



DC Ionizing Air Blower

AP-DJ1802

User Manual

Shanghai Anping Static Technology Co.,Ltd

3/F Buliding27,No.69,Guiqing Road,Shanghai,China

Tel: 021-64517676

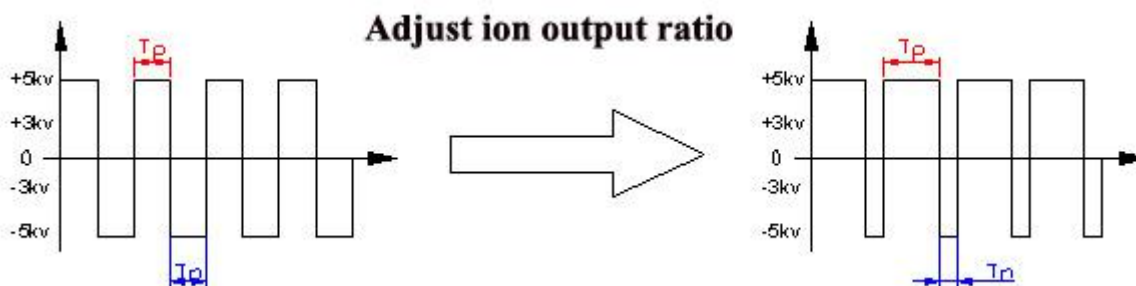
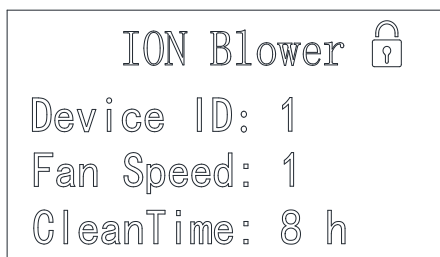
Fax: 021-64517673

AP-DJ1802 DC Ionizing Air Blower



◆Product Features

- 1, 8 discharge electrodes, the amount of ions generated.
- 2, built-in pressurized axial fan, in addition to static speed.
- 3, with automatic boot brush function.
4. By default, the needle is automatically brushed once every 8 hours, eliminating the need for manual brush cleaning and maintenance.
- 5, fan five-speed speed regulation, stable performance.
- 6, with LCD display, can display device address, wind speed gear, cleaning cycle, as shown below.
- 7, with ion self-balancing function, self-balancing range $\pm 10V$.
- 8, positive and negative ion output ratio adjustable, can be used for ion balance adjustment.



9. When the fan fails and the ion balance is abnormal, the sound and light alarms.
- 10, ion output characteristics, can be adjusted with the remote control.
11. It can realize online communication and monitor the working status of the fan.
- 12, through the CE test, with electromagnetic protection, will not cause electromagnetic interference to other equipment; can also effectively avoid external electromagnetic interference affecting the normal operation of the fan.
13. The structure of the whole machine is modular, which is convenient for disassembly and maintenance.

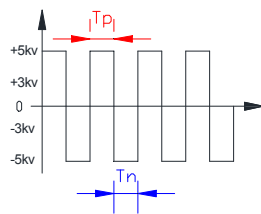
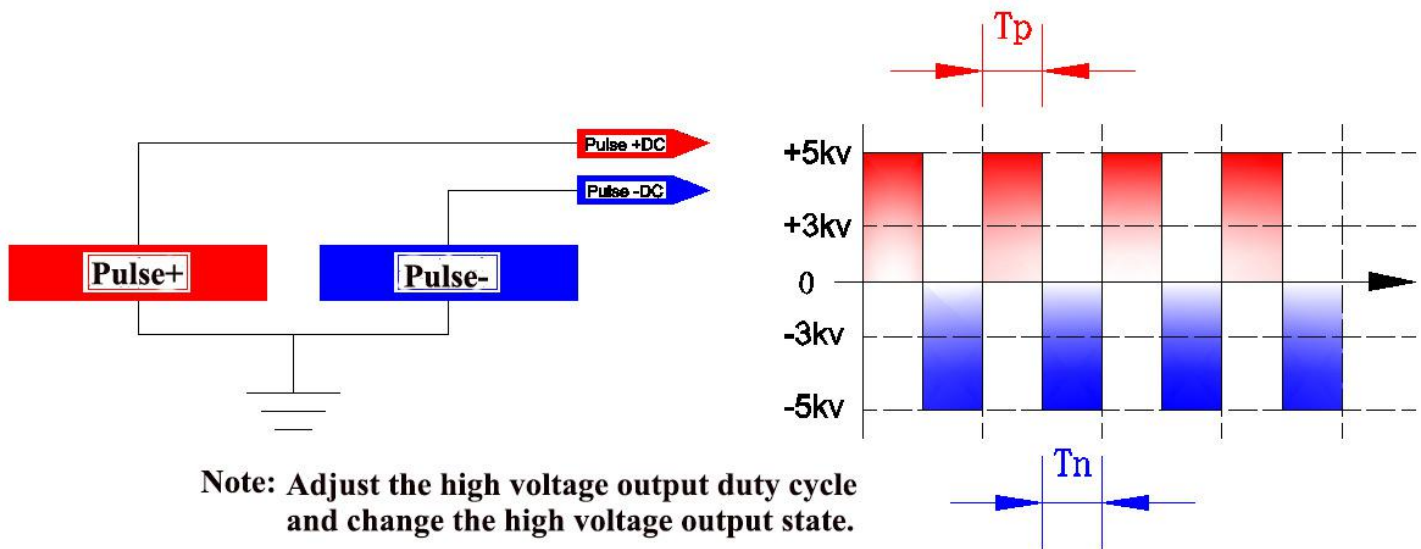
◆ Industry application

Can be widely used in electronics, semiconductor, optoelectronics and other industries.

◆ Performance parameter

Type	AP-DJ1802
Input voltage	DC 24V (Double RJ45 interface)
Input Current	<0.6A
Output voltage	DC±5KV→±5.5KV
Power	<14.5W
Ion emission	DC
Transmitting electrode	Tungsten
Discharge range	750*300mm (L*W)
Air volume	<179CFM
Audio noise	<75dBA (150mm from the air outlet)
Ozone concentration	≤0.05ppm (150mm from the air outlet)
Ion balance	≤ ±10V
Discharge time	≤1.5S (300mm from the air outlet)
Alarm indication	1.At the moment of startup, clean operation - blue light flashes; 2.Normal work - green light (always in surveillance); 3.Fan alarm - the red light is always on; 4.Abnormal ion balance—red light flashes; 5.Blue flashing during infrared debugging
Communication method	RS485
Operating temperature	0℃-50℃
Working humidity	<70%RH
Dimensions	177*81*205.5mm (L*W*H)
Shell material	Aluminum dusting
Mounting accessories	1 pair of U-shaped aluminum dust spray mounting bracket, 2 pairs of stainless steel screw handles (M5×8)
Adapter power supply	1, Interface power supply (default standard): INPUT: AC100—240V 50/60Hz; OUTPUT: DC24V 2A (double RJ45 interface) 2, Jack-type power supply (customized models): INPUT: AC100—240V 50/60Hz; OUTPUT: DC24V 2A (5.5*2.5 single male)
Integrated power supply (optional)	INPUT: AC100—250V 50/60Hz; OUTPUT: DC24V 2A (16 RJ45 connectors) With wireless communication / RS485 / LAN communication function
Weight	Bare metal (with bracket) : 1125g
	Net weight (network cable, power cord, adapter, remote control) : 1590g
	Gross weight : 2080g
Warranty	1Year
Certificate	CE

◆ Working way (DC)



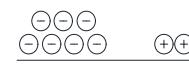
调整高压输出占空比
[$T_p / (T_p + T_n)$], 改变
高压输出状态

物体表面所带静电：
第一种情况



调整 T_p 变小, 使正电压作用能量变小, 作用时间变短, 正离子输出变少, 负离子输出变多, 中和物体表面多余的正电荷

物体表面所带静电：
第二种情况



调整 T_p 变大, 使正电压作用能量变大, 作用时间变长, 正离子输出变多, 负离子输出变少, 中和物体表面多余的负电荷

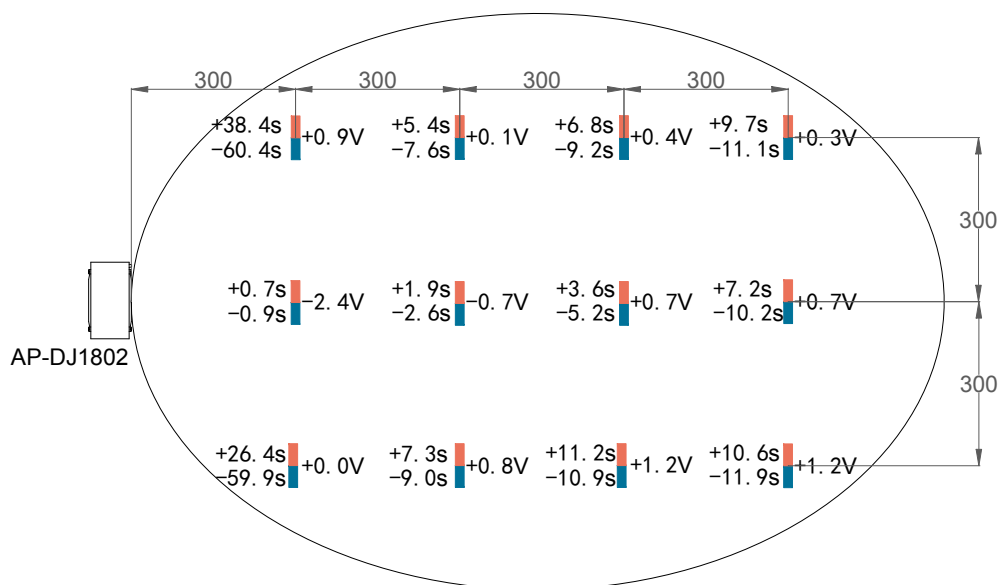
物体表面所带静电：
第三种情况



调整占空比
[$T_p / (T_p + T_n)$]
到适当比例, 输送出相同数量的正、负离子, 去中和物体表面静电荷

◆ Discharge effect

The test data is as follows:



Test standard: ANSI/ESD.STM3.1, ANSI/ESD.SP3.3, SJ/T 11446-2013

Test instrument: Trek157 electrostatic tester

Test voltage: $\pm 1000V \rightarrow \pm 100V$ attenuation

Test environment: humidity $50 \pm 5\%$; temperature $23 \pm 3^\circ C$

◆ Security warning

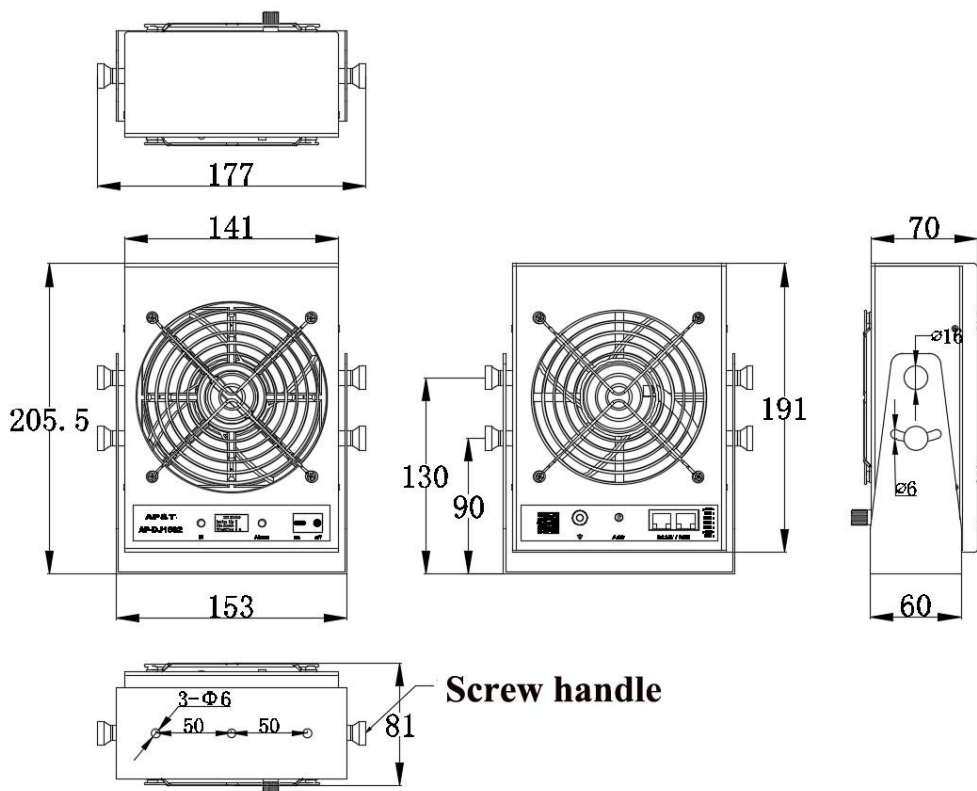
1. Please read the instruction manual carefully before installing and using the device.
2. The whole set of equipment must be reliably grounded during use.
3. It is not advisable to use the device in a >70% humidity environment.
4. It is strictly forbidden to use this equipment in flammable and explosive environments.
5. It is strictly forbidden to disassemble the product without authorization. Internal maintenance and repair must be carried out by professionals.
6. The product is strictly prohibited from touching water stains, otherwise abnormalities may occur, resulting in electric shock or fire.
7. Check or replace the product, you must turn off the power, otherwise it may cause electric shock or fire.
8. The product is designed for static elimination. It is strictly forbidden to use for other purposes. Any abnormal use may cause machine malfunction, electric shock, fire and other hidden dangers.
9. Do not touch the electrode needle when the power is on, otherwise it may cause malfunction and electric shock.
10. The discharge needle is a sharp metal object, please use it with care.
11. Before powering on the product, please check the specifications of the power supply. Any power supply that does not meet the specifications will cause damage or even malfunction.
12. Please check the product power cord/communication line regularly. If there is any damage, please replace it immediately, otherwise it will cause problems such as leakage, poor communication and abnormal operation.

◆ Use and installation

1, installation and use instructions:

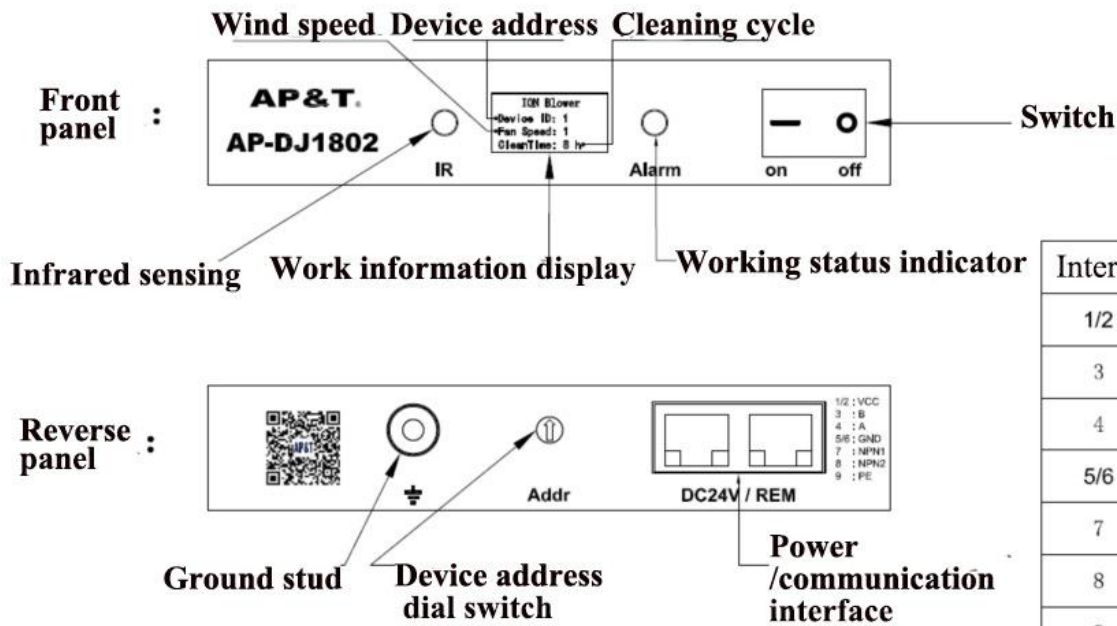
- (1) Select the best power-off position and install the fan and the matching power adapter firmly.
- (2) Insert the adapter power cord round plug into the ion fan power socket, and insert the three-core power socket into the socket.
- (3) Close the power switch on the front panel of the ion fan. When the ion fan is turned on, it will automatically brush the needle. When the indicator light is green, the fan will work normally.

2. External dimension drawing:

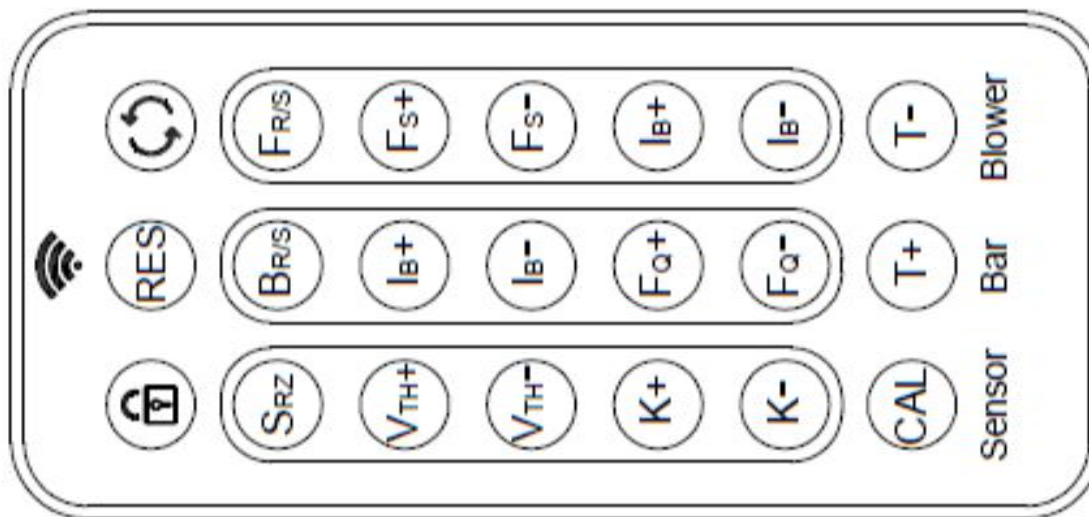


3, Front and rear panel description:

The two RJ45 ports on the rear panel have the same function, which can be used in series with the fan; after the network cable is inserted, the green LED at the lower left end lights up.



4, Remote control instructions



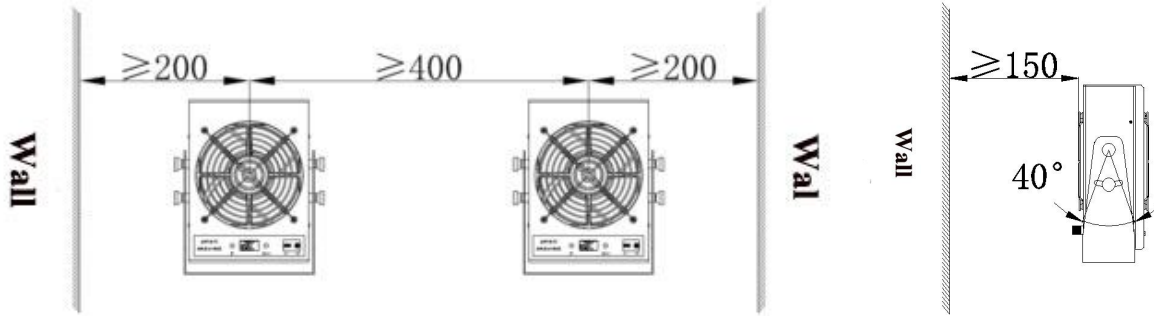
- (1) FR/S: Run/Pause
- (2) IB+/IB-: ion balance adjustment: adjustable duty factor range 5%-95%, minimum adjustment unit is 1%
- (3) FS+/FS-: Air volume adjustment: from 1st to 2nd, 3rd, 4th, 5th, 5th
- (4) T+/T-: cleaning time adjustment, the minimum adjustment unit is 1H
- (5) CAL+RES: Restore factory settings (150Hz, 50%, 8H)
- (6) After unlocking, continue to delay 30S after pressing any button
- (7) After unlocking, no button presses 30 to exit and lock
- (8) When the positive voltage of the surface of the flat panel detector or the object to be de-energized is large, press "IB-"; when the negative voltage of the surface of the flat panel detector or the object to be de-energized is large, press "IB+" until the The balance or residual voltage is adjusted to the ideal state.

5, Technical tips:

- (1) When using an ion fan, it should be placed in the static elimination working area, and the installation angle should be perpendicular to the surface of the charged body.
- (2) The ion fan should be at least 30cm away from the metal conductor and metal grounding body. The fan must be connected to the grounding wire reliably.
- (3) It is advisable to install the two ion fans side by side at intervals of 40 cm or more, and it is more suitable to

be more than 20 cm from obstacles such as walls.

(4) The air inlet is at least 15cm away from the wall, and the bracket is installed at an angle of 40°.



(6) Troubleshooting solution:

N o.	Problem	Possible reason	Solution
1	The lower left indicator of the power port is not lit.	Poor power cord contact	Confirm that the power cord is intact and securely connected
		Power supply does not match	Confirm the power supply specification model (INPUT: 100—240VAC 50/60Hz; OUTPUT: 24VDC 2000mA)
2	The static elimination performance is significantly reduced	Discharge needle contamination and damage	Clean or replace the discharge needle
		Ion fan set orientation is not appropriate	Confirm the best installation location
3	Reduced static performance	Conductor or other ion fan around the ion fan	Remove (moving) conductors or other ion fans
4	High pressure alarm (The panel indicator flashes red)	Electromagnetic interference	Turn off the power switch / unplug the power cable, restart the ion fan.
		Abnormal discharge	Confirm that the electrode needle is in contact with the metal conductor.
		High voltage module without power supply	Return to factory maintenance.
		High voltage module damage	Return to factory maintenance.
		Ion balance alarm	After cleaning the electrode and mesh cover, re-commission with the remote control.
		Cleaning brush blocks the electrode needle	Manually brush the needle with the remote control, or shut down and restart, so that the cleaning brush leaves the electrode needle.
5	Fan alarm (The panel indicator is steady red)	Fan break out	Return to factory maintenance.
		Fan power supply line is damaged	Return to factory maintenance.
6	Unable to discharge	High voltage module damage	Return to factory maintenance.
		Motherboard chip damage	Return to factory maintenance.
		Poor grounding / no grounding caused by chip damage.	Check the grounding of the ion fan and plant equipment, and return to the factory for repair.
7	The product smokes or burns	High voltage module damage or discharge bracket insulation damage.	Return to factory maintenance.

◆ Maintenance

1. In order to ensure the good performance of the product, the fan should be cleaned and maintained in time according to the use environment and the required static protection requirements. That is: use an electrostatic brush, a dust-free cotton swab, a dust-free cloth, and remove the anhydrous alcohol to gently remove it. Dust on the electrode, discharge bracket, fan, metal mesh cover. note:

A. It must be operated 10 minutes after the power is turned off.

B. During the use of the fan, the electrode needle cleaning cycle should be set according to the use environment; the more humid and dusty the environment, the appropriate cleaning cycle should be reduced.

C. After cleaning, the alcohol must be completely evaporated and then energized. Do not use any other organic solvent to clean the fan.

D. The alloy electrode is a consumable item and is not covered by the warranty. The company has to charge for the replacement of the customer.

2. Press the \ knob on each panel of the fan panel. The user should not press or rotate excessively. Otherwise, the device will be permanently damaged.

3. If the work indicator on the front panel of the fan is off or not lit, it should be stopped and repaired by professional maintenance personnel. It can be used after the electrical performance indicators are normal.

◆ After-sale service

The AP-DJ 1802 DC ion fan has undergone rigorous testing and aging treatment before leaving the factory, and its performance fully meets the relevant indicators marked in the instructions for use.

AP&T makes the following commitments to the user: Within one year from the date of purchase, the company will repair or replace any parts that have been inspected by the company for free. However, this commitment does not apply to the following:

1. The device is misused and installed;

2. Inadvertent or accidental damage during use;

3. Self-modification, disassembly, or repair by other service departments not authorized by Anping.

AP&T assumes no responsibility or liability for product users other than repair or replacement of parts within this specification.

◆ Packing accessories

1, The manual

2, the certificate

3, The adapter power supply

4, The national standard power cord

5, The remote control

6, The power connection network cable