. There are different holes beside of the power box. They are convenient for installation. If installation is OK and when power and gas tube is pulled, the power unit itself can be used as a container for the blow-off gun cable.

### ■ Compressed air and line voltage connections to the power unit

Compressed air, nitrogen or inert gases are supplied to the power unit through a 1/8" NPT connector. The compressed gas tube should match with the quick tie-in connector. The flow diameter of the tubing and fittings should not be less than 3/16" (4 mm). The

compressed air must be clean, dry and oil free. The maximum allowable input pressure is no more than 100 PSI(7bar).We suggest using external pressure regulator and filter / dryer. Line voltage is supplied to the power unit must measure up with related standard and have good grounding. Do not ignore equipping the grounding line.

#### ■ Mounting the gun bracket

The gun bracket can be mounted on any convenient surface such as a wall, table top or other plane. The bracket can also be mounted on the top of the power box.

#### ■ Hook-up

When power is under pedal control, we need to connect the pedal switch. Just need to connect the socket of pedal switch with the jack of power box. The voltage of pedal switch is about DC 100V (CAUTION: electric shock hazard).

### 7 OPERATION

Hold nozzle of blow-off gun at desired distance (typically 2 to 12 inches) and press trigger to activate air flow. Move the gun back and forth to clean object. The airflow will neutralize static charges. When the trigger is pressed, the LED on gun will increase in intensity indicating operation of the electrical circuit OK. If LED reduce intensity indicating the gun is ready for operation. The air flow can be set as desired by the flow control knob in the gun handle.

**NOTE:** At maximum pressure the gun produces a noise level of 97dB, therefore, please wear hearing protectors and avoid to operate gun continuously for more than 3 hours.

### 8 MAINTENANCE

#### ■ Inspection and cleaning on ion needles

The typical frequency of inspection and cleaning on ion needles is once a week. You should adjust the frequency according to specific situation, but not longer than a month. The inspection items include whether there is distorted or curved needle, whether there is so many dust. The ion needles are beneath the air output. You need to turn off the power and clean needles by swob or wiper with alcohol.

#### ■ Replace filter

Compressed air filter is a special filtration media. It will become red when dust and dirty thing collected. If the filter becomes red, the air will not pass through freely and we need to replace the filter. Processes for replacement is as following: First, turn off the power and compressed air. Then, disassemble and replace the filter. And then, clean ion needles and adjust the ion balance. Last, to re-operate the gun, if everything is OK.

#### ■ Ion balance adjustment

The ion balance adjustment knob is in the middle of the gun. Press the switch and adjust ion balance adjustment hole to make ion balance voltage near to 0V.

#### ■ Ion balance test

Put ionizing gun at distance of 50mm in front of the test plate. Set the parameter of test instrument. Then, turn on the ionizing gun. And then, adjust the pressure of compressed air at 50 PIS (3.5 bar) and turn on the airflow adjustment valve completely. Last, test the decay time ( decrease from  $\pm 1000V$  to  $\pm 100V$ ). Test for several times and gain the average value to make sure the result is exact. Please take the technological parameter in section 3 for reference.

### 9 WARRANTY AND SERVICES

HORB tenet: high quality, good credit standing and customers paramount to all others. The following promises are available for ECO products:

#### ■ Warranty period

From the purchase day on, we offer one year warranty. In the warranty period, we will repair the products for free because of quality problems caused by product parts itself and material and craftwork. The warranty is not available, if the equipment is used abnormally.

#### ■ Services available after warranty period

After warranty period, we will still take responsible for product repair with no manual working fee to protect customers' interests.



www.bfn.com.cn



Manufacturer:

SHENZHEN HORB TECHNOLOGY CORP. LTD.

Address: Floor 5-7, Block B, Funing Hi-Tech Industrial Park, No.71-2 Xintian Rd, Fuyong Town, Baoan District, Shenzhen, China.

Domestic free hotline : 800-830-9665

■ Suppliers Information



2014 HORB Corporation/printed in China