



b-MOLA NCCO Air Treatment Unit Operation Manual

Model No.: NCCO1802

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Thank you for choosing b-MOLA product;
 Please read this manual prior to operation and maintenance work;
 Please read the "Safety Instructions" before operation. (Page 2~3);
 Injury or property loss may occur if not operated according to this manual;
 Please retain this manual for future reference. (Retain manual in reserve);



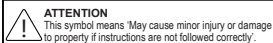
Safety Instructions

Please Follow Instructions Below

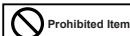
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Prior to cleaning or maintenance, the appliance must be disconnected from the supply mains.

In order to avoid injury of operatives or others, please follow safety instructions.

- The following symbols are classified based on the hazard level or injury effects caused by improper use or operation.



- The two symbols below refer to the relevant instructions that need to be followed.



- Removal of the power cord is prohibited when moving or storing the unit. The power cord might otherwise be damaged leading to a potential fire risk or electric shocks.
- It is prohibited to damage the power cord or power plug. It is prohibited to cut, refit, excessively twist, 'wing' or squeeze the power cord.
- It is prohibited to put the power cord near a heat source or place under a heavy object.
(Otherwise this could lead to a fire or an electric shock.)
- It is prohibited to use no other power source other than a voltage of DC5V and 2 amps.
(Otherwise this could cause overheating leading to a possible fire.)
- It is prohibited to place one's finger/thumb, any metal object or anything else into the air inlet, air outlet or any gap.
(Otherwise the user might touch an internal component, leading to an electric shock or personal injury.)
- It is prohibited to touch the power plug or any electrical component with a wet hand.
(Otherwise the user may suffer an electric shock.)
- It is prohibited to wet the body of the unit in anyway.
- It is prohibited to place any liquid receptacle (e.g. water bottle) on any part of the unit.
(Otherwise this might cause the unit to short circuit leading to a possible fire or electric shock.)
- It is prohibited to place small objects near any area of the unit where a child or infant might be liable to touch.
(Please avoid children of eating such objects. If such situation occurs, please go to hospital immediately.)
- It is prohibited to place the battery in the fire or near heat whilst refitting with a new battery. Please dispose of the battery in line with local safety disposal requirements. Damage to the battery outer insulation cover or release valve could cause personal injury.

- ! If one of the following abnormal or malfunctioning situations occurs, please immediately stop using the unit and pull the plug from its power source.
 - Unit stops running when moving the power cord.
 - Any control button fails.
 - If the circuit breaker moves or fuse burns up.
 - If the power cord or plug is abnormally warm or heated.
 - If there is a burnt smell, abnormal noise or vibration.
 - If there is anything deemed abnormal in the unit's function.
— Please contact your local service centre or distributor to check the malfunction.
- Please periodically clean the power plug. If there is any dust found on the plug in a humid environment, this could damage the insulator leading to a possible fire.
 - Pull out the power plug and clean it with a dry cloth.
 - If you do not intend to use the unit for a long period of time, please pull plug out of power source.
- Please pull out the power plug before any maintenance or cleaning work is undertaken.
(Otherwise the unit might start functioning unexpectedly causing an electrical shock or personal injury.)
- Please fully insert the plug into the power source. If not fully inserted, then power cord could become overheated causing a possible fire or an electric shock.
 - It is prohibited to use damaged power plug or loose power socket.
- It is prohibited to arbitrarily disassemble or refit the unit otherwise it might function abnormally, causing a fire or electric shock. If any maintenance work is required on the unit, please contact your local customer care centre or distributor.

Safety Instructions

Please Follow Instructions Below



- **It is prohibited to place the unit in the following places.**
 - An uneven place.
(Unit might fall causing injury or product damage.)
 - A bathroom, shower room or other places where there is high temperature, high humidity or where the unit could get wet.
(Otherwise the unit could suffer electrical leakage leading to a possible fire or impart an electric shock.)
 - A kitchen or similar places with cooking oil fumes.
(Otherwise unit may break up and cause personal injury.)
 - Locations where oil or other combustible gases might be leaking.
(Otherwise such an environment might cause the unit to catch fire, leading to a disaster.)
 - Places where the unit inlet/outlet is situated close to animal or plant resting areas.
(Otherwise the animal could feel discomfort and the plant might not develop properly.)
- **It is prohibited to wipe the unit using gasoline or other volatile solvents, or to spray the unit with insecticide.**
(Otherwise the unit casing might fracture, resulting in a short circuit.)
- **It is prohibited to operate the unit when using insecticide smoke.**
(Otherwise insecticide particles might accumulate inside the unit resulting in the exhaust draft from the air outlet possibly causing damage to health.)
— After using insecticide, the room should be ventilated thoroughly, before the unit can be operated.
- **It is prohibited to place objects such as books or clothes near to or against the air outlet.**
(Otherwise with a blocked outlet could cause smoke or even fire.)
- **It is prohibited to sit or lean on the unit.**
(Otherwise the unit might turnover or crack, causing personal injury or unit damage.)
* Families with children, please pay attention to the operation process.
- **It is prohibited to light up a cigarette, cigar or burn incense near the unit.**
(Otherwise, flammables may be sucked into the unit and cause fire.)

- ! Please pull the power plug by holding the correct part of the plug.
(The power cord might otherwise be damaged leading to a potential fire risk or electric shocks.) Maintain good indoor ventilation when operating unit together with combustor.

Setting & Operation Requirement

Prohibited Items

Prohibited Items:

- It is prohibited to disassemble the unit.
There are protection mechanisms and protection circuits inside the battery to protect the user. Any improper dismantling will damage the protection mechanisms and possibly cause the battery to get heated, generate smoke and fire.
- It is prohibited to heat or burn the battery.
This may cause the melting of the battery insulator with the loss of its safety function and burn the electrolyte within. High temperatures might cause the battery to overheat, distort the case and lead to smoke and possibly fire.
- It is prohibited to wet the unit.
The unit is insulated with an internal battery. Wetting the unit or placing it into water may cause the loss of functionality of the battery protective circuits. This could lead to an abnormal chemical reaction leading to possible heating of the battery, giving off smoke and start a fire.
- Please avoid charging or operating the unit near a source of fire or under direct strong sunlight.
Do not charge or operate the unit near the source of a fire or oven, or in an environment of excessive high temperatures. Overheating could ensue causing functionality loss, short circuit of the battery together with an abnormal chemical reaction. This could overheat the battery leading to smoke and possibly fire.

Setting & Operation Requirement

Matters That Need Attention

Lithium Battery Safety Instructions

Following Aspects Need Attention:

1. If one observes an undesirable odour from the installed battery, or from other areas within the unit on first-time operation, please do not operate and return to the distributor.
2. Please keep the unit away from an environment involving a heat source, a high barometric pressure or an increasing pressure on the surface of unit during its operation. Place the unit in a secure and safe operating location and away from children.
3. Avoid the unit being shaken in a serious vibrating environment.
4. Please avoid storing or operating the unit in a strong sunlit and hot environment. This will prevent the battery from overheating, becoming distorted, smoking or shortening its life.
5. Please avoid operating the unit in an environment which might conduct static electricity and induce the battery to overheat, distort, generate smoke or shorten its life.
6. Please only charge the battery with the dedicated charger and follow the recommended charging method.
7. Insert battery in correct polarities. It is prohibited to arbitrarily disassemble or refit unit and battery. For safety concern, do not place unit at a wet location.
8. To keep the battery at half-charged condition without any damage and place in the unit a cool dry location when stored for a long period of time.
9. Do not put unit into fire or water.

For highest efficiency of air filtration !

■ Removing indoor dust.

Place unit on a flat surface in an open area where dust falls easy.

■ Best air circulation location area.

Place unit at least 15cm (6") from a wall, furniture, curtains etc, otherwise its filtration efficiency will possibly be diminished.

■ Do not place the unit in the following places or areas.

- Direct sunlight, near air-conditioning unit air flow or heat. (This may cause distortion, colour change or reduced life.)
- Near television, radio etc. (This may cause television image disorder and radio noise.)
- Place unit at least 1m from such objects.

■ When operating unit in same location for a long period of time.

- Surrounding walls or floor could be dirty.
- When maintaining unit, please change the location.

■ Do not use the same power socket as one already used for television or radio.

(Television image disorder and radio noise may appear when power plug is inserted into socket.)
→ Please use alternative power sockets.

■ Do not place objects on the unit.

(This might affect the operation of the unit.)

■ Do not obstruct air inlet or outlet.

(This could reduce efficiency of air filtration by unit.)

NCCO Technology

Please Follow Instructions Below

Patented NCCO Air Purification Technology Brings You Fresh and Clean Air

Our patented NCCO (Nano Confined Catalytic Oxidation) technology used inside our b-MOLA NCCO Air Treatment Unit is able to effectively remove fine particulates, passive smoke, pollen, PM_{2.5}, bacteria, viruses and more. It brings you clean fresh air indoors when the outside air environment is polluted. The unit has safe operation of up to 8 hours (battery powered) under the control of its intelligent control of an automatic power-off and re-start function after 30 minutes of rest (See bottom of page for further info).



About NCCO (Nano Confined Catalytic Oxidation) Air Purification Technology

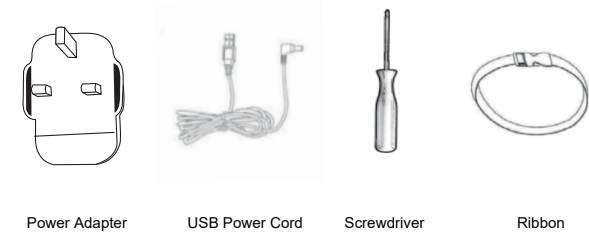
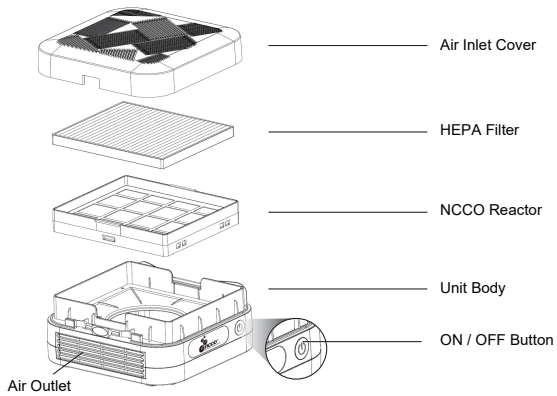
- NCCO Air Purification Technology has world-wide patents.
- The principle of NCCO technology is based on the efficient adsorption of pollutants through the use of active oxygen to break the chemical bonds of the pollutant molecule and then decomposing them to Carbon Dioxide and water molecules.
- Characteristics of the technology are - extremely long filter/Reactor life, no secondary pollution, sterilises and removes carcinogenic pollutants such as formaldehyde and effectively deodorises.
 1. **Long Life** – Take example of adsorption capacity of activated carbon, which has a lifetime of only about three months, on the contrary, NCCO product is available to sustainable use.
 2. **No Secondary Pollution** – For other types of filters, they will be saturated relatively quickly and thus release unabsorbed pollutants back into the air and is called secondary pollution. NCCO technology continuously decomposes pollutants into harmless Carbon Dioxide and water.
 3. **Sterilisation and Formaldehyde Removal** – NCCO technology can effectively decompose chemical pollutants including formaldehyde which is deemed to be carcinogenic. It also filters suspended particles, heavy metal particles, pollen, viruses and bacteria.
 4. **Efficient Deodorisation** – NCCO technology can completely remove offensive odours found in public washrooms and indoor environment near landfills.

NCCO IS AN INNOVATIVE TECHNOLOGY INVENTED BY MEMBER OF HKUST ENTREPRENEURSHIP PROGRAM.

About Intelligent Power-Off Protection

b-MOLA NCCO Air Treatment Unit is designed using an Intelligent Power-Off Protection System. The unit will intelligently power off after continuous use over a period of 8 hours and then will restart automatically after 30 minutes downtime once connected to an external power supply. The unit will use the intelligent system to power-off after continuous use of 2 hours, and then will restart automatically after 10 minutes of downtime when using its internal (battery) power supply. Our intelligent power-off system is able to effectively avoid excessive load and eliminate any risk during the supply of power.

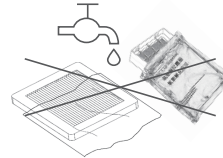
Parts & Components



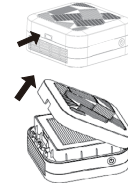
Setup

1. HEPA Filter and NCCO Reactor Installation

① Take out HEPA Filter and NCCO Reactor from protective packaging material.



② Take out the body of the filtration unit. Press the side clips to open the air inlet cover.

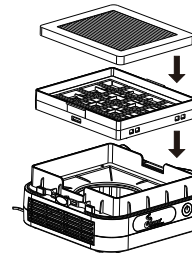


Note

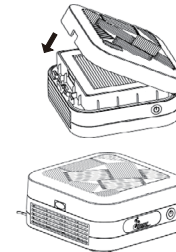
It is prohibited to clean, soak or wet any parts, or they could be damaged and so affect the unit operation.

③ Install HEPA Filter and NCCO Reactor combination into the body of the unit.

N.B. HEPA Filter should face upwards.



④ Firmly clip and re-fit the air inlet cover onto the main body of the unit. A 'clicking' sound should be heard indicating successful installation.



Setup

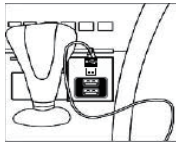
2. Power Supply Connection & Operation

One can connect to a power supply using the following methods:

- ① **Using internal battery** – Just press the ON/OFF Button and the unit will start using its rechargeable lithium battery.
- ② **Using USB power cord** – Insert USB connector into supplied power plug and connect to appropriate socket. Insert pin end of plug into the power port of main unit. This is located underneath the unit.



- ③ **Using USB power source (car)** – Insert USB connector into car USB port which will use charging power from vehicle.



Note

- If filters should not be installed into the unit, a 'DiDiDi' alarm sound will be heard from the unit. Please ensure that HEPA Filter and NCCO Reactor are properly installed prior to switching the unit on.
- When first switched on there will be a slight mineral smell. This is perfectly normal and is due to special manufacturing technique of the NCCO Reactor. The smell is harmless and will disappear after a period of time operating the unit.
- Please check and ensure that the car power supply is correct. The power input of this unit is DC 5V 2A.
- Before operating unit in car, please make sure that the power supply has been disconnected and lift up unit carefully.

Setup

3. In-Car Operation Procedure

- ① Remove base plate from underneath unit. Remove 4 screws holding ribbon securing plates. Place and locate both free ends of ribbon and then screw back securing plates. Replace base plate.
- ② Plug in DC power jack into power port in base of unit.



- ③ Position the unit at the back of car headrest using the securing ribbon.
- ④ You can adjust ribbon tension by moving ribbon within the clip buckle.



(*Please ensure that ribbon has been tightened to prevent unit from wagging.)

Note

- If using the unit in a mobile environment, please ensure that the unit is firmly fixed so that it does not 'waggle' or loosen when in motion.
- If using the unit in a car, please follow the relevant country laws and regulations such as not placing free standing objects on the car centre console.
- Please check and ensure that the car power supply is correct. The power input of this unit is DC5V 2A.

Operation Method

ON/OFF Operation

To switch on unit

Press the ON/OFF button to start operation. At the start of operation, unit will be in normal low airflow mode and the ON/OFF button will have a weak-white light.



To switch to high airflow mode

Press the ON/OFF button whilst in operation and the airflow volume will increase to high airflow mode and the ON/OFF button will have a blue light.

To switch off unit

Press the ON/OFF button again to stop operation.

LED Indicator

When the power ON/OFF indicator flashes in different colours, they indicate following situations:



	Fan Speed	Slow Flash	Fast Flash
Blue Indicator	Highest	Charging & Charging	Low Power
White Indicator	Lowest	Charging & Charging	Low Power

- When the indicator flashes white and then blue alternately, it indicates that the unit is off and is charging.

Memory Function

When the external power supply is stopped or interrupted unexpectedly, the unit will automatically transfer to its internal battery power supply. When the battery is exhausted and the unit stops running, it will memorise the operation mode and will return to the previous mode when external power is re-connected to it.



Maintenance & Care

WARNING



Always disconnect the power supply of the unit before any maintenance or care process is carried out (except replacing filters).

(Otherwise the unit might still be running and could cause an electrical shock causing injury.)

Note

- It is prohibited to clean the unit with any detergent.
- If cleaning the unit by using a cloth that is chemically treated, please read the instructions supplied.
- During maintenance work, do not touch the disassembled parts randomly and ensure you do not stumble over them, thus injuring yourself or damaging the parts.
- Do not operate unit if HEPA Filter has not been installed, since this could cause irreversible damage to NCCO Reactor.
- If the HEPA Filter is not replaced periodically as indicated in instructions, it may seriously affect the efficiency of the NCCO Reactor.

Cleaning Methods

1 Cleaning External Surfaces of Unit Body



Please first take out Air Inlet Cover before washing it with water (only Air Inlet Cover can be washed with water). The main body of the unit can be wiped with a soft dry cloth but avoid dust falling on HEPA Filter or NCCO Reactor.

Note

After washing the air inlet cover, please ensure that it is completely dry before replacing onto the main unit.

Tips : A damp (non-abrasive) cloth can be used to clean the unit surface.

2 Cleaning Air Inlet and Air Outlet

Use a soft brush or light vacuum to clean the air inlet and air outlet.



Note

WARNING:
Never rinse or soak the HEPA Filter or NCCO Reactor with water. When storing unit for a long period of time:

- Stop operating unit and pull power plug from power source.
- Carry out any maintenance or care work.
- Place the unit in a plastic or box carton, and store in a cool dry place.

Maintenance & Care

Filter Maintenance and Replacement

1. Filter lifetime will vary depending on the environment, amount of usage and location of the unit.
2. To maintain optimal operating condition of the unit, only use the recommended filter.
3. Turn off unit but maintain power supply when replacing filters.
4. When NCCO Reactor needs to be replaced, please follow the HEPA Filter Surface Color Changing Indicator to dispose HEPA Filter.

RECOMMENDED FILTER CLEANING AND REPLACEMENT CYCLES AND METHODS		
Filter	Cycle	Method
HEPA Filter	Every 6-12 months*	Replace
NCCO Reactor	Available to sustainable use **	Available to sustainable use **

*The filters cleaning and replacement cycle may vary depending on the operation environment.

**If the HEPA Filter has not been replaced periodically or it has been damaged, and the surface of the NCCO Reactor is covered with dust or oily substances after disassembling, the removal capacity of the NCCO Reactor may be badly reduced and should be replaced.

HEPA Filter Surface Color Changing Indicator		
No need to Replace	Replacement is Recommended	Replacement is Needed

FAQ

Q1

A 'DiDiDi' sound is heard from the unit and the unit is not operational.

A

Please re-check whether the HEPA Filter and NCCO Reactor Combination has been properly installed. If not, please re-install HEPA Filter and NCCO Combination.

Q2

Can the HEPA Filter be washed?

A

NO, the HEPA Filter is made of composite material and washing will seriously affect its purification capacity.

Q3

Air quality still has not improved even after operating for a long period of time.

A

When the unit being used in a seriously polluted area, the treatment process will take a long time. Continue operating the unit in high airflow mode until pollution is reduced.

Q4

The unit emits an unusual smell or smoke (e.g. smoke, flames or burning)

A

Immediately turn off unit and disconnect power supply. Then contact your local service centre or authorised distributor service centre for resolution.

Trouble Shooting

Problem	Solution
Unit does not operate.	Check whether the unit is correctly connected to its power supply. (Please refer to page 8 for the correct method of connecting the power supply.) Turn on unit.
'DiDiDi' sound is heard and unit does not operate.	Check whether the filters have been correctly installed. Re-install filters.
No air is being blown out of the Air Outlet.	Check whether the unit is correctly connected to its power supply. Turn on unit.
Air quality still has not improved despite operating for a long time.	If the unit is used in a seriously polluted area, the treatment process will take longer than normal. It is recommended to operate the unit using its high airflow mode until the pollution diminishes.
	Filters might require cleaning or replaced. Clean or replace filters.
Airflow speed at Air Outlet becomes slow.	HEPA Filter may be clogged or blocked. Replace HEPA Filter. (Refer to page 7 for method of replacing HEPA Filter).
	Make sure all packaging materials are removed.
Unit produces abnormal noise.	Make sure all packaging materials are removed.
	Make sure Air Inlet and Air Outlet are not blocked by foreign matter.
	The unit may be malfunctioning – Seek advice from service centre or an authorised service provider.
Unit emits unusual smell, odour or smoke (also flames or burning).	Immediately switch off unit and disconnect its power source. Contact local service centre or authorised service provider.

Product Specification

Power Supply			DC5V 2A
Power Consumption (W)	Mode	Lowest	1.3
		Highest	2.5
Airflow Volume (m ³ /hr)	Mode	Lowest	12
		Highest	25
Noise Level (dB)	Sound Pressure Level	34 dB-38 dB	
	Sound Power Level	40.6 dB-44.9 dB	
Product Dimension (L × W × H) (mm)			160 (L) x 160 (W) x 73 (H)
Net Weight (kg)			0.85
Treatment System		Active Oxygen Generator	Sterilization & Disinfection
		HEPA Filter	Removes dust, hair, and airborne particles such as allergens, pollen, bacteria, viruses and fungus.
		NCCO Reactor	Removes odour, decomposes and oxidises formaldehyde, VOCs and other harmful pollutants.