

BooCax Plasma Air Sterilizer

BKS-LTP-DP01

Product Manual

V 1.0.5



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Safety and Precautions

The use of Plasma Air Sterilizer shall follow the operation instructions. Use beyond the range is prohibited! BooCax will not assume any responsibilities for the losses caused by improper operation.

01/Safety Instructions

1) Prohibitions

- ① Do not use in flammable gas and similar dangerous environment;
- ② Do not throw any foreign matter into the machine;
- ③ Cleaning and maintenance are strictly prohibited during the machine is power on;
- ④ Do not disassemble the machine for repair or debugging without authorization;
- ⑤ Do not replace any parts (except air filter) without authorization, if must be replaced, please carry out under the approval and guidance of the company.

2) Use safety instructions

- ① Place and run the machine as far as possible in the place of plain, solid, room temperature.
- ② Before using the machine, please install the air outlet grid, air filter and air inlet grid in place.
- ③ Do not place the machine in the sun for a long time, so as not to deteriorate the material of the body and affect the performance.
- ④ When moving the product, please be sure to power off first, and then pull out the power cord.
- ⑤ When the filter is not installed in place, do not power on.
- ⑥ When not using the product for a long time, please unplug the power plug and keep the power off.
- ⑦ If the product has abnormal sound, smell, high temperature and other abnormal conditions, please immediately power off and stop using.
- ⑧ Do not put fingers or other foreign objects in the air inlet and outlet.
- ⑨ Please be careful not to put hair, fabric and other filamentous articles near the machine, so as not to be involved into it.
- ⑩ Do not sit, lean, tilt or dump the product.
- ⑪ During maintenance, be sure to power off the machine first. Do not power off or power on the machine with wet hands.

02/ Daily maintenance instructions

1) Cleaning

- ① Clean the dust sensor probe regularly;
- ② Replace the air filter regularly;
- ③ Keep the surface of the machine clean and tidy.

2) Check for loose screws

Gently shake the component periodically and observe whether the component has abnormal sound of loosening with shaking. If there is abnormal sound, check the screws at the installation point of related components. All the screws through the locking processing are not easy to loosen. However, for the sake of safety, in case of loose, please contact the hotline of BooCax After-sales Service.

03/Legal Declaration and Disclaimer

BooCax owns a number of patents involved in this product, and any institution and individual shall not use any of it without authorization.

The machine internal structure is very precise, private disassembly is easy to affect the safety. The machine shall not be disassembled by any person other than authorized personnel of BooCax, otherwise the warranty qualification of the product will be lost. The company will not be responsible for any damage, malfunction and property/personal damage caused by private disassembly. The identification of unauthorized disassembly shall be subject to the anti-disassembly mark on the machine.

04/After-sales Information

If you have any questions about maintenance, safety and other questions, you can contact us by phone/email according to the manual, we are very willing to provide you with product-related services.

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1. Overview

“Dolphin” Plasma Air Sterilizer (BKS-LTP-DP01) disinfects the air and the space of the environment through the rapid generation of plasma, in the way of fan air. Because it does not produce harmful substances, man-machine can coexist.

1.1. Disinfection principle

The effective purification of air in space environment is realized by rapidly generating plasma and changing air by fan.

The role of the active group: A large number of reactive oxygen ions, high-energy free groups and other components contained in plasma are easy to oxidize and denature proteins and nucleic acids in bacteria, mold, spores and viruses, resulting in the death of various microorganisms.

The effect of high-speed particle to breakdown: Electrons and ions with high kinetic energy can penetrate and etch bacteria and virus particles, thus achieving inactivation of bacteria and viruses.

1.2. Range of Application

It can be used for air disinfection in closed and non-closed space environment. The effective area of single disinfection can reach 100 square meters, and the maximum air change volume of the equipment can reach 1000m³/h.

1.3. The main bactericidal factors and their intensity

Plasma density: $7.81 \times 10^{17}m^{-3} \sim 2.27 \times 10^{18}m^{-3}$

Plasma density is a measure of how much plasma is produced in units per meter cubed.

The higher the density of plasma, the higher the elimination rate of the passing air.

1.4. Category of killing microorganisms

Plasma has a strong killing effect on harmful microorganisms and viruses such as staphylococcus alba, natural bacteria in the air, which can be killed and inactivated instantly after contact.



1.5. Machine Life

Under the condition of regular maintenance, the validity period of the product is 5 years.

1.6. Product Superiority

With plasma generator which produce plasma up to 18 powers of high density, the disinfection area of BooCax Plasma Air Sterilizer reaches 100 square meters and the highest air change volume is up to 1000m³/h, accelerating the air circulation disinfection more thoroughly.

With simple operation panel, the state of disinfection machine can be easily and quickly adjusted to meet different disinfection needs.

2. Product Features

- ① Maximum air volume: 1000m³/h;
- ② High-efficiency air disinfection by High-efficiency Plasma generator, plasma density reaches $2 \times 10^{18}/\text{m}^3$
- ③ Dual control by the button panel and remote control, support timing and long-term disinfection modes
- ④ Air-filter replacement prompt (the machine will prompt when the air filter reaches expiry date, and the prompt can be cleared manually)
- ⑤ Mute universal wheel, easy to move
- ⑥ Triple Air filters (initial effect air filter + HEPA air filter + Plasma air filter), triple protection
- ⑦ Applicable to clinics, mobile cabinet hospital, office, conference room, toilet and other indoor environment

3. Disinfection Effect

--- In a closed space of about 20m³, set the disinfection program to work for 30mins, the killing rate of Staphylococcus albus is $\geq 99.98\%$

--- In a closed space of about 100m³, set the disinfection program to work for 60mins, the killing rate of natural bacteria in air is $\geq 92.86\%$, and for the same environment, this killing rate is $\geq 96.05\%$ when the program work set to 120mins.

--- The killing rate of influenza A (H1N1) is **99.99%** per 60mins, 30m³ of closed space.

--- The PM2.5 elimination rate reaches **99.98%** per 60mins, 30m³ of closed space.

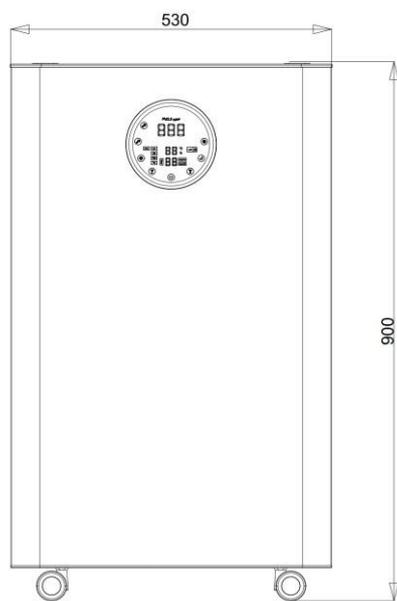
--- The Formaldehyde elimination rate reaches **97.6%** per 24 hours, 30m³ of closed space.

4. Product Parameters

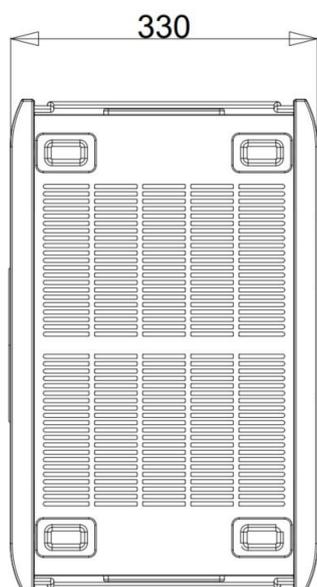
Type	Item	BooCax Plasma Air Sterilizer			
Basic parameters	Model No.:	BKS-LTP-DP01			
	Function:	to eliminate bacteria in the air, remove peculiar smell and formaldehyde by plasma technology			
	Overall size:	900mm*530mm*330mm			
	Product weight:	26.5kg			
	Applicable environment temperature	0°C -50°C			
Performance Parameters	Air volume	$\leq 1000\text{m}^3/\text{h}$ (four levels for adjust)			
	Applicable space	100 m ²			
	noise	$\leq 70\text{db}$, the minimum level is 35dB			
	Plasma density	$7.81 \times 10^{17}\text{m}^{-3} \sim 2.27 \times 10^{18}\text{m}^{-3}$			
	Elimination rate	Simulated field $\geq 99.9\%$, on-site natural field $\geq 90\%$			
	Notice	Fan speed level	Air volume (m ³ /h)	Noise dB	
		1	260	35	
2		375	45		
3		750	55		
4	1000	70			
Mobility	Motion type	Silent universal wheel			

Power	Supply Voltage	AC110V-220V
	Power frequency	50Hz-60Hz
	power	100W
sensor	PM2.5 sensor	1 group
	Temperature and humidity sensor	1 group
	Remote control	1 pc
	Air filter	Pre-filter*2, HEPA filter*2

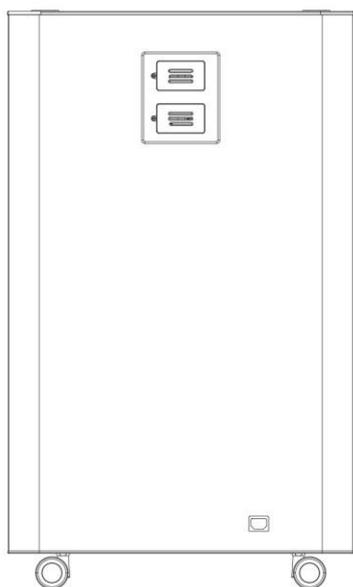
5. Overall Size



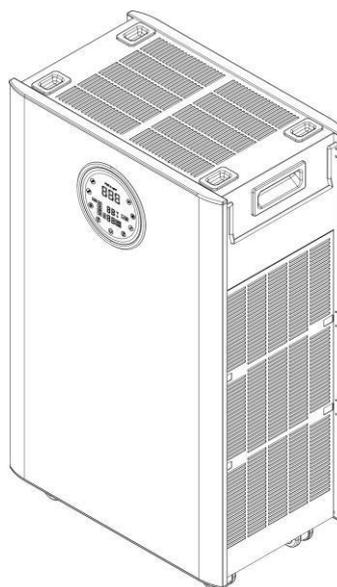
Front view



Top view

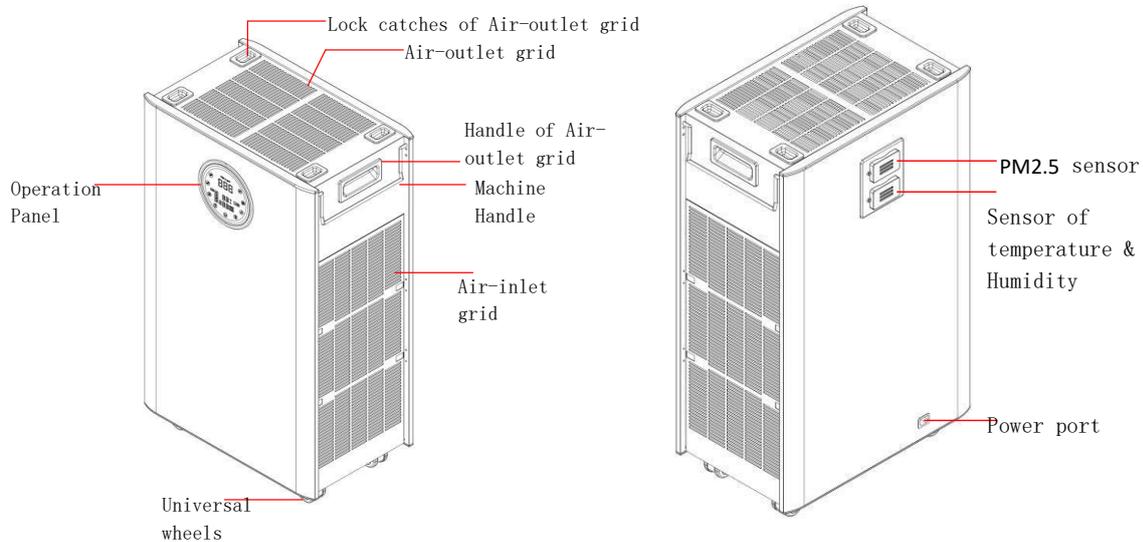


Back View



Axonometric

6. Function Module



7. Assemble and Operate

7.1. Open and check items

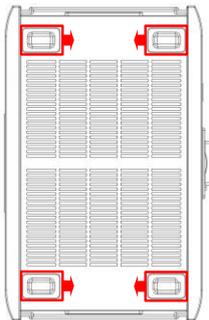
Packaging contains:

- ① sterilizer machine; ② Power cord; ③ Remote Control;④ Quick guide;⑤ Qualified Certificate

7.2. Remove protective film of Air filter

The air filters of the new machine are sealed by protective film. Please remove the film before use.

- (1) Turn the four locks of air grid on the top of the machine inward to the unlocked state.



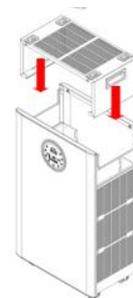
- (2) Lift up the air grid and remove the air grid.



- (3) Hold the filter handle, pull up to take out the filter;



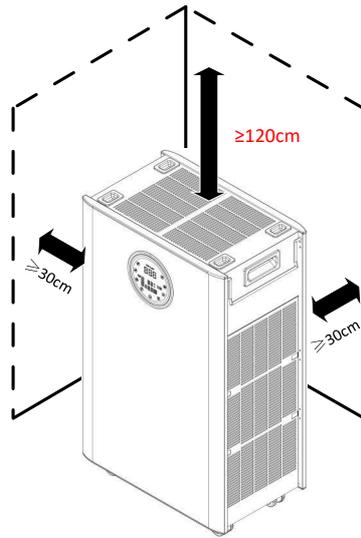
- (4) Remove the packaging of the filter, and restore the filter and air grid.



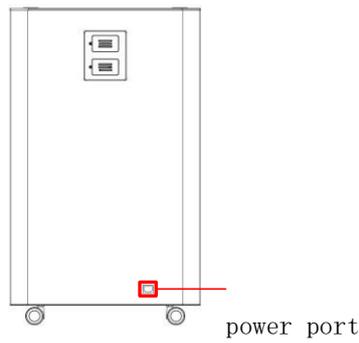
- (5) Lock up the four locks of the air grid;



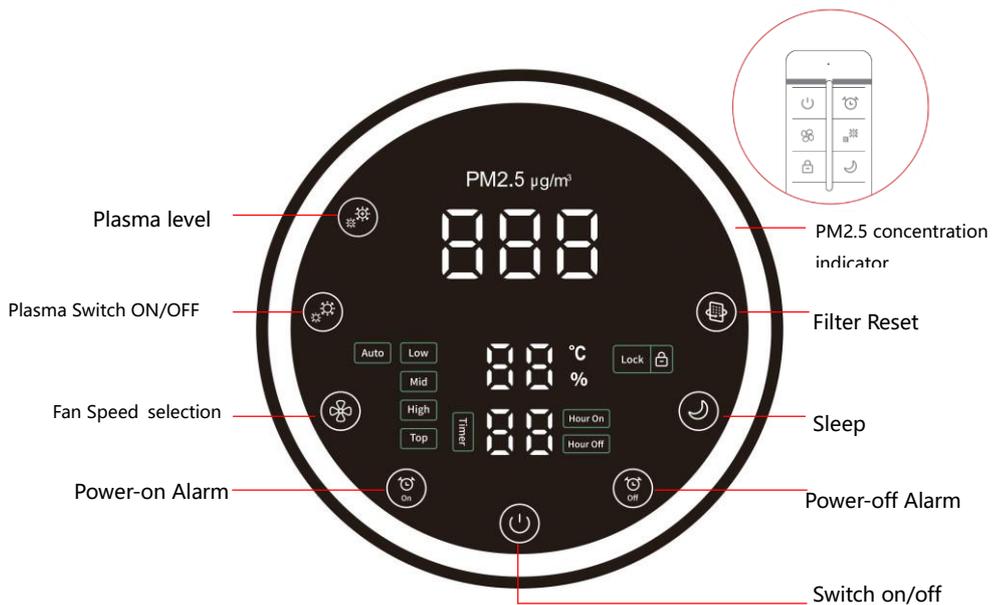
7.3. Recommended Placement



7.4. Connect the power cord



7.5. Panel Control



Introduction of PM 2.5 Concentration Indicator Light Ring:

Blue:1-75ug/m³; Green:76-150ug/m³; Red:151-300ug/m³; Red Flashing: 301-999ug/m³;

8. Attentions

- ① To Select the Plasma level for matching should be based on the actual space area, table below is for the matching rules:

Plasma Level Selection

Plasma Level	1	2	3	4	5	6	7	8	9	10
Applicable area (m ²)	10	20	30	40	50	60	70	80	90	100

- ② It is suggested that the filter replacement-frequency for the office environment is one year. For the worse environment, the replacement frequency is suggested to be half a year or less.
- ③ When the button "Filter Reset" lights on, please replace the filter. Then long press the button for 3-5 seconds to release the alarm.
- ④ Please place and operate the machine in a flat, firm and normal temperature position as far as possible.
- ⑤ Do not place it in the sun for a long time, so as not to deteriorate the material of the body and affect the performance.
- ⑥ Before moving the machine, it should be power off firstly and plugged off the power cord.
- ⑦ It is forbidden to power on the machine if the filter is not set in the place.
- ⑧ When not using the product for a long time, please unplug the power plug and keep the power off.
- ⑨ If the product has abnormal sound, smell, high temperature and other abnormal conditions, please immediately power off and stop using.
- ⑩ Do not put fingers or other foreign objects in the air inlet and outlet.
- ⑪ Please be careful not to put hair, fabric and other filamentous articles near the machine, so as not to be involved into it.
- ⑫ Do not sit, lean, tilt or dump the product.
- ⑬ During maintenance, be sure to power off the machine first. Do not power off or power on the machine with wet hands.

- ⑭ The company will not be responsible for the loss caused by exceeding the scope of use.
- ⑮ The universal-wheels are with locking-buckle for self-lock if needed.



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