

BROAD
Combats
POLLUTION

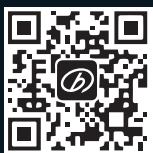


BROAD CLEAN AIR

BROAD PURIFIER

TD4000 / TD5000

OPERATION AND MAINTENANCE MANUAL

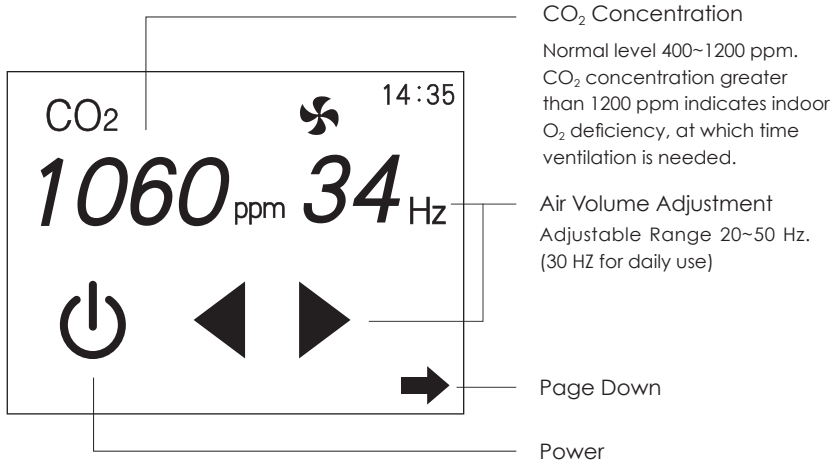


400-677-6666

2-YEAR WARRANTY

2020 08 English

GENERAL INFORMATION



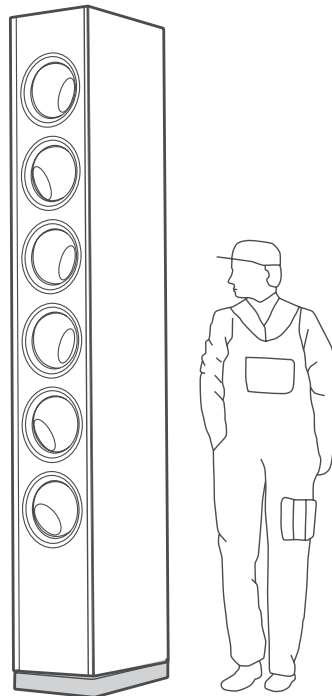
How to achieve the highest level of purification?

Non-stop operation 24 hrs /365 days


- Designed life span of 20 years (some electrical components have a shorter life but are easily replaced)
- This purifier has a low power consumption, see "Technical Parameters" for exact power consumption

Note

- The purifier is not water-proof
- Keep the purifier away bathrooms and sources of steam
- Do not block the air outlet and inlet



ALERTS AND PROMPTS

Fault Alert	
Faulty electrostatic cleaner	
The CO ₂ concentration is too high, open the window!	
The electrostatic cleaner is too dirty, clean it!	
Faulty CO ₂ sensor	
	Reset

Indoor O₂ Deficiency

Please open the window or turn on the fan for ventilation immediately

- The purifier will alert if the CO₂ concentration continuously exceeds the upper limit for 30 minutes, or exceeds 1800 ppm for 5 minutes
- Press any key to clear the alert

Cleaning Prompt Appears

Clean the electrostatic cleaner asap

- If you open the machine door or power off after the prompt appears, regardless whether the electrostatic cleaner has been cleaned or not, the system will regard it has having been cleaned, and the cleaning cycle will be reset
- Press any key to clear the prompt

Component Fault Alert

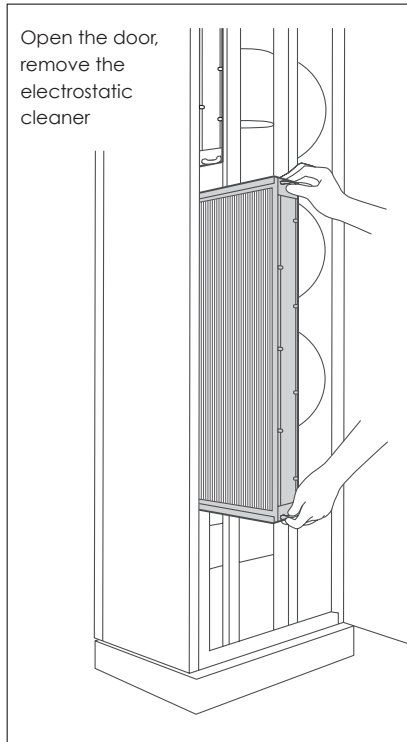
- For CO₂ sensor /fan/ electrostatic cleaner fault, the faulty component icon will flash
- Seek help from BROAD or BROAD designated service provider immediately

Note: The fault interface will be displayed automatically when there's fault, and it won't return to the main interface until any operation is done. If the fault is not eliminated, the fault interface will be displayed again after 2 minutes. The cleaning prompt will disappear automatically after the purifier is powered off

ELECTROSTATIC CLEANER CLEANING

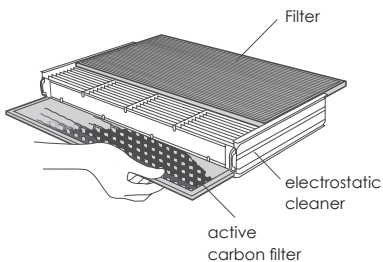
To keep the highest purification efficiency, clean the electrostatic cleaner every month. The electrostatic cleaner must be cleaned if it has collected over 1.5 mm of dust.

Remove the electrostatic cleaner



Remove the filter and the active carbon sheet

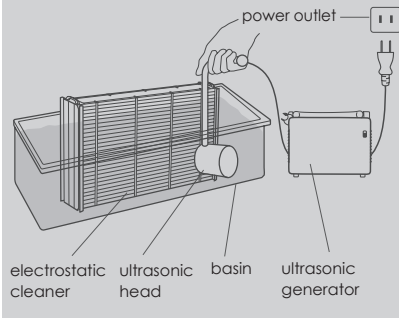
Note that the active carbon sheet should not come into contact with water



Cleaning Method 1:
Ultrasonic Cleaning

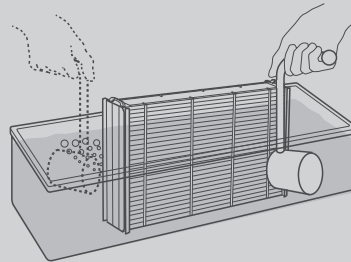
Connect to the power and start cleaning

Immerse the electrostatic cleaner and the ultrasonic head in water



All-directional Cleaning

Direct the ultrasonic head to the electrostatic cleaner, keep a 20 mm (or one inch) distance between the cleaner and the ultrasonic head. (clean for 3-10 minutes)



When the cleaning is done, power off

Rinse the electrostatic cleaner with clean water (cool or warm), then blow-dry (As shown in the right page)

Note:

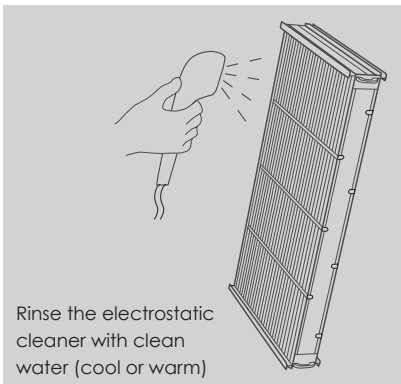
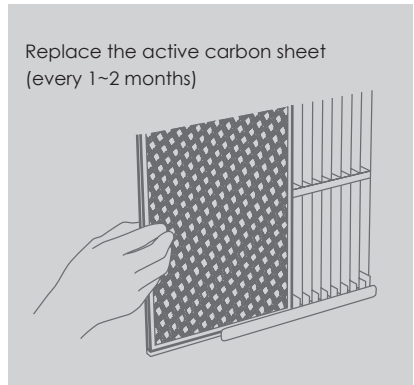
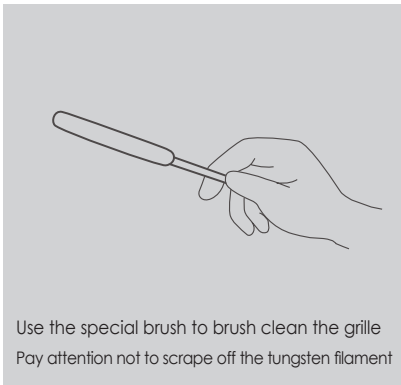
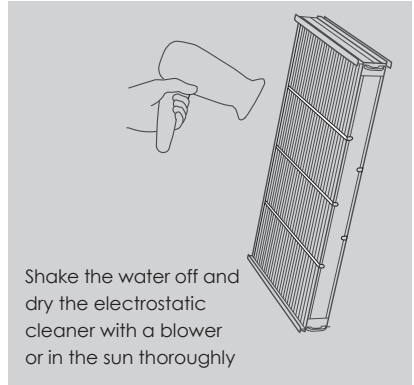
Detergent can be used if the electrostatic cleaner is heavily soiled.

ELECTROSTATIC CLEANER CLEANING

Cleaning Method 2: Detergent Cleaning



Blow Dry the Electrostatic Cleaner



PARAMETER SETTING

Setting

Timing
Date & Time
Parameter Setting

← →

- Press the page down icon on the main interface to enter the "Parameter Setting" interface, then select the corresponding item to set

Timing

Every Day Only Once
 Work Days (Monday to Friday)

Daily On/Off Timing

<input checked="" type="checkbox"/>	Period 1	8 am ~ 12 am
<input checked="" type="checkbox"/>	Period 2	2 pm ~ 6 pm
<input checked="" type="checkbox"/>	Period 3	8 pm ~ 11 pm

← Confirm

- Only one timing mode can be selected (the black dot in the center of the circle shows effective selection)
- Multiple time periods can be set for daily start-stop time ("✓" indicates effective selection)
- Press the time in the box to trigger the numeric keypad, set the desired time period
- Press "Confirm"

Date & Time

Date 12/07/18
Time 14:35

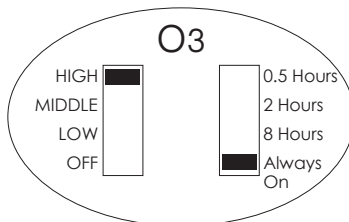
← Confirm

- Press the time in the box to trigger the numeric keypad, revise the date & time
- Press "Confirm"

Ozone Concentration Adjustment

Ozone Concentration Switch

Ozone Switch	Application	Note
• Off	4 seasons	Ozone generator is not in use, and the electrostatic cleaner produces a trace amount of ozone
• Low Level	Flu season	Ozone generator runs for 0.3 minutes every 10 minutes
• Medium Level	Severe plague	Ozone generator runs for 2 minutes every 10 minutes
• High level	Unoccupied room	Ozone generator runs for 10 minutes every 2 minutes



Move the ozone switches up and down to select ozone concentration and disinfection time

Ozone Disinfection Time

Time Switch	Disinfection Time
0.5 Hours	Ozone disinfection lasts for 0.5 hrs
2 Hours	Ozone disinfection lasts for 2 hrs
8 Hours	Ozone disinfection lasts for 8 hrs
Always on	Non-stop disinfection



Ozone Generator Operation Recommendations

1. If the indoor concentration is too low, the effect of ozone disinfection will not be achieved, while if too high, it leads to a sore, dry throat. The ozone generator should be continuously on if no one stays in the room, and be off at intervals when there is people inside
2. The indoor ozone concentration is related to the running time of the ozone generator, as well as whether the window is opened, the fresh air volume and the room size. Please use the ozone meter or test paper to measure the ozone concentration several times a day. Adjust the ozone concentration to below levels.

Cleaning of Ozone Generating Sheet

Clean carbon deposits on the surface of the ozone generating sheet with alcohol pads after 100 hours of use. Pay attention not to leave a cotton thread.

Recommended Indoor Ozone Concentration Levels:

ppm

No.	Indoor spaces with many people	Public health emergency response level				
		I	II	III	IV	N/A
1	Single family residences, apartments, small offices, kindergartens and primary schools	0.08~0.12	0.04~0.08	0.02~0.05	No limit	
2	Dormitories, hotel guest rooms, office areas, schools	0.12~0.24	0.08~0.12	0.04~0.08	0.02~0.05	
3	Shopping malls, restaurants, meeting rooms, lobbies, wards, delivery rooms	0.24~0.4	0.12~0.24	0.08~0.12	0.04~0.08	
4	Public transport (vehicles, ships, aircraft), express transit warehouses	0.24~0.4	0.12~0.24	0.08~0.12		
5	Disinfection cabins at the entrances of stations, airports, hospitals (1 minute)	25~30	15~20	8~12		
6	Infectious disease wards, operation rooms, burn wards, laminar flow ward	0.3~0.5				

INSTALLATION

Installation Process

Installation Location

Determine the installation location according to the room layout and indoor air circulation requirements, and stake out (bolt fixing holes)



Unit installation

Fix the unit on the ground with expansion bolts according to the installation position



Power connection

Connect the power cable to the terminal board of the unit and fix it



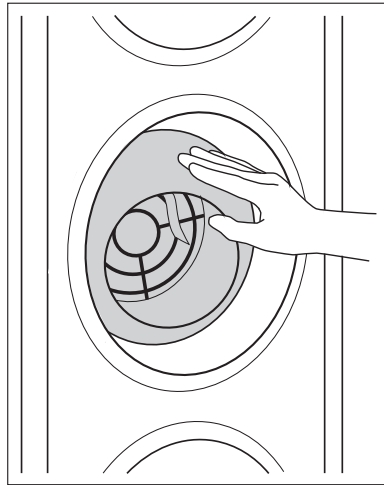
Commissioning

- After installation, check the parameter settings one by one as per this manual
- Check whether the noise from the fan and CO₂ concentration are normal
- After one-day running, take out the electrostatic cleaner and check whether there is dust. If no, there must be problem, please inform BROAD to deal with it

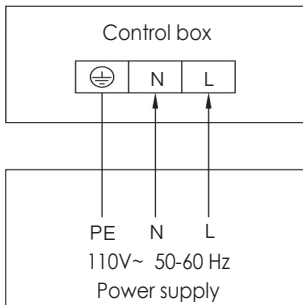
Air outlet adjustment

Direction of each air outlet can be adjusted manually according to the requirement of indoor air circulation

- Adjustment range: within 45 ° in any direction
- Air supply distance: 25m (operation in 50Hz)
- Adjust the outlet direction as below:



Power Diagram



TROUBLESHOOTING

No.	Problem	Cause & Solution
1	The fan is making noise	If there is a metal friction sound or other abnormal sound, it indicates the fan bearing is faulty *
2	The fan is not working	1. The door is not closed 2. The power plug is loose 3. The fan is faulty *
3	The screen interface is garbled	If cutting the power and powering up again does not restore a normal screen, there must be a fault *
4	The purifier does not absorb dust (there is an alert for faulty electrostatic cleaner)	1. Mosquitoes or other substances entered the electrode grid, which can be cleaned 2. The tungsten filament is broken 3. The electrode grid is bent 4. Power failure *
5	Bad dust absorption performance	If the dust absorption performance is poor after 5 day's operation, operate according to No. 4
6	Poor indoor purification efficiency	Check if the electrostatic cleaner is covered with dust. If the duct thickness exceeds 1.5mm (0.06 inches), clean it immediately
7	The electrostatic cleaner does not fit	The electrostatic cleaner is backward, the arrow direction should be inward
8	The cleaning prompt appears repeatedly	If the cleaning prompt appears repeatedly while the electrostatic cleaner is not covered with dust, extend the "cleaning cycle" in setting (note: the electrostatic cleaner will be regarded as having been cleaned if you open the door or power off after the prompt appears)
9	There is a cracking sound	1. If the sound occurs the minute the electrostatic cleaner is reinstalled, it is probably because the electrostatic is not dried thoroughly. Remove it and blow dry 2. If the sound occurs after the purifier has operated for a while, the electrostatic cleaner might have collected too much dust. Clean it 3. The tungsten filament is broken or bent, cut off the filament or replace the cleaner 4. The electrode grid is bent, try to bend it back into shape
10	There is no ozone released	1. The ozone generator is not on. Check the power 2. The ozone generator is damaged, replace it * 3. The fuse is burned out, the voltage is too high, the line is short, or the ozone generator is damaged. Check the power, the line, or replace the ozone generator *

Note: for items marked with *, seek help from BROAD or BROAD designated service provider immediately

ACCESSORIES AND WARRANTY

Standard Accessories

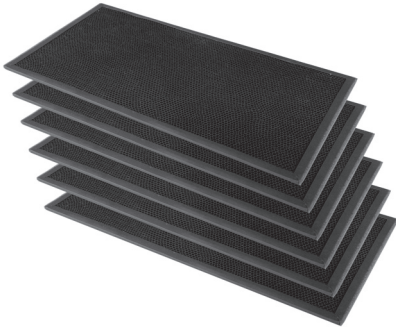
- TD4000
4 expansion bolts (M12 * 100)
9 activated carbon filters
18 dust brushes
- TD5000
4 expansion bolts (M12 * 100)
12 activated carbon filters
24 duster brushes

Warranty

2-year warranty from the date of purchase.
For problems caused by design, manufacturing or factory transportation, free repair or replacement shall be provided. Repair work will be charged for other causes.

Consumable Material: active carbon sheet

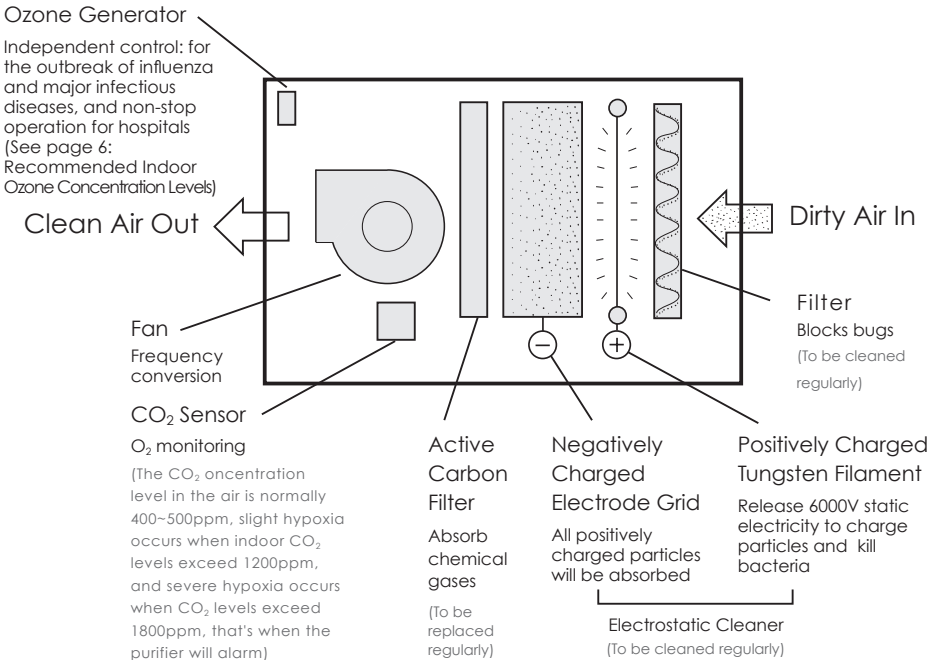
The factory provided active carbon sheets can only last a few months, and can be purchased at any BROAD exclusive store or on-line shop, at a low price



Technical Parameter

Model		TD4000	TD5000
Purified Air Volume	m ³ /h	4000	5000
Applicable Area	m ²	90~180	110~220
Power Consumption	W	80~360	110~500
Weight	kg	144	176

FUNCTIONS



Electrostatic Dust Cleaning

The tungsten filament of the electrostatic cleaner continuously releases about 6000V high-voltage static electricity, and charges all particles with a positive charge, which will then be absorbed by a negatively charged electrode grid. Electrostatic cleaner can absorb infinitely small particles (10,000 times smaller than PM2.5)

Ozone Disinfection

Equipped with ozone generator, the purifier can be used for air disinfection and object disinfection in infectious disease wards, operation rooms and places where people are gathered during the outbreak of epidemics, effectively killing bacteria and viruses. Even in seasons without infectious diseases, keeping a certain concentration of ozone indoors is conducive to preventing harm from microorganisms such as influenza virus and mites, as well as pollen

Formaldehyde Elimination

The active carbon sheet absorbs various volatile and toxic chemical gases (VOC) such as formaldehyde, benzene, nicotine, etc. In addition, ozone itself is a strong oxidant, which can transform organic matter (VOC) into carbon, and itself into water and oxygen. For newly decorated or renovated rooms, use high concentration of ozone for fumigation for 1~2 days to completely eliminate formaldehyde

Oxygen Deficiency Monitoring

The CO₂ sensor constantly monitors indoor CO₂ concentration levels to alert customers if there is indoor oxygen deficiency

BROAD Electrostatic Air Purifier has obtained domestic and international quality and safety certifications



BROAD CLEAN AIR TECHNOLOGY
远大洁净空气科技有限公司

BROAD Town, Changsha, PRC
Service 400-883-9333
Sales 400-677-6666
Fax 86-731-84086387
Web www.broadair.net



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