

# Instruction Manual **SUNJE**

**SBP-07A2**

(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.

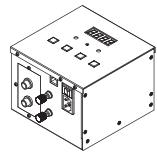
### ⚠ CAUTION

- \* 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.



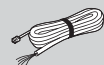
Power Controller  
SBP-07A2  
1ea



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



Ground Cable  
SGC-MT-6-001  
1m / Ø4-Ø6[mm] /  
1ea



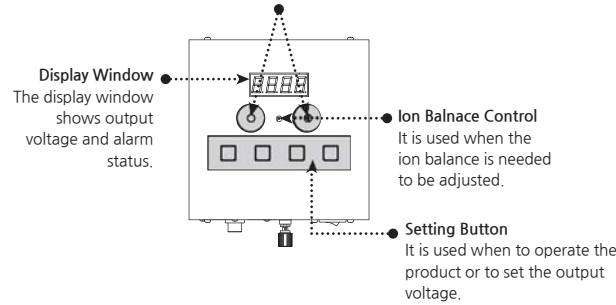
Signal Cable  
SUC-MT-2-001  
5m

## 3 Nomenclatures of parts

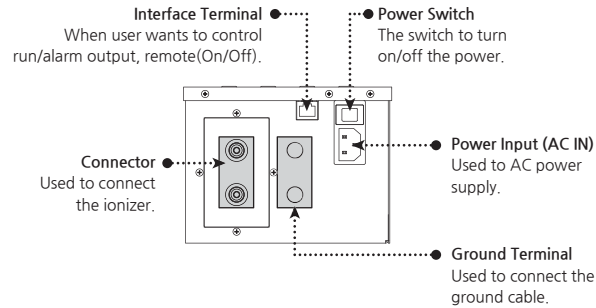
### Top

#### Operation Indicator

If the product operates normally, the green LED lights up. If the product is either malfunction or stoppage condition, the red LED will light up and it is called "ALARM" condition.



### Rear



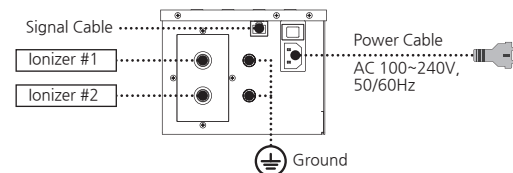
## 4 Installation and connection

### ⚠ WARNING

- \* 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.
- \* Please be sure to use a ground cable for safety purposes and we suggest you to use ground resistance smaller than 100Ω.

### ▶ How to connect

Please assemble the product through a reference image in below.



### ▶ How to connect interface (Signal Cable)

For your information, please consider the below specification chart for "Single Cable".



No.	Color	Function	Picture	Remarks
1	Brown	Remote COM.	Input Run No.1 No.2 No.3 Stop No.1 No.2 No.3	No. 1 / 2 / 3 Closed = Stop
2	White & Brown	Remote Run		
3	Orange	Remote Stop		
4	White & Orange	Run/Stop (Alarm) State	Output Run # Closed= 25Ω(max) No.4 Close No.5 Stop(Alarm) No.4 Open No.5	Max load : 350V 0.12A (Indicate the peak AC and DC values)
5	Green			
6	White & Green	Not Used		
7	Blue	Not Used		
8	White & Blue	Not Used		

### ▶ Connectable products

The SBP-07A2 (i.e. Power Controller) can be connected to the(multiple) products as below.

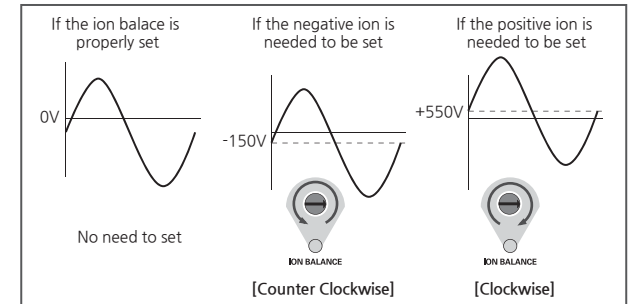
Ion Balance	Type	Model	Construction	Standard Operating Voltage
Adjustable	Ion Bar	SIB1	Direct Coupled	4.5kVac
		SIB1 (N)		
		SIB2		
Non-Adjustable	Ion Bar	SSB1	Capacity Coupled	7kVac
		SIB-ex SSBN		

### ⚠ CAUTION

- \* Try not to assemble with the product that is not properly specified to install. It will be causes of malfunction or operation disorder.
- \* Please contact us if you want to use every different model(only with models in the table) in the connection. Connecting the product based on your own discretion, it can cause product failure and malfunction.

### ▶ Ion balance (Offset) : DC -150V ~+550V

The ion balance is possibly controllable via changing the output voltage offset. Refer to the image below and set the ion balance as you want.



### ⚠ CAUTION

- \* The ion balance function is only available with "Direct coupled model".
- \* Please set the offset voltage with suggested ion balance voltage standard.

## 5 How to set

### ▶ Run & Stop

Presses the run or stop button to operate or stop the product.



#### RUN

- If the product operates normally, the green LED lights up.



#### STOP

- If you press the stop button, then the run LED will turn off.



#### RUN

- If you press the run button, the green LED will light up.



\* Please make sure whether the ionizer is properly connected before operating the devices. (Refer to "Installation and Connection")

### ▶ How to change output voltage

Any output voltage change is required, please see the following procedure.



- If you press up or down button for 2 seconds, FND will blink and you will be entered to setting mode.



Flickering



- Please adjust your expected voltage level by pressing up or down button. (scale of 0.1kV will be changed by pressing either up or down button)



Flickering



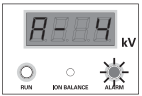
- After adjusting the voltage, if you press run button for 2 seconds, the set value will be applied.



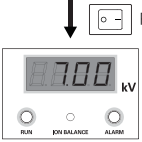
\* Try to stay in the standard voltage level, don't try to set voltage level exceeds its standard level. Otherwise, it will cause product malfunction or operation disorder.  
\* For standard output voltage of product, please see the p.3 "Connectable products" as your reference.

## ▶ Alarm

It indicates an abnormal condition of the product.



- When alarm appeared, please follow these steps :  
1) Power off the device  
2) Removing the cause of the alarm  
3) Repower on



Power Switch (On▶Off▶On)

#### \* Possible Alarm initiation conditions

- A-1 : If more than 5mA of AC output current
- A-2 : If more than 125% of AC output voltage
- A-3 : If less than 75% of AC output voltage
- A-4 : If output short-circuit occurs.



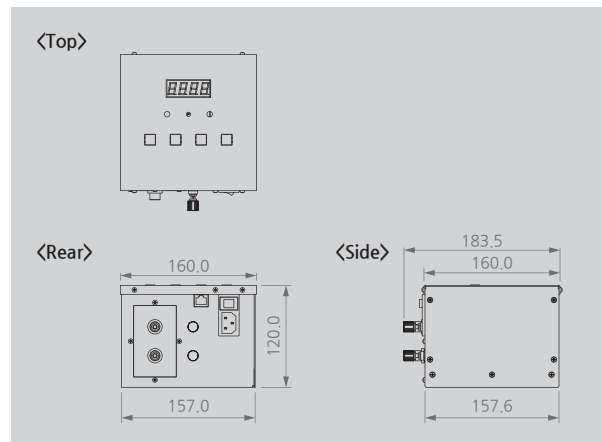
\* Alarm is appeared by ionizer's abnormal discharge and state. When alarm appeared, please repower on after sufficient check and removing the causes of the alarm. Unless solve a matter of substance, it can be appeared again.

## 6 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 100~220V, 50/60Hz)
	Is the switch off at back of the device?	Turn on the power switch.
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



## 8 Specification

Parameter	Description / Value		Remarks
Input Power	AC 100~240V, 50/60Hz		
Power Consumption	33W		
Output Power	AC 4kV~7.5kV(±7%) 55Hz(±5Hz), Less than 5mA Ion Balance(Offset) : DC -150V ~+550V	100V Digital step adj. Analog volume Control	
Ionizer connector	2 Port		
Display	FND LED	Output Voltage	
		RUN(Green), Alarm(Red)	
Alarm	A-1	If more than 5mA of AC output current	When the alarm is appeared, power off the output
	A-2	If more than 125% of AC output voltage	
	A-3	If less than 75% of AC output voltage	
	A-4	If output short-circuit occurs.	
Button S/W	RUN	Operation start after stoppage	
	STOP	Output power off(stop)	
	UP/DOWN	Output voltage control (press the button for 2 seconds)	0.1kV Adj.
Temperature / Humidity	Use	0~50°C / 10~90% RH	No condensation / No freezing
	Preservation	-20~70°C / 10~95% RH	
Interface	Remote On	No. 1 / 2 - Closed	Max load : 350V 0.12A (Indicate the peak AC and DC values)
	Remote Off	No. 1 / 3 - Closed	
	Run State	No. 4 / 5 - Closed = 25Ω(max)	
	Alarm State	No. 4 / 5 - Open	
Weight	5kg		
Dimension [mm]	160(W) X 118.8(H) X 207(D)		
Main body material	EGI		
Mounting Method	Desktop / Wall		
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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