

Instruction Manual

SUNJE
Electrostatic



SIG-30

(Eng)

It is recommended that only persons who have sufficient knowledge and experience such as system designers and responsible persons deal with this product after carefully reading the product manual.

1 The matters of safety

⚠ WARNING

- * If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- * Do not let the water touch the product. It may cause electric shock or fire due to malfunction.
- * When you check or maintain the product, make it sure you turn off the power. It may cause electric shock or fire due to malfunction.
- * Do not use the product at the place where dangerous material such as inflammable or ignitable material exists. This product is not the product of anti-explosive type.
- * This device is made only for industrial uses. You need to ground the device beforehand. Otherwise, there are in case of malfunction, electric shock, or fire damage.
- * This device uses compressed air(CDA). Do not use the device if the CDA cannot be allowed to use. In some cases, the product malfunction or danger of accident might happen.

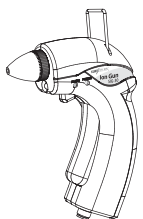
⚠ CAUTION

- * Do not contact the discharge needle or terminal with power applied. There is a possibility of electric shock or malfunction.
- * Handle the discharge needle with care as its tip is very sharp.
- * Connect wires referring to the product manual. Wrong connection can cause failures.
- * Do not use the product for the purpose outside of the range of the product use. If the product is used for the purpose outside of the range of the use, it can result in the trouble or the shortened service life. Or an unexpected problem may occur.
- * Please put this product in the designated place when you leave work place.
- * The ionizer generates ozone(below 0.05ppm). If you sense the smell of ozone when you use more than two units, ventilate the air.
- * Be sure to use regular air hose which endure high level of air pressures. It can be possible to leak air when you don't use standardized air hose.

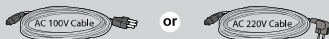
2 Check the package contents

▶ Product compositions

The package includes the following products composition.



Ion Gun
SIG-30
1ea



Power Cable
SPC-BL-1-001
AC 100V, 50/60Hz, 1.8m / 1ea

Power Cable
SPC-BL-2-001
AC 220V, 50/60Hz, 1.8m / 1ea



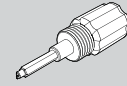
Adapter
SAD-IG-1-001
AC 100~240V, 50/60Hz
DC 24V, 0.75A
2.5m / 1ea

▶ Option

If you require extra functions with the basic accessories we provided, you need to purchase optional items in below for further assistant.



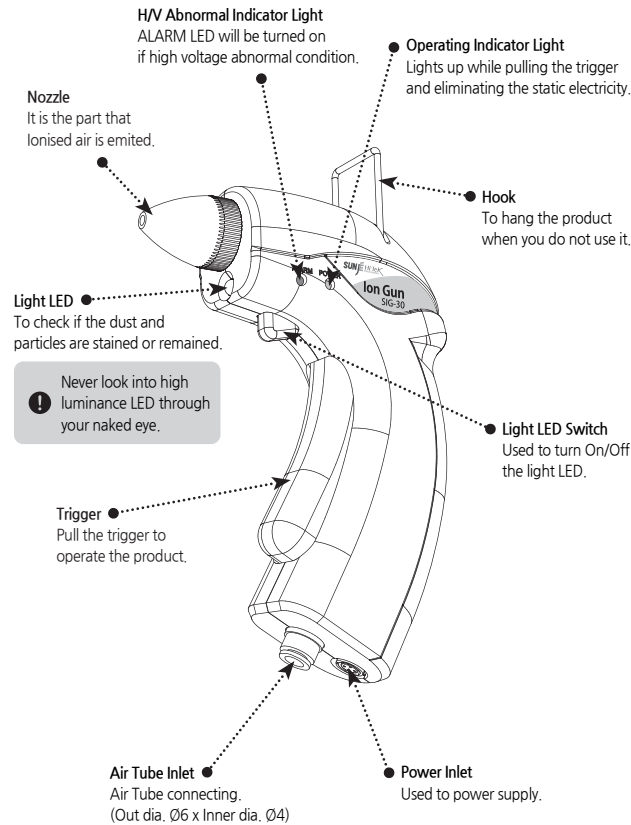
Discharge Needle
SIE-NZ-1-001



Screw Driver
SDR-NZ-1-001

3 Nomenclatures of parts

▶ Ion Gun (SIG-30)



4 Installation and Use

▶ How to install

⚠ CAUTION

- * Use only the included power supply adapter. Use of other adapters may result in a fire, an electric shock and static electricity removal troubles.
- * Use an air hose of sufficient durability for high pressure performance. Air hose of insufficient durability will rupture and leak air.
- * Install the SIG-30 in the below environments.
Adverse environments cause product deterioration and breakdown.
Humidity : 35 ~ 65%RH (No dewing) Temperature : 5 ~ 40°C
- * Do not pull excessively on the tube. Abusive handling can damage the gun and internally disconnect the power cable and air hose.

a. Installation Site

Select a location that is suitable for work and near to an air source and 100~240V AC supply.

b. Hose

Use an air hose(Out dia. $\varnothing 6$ [mm] x Inner dia. $\varnothing 4$ [mm]) of sufficient withstand pressure performance.

c. Air

Place your compressed air hose into the main body's Air inlet. Allowable air pressure is 0.1~0.6MPa. Remove all impurities with a mist separator(0.3 μ m). Remove all moisture with an air dryer. Supply air at a temperature of 0 ~ 40°C.

- * Using compressed air is mandatory for smooth elimination of electrostatic.
- Please be sure to use the compressed air.

d. Power Adapter

Use the power adapter. Using with other specification adapter, it may lead to breakdown. The included adapter is specifically designed for using with the SIG-30. Do not use the adapter for any other purposes.

e. Ground

Ground the SIG-30 using the grounding wire.

f. Checks Before Use

Before use, check the SIG-30, tube and power adapter for trouble. Make sure there is no damage, loose screws, disconnected hosing, loose connectors, etc.

▶ How to use

⚠ CAUTION

- * Do not use the SIG-30 for anything other than static elimination or dust removal.
- * If noticing anything strange, stop using the SIG-30 immediately.
- * Supply CDA(Clean Dry Air). Improper air quality can lead to SIG-30 deterioration and work contamination.
- * After cleaning the electrode wire, attach the nozzle. If the SIG-30 is used without the nozzle, the electrode wire may fly off under the air pressure.
- * Do not pull excessively on the tube. Abusive handling can damage the trigger and internally disconnect the power cable and air hose.
- * Do not use the damaged hose or cable. Keep the hose and cable away from source of heat.
- * Before leaving the workplace, return the product to the specified place.

a. Be sure if air tube correctly connected.

b. Plug the power adapter into a 100V - 240V AC electrical outlet.

c. Power Supply Connector is correctly connected with Ion Gun.

d. Regulate air pressure to 0.1 ~ 0.6MPa from the pressure regulator. (0.4MPa recommended)

e. Pull the trigger to blow ion air from the nozzle.

Blow air towards the statically charged work or dust covered work.

f. Release the Trigger when static elimination and dusting out have been completed.

g. Hang the gun in the specified place from the hook on the gun body.

► Custody

Do not store the SIG-30 in the following places.
Adverse environments can cause product breakdown.

- Where exposed to marked vibrations or shocks.
- Where temperature and humidity are outside specified ranges.
- Where dewing occurs.
- Where temperature fluctuates sharply.
- Where there is the possibility of ignition or explosion of flammable solvents, dust, etc.
- Where there is heavy dust or smoke.
- Where possibly wet by water, oil, chemicals, etc.
- Where strong electric or magnetic fields are generated.

5 Maintenance

Maintenance is an essential item for maintaining its capacity. Please conduct a routine maintenance according to the below description. The life time of a discharge needle can be a difference depending on using circumstance. SIG-30 needs a routine maintenance and cleaning in case of bad circumstance. (high humidity or dust)
Therefore, the discharge needle is recommended to be cleaned regularly.

⚠ CAUTION

- Do not perform any maintenance on the SIG-30 except for the discharge needle.
- Before cleaning the discharge needle, shut off power and unplug the adapter from its electrical outlet.
Shut off air supply at the source and disconnect the air hose.
- Do not wipe the SIG-30 with detergent or solvent. Substances of the sort can cause cracking and result in electric shock or breakdown.
- Do not wet the SIG-30.
Contact with moisture can result in electric shock or breakdown.
- Do not separate or remodel except for technical engineer.
It can be possible to get an electric shock or break down.

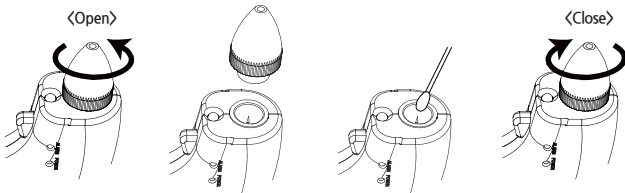
► Ion Gun case cleaning

Remove the dirt over the gun with soft and dried cloth.
Never apply with alcohol and/or thinner solvent and detergent.

► Discharge needle cleaning

Check and clean the discharge needle every month. The cycle can be extended depending on the environment.

- Be sure to power off before cleaning the ionizer.
- Turn a nozzle part counter clockwise to disconnect.
- Soak the cotton swab with alcohol. (do not use acetone)
- Put the swab on the discharge needle and wipe it turning the swab right and left.
(take precautions not to apply severe force to the discharge needle.)
- Replace the damaged discharge needle.
- After the cleaning, let the alcohol applied to the discharge needle surface evaporate completely and then operate the SIG-30.
- Please record the cleaning process as a reference in the file.



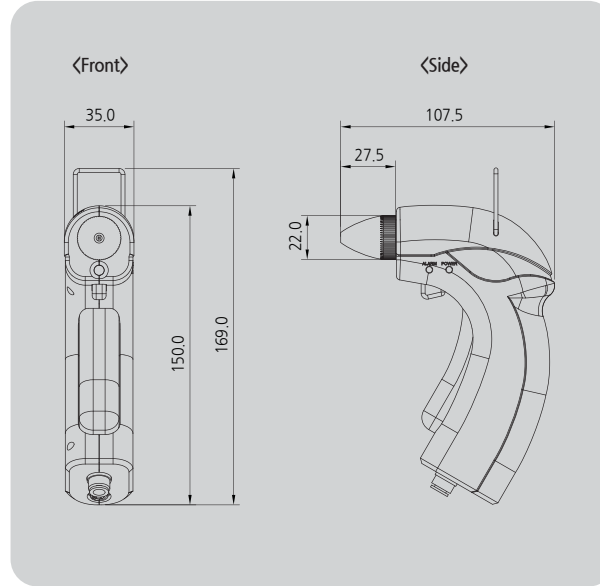
► The cycle of replacing the electricity removal discharge needle

Check during the discharge needle cleaning and take action.

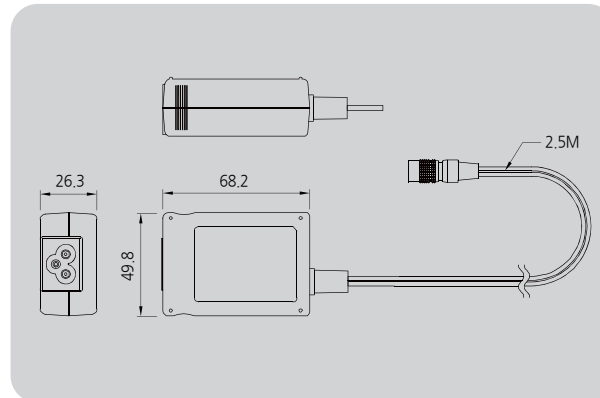
- Replace the broken or severely damaged discharge needle.
- The discharge needle is very sharp at the edge. Do not physically (directly) touch the discharge needle.
- The general cycle of needle replacement is one year, however, it can vary depending on the environment of use.

6 Dimensions

► Ion Gun (SIG-30)



► Adapter



7 Specification

Parameter	Description / Value	Remarks
Input Power	DC 24V	±5%
Power Consumption	1.8W	Lighting LED On
Current Consumption	75mA	DC 24V
Ion-Generation Method	High Frequency AC	
Air Purge Supply Pressure	0.1 ~ 0.6MPa (0.4MPa Recommendation)	CDA(Clean Dry Air), N2
Operation Circumstance	5℃ ~ +40℃(41℉ ~ 104℉), 35% ~ 65% RH	No dewing
Ozone(O ₃) Concentration	≤0.05ppm	50mm
Operation Distance	50~ mm	Non-Hazardous locations
Ion Balance	Within ±10V	0.3MPa, 150mm
Main Body Material	ABS	
Hook Material	Stainless Steel	
Electrode Material	Tungsten	
Weight	198g	
Alarm Function	H/V Abnormal	
Accessory	AC Adapter	
Warranty	1 year	

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

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