

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.

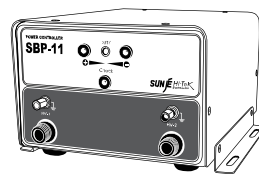
CAUTION

- * 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

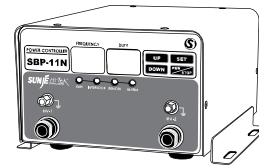
Product compositions

The package includes the following products composition.



Power Controller SBP-11 1ea

OR



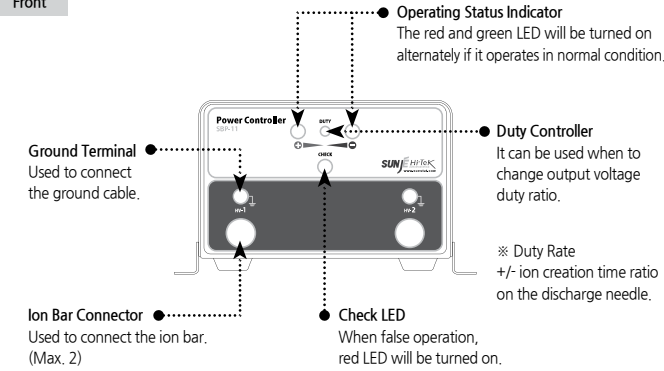
Power Controller SBP-11N 1ea

- * Power Cable SPC-MT-1-001 AC 100V, 50/60Hz, 1.8m / 1ea
- * Power Cable SPC-MT-2-001 AC 220V, 50/60Hz, 1.8m / 1ea
- * Signal Cable (SBP-11N) SUC-MT-2-001 10m / 1ea
- * Ground Cable SGC-MT-2-001 04 - 04 / 1m / 1ea

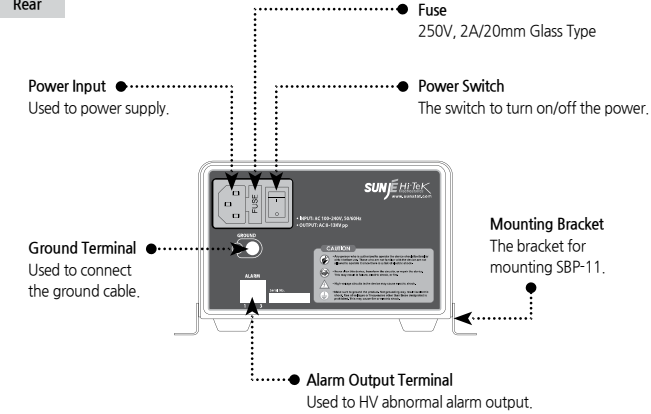
3 Nomenclatures of parts

SBP-11

Front

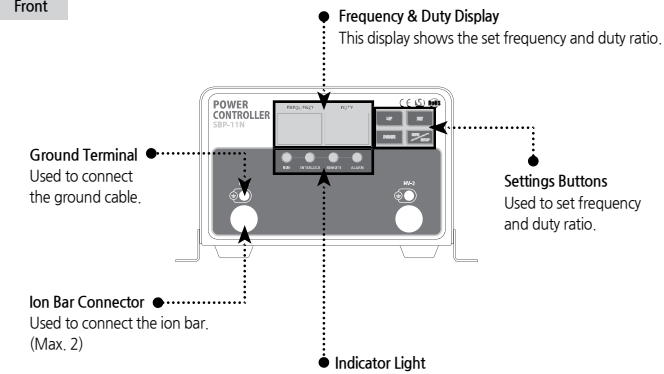


Rear



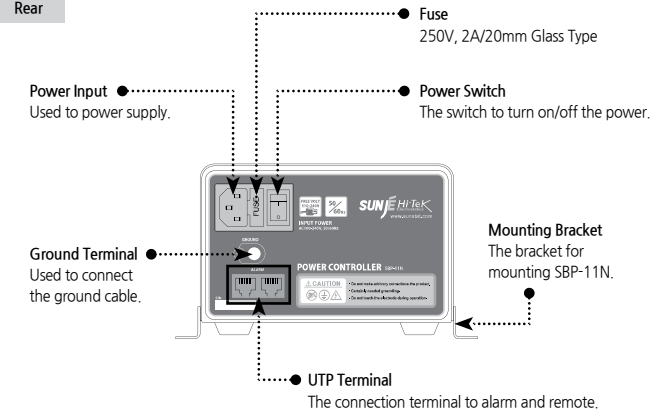
SBP-11N

Front



- Operating Indicator** The red and green LED will be turned on alternately if it operates in normal condition.
- Interlock Indicator** When the interlock operated, green LED will be turned on.
- Remote Indicator** When the remote operated, orange LED will be turned on.
- Malfunction Indicator** When false operation, red LED will be turned on.

Rear



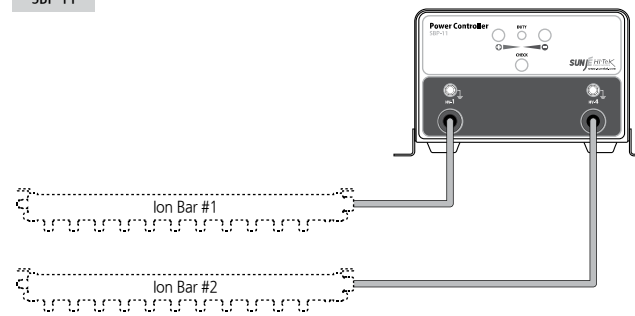
4 Installation and connection

CAUTION

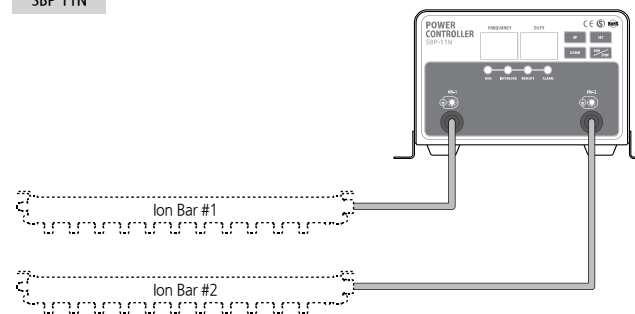
- * During installation, please try to avoid the area where the product might get(electrical) stress. There might be chances for cable breakage, electric shock, or fire explosion.
- * After checking product, you should verify which power supply specification. A proper supply power use is required. If 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 phsically(directly) touch the discharge needle.

How to connect the ion bar

SBP-11

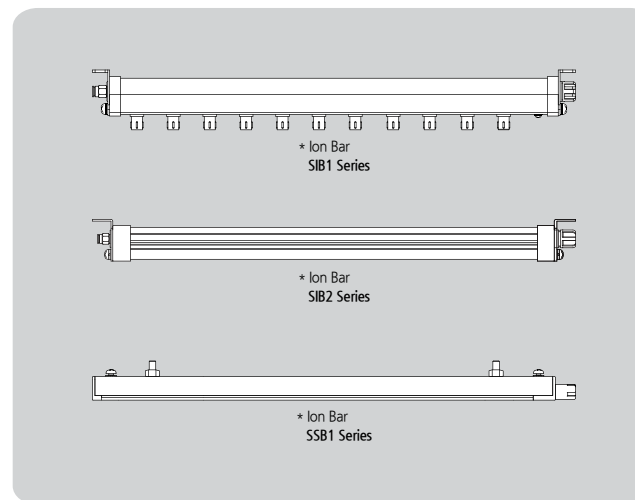


SBP-11N



Connectable Ion Bar

Power controller SBP-11/11N can be connected to the ion bars as below.



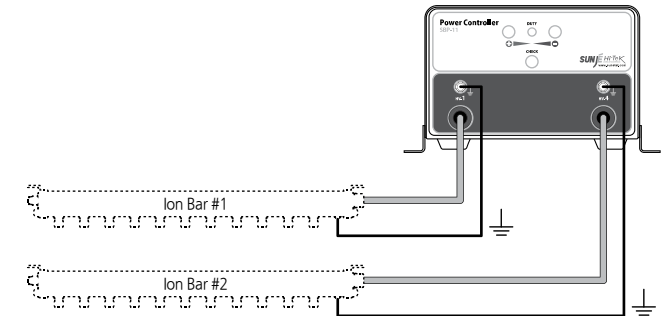
CAUTION

- * 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.

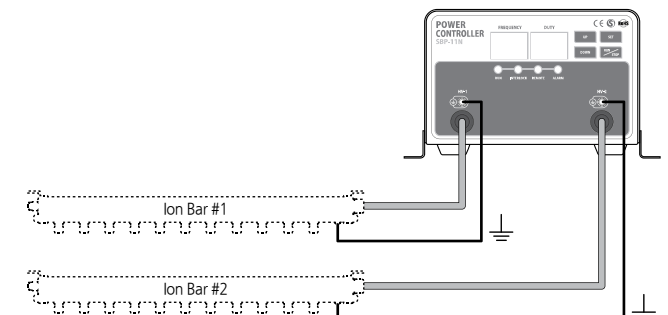
Ground connection

Function Connection

Connect the ground cable to the ion bar with ground terminal in front of power controller. But, when the metallic object is grounded, it is not necessary to "Ground" connect the object.



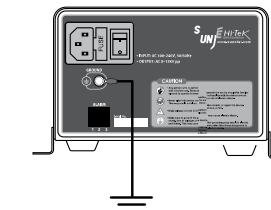
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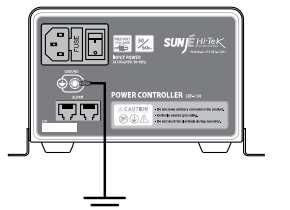
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안전접지

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



< SBP-11 >



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5 How to set

SBP-11

Set the Frequency

Frequency is adjusted to an optimal conditions before shipped.

Terminal

No	Color	Descriptions	Picture
1	Normal Close	Relay contact output-common (DC 24V, 1A At Resistor Load)	
2	Common	Relay contact output normal close (DC 24V, 1A At Resistor Load)	
3	Normal Open	Relay contact output normal open (DC 24V, 1A At Resistor Load)	

Set the Duty

If you set duty controller by the left and right, then +/- ion creation amount will be adjustment.

▶ SBP-11N

Set the Frequency

- Push the set button and set the display to 'Frequency' flickering.
- Adjust the frequency by using up and down button.
- Push the set button again for operation and check if run LED lamp works normally.

■ Recommended Frequency

Static Electricity Removal Speed	Application Location	Installation Distance [mm]	Recommended Frequency [Hz]
High Speed Low Speed	Film, paper or fabric sheet line(short distance)	50 ~ 300	20, 30
	Clean Bench (medium distance)	300 ~ 1,000	20, 30
	Clean Room Ceiling(long distance)	1,000 ~ 2,000	20 below

Set the Duty

- Push the set button and set the display to 'Duty' flickering.
 - Adjust the frequency by using up and down button.
 - Push the set button again for operation and check if run LED lamp works normally.
- ※ The possible duty ratio setting ranges are (+)40 ~ 60% and (-)60 ~ 40%.

Run/Stop

If you push run/stop button during the operation, interlock lamp turn on and stop operation.

UTP Terminal

Closing remote signal(⑦, ⑧), outside interlock system operates.
 When < H/V Abnormal > state, ④, ⑤ terminal will be closed.
 When the product is on and running, ④ and ⑤ are open. When it stops, ④ and ⑤ are closed.
 ④ and ⑤ are closed when the power is off.

No	Color	Descriptions	Picture	Remarks
1	Brown	Not Used	-	
2	White & Brown			
3	Orange			
4	White & Orange	Close when H/V is abnormal Open when it runs Close when it stops		Output
5	Green	Close when power off (DC 24V, 1A At Resistor Load)		
6	White & Green	Internal Ground	-	
7	Blue	Remote On		Input
8	White & Blue	Remote Common		

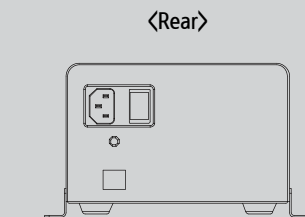
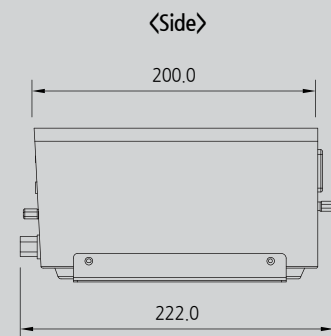
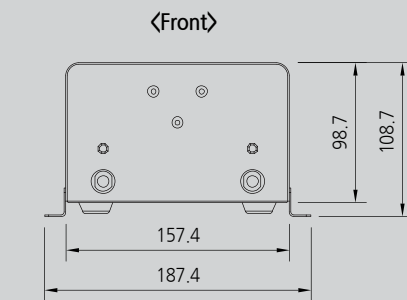
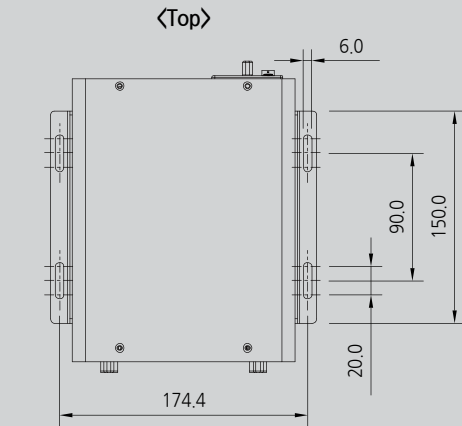
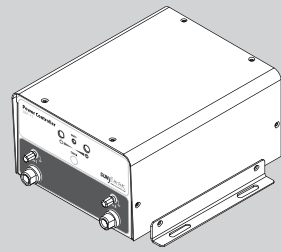
5 Problem solving

▶ Checklist before called

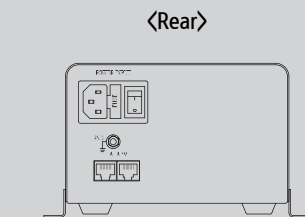
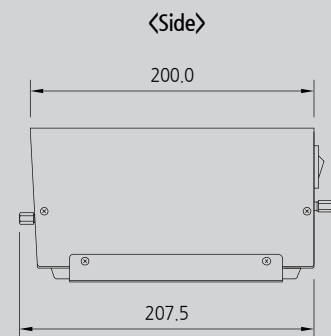
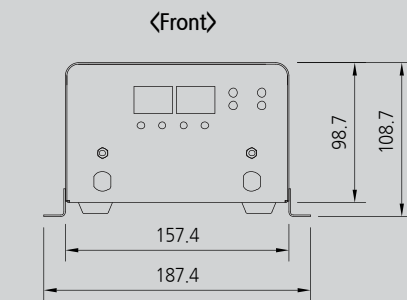
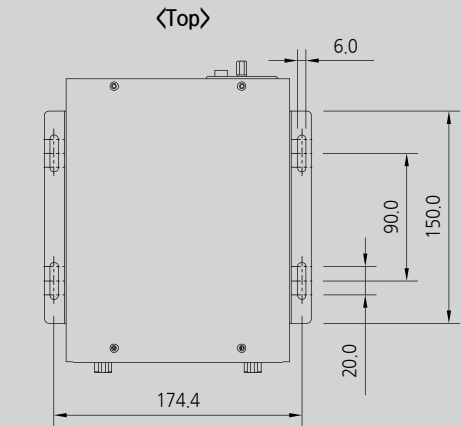
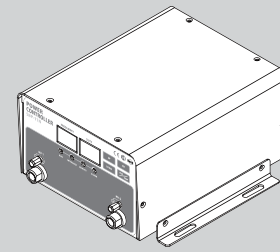
Problem	Identifying Problem	Solution
The product does not work.	Is your power cable still plugged in?	Please re-plug the power cable and then turn the device on again.
	Was the proper voltage level applied for this set-up?	Please use the proper level of power input for the device. (AC 100~240V, 50/60Hz)
	Is the switch off at back of the device?	Turn on the power switch.
	Is a fuse broken?	Replace the proper fuse immediately. (250V, 2A)
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.

7 Dimensions

▶ SBP-11



▶ SBP-11N



8 Specification

Parameter	Description / Value		Remarks
	SBP-11	SBP-11N	
Input Power	AC 100~240V, 50/60Hz		
Power Consumption	22W	23W	
Current Consumption	100mA	104mA	220V
Alarm	H/V Abnormal		UTP(SBP-11N)
Weight	2.46kg	2.48kg	
Main Body Material	EGI	Stainless Steel	
Ion Bar Number Connectable	2 Set(Max.)		
Adjust Function	Frequency (Hz)	1, 3, 5, 8, 10, 20, 30	
	Duty Ratio (%)	40 ~ 60	
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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