

Instruction Manual

SUNJE
Electrostatic



SBC-2PN

(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.
- * The item should be fixed to the target tightly. Electric discharging or breakage might happen.
- * 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.

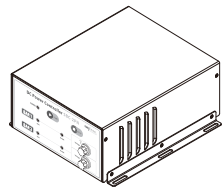
⚠ CAUTION

- * Do not disconnect the controller cable with power applied. There is a possibility of electric shock or malfunction.
- * Connect wires referring to the product manual. Wrong connection can cause failures.
- * For your proper cable connection, take a look at the manual (Installation & Connection) for references. Any disordered connection is detected, the malfunction might arise.
- * All cables should be connected all the time. Please careful of cable disconnections. If power or communication cables got damaged, replace them immediately. Malfunction and fire danger may happen.
- * Do not install the device where the vibration can be detected. Any minor impact or vibration on the device, the malfunction or danger of accident might happen.
- * Do not use the item off the range of usage(Electrostatic elimination). Malfunction or danger of accident may occur.

2 Check the package contents

▶ Product compositions

The package includes the following products composition.



Power Controller
SBC-2PN
1ea

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

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

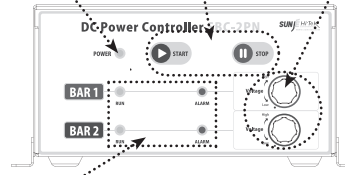
* Signal Cable
SUC-MT-2-001
10m / 1ea

* Ground Cable
SGC-MT-2-001
Ø4 - Ø4 / 1m / 1ea

3 Nomenclatures of parts

Front

- Power Indicator**
When power is applied, the green LED will be turned on.
- Settings Buttons**
Used to set the ion bar.
- H/V Control Part**
Used to change the output voltage.

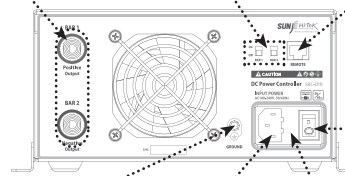


- Operating Status Indicator**
The green LED will be turned on if it operates in normal condition. The red LED will be turned on when the alarm occurred.

- Mounting Bracket**
The bracket for mounting SBC-2PN

Rear

- Connector**
Used to connect the ion bar.
- On/Off Switch**
Individual on/off switch for ion bar 1 and ion bar 2.
- Interface Terminal**
When user wants to control run/alarm output, remote(On/Off), or RS485 communication.



- Ground Terminal**
Used to connect the ground cable.

- Power Connector (AC IN)**
Used to power supply.

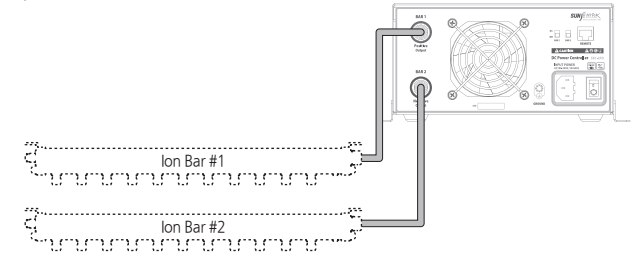
- Fuse Socket**
There's a fuse in the socket. Please check the proper product requirement when replacing. (250V/1A)

4 Installation and connection

⚠ CAUTION

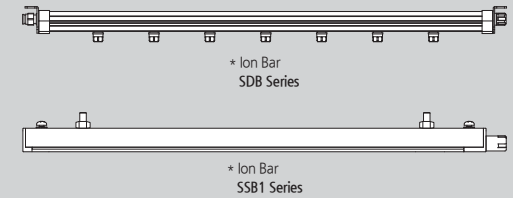
- * During installation, please try to avoid the area where the product might get(electrical) stress. There might be chances for cable breakage, electric shock, or fire explosion.
- * After checking product, you should verify which power supply specification. A proper supply power use is required.
- * If connect the power improperly, then might cause fire or electric shock.
- * Please be sure to use a ground cable for safety purposes.
- * The discharge needle is very sharp at the edge. Do not physically(directly) touch the discharge needle.

▶ How to connect the ion bar



Connectable Ion Bar

Power controller SBC-2PN can be connected to the ion bars as below.



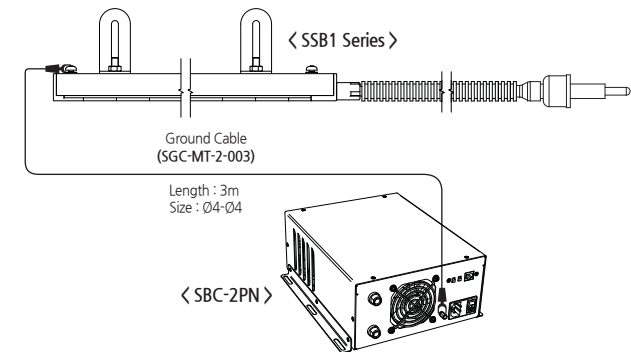
⚠ CAUTION

- * Don't try to connect with the ion bar that is not properly specified to install. It will be causes of malfunction or operation disorder.

▶ Ground connection

Function Connection ※ SSB1 Series Only

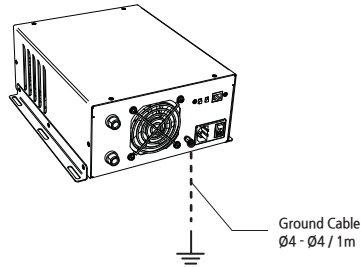
Connect a power controller socket in the rear to M4 ground bolt(SSB1 Series Ion Bar) with the ground cable. But, when the metallic object is grounded, it is not necessary to "Ground" connect the object.



※ Function grounding cable is included in the SSB1 Series compositions.

Safe Connection

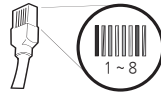
When you can not find power supply connection, you can use the ground terminal which is located at the back of the controller.



5 How to set

► Interface(Signal Cable) specifications

For the specification of the signal cable to be used, refer to the table below.



NO.	Color	Function	Output	Picture	Remarks
1	Brown	Start	-		Input
2	Brown / White				
3	Orange	Stop	-		
4	Orange / White				
5	Green	Ion Bar 1	Photo Relay Output (Normal - Open, Alarm - Close)		Output
6	Green / White				
7	Blue	Ion Bar 2	Photo Relay Output (Normal - Open, Alarm - Close)		
8	Blue / White				

► How to operate

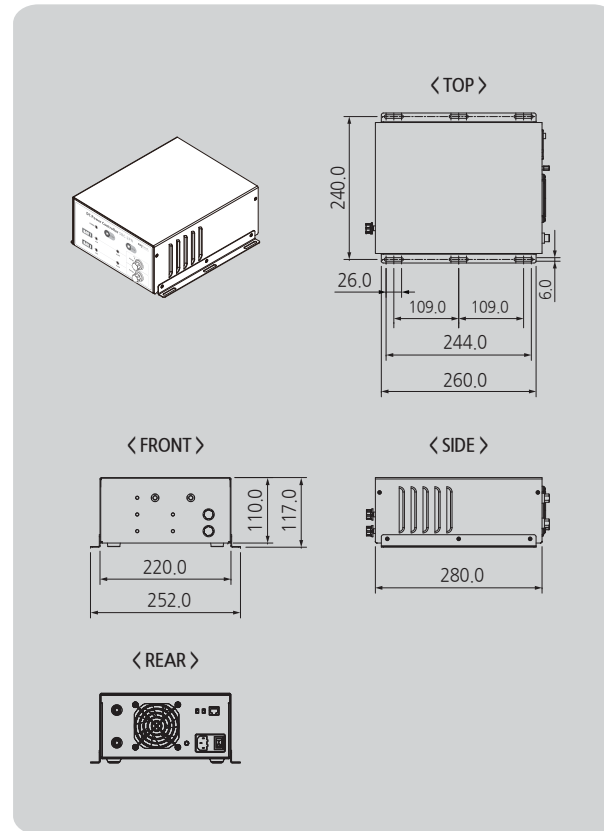
NO.	Picture	Descriptions
1		Please push start button on the front of SBC-2PN to operate ion bar. (By pushing the start button, the run LED lights on and working)
2		When the target pass through the ion bar, measure the electrostatic voltage of the target by electrostatic voltage meter.
3		Depending on the measured current value, maintain a management voltage via adjusting H/V lever.
4		Please push stop button on the front of SBC-2PN to stop ion bar. (By pushing the stop button, the alarm LED lights on and stop)

5 Problem solving

► Checklist before called

Symptom	Confirmation Matter	Matters of Management
The product does not work.	Is your power cable still plugged in?	Please re-plug the power cable and then turn the device on again.
	Was the proper voltage level applied for this set-up?	Please use the proper level of power input for the device. (AC 100~240V, 50/60Hz)
	Is the switch off at back of the device?	Turn on the power switch.
	Is a fuse broken?	Replace the proper fuse immediately. (250V, 1A)
There is no ionization.	Does the installed environment have too high/low level of humidity or temperature?	Please install the device upon the proper working specification.
The ionizing performance has been decreased.	Can't possibly ground the device?	Please refer to 'Installation & Connection' for(proper) grounding the device.
	Any damages or cut on the cables?	You need to replace the cables if it gets cut or damaged.

6 Dimensions



7 Specification

Parameter	Description / Value	Remarks
Input Power	AC 100~240V, 50/60Hz	
Output Voltage	Port 1	DC +8KV ~ +11KV
	Port 2	DC -8KV ~ -11KV
Power Consumption	Max. 35W	
Current Consumption	Max. 159mA	AC 220V
Weight	4.5kg	
Main Body Material	EGI	
Output Port	2 Ports	H/V Connector
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH	
Dimensions	Please refer to dimension drawing	
Interface	Run, Stop, Alarm Ch1, Alarm Ch2	
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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