

Instruction Manual

SUNJE
Electrostatics



SRB Series

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.
- Secure the product firmly when you want to secure it. There is a possibility of accident due to fall-over or malfunction, etc.
- Secure working space when you install the product. If working space is not secured, the checking or maintenance of the product is made impossible leading to failure of the product.
- 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.

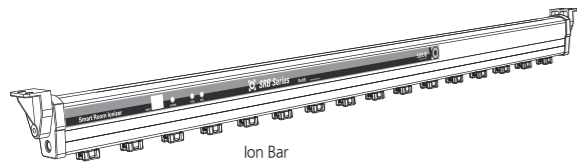
CAUTION

- Do not 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.
- Take precautions as cables of the adaptor, the power line and communication line of each product may disconnect. If the cable is damaged, replace it immediately.
- 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 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.
- The ionizer generates ozone(below 0.05ppm). If you sense the smell of ozone when you use more than two units, ventilate the air.
- When installing or transporting the ion bar, be prepare not to bend the item during the process.

2 Check the package contents

Product compositions

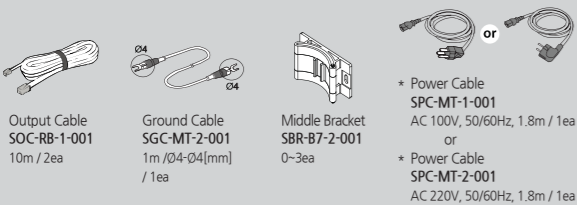
The package includes the following products composition.



Ion Bar
SRB Series / 2ea



Power Controller
SRC-2P / 1ea



Output Cable
SOC-RB-1-001
10m / 2ea

Ground Cable
SGC-MT-2-001
1m / Ø4-Ø4[mm]
/ 1ea

Middle Bracket
SBR-B7-2-001
0~3ea

- * 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

Option

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



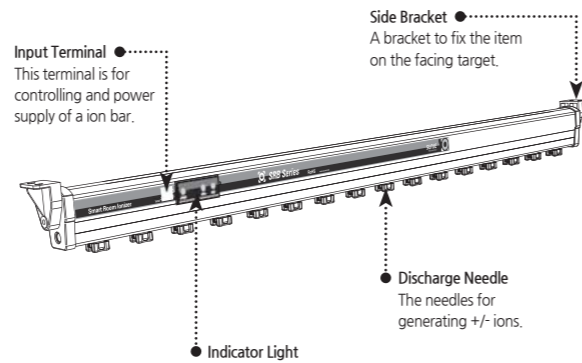
RMS Controller
RMSU



Signal Cable
SUC-MT-2-001
10m

3 Nomenclatures of parts

Ion Bar (SRB Series)



NO	Name	Function
1	Alarm LED	When H/V unit has some problem to generate high-voltage, alarm LED is turned on. (When it shows the difference more than about ±30% with setting value.)
2	POS(Positive) LED	(+) high voltage normal operating signal.
3	NEG(Negative) LED	(-) high voltage normal operating signal.

Power Controller (SRC-2P)

CAUTION

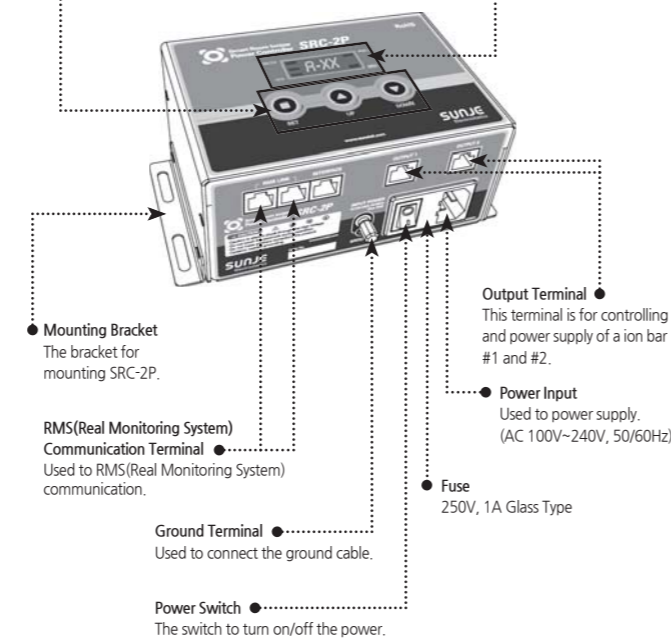
- Please try to input your power connection with an exclusive power controller(SRC-2P) of SRB Series.
- The composition of a package(1set) can be consisted of a controller and two ion bars. We recommend you to purchase and install as a package as a unit.

RX/TX	H/V	POS +	NEG -	H u R L
	8.8.8.8.			
RX/TX	The LED for RMS(Real Monitoring System) operating. When H/V unit has some problem to generate high-voltage, H/V LED is turned on. (When it shows the difference more than about ±30% with setting value.)	(+) high voltage normal operating signal.	(-) high voltage normal operating signal.	When H/V unit has some problem to generate high-voltage.

Display
Can check the status of the ion bar's operation.

SET	This button is used for various settings. (Address, Output Time, Output Voltage)
UP	Use it when you increase the setting value.
DOWN	Use it when you decrease the setting value.

Settings Buttons



Mounting Bracket
The bracket for mounting SRC-2P.

RMS(Real Monitoring System)
Communication Terminal
Used to RMS(Real Monitoring System) communication.

Output Terminal
This terminal is for controlling and power supply of a ion bar #1 and #2.

Power Input
Used to power supply.
(AC 100V~240V, 50/60Hz)

Fuse
250V, 1A Glass Type

Ground Terminal
Used to connect the ground cable.

Power Switch
The switch to turn on/off the power.

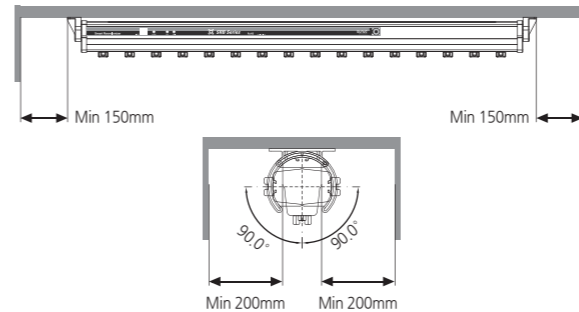
4 Installation and connection

Ion bar installation

When you install the ion bar, Please check the distance between ion bar and object.
※ Please, handle with care when you carry or install not to break or bend an ion bar.

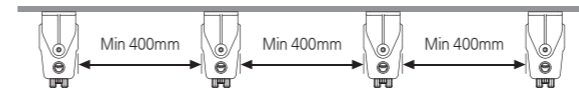
Interference by Grounding Matters

If there is any conductive object close to ion bar, SRB Series may not operate properly. Please install it with reference to figure below.



Side to Side Installation (More than two sets)

When the more than two ion bars are installed, to avoid interference, the range between two ion bars should be more than 400mm.

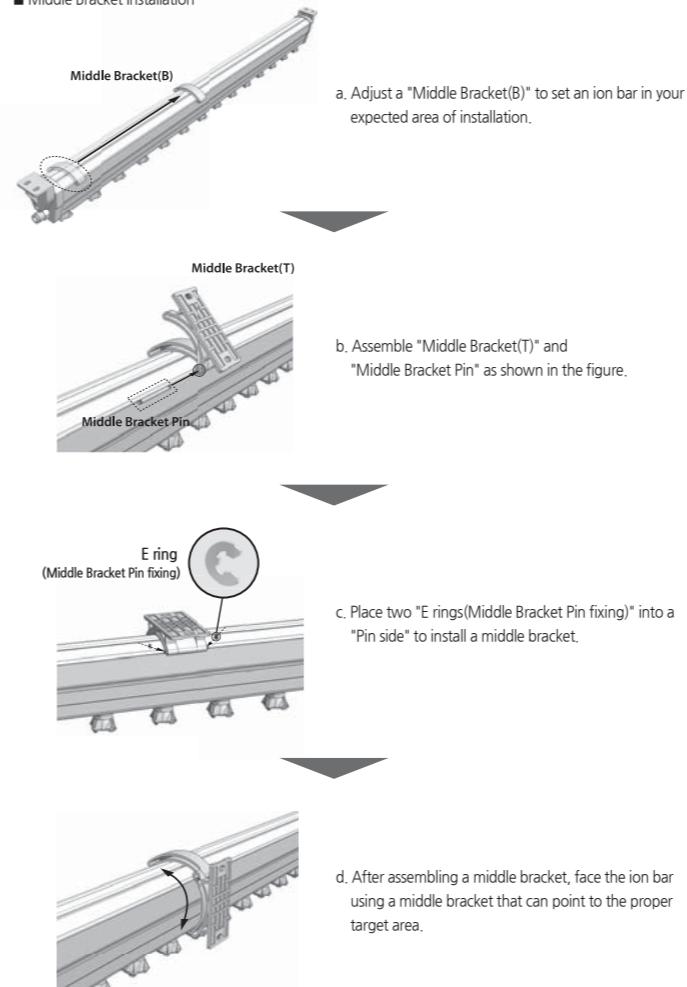


Installation by Middle Brackets

The middle bracket is used to protect bending problem by the weight of ion bar. Please fix the middle bracket with M4 bolts. The number of supporting middle bracket will differ from the models.

Model	Middle Bracket Quantity
SRB-1100 ~ 1300	-
SRB-1500 ~ 1800	1ea
SRB-2000 ~ 2300	2ea
SRB-2500 ~ 3400	3ea
SRB-3600	4ea

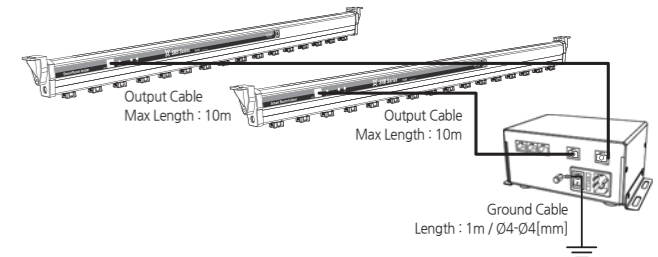
Middle Bracket Installation



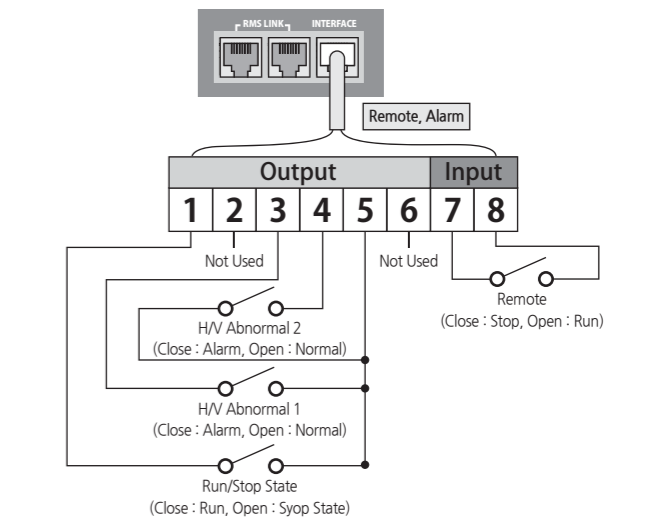
How to connect the power controller

CAUTION

- If you use a power controller without an exclusive SRB Series componenet, it might cause product malfunction.
- The composition of a package(1set) can be consisted of a controller and two ion bars. If you only use one ion bar to the specified controller, it might not function properly. We recommend you to purchase and install as a package as a unit.
- The maximum installation length from an ion bar to controller is 10 meter. If it exceeds, it might not function properly.



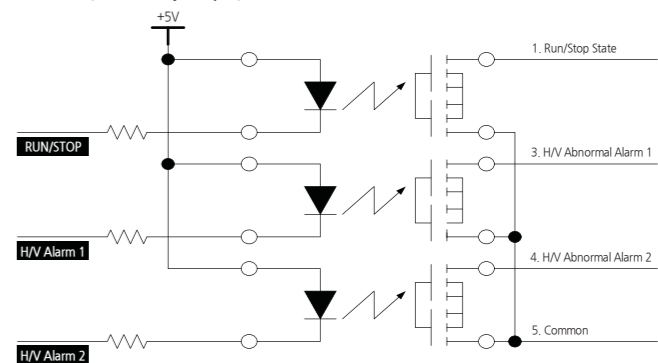
Interface



No	Color	Function	Input / Output	Picture	Remarks
1	Brown	Run/Stop State	Photo Relay Output (Run-Close, Stop-Open)	Run/Stop	Output
2	White & Brown	Not Used	-	-	
3	Orange	High Voltage Abnormal 1	Photo Relay Output (Normal-Open, Alarm-Close)	Normal/Alarm	
4	White & Orange	High Voltage Abnormal 2	Photo Relay Output (Normal-Open, Alarm-Close)	Normal/Alarm	
5	Green	Common	-	-	Input
6	White & Green	Not Used	-	-	
7	Blue	Remote 1	Remote (Close : Stop, Open : Run)	Run/Stop	
8	White & Blue	Remote 2	Remote (Close : Stop, Open : Run)	Run/Stop	

※ The device must be grounded to prevent electric shock in order to function well.

Circuit (Photo Relay Output)



► RMS (Option)

Monitoring operation and abnormal conditions of the installed ionizer for static elimination in real-time from the PC connected to the network management system that can fit a large amount of static electricity; trends for operating device in the management of unmanned removing is highly recommended for the customers.

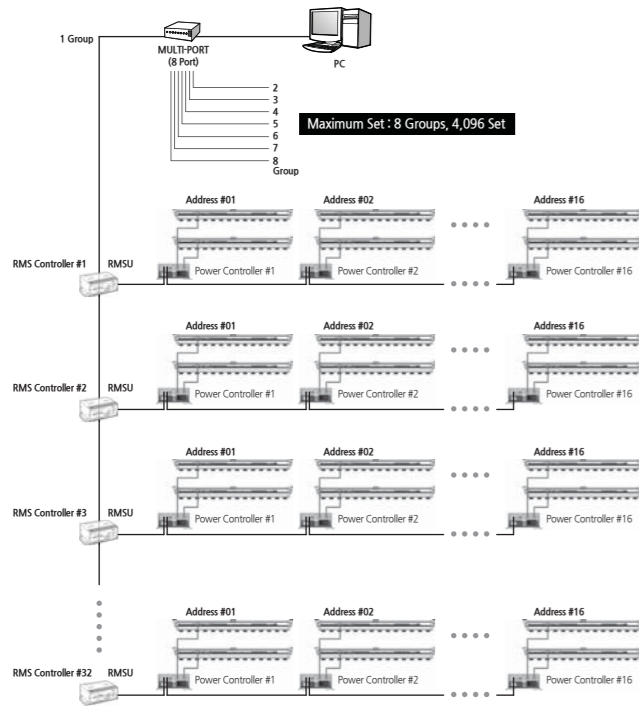
RMS Features

- Max. 4,096 sets of ion bar.
- Real Time Monitoring of ion bar condition. (Signal checking cycle : max. 1min)
- Record, revise and cancelation of managed history by operator.
- Ion bar checking and abnormal history.

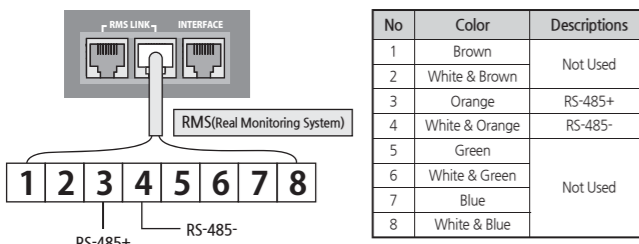
Monitoring Function

- Provide fine display view.
- Equipment ID, equipment name, maker, ion bar state, maintenance history.
- Detailed data checking in several groups.

RMS Configuration



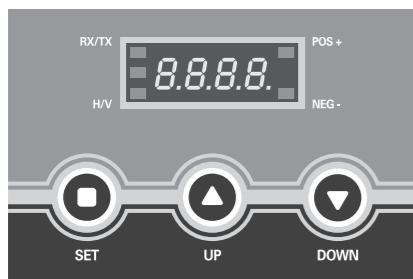
RMS UTP Specifications



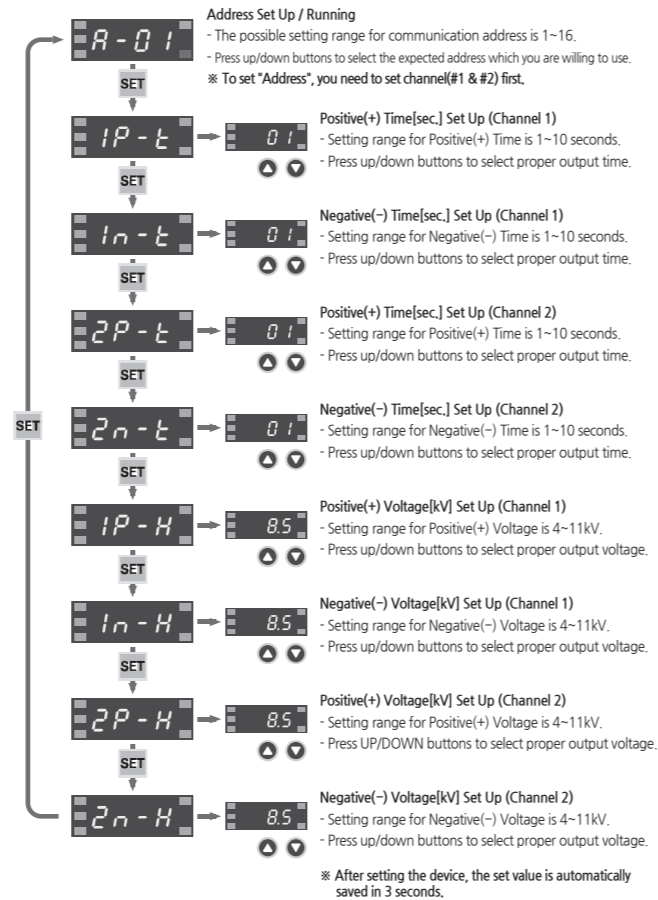
5 How to set

► SRC-2P

Settings



< SRC-2P Controller Panel >



6 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. SRB Series needs a routine maintenance and cleaning in case of bad circumstance. (high humidity or dust)

CAUTION	<ul style="list-style-type: none"> This device uses the high level of voltage. When operating maintenance, please power off and unplug the device. Otherwise, there might be in case of electric shock or fire damage. The discharge needle is very sharp at the edge. Do not physically(directly) touch the discharge needle. When clearing the discharge needle using an organic solvent, do not use the organic solvent to clean the socket around the discharge needle.
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► Discharge needle cleaning

The contamination level of discharge needle is different among the areas where the user installs, please maintain own cleaning period that suits your environment.

► Discharge needle cleaning order

- Be sure to power off before cleaning the ionizer.
- Please clean it as the table below.

Cleaning with a cotton swab	Cleaning with a brush	Ultrasonic cleaning
After moistening a cotton swab with alcohol, wipe the discharge needle from side to side with the swab. (do not use acetone)	Spray alcohol on the brush and use it to clean the discharge needle.	Separate the socket and clean it using an ultrasonic cleaner. (Do not wash for more than 2 minutes) (Water:Alcohol = 9:1 ratio)

- Replace the damaged discharge needle.
- After the cleaning, let the alcohol applied to the discharge needle surface evaporate completely and then operate the Ion Bar.
- Please record the cleaning process as a reference in the file.

► Discharge needle maintenance

If the discharge needle broken or severely damaged, please replace the needle socket immediately.

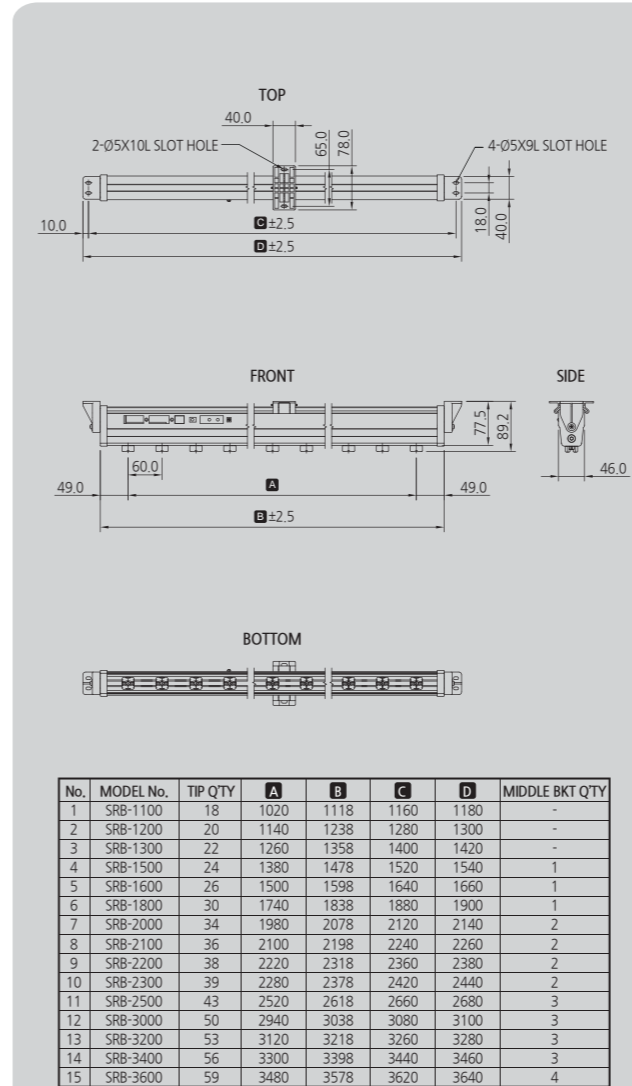
7 Problem solving

► Checklist before called

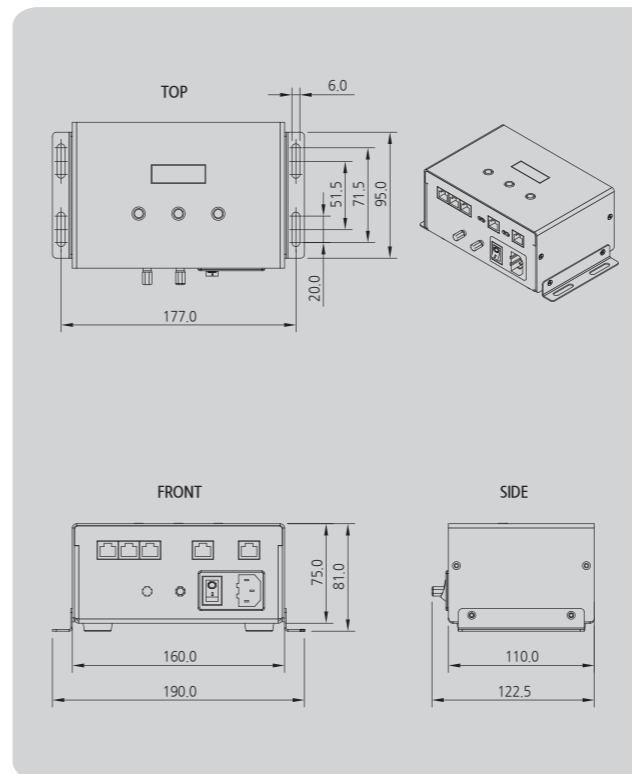
Problem	Identifying Problem	Solution
The product does not work	Is your power cable still plugged in?	Please re-plug the power cable and then turn the device on again.
	Was the proper voltage level applied for this set-up?	Please use the proper level of power input for the device. (AC 100~240V, 50/60Hz)
There is no ionization	Is there any conductive material around the device?	Please refer to 'Installation & Connection' for setting the proper target distance from device.
	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.	Any damages or cut on the cables?	You need to replace the cables if it gets cut or damaged.
	Any contamination on the discharge needle?	Please refer to 'Maintenance' for cleaning the discharge needle.

8 Dimensions

► Ion Bar (SRB Series)



► Power Controller (SRC-2P)



9 Specification

► Ion Bar (SRB Series) / Power Controller (SRC-2P)

Parameter	Description / Value		Remarks
Input Power	AC 100 ~ 240V, 50/60Hz		
Power Consumption	Max. 15W		
Current Consumption	Max. 68mA		AC 220V
Ion-Generation Method	Corona Discharge Pulse AC		
Main Body Material	SRB Series	Non-Flammable ABS	Level V0
	SRC-2P	EGI	
Electrode Material	Tungsten		
Electrode Replacement	Cartridge type		
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH		
Dimensions	See the accompanying drawing paper		
Function	Remote Control		
Adjust Function	Period [Sec.]	Positive 1 ~10 Sec. / Negative 1 ~ 10 Sec.	
	Voltage [kV]	Positive 4 ~ 11kV / Negative 4 ~11kV	
Alarm Function	H/V Abnormal		
Interface	Run, Stop, RS-485, Alarm(H/V Abnormal)		RJ45
Mounting Method	Bolt Mounting with Bracket		
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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