

# MESD-BC SERIES

## BAR TYPE IONIZER INSTRUCTIONS

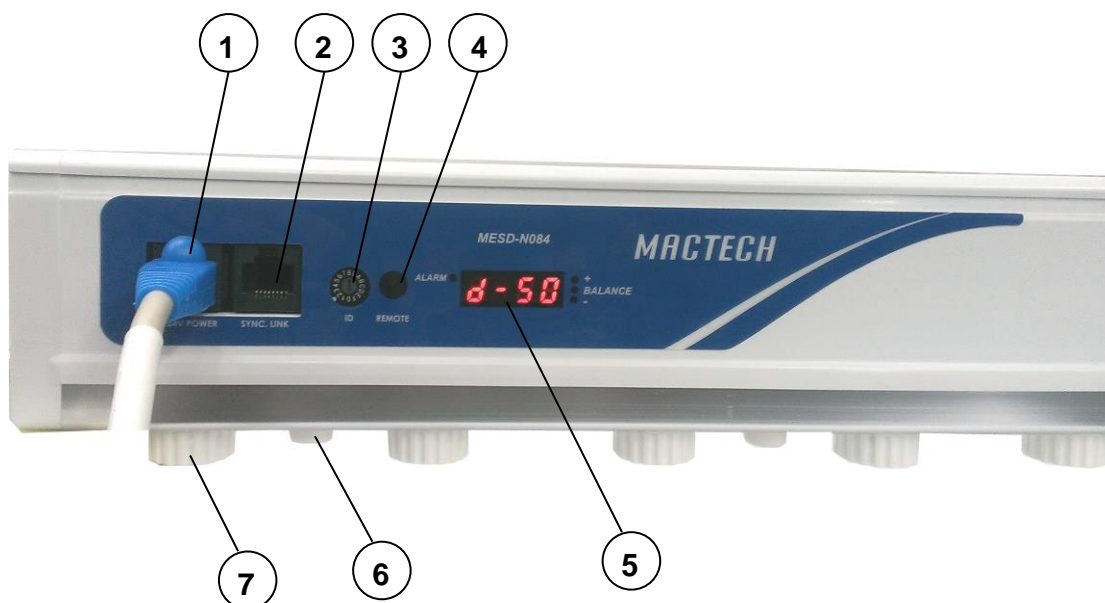


Please read the instructions carefully before using the ionizer, and keep it for future reference.

## INDEX

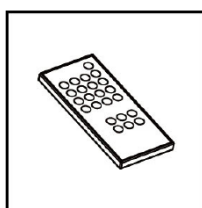
Product Description	3
Dimension	4
Product Specification	5
Abnormal Wiring Figure	5
Power Supply	6
Installation	6
Manual guide	7
ID Control / Adjust and Remote Setting	7
Remote Controller Instruction	8
Remote Controller Valid Range	8
Ion Proportion Setting	9
Status Display	11
Wiring Instruction	12
Consumable	12
Attention	13

## Product Instruction

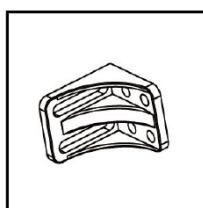


1. Input power DC24V
2. Serial connection port (Maximum 16 sets)
3. ID setting knob (Press ID channel on the remote controller before using the ionizer)
4. Remote controller infrared receive port
5. System status display
6. Assisting nozzle
7. Quick-released nozzle

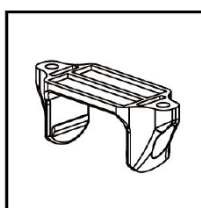
Please ensure you have following items on hand when receive the product.



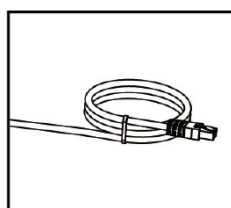
MESD-BR201  
Remote Controller



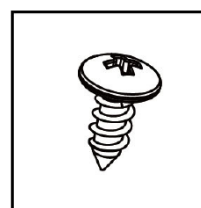
MESD-BF602  
Fixture



MESD-BF601  
Reinforce Fixture  
(above MESD-BB108)



MESD-CP021  
Cable

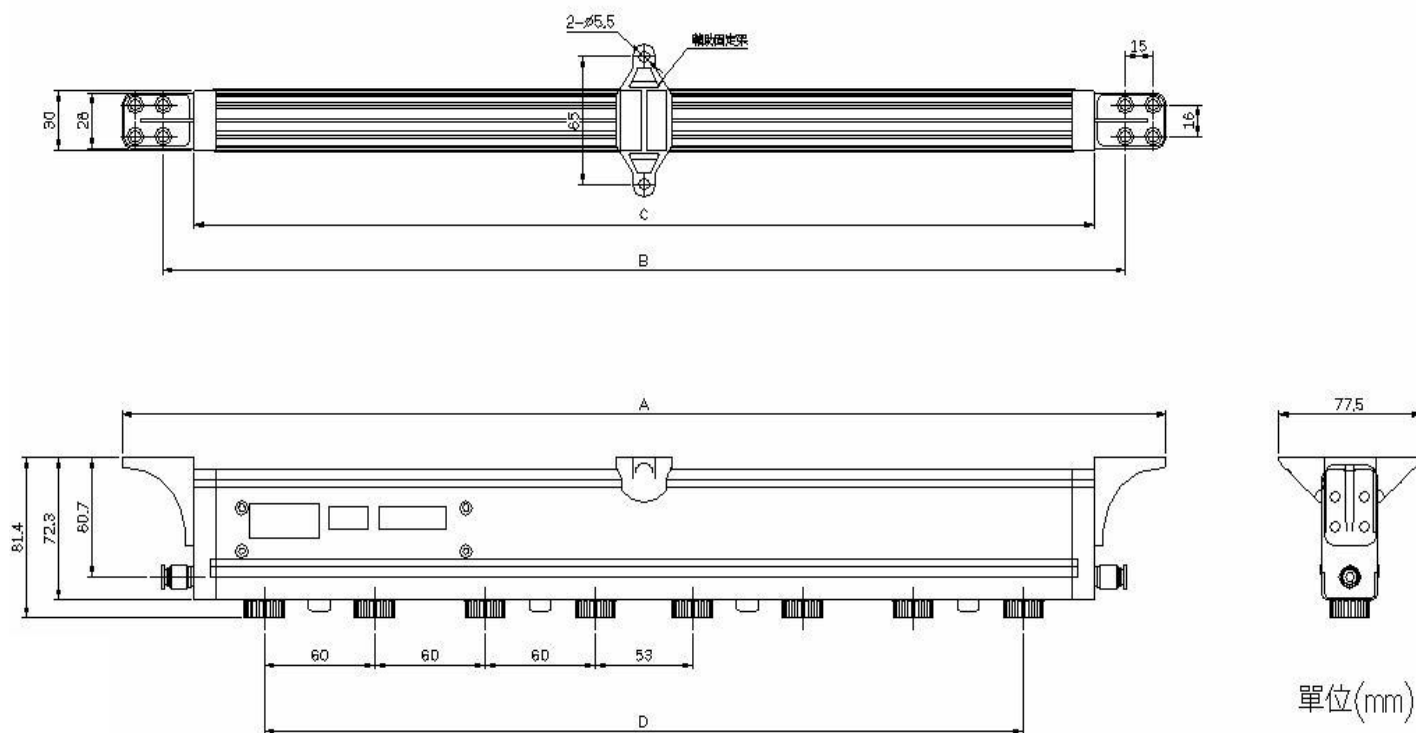


M5x12L Screw \*8

The needle point of electrode probe generates ion by corona discharge, and transmits ion to object via air flow. Through this way can achieve static elimination effectively; moreover, it can prevent pollution caused by the ionizer and improve production rate and quality.

# Dimension

Unit:mm



Model	A	B	C	D	No. of Fixtures	No. of Probes
MESD-BC036	434	390	356	180	0	4
MESD-BC060	568	524	490	413	0	8
MESD-BC084	801	757	723	646	0	12
MESD-BC108	1034	990	956	879	1	16
MESD-BC132	1267	1223	1189	1112	1	20
MESD-BC156	1500	1456	1422	1345	1	24
MESD-BC180	1733	1689	1655	1578	2	28
MESD-BC204	1966	1922	1888	1811	2	32
MESD-BC228	2199	2155	2121	2044	2	36
MESD-BC252	2432	2388	2354	2277	3	40
MESD-BC300	2898	2854	2820	2743	3	48

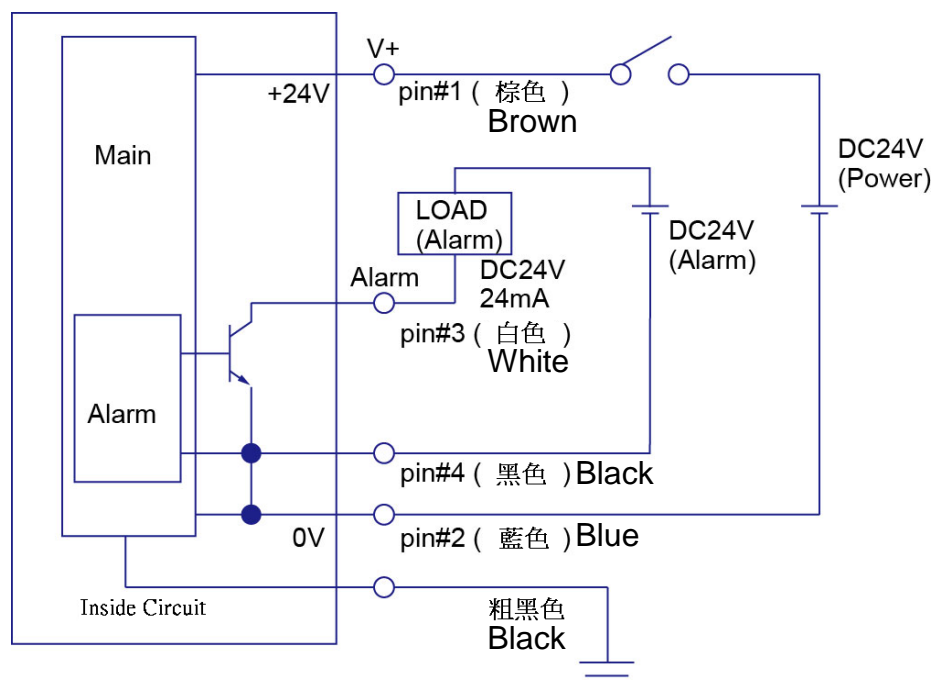
- A. Total Length
- B. Install Distance
- C. Bar Length (=Effective length)
- D. Electrode Spacing and Length

# Product Specification

項 目 Items	規 格 Specifications
使用流體 Air Flow	乾燥壓縮空氣 Compressed Dry Air
輸入電源 Input Power	DC24V±5%
消耗電流 Current Consumption	Approximate 350mA
出力電源 Applied Voltage	±6.5KV (MAX)
離子平衡 Ion Balance	±30V (距離 Distance 300mm)
建議設置距離 Operating Distance	100mm~1500mm
介面顯示 LED Indicator	離子狀態 Ion Status
	顯示離子正負平衡 Ion ± balance
	異常顯示 Alarm Show
	異常時紅燈亮 LED turns on red light
	離子設定 Ion Setting
	顯示設定比例與頻率 Setting ion duty and frequency
異常輸出接點 Power Safety Circuit	NPN電晶體出力 NPN transistor ouput (Max. 24mA)
壓縮空氣耗流量 CDA Consumption	95~390 ℓ/min(0.2MPa)
使用壓力範圍 Air Pressure Range	0.1~0.5 Mpa
使用環境溫度 Ambient Temperature	15~40℃ (室內 Indoor)
使用環境溼度 Ambient Humidity	35~65%RH (無冷凝 No condensation)

## Abnormal Wiring Figure

Output method: Open collector



## Power Supply

---

- Rated power output DC24V.
- Please ensure the product is connected with ground wire for safety consideration.


## Installation

---

- Ambient temperature range: 0~50°C, humidity range: 35~65%RH
- Avoid installing in which the ambient temperature rapidly changes.
- Please check there are not volatile or inflammable material and corrosive gases around the ionizer.
- Avoid installing to the environment with heavy dust, fumes and iron powder.
- Please fasten the ionizer above the object and connect with the power, ground wire and air pressure tube.
- Please use clean air via air filter and adjust the proper air pressure at 0.1~0.5Mpa. (More detailed information please refer to specification )
- After using for a period time, the needle point of electrode probe could attach crystallized particle or dust due to moisture. If meet this problem, please wipe the needle point of electrode probe slightly by alcohol cotton or soft brush.
- Please clean the needle point of electrode probe frequently in order to extend the product's service life and achieve great static elimination effectiveness.
- Please contact service staff when the alarm sign shown, do not disassemble the ionizer directly.
- The ionizer with safety circuit detection, if there is abnormal adjustment it will shut down automatically. By the time please restart the ionizer.
- Due to the total length, the model above MESD-BC108 please fasten the reinforce fixture at the mark position in order to prevent product bending.
- When install longer ionizer, the model above MESD-BC180, it should be at least two staff to complete the installation, in case of danger or product damage.

## Manual Guide

---

1. Install the ionizer in appropriate place.
2. Connect with the air pressure tube and power.
3. Adjust the ID setting knob on the ionizer. For example, the knob turns to “1” which means the remote controller has to set up the same ID channel “1”. (Please refer to the description as below)
4. The infrared transmitter on the remote controller corresponds to the infrared receive port on the ionizer. Please follow the instructions to complete the remote controller setting. (Please refer to the remote controller valid range)
5. After setting up the channel, press the icon “

Remark : If there has other ionizers, please set up different ID channel to avoid receiving mistaken signal.

## ID adjustment & Remote Controller description

---

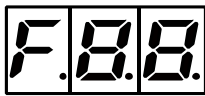
Signal	Description	Signal	Description
A-01~A-02	Internal communication error	A-04	High voltage error
A-03	No high voltage output	A-08	Abnormal wiring

## Remote Controller Instruction

### The infrared transmitter

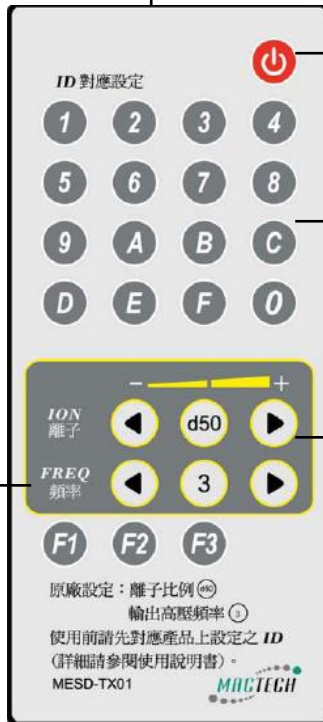
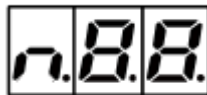
The infrared transmitter on the remote controller corresponds to the infrared receive port on the ionizer.

### Output High Voltage frequency



Press arrow icon to adjust the frequency, maximum is level ten.

### System status display



Power

### ID adjustment panel

Press ID channel on the remote controller corresponds to ID setting knob on the ionizer.

### Ion proportion Setting

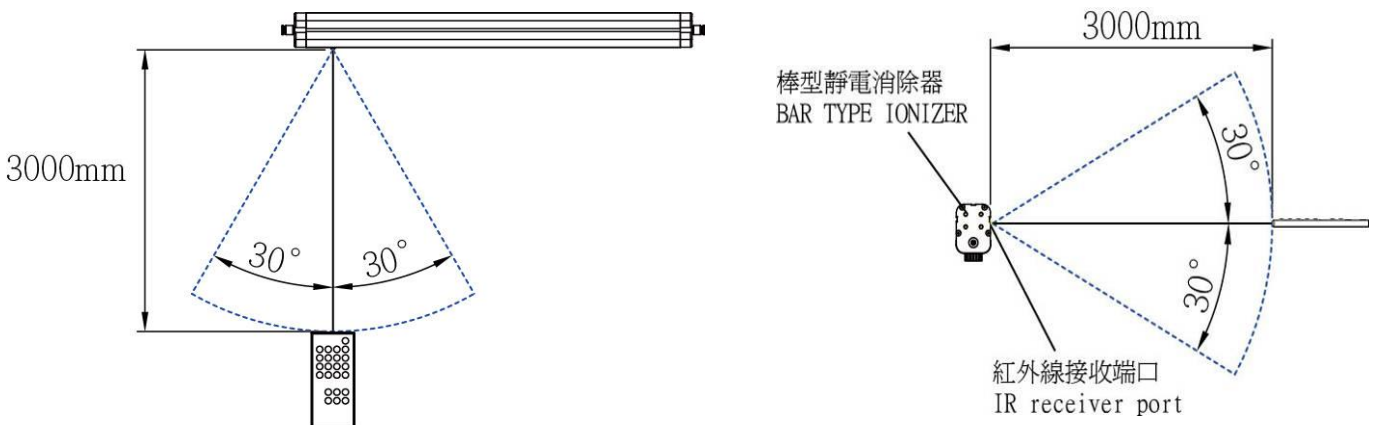
Maximum: D70  
Minimum: D30  
Factory reset: D50



### Battery pack

Press and pull out the battery pack to change the battery.

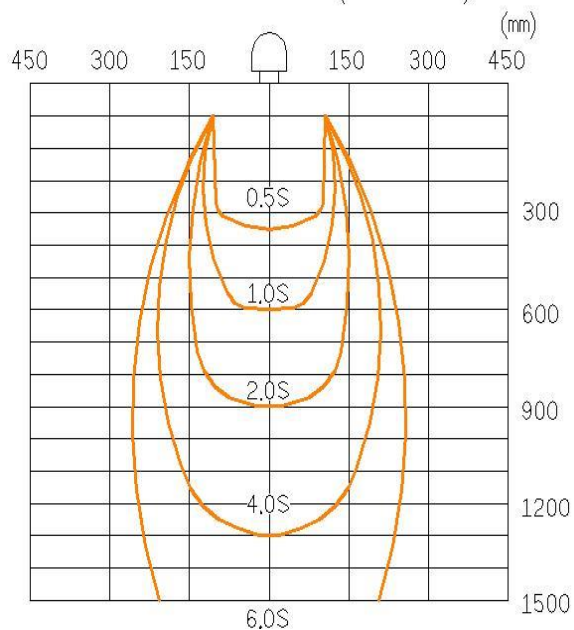
## Remote Controller Effective Range



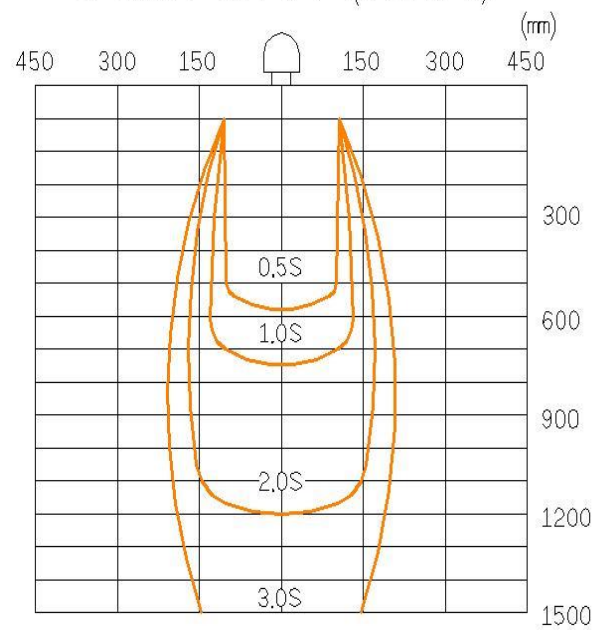
## Static Elimination Performance

Static elimination effective zone and time

靜電消除區域與時間 (0.2MPa)



靜電消除區域與時間 (0.5MPa)



## Ion proportion Setting

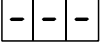

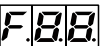
Ion proportion Setting	d70	d65	d60	d55	d50
Positive ions	70:30	65:35	60:40	55:45	
Negative ions					
Ion proportion Setting	d30	d35	d40	d45	50:50
Positive ions	30:70	35:65	40:60	45:55	
Negative ions					

## Frequency Setting

---

Location	Operating Distance(mm)	Frequency
Short Distance	100-300	45-30Hz
Middle Distance	300-1000	30-20Hz
Far Distance	1000-2000	15-10Hz

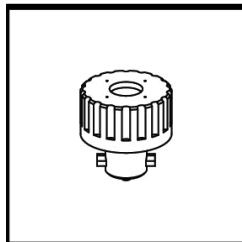
## Status display

Signal	Display	Decription
		Standby mode.
		It shows the current ion proportion and can adjust it.
		It shows the current frequency and can adjust it.
n- 1		The current ID is 1 and so on.
Balance		Ion output achieves an ion balance state.
—		Negative ions more than positive ions.
+		Positive ions more than negative ions.
Alarm		It shows the abnormal state and needs to restart the ionizer. Otherwise, please contact the service staff.

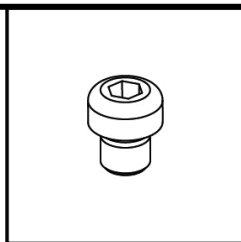
## Wiring

Wire color	Description
Brown	DC24V Voltage
Blue	Ground wire (0V)
White	Abnormal output signal
Black	GND output signal
Orange	Ground wire for connecting with the machine.
Orange Black (Gray)	N.C
Blue	N.C
Brown	N.C

## Consumable



MESD-BP301  
放電針  
Electrode probe



MESD-BP302  
輔助噴嘴  
Assisting nozzle

## Attention

---

- If there is a volatile or inflammable material or corrosive gas around the ionizer that may cause fire and explosion, please do not use the ionizer in this kind of environment.
- Due to the high voltage generates from the ionizer, please keep water, oil and inflammable material away from the ionizer; otherwise, it may cause danger or product damage.
- Due to the high voltage generates from the ionizer, please keep the metal stuff, wire, and even finger away from it; otherwise, it may cause danger or product damage.
- Please do not use the ionizer in a stuffy room, it may cause ozone poisoning.
- Avoid installing in which the ambient temperature rapidly changes; otherwise, it may cause danger or product damage.
- Do not operate the ionizer when your hand is wet; otherwise, it may cause danger or product damage.
- Most important is that you must turn off the power before maintenance; otherwise, it may cause danger or product damage.
- It may cause danger due to touch the electrode probe directly during the maintenance.
- Please contact service staff when the alarm sign shown, do not disassemble the ionizer directly.
- Do not use tool or hard stuff to touch the electrode probe, if the probe is damage, the static elimination effectiveness will decline.
- After using for a period time, the needle point of electrode probe could attach crystallized particle or dust due to moisture. If meet this problem, please wipe the needle point of probe slightly by alcohol cotton or soft brush. Keep the needle point of electrode probe clean to maintain the static elimination effectiveness well. (Please clean the electrode probe every two months)
- Please fasten well the ionizer avoid falling down or collision; otherwise, it may cause danger or product damage.
- The ionizer is only suitable for static elimination not for another application.