AP-AB1216 Air Source AC Pulse Ion Bar

General
Air Source AC Pluse Ion Bar

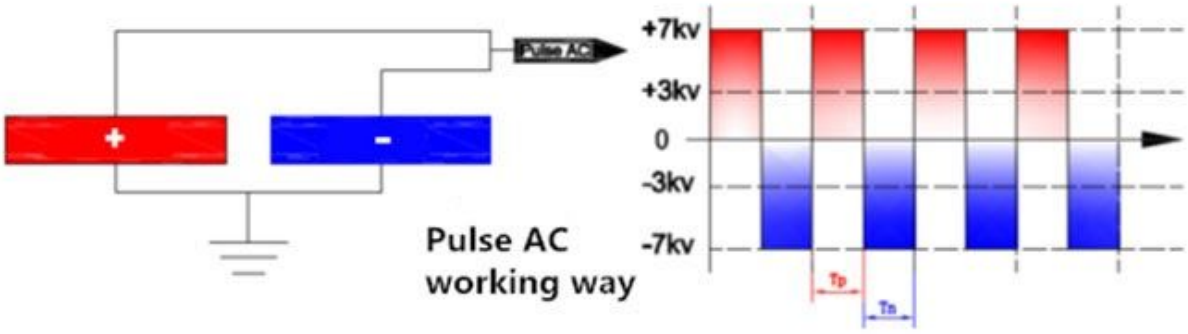
AP-AB1216
Product Feature
1.Bar shaped and cross over static eliminator
2.Adjustable positive and negative ion output rate
3.Manufactured by using the latest patented technology of static removing
4.Fast speed of static removing, low ion balance and high safety
5.Adjustable positive and negative ion frequency
6.With alarm function of high voltage fault

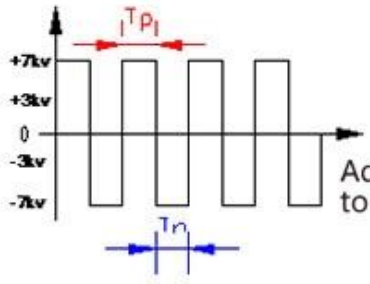
7.Remote control ion output
8.Shock-proof function prevent user from being electric shocked
Specification

Model No.	AP-AB1216
Input Voltage	DC 24V
Input current	＜600mA
Power	10W
Working Voltage	±5000V
Working method	Pulse AC
Emitter electrode	SUS
Discharge structure	Resistance coupling
Output frequency	1,3,5,10,20,30,50Hz；(Factory setting:30Hz)
Duty Ratio	10%—90%
Working range	L*W*H：{385-410（Probe distance 25mm）；460-2960（Probe distance 50mm）}*300*1000mm
Working distance	100→1000mm
Ion balance	≤|±30V|（AVE）
Discharge speed	≤2S
Warning indicate	Power input indicator，High Voltage indicator（Green is normal，Red is abnormal）
Status monitoring	Series network monitoring / wireless monitoring
Airflow pressure	≤0.6MPa
air source connector With throttle valve	Φ8-G1/8 Black

Working temperature	0℃-50℃
Working humidity	＜70%
Dimension	L*W*H：{385-410（Probe distance25mm）；460-2960（Probe distance50mm）}*35*78.4mm
Bar body material	Flame retardant PVC、ABS、AL、SUS
Accessories	Flexible 180° install bracket
Power adapter	GRT-240200： DC24V 2A， Dual network port output, 123*61*40.5mm（L*W*H）
Power adapter cable length	2.5m
Warranty	1 Year
Certificate	CE

Working Ways (AC)

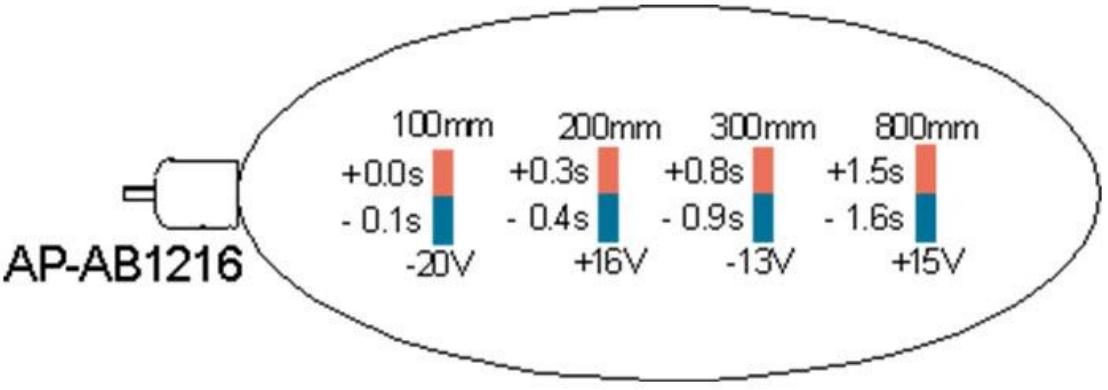




Adjust HV duty ratio [Tp/(Tp+Tn)]
to change HV output

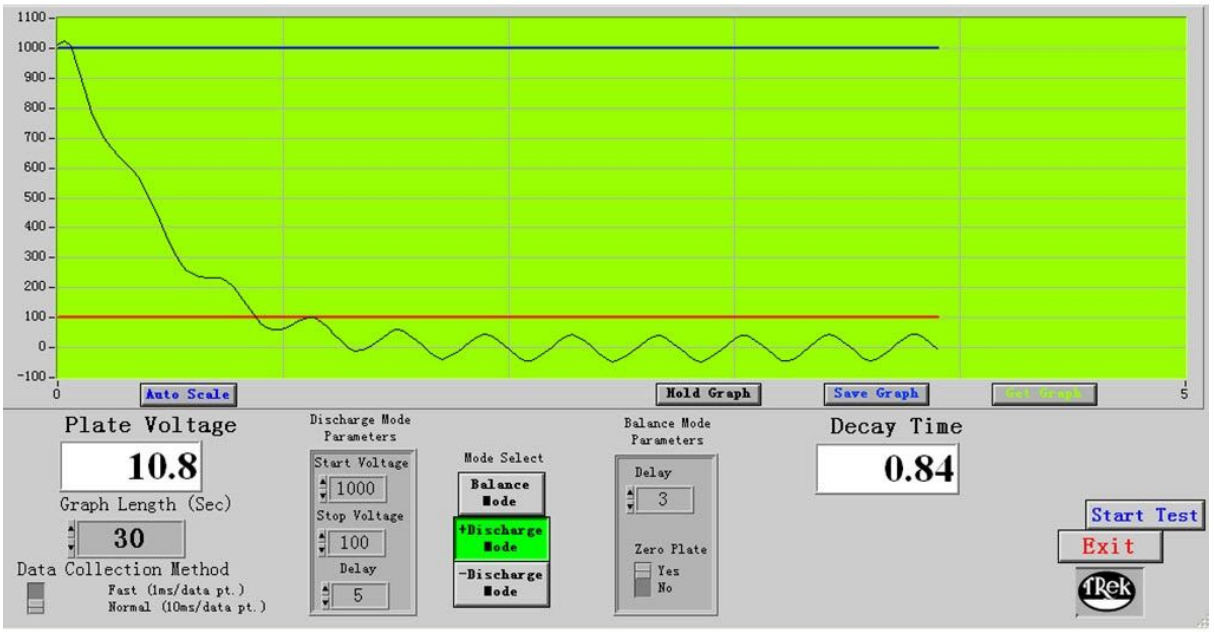
Static on object surface Case 1	Static on object surface Case 2	Static on object surface Case 3
		
Reduce Tp to generate less positive ion and more negative ion and neutralize the redundant positive ion on object surface.	Increase Tp to generate more positive ion and less negative ion and neutralize the redundant negative ion on object surface.	Adjust [Tp/(Tp+Tn)] proper setting to generate equal quantity of positive and negative ions and neutralize the static on object surface.

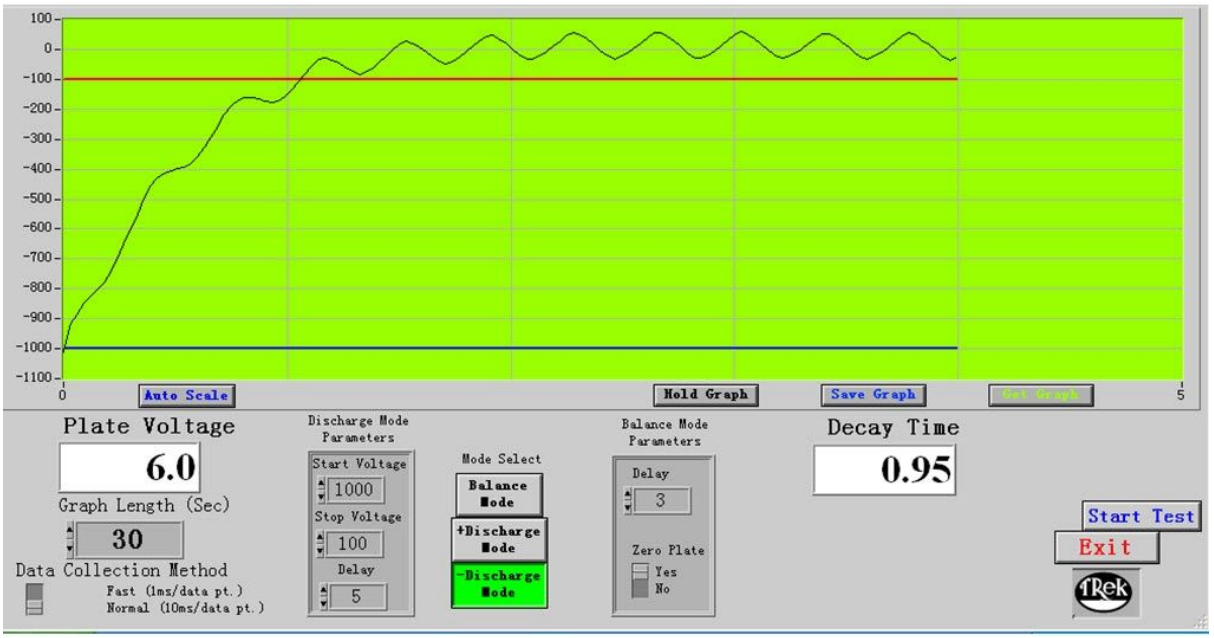
Elimination Effect

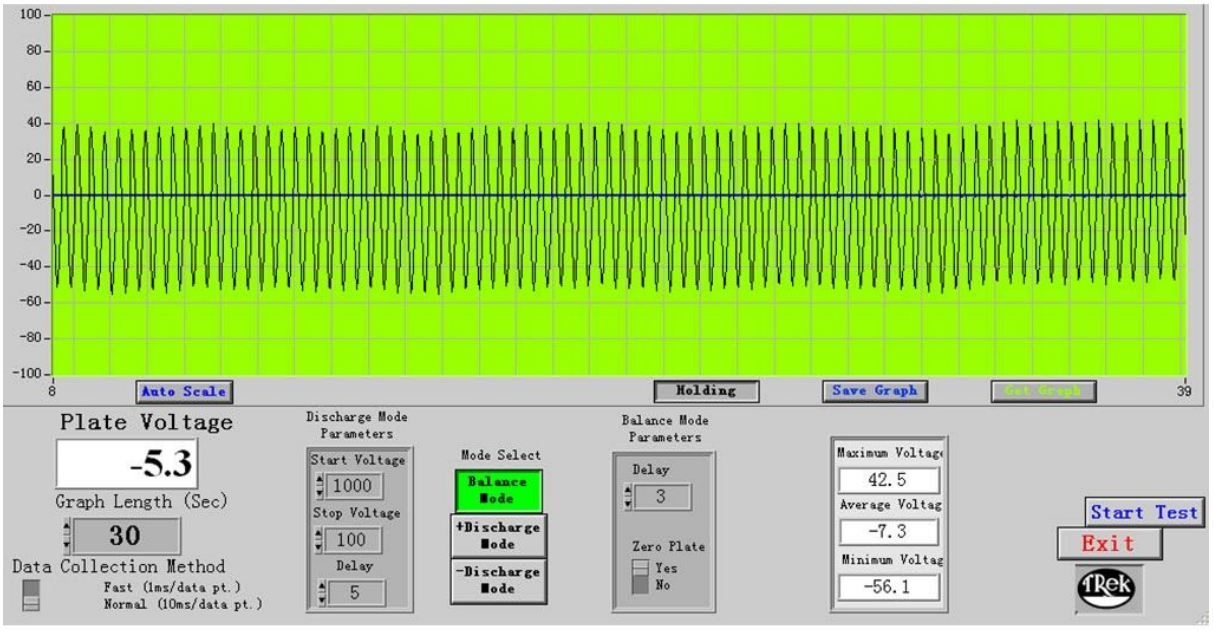


Testing instrument ：3M-711 Static tester
Testing standard：ESD.STM3.1-2000；SJ/T 11446—2013
Testing voltage ：±1000 — ±100V Attenuation
Testing environment ：Humidity50±5% Temperature:23±3

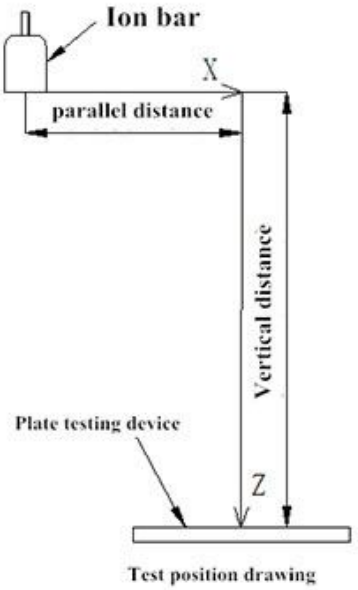
Testing data as below(Test distance：100mm，Ion bar width：410mm） ：


1100
1000
900
800
700
600
500
400
300
200
100
0
-100
0
5
Auto Scale
Hold Graph
Save Graph
Plate Voltage
10.8
Graph Length (Sec)
30
Data Collection Method
Fast (1ms/data pt.)
Normal (10ms/data pt.)
Discharge Mode Parameters
Start Voltage
1000
Stop Voltage
100
Delay
5
Mode Select
Balance Mode
+Discharge Mode
-Discharge Mode
Balance Mode Parameters
Delay
3
Zero Plate
Yes
No
Decay Time
0.84
Start Test
Exit
TREK


100
0
-100
-200
-300
-400
-500
-600
-700
-800
-900
-1000
-1100
0
5
Auto Scale
Hold Graph
Save Graph
Plate Voltage
6.0
Graph Length (Sec)
30
Data Collection Method
Fast (1ms/data pt.)
Normal (10ms/data pt.)
Discharge Mode Parameters
Start Voltage
1000
Stop Voltage
100
Delay
5
Mode Select
Balance Mode
+Discharge Mode
-Discharge Mode
Balance Mode Parameters
Delay
3
Zero Plate
Yes
No
Decay Time
0.95
Start Test
Exit
TREK



Test standard：ANSI/ESD.STM3.1，ANSI/ESD.SP3.3，SJ/T 11446—2013
Test Device：Trek157 static detector
Test Voltage：±1000V → ±100V attenuation
Test environment：Humidity 50±5%；Temperature23±3℃
Other test environment,test result as below



Test position drawing

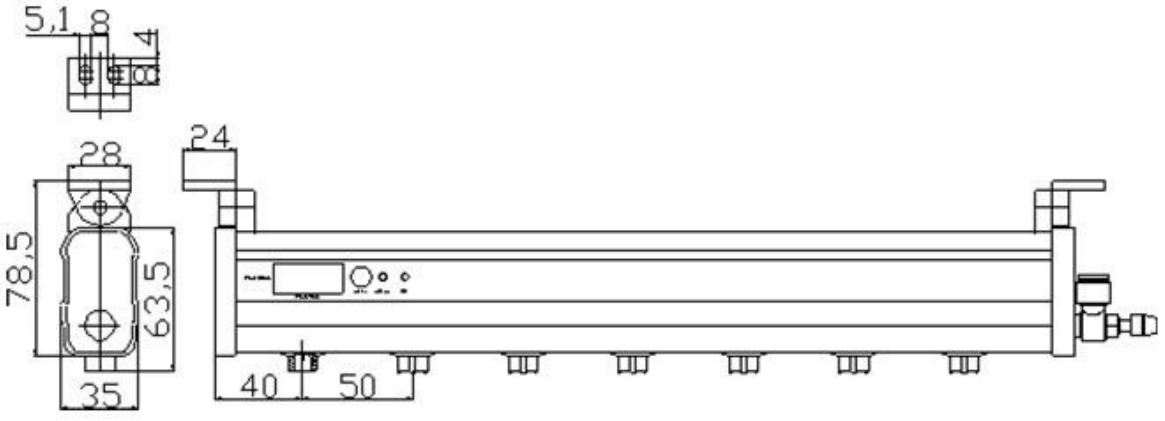
Ion bar length：385mm；Working frequency：30Hz；			
Test distance （mm）	Air flow pressure （MPa）Note 1*	Duty ratio(%)	Discharge ability

				+ discharge speed（S）	- discharge speed（S）	Ion balance（V）
Vertical	parallel					
300	-150	0.2	49	2.7	2.9	-0.7
	0		52	0.5	0.5	4.1
	150		49	2.9	3	-0.7
	-150	0.4	49	1.3	1.5	-5
	0		50	0.2	0.2	12.9
	150		49	1.6	1.9	-2.4
	-150	0.6	49	1.1	1.2	-3.8
	0		49	0.1	0.2	-11.6
	150		49	1.3	1.2	13.1
500	-150	0.2	50	2.6	3.1	-5.6
	0		51	1.1	1.3	-2.6
	150		51	2.9	3.1	2.2
	-150	0.4	49	1.5	1.8	-5.9
	0		49	0.6	0.8	-15
	150		50	1.8	1.6	11.7
	-150	0.6	49	0.9	1.2	-3.9
	0		49	0.4	0.6	-4.6
	150		49	1.2	1.4	-2.6

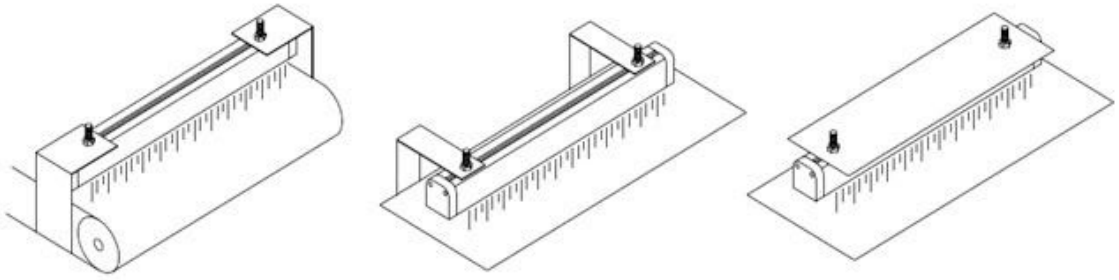
600	-150	0.2	50	1.8	2.4	-3.4
	0		51	1.3	1.7	1.2
	150		50	2.1	2.6	-2.4
	-150	0.4	50	1.1	1.2	9.1
	0		49	0.7	1	-4.6
	150		49	1.1	1.4	-3.7
	-150	0.6	49	0.7	0.9	-3.4
	0		49	0.5	0.7	-6.8
	150		49	0.9	1.1	-1.3

Notice ：1*——Real-time airflow pressure values
The ion balance performance will have difference depend on bar length,airflow pressure,working frequency,install distance;It should be adjusted duty ratio according to real working environment to make ion balance in best.

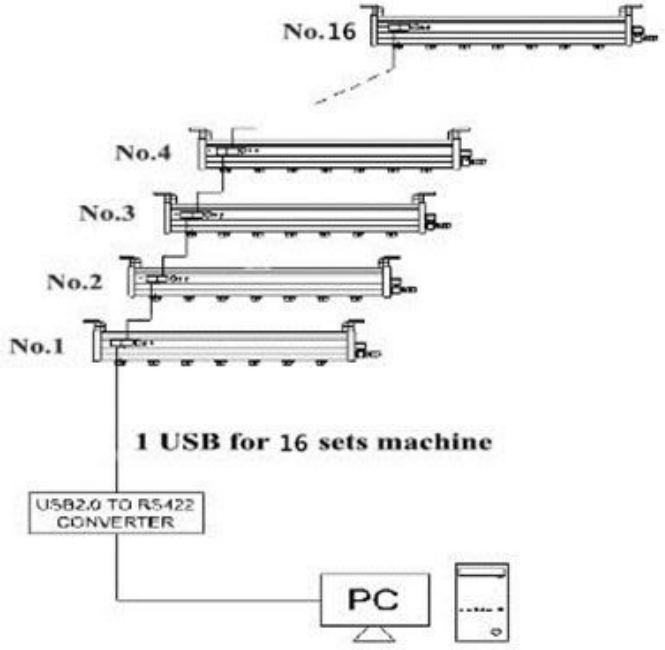
1.Outline dimensional drawing



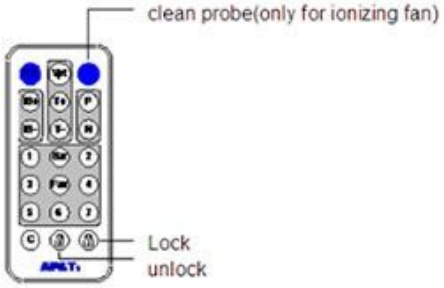
2.Positioning



3.Integrate Control Outline



4.Remote control



1."R/S": start/standby
2."IB+":Increase duty ready;"IB-" :Decrease duty ratio ;
3."Vpt":Static sensor detector value setting:"Vpt"+"T+":increase value;"Vpt"+"T-"decrease value
4."T+":Increase cleaning cycle;"T-" decrease cleaning cycle;
5."P":Only positive voltage work;"N" Only Negative voltage work;
6."Bar"+"1":Set ion bar working frequency 1Hz;"Bar"+"2" Set ion bar working frequency 3Hz;
."Bar"+"3"Set ion bar working frequency 5Hz;"Bar"+"4"Set ion bar working frequency 10Hz;
."Bar"+"5"Set ion bar working frequency 20Hz;"Bar"+"6"Set ion bar working frequency 30Hz;
."Bar"+"7"Set ion bar working frequency 50Hz;
7."Fan"+"1": set ion fan working frequency 3Hz;"Fan"+"2": set ion fan working frequency 5Hz;
"Fan"+"3": set ion fan working frequency 8Hz;"Fan"+"4": set ion fan working frequency 10Hz;
"Fan"+"5": set ion fan working frequency 20Hz;"Fan"+"6": set ion fan working frequency 30Hz;
"Fan"+"7": set ion fan working frequency 50Hz;
8."C":Reset