



# Installation, operation, and maintenance manual

# Part No. 90001461/90001462

# Purigo T1750/T2200

Please keep this manual with the product

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# **1.0 General Information**

Section 1 contains essential information about the operation of the unit, warnings and safety, warranties, regulation guidelines, intended use, receipt, storage and shipping of the unit.

## **1.1 Safety Information**

All essential safety information must be followed! A typical example of how a safety critical warning is given will be displayed below. Typically, these are displayed In red box, however there is no guarantee every user safety warning will be displayed in the same way. Use common sense and good judgement and never install or operate the unit if not properly qualified to do so.



**Danger:** Always pay close attention to danger and warnings signs. To not do so could cause serious personal injury, death, and damage to the product and property.

Special Regulations apply for use, connection, operation, transportation, and maintenance. Consultation is needed in case of any doubt about the requirements to safely carry out work. Consult the relevant regulations and health and safety standards of your organization or seek expert advice. When carrying out maintenance, repair, installation, and any other work, Airflow Developments recommends the following safety equipment be used:

- Protective glasses to protect against eye injuries.
- Ear protectors to protect against all kinds of noise.
- Hair net and protective clothing to guard against contact with moving parts. Do not wear rings, chains, or other jewellery.
- Protective mask protects the airways from small particles, dust, pollen, bacteria, and viruses.
- Protective gloves serve to protect the hands against rubbing, abrasions, cuts or more injuries, as well as contact with hot surfaces.
- Protective footwear serves to protect against heavy falling parts and from slipping on slippery surfaces.



**Warning:** For all work on the Purigo T1750 and T2200, the applicable general safety at work and accident prevention regulations must be observed! <u>The following must be observed</u> before all cleaning and maintenance work or before opening the terminal compartment:

- All safety features like fuses, etc. must be correctly fitted and can only be removed for maintenance and repair jobs by skilled and <u>authorized</u> service engineers. Isolate the unit from the mains power supply and secure against unintended restart! – <u>The rotating parts</u> <u>must first come to a standstill!</u> – Once the rotating parts come to a standstill, a waiting time of <u>5 minutes</u> must be observed, as dangerous voltages may be present due to internal capacitors, even after isolation from the power supply!
- 2. All plant-related safety regulations must be observed! If applicable, further country-specific regulations must also be observed!
- 3. Protection against contact must be ensured pursuant to BS EN ISO 13857:2008 when installed! Contact with rotating parts must be avoided.
- 4. A uniform inflow and free outlet must be ensured!

#### **1.2 Warranty Claims**

Any warranty, guarantee or offer provided by Airflow Developments shall not apply if the instructions are not observed. The use of accessories, add-ons or other interactions which are not recommended or offered by Airflow developments is not permitted. Any damage or issues that may occur from misuse, unauthorized tampering or modification with the unit is not liable for warranty. "Unit" shall refer to all items in the scope of this delivery. Upon successful delivery the unit is considered correct. If modification, tampering or adjustment has been done without the express instruction of Airflow Developments staff or authorized technicians, your warranty and any mentioned guarantees are considered breached.

#### **1.3 Regulation Guidelines**

If the product is installed correctly and used to its intended purpose, it conforms to all applicable regulations and directives at its date of manufacture as per its declaration of conformity document. Upon delivery it is recommended that a manager or user check the unit for breaches of relevant safety legislation that occurred in transit and then raise any issues with the transport company if issues are found.

#### 1.4 Intended Use

Purigo T1750 and T2200 are designed to be used in a typical residential/commercial environment. It is for indoor use only and works with 230V AC supply from a normal utility socket. It can be used for filtering indoor air by means of recirculating it and removing the small particles, dust, pollen, bacteria, and viruses with the help of air filters. Any use other than the intended use is prohibited!

Do not use the unit at a relatively humidity higher than 70%. Do not use the unit at temperatures below 5°C and above 40°C. Do not operate the unit with different utility/mains power then listed on this manual.

#### 1.5 Receipt

The delivery contains the air purifier unit. The scope of delivery also includes the items below as the assembly kit:

- Door key, 1 piece
- Power supply cable, 1 piece
- Fixing bracket, 2 pieces
- The materials above are attached to the service panel of the unit with adhesive tape.

Please check delivery immediately on receipt for accuracy and damage. If damaged, please notify the carrier immediately. In case of delayed notification, any possible claim may be void.

#### 1.6 Storage

When storing for a prolonged time, the following steps are to be taken to avoid damaging influences: Protection by dry, air-dustproof packing (plastic bags with drying agent and moisture indicators). The storage place must be waterproof, vibration-free, and free of temperature variations (ambient temperature limit min/max 0°C/ +40°C). Damages due to improper transportation, storage or commissioning must be verified and are not liable for warranty.

## 1.7 Shipping

All manufactured devices are shipped from the factory after all tests and checks have been carried out before shipment. The shipping must be carried out by trained and experienced personnel and the necessary safety precautions should be taken to prevent the overturning and slipping of the device. When shipping the devices, it should be ensured that the weight is evenly distributed over the four corners and not unbalanced.

<u>Warning:</u> When transporting the unit, carefully observe its behavior and stay clear of any possible hazardous areas. It must be ensured that the means of transport/lifting is suitable to accommodate the required weight and size capacity. Never stand beneath suspended loads. Never try to lift weight you cannot reasonably carry. Watch hands and fingers when lifting or dropping the box to its side. Be careful in the transportation of the unit that it is not dented in transit.

Packaging information and box weight information is displayed below:

#### Table 1: Packaging Information

Model	Packed Quantity	Box Dimensions (LxWxH) (mm)	Weight(Kg)
T1750	1	2360x810x780	240
T2200	1	2360x810x925	290

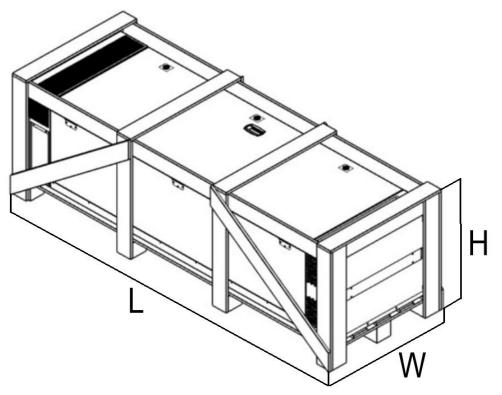


Figure 1: Packaging

This product requires the use of a forklift or other suitable lifting devices to be properly transported. Please do not attempt to lift the unit personally.

<u>Warning</u>: Due to load the package must be transported by forklift, pallet truck or crane. Ensure symmetrical load distribution and lift the device slowly. Always keep a close monitor on the package and do not stand underneath it. Do not attempt to operate this machinery and move the unit unless properly licensed.



<u>Warning:</u> Risk of personal injury and equipment damage due to falling from the forklift! Before transporting the unit, please ensure the forks of the forklift truck are long enough to lift more than the entire underside of the unit! (See figure 2) refer to table 1.

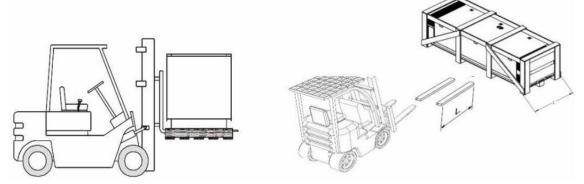


Figure 2: Make sure the length of the forks is sufficient to reach the end of the package

<u>Warning:</u> Risk of personal injury and equipment damage due to an unpredictable center of gravity. If the package is fitted incorrectly, incorrect weight distribution means they can be dropped easily. Falling or overturned packages can cause damage or injury! Always check when moving the product and stay clear when in transit.

To ship the unit, free access must be granted to the install location for a forklift, pallet truck or crane. It is delivered on its side and not upright, transportation in an upright position is not recommended. Do not attempt to lift it from the floor by hand. Ensure the forklift forks are long enough for the unit to be properly supported.

# 2.0 Disposal

In section 2.0 information about the safe and responsible disposal of the unit is included. Dispose of all components and filters in an environmentally friendly manner in accordance with the local codes, practices, and guidelines. An authorized specialist waste processing company must dispose of the unit or the individual components. The appointed contractor must ensure that the components are separated according to material type.

#### 2.1 Filter Disposal

The filters of the unit can be considered toxic and harmful to the environment once they are due for replacement. Please dispose of these in the most appropriate manner to the local authority.

#### **2.2 Electrical Connection**

The product does not contain batteries, in the event of the failure of the unit try a different plug and dispose of the one that came with the unit in a manner that is acceptable to the local authority. It can be disposed as you would any other retail plug.

## 2.3 Recycling

Metal components of the product may be recycled, always check with your local disposal outlet which parts can or can't be recycled in your area. Airflow Developments recommends reusing and recycling wherever it is possible to reduce environmental impact. Do not reuse dirty filters.

## **3.0 Technical Information**

Section 3 contains the technical parameters of the unit. Table 3 and 4 detail the values of each setting when adjusted at the potentiometer.

Specification	T1750	T2200
Airflow Volume(m3/h)	300-1750	370-2200
Control	Stepless	Stepless
Product Dimensions(mm)(LxWxD)	2313x717x567	2313x717x720
Product Weight(Kg)	150	180
Packaged Dimensions(mm)(LxWxD)	2360x810x780	2360x810x780
Packaged Weight(Kg)	240	240
Max power consumption(W)	494	473
Max power consumption(A)	2.5	2.5
Voltage(V)	230	230
Filters(HEPA)	HEPA14	HEPA14
Filters (EPM)	ePM1(80%) ePM10(70%)	ePM1(80%) ePM10(70%)

Table 3: Technical Specification

Parameter	T1750	T2200
Airflow Volume min(m3/h)	300	370
Airflow Volume max(m3/h)	1750	2200
Max covering area(m2)	146	183
LwA (Min)(dBa)	30	31
LwA (Max)(dBa)	65	68
LpA(Min) @1m (dBa)	22	23
LpA(Max) @1m (dBa)	57	60
Power Max(W)	494	473
Voltage(V)	230	230
Amps(A)	2.5	2.5
Frequency(Hz)	50	50
Height	2313	2332
Width	717	717
Depth	567	720
Weight(Kg)	150	180
Protection IP Rating	20	20
Body Construction	Standing Tower	Standing Tower
Silencers	2	2
Filter Technology	HEPA	HEPA
Filter 1	ePM10 70%	ePM10 70%
Filter 2	ePM1 80%	ePM1 80%
Filter 3	H14	H14
Regulation	Stepless	Stepless
Colour of body	White	White

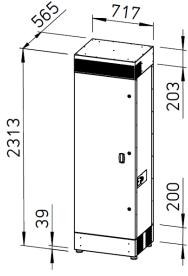


Figure 3: T1750 Dimensions

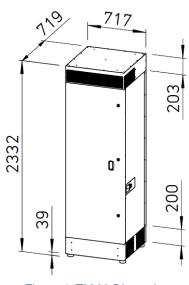


Figure 4: T2200 Dimensions

Table 4: T	1750 Setting levels
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T1750				
Adjustment levels	Air Volumes(m3/h)	Noise level at 1m(dBa)	Power(W)	
20	0-300	22	11	
25	300-370	27	14	
30	370-480	33	21	
35	480-565	35	29	
40	565-660	39	42	
45	660-740	41	52	
50	740-850	44	71	
55	950-935	46	90	
60	935-1025	49	113	
65	1025-1110	51	141	
70	1110-1220	53	180	
75	1220-1305	54	217	
80	1305-1400	56	261	
85	1400-1480	57	310	
90	1480-1590	57	376	
95	1590-1680	57	439	
100	1680-1750	57	494	

## Table 5: T2200 Setting levels

T2200				
Adjustment levels	Air Volumes(m3/h)	Noise level at 1m(dBa)	Power(W)	
20	0-370	23	18	
25	370-460	28	21	
30	460-570	33	25	
35	570-700	38	32	
40	700-810	40	39	
45	810-915	42	49	
50	915-1050	44	63	
55	1050-1160	45	79	
60	1160-1265	45	99	
65	1265-1400	46	128	
70	1400-1505	46	158	
75	1505-1615	47	194	
80	1615-1750	49	244	
85	1750-1850	51	294	
90	1850-1960	54	351	
95	1960-2075	57	415	
100	2075-2200	60	473	

# 4.0 Installation

Section 4 contains information about the installation of the product into its intended area of operation. It contains information about the installation location, mobility, electrical connection, and unboxing.

## 4.1 Unboxing

The product will come in a wooden structure and packaged which can be disposed of and recycled. **Ensure this manual is kept with the unit.** The unit will not come upright, and it is not recommended the product is unboxed this way in case it may fall. Move the box to the intended location of install using a suitable means using a forklift, crane, or pallet truck. If for any reason, the box is damaged and preventing transport, consult section 1.2, 1.5 and 1.7 of this document.

## **4.2 Installation Location**

The Purigo T air purifiers must be placed in a vertical position in such a way that the air inlets and air outlets of the apparatus are not blocked by obstacles and a clear air distribution path is guaranteed. The unit is intended to be stood on its feet. Do not seal the unit in place. Do not put the unit in a location which will exceed its maximum temperature tolerances. Do not place the unit in areas which are to be kept clear for any reason, such as a fire exit. Allow easy access for adjustment of the potentiometer. Do not place the unit inside a cupboard, wardrobe, or cabinet. Do not rest heavy objects on the unit or use it to hold other objects in place. It is recommended to not place the unit where there is a danger of it falling from a great height. Do not place the unit in water or submerge it. Do not concrete the unit in place or install into a wall, floor, or ceiling.

**Warning:** Due to load the package must be transported by forklift, pallet truck or crane. Ensure symmetrical load distribution and lift the device slowly. Always keep a close monitor on the package and do not stand underneath it. Do not attempt to operate this machinery and move the unit unless properly licensed.

**Warning:** Risk of personal injury and equipment damage due to falling from the forklift! Before transporting the unit, please ensure the forks of the forklift truck are long enough to lift more than the entire underside of the unit! (See figure 2) refer to table 1. Section 1. Risk of personal injury and equipment damage due to an unpredictable center of gravity. If the package is fitted incorrectly, incorrect weight distribution means they can be dropped easily. Falling or overturned packages can cause damage or injury!

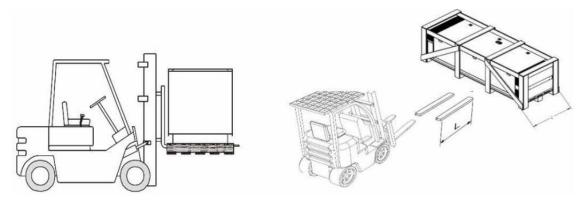
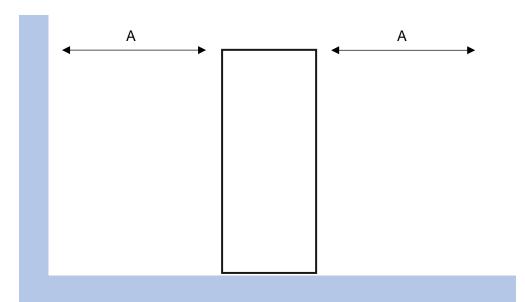


Figure 2: Make sure the length of the forks is sufficient to reach the end of the package

The required minimum distances to the walls depend on the physical conditions of the installation space, but to maintain good air circulation, the distances listed below should be considered.

Table 6: Clearance for free airflow.

Model	A(mm)	B(mm)
T1750/T2200	1200	4000



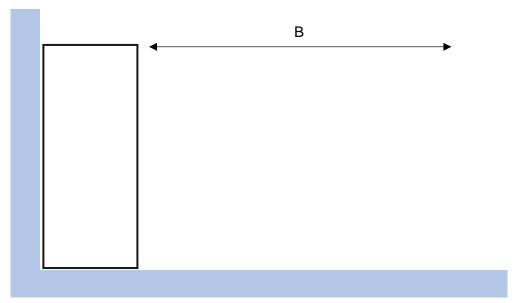


Figure 3: Recommended Installation clearances

#### 4.3 Mobility

The Purigo T series has feet at the base of the unit which provide stability and can be individually raised or lowered in order to level the unit.

#### **4.4 Electrical Connection**

The electrical connection is made by plugging in the power cable to the side of the unit and inserting the plug into a mains power socket. The black power switch on the side of the unit will turn power on and off. Do not run the electrical connection through water using a cable extender or any other cable. Ensure the plug and plug socket is safe and electrically secure **BEFORE** operation or plugging in the unit. Never attempt to force the wrong plug type into the power connection. Always check the plug is compatible with the product before attempting to install.

#### 4.5 Levelling

The unit has adjustable feet. Adjust the unit only as far as necessary to level the unit, extending the levelling feet more than necessary may cause the unit to vibrate and cause noise!

To adjust the unit, make sure it is first positioned in the correct place with the minimum clearances observed.

There are 2 nuts on each adjustable foot. One is accessible from outside (outside nut) and located just above the foot and another is inside(inside nut) located inside the unit's bottom cover. To **raise** the unit, **turn the inside** nuts clockwise and then **tighten the outside** nuts. To **lower** the unit, **turn the outside** nuts clockwise and then **tighten the inside** nuts. To access the nuts inside the unit, you may need to remove the filter temporarily.

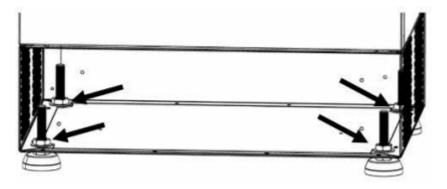


Figure 4: Feet can be raised up and down for levelling

#### 4.6 Fixing the Unit

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**Danger:** Risk of personal injury and equipment damage, make sure the device is placed on a flat surface.

Use the bracket supplied with the assembly kit to fix the unit to the wall or a similar flat rigid surface using the 2 fixing holes on the rear panel. Please ensure this is affixed to the unit before attempting to work on it. If the unit is not properly secured to a surface it could accidentally topple forwards and cause serious injury. Fixing to the wall also prevents the unit from being deliberately knocked over.

# 5.0 Operation

Section 5 contains information about the operation of the unit and includes the correct operation of the potentiometer, speed control and an explanation of the labels that are present on the unit.



<u>Warning:</u> Make sure to use protective gloves and a protective mask (min. FFP2) BEFORE performing service and/or maintenance work.



**Danger:** Danger to life due to electric shock. An electric shock can result in death or serious injury. The unit must be fully isolated from the mains power supply before all maintenance work and before opening the terminal compartment!

- Do not operate the unit without a proper electrical grounding/earthing.
- Make sure the unit is connected to a power supply with a 30 mA individual RCD.
- Always disconnect the unit power supply before performing any service or maintenance work.

## 5.1 Operating the Power

The fan is directly controlled by the speed controller (potentiometer). Push the rotary control inwards to power the unit. The blue LED indicates the unit is running, it is for indication purposes only. The potentiometer must be pressed in to power on the unit. Switch the switch down on the back of the unit to engage the plug power supply. One power cable is supplied with the unit package. Use the power cable to connect the power supply into the black port at the back.

#### **5.2 Speed Control**

Turn the knob of the potentiometer clockwise to increase the speed and the airflow. Turn the potentiometer anti-clockwise to decrease it. The adjustment levels with power draw and airflow rates can be seen in section 3.0, Table 3 and 4 of this document. Comfort is intended to be the everyday operating speeds, and boost for short periods of increased purification



Figure 5: The potentiometer is located on the side of the unit

# 6.0 Maintenance and Service

Section 6 contains all the necessary service and maintenance information for the unit. Included in this section is the relevant safety information, a weekly, monthly, and yearly maintenance plan, and information about component maintenance and filter maintenance.

#### 6.1 Important safety information

Please read and understand this section fully before continuing with maintenance work. (Continuation on page 15)

# Airflow Developments recommends the following safety equipment be used before carrying out work.

- Protective glasses to protect against eye injuries.
- Ear protectors to protect against all kinds of noise.
- Hair net and protective clothing to guard against contact with moving parts. Do not wear rings, chains, or other jewellery.
- Protective mask protects the airways from small particles, dust, pollen, bacteria, and viruses.
- Protective gloves serve to protect the hands against rubbing, abrasions, cuts or more injuries, as well as contact with hot surfaces.
- Protective footwear serves to protect against heavy falling parts and from slipping on slippery surfaces.



<u>Warning:</u> Make sure to use protective gloves and a protective mask (min. FFP2) BEFORE performing service and/or maintenance work to prevent the inhalation of built up harmful particles inside the filter.



**Danger:** Danger to life due to electric shock. An electric shock can result in death or serious injury. The unit must be fully isolated from the mains power supply before all maintenance work and before opening the terminal compartment!

- Do not operate the unit without a proper electrical grounding/earthing.
- Make sure the unit is connected to a power supply with a 30 mA individual RCD.
- Always disconnect the unit power supply before performing any service or maintenance work.



**Danger:** Risk of personal injury and equipment damage, make sure the device is placed on a flat surface. Ensure the product is fixed to the wall as per section 4.6.

## 6.2 Maintenance Schedule

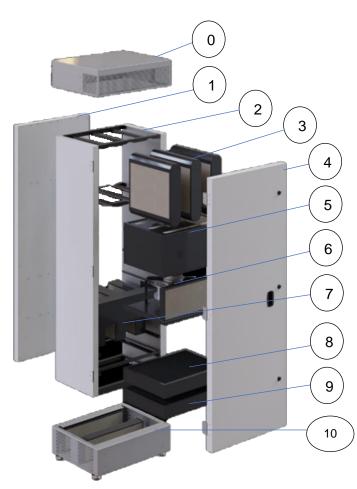
The below maintenance schedule is recommended by Airflow Developments.

Table 7: Maintenance and replacement schedule

Maintenance Plan for all Purigo units		Recommended inspection intervals			on	
Component	Task	Action if unacceptable	Regularly	3 months	6 months	1 year
Outer Housing	Check for corrosion, contamination, damage, or scratches etc	Clean and repair	x			
	Check for Damage	Fix the damage	х			
Air Filters	Check for unacceptable levels of dirt, odours and damage	Replace the filter		x		
	Check the filter change indicator next to adjustment knob.	Replace the filter	x			
	Check for pollution, shading and corrosion/damage	Clean or replace the fan			X	
Fan	Check for abrasion or unbalance	Change the fan				X
	Check internal fan connection cable	Repair or replace				x
Silencer	Check for dirt and damage	Clean or change			x	

## 6.3 Components

Each component should be checked for damage. Below is a list of all the components within the unit. Common symptoms include loose wires, dents, scratches, or other damages.



Component No.	Description
0	Supply Outlet
1	Back Panel
2	Unit Frame
3	Silencer
4	Unit Door
5	Hepa 14 filter
6	Fan Unit
7	Silencer
8	ePm10 70%
9	ePm1 80%
10	Inlet Base

Figure 7: Exploded View

Filters are located as displayed on the unit and accessed through opening the door of the product using the key provided. (*You will need to replace all filters at once.*)

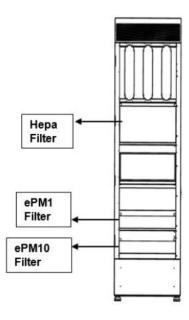




Figure 8: Filter Location

#### 6.4 Filters

The filters must be changed and replaced when the filter warning symbol appears on the front panel of the unit. In addition, when maintaining the unit, check for dirt and dust and any other debris, if it is excessive (significant dust or blackened by dirt) clean it out.



**Warning:** Make sure to use protective gloves and a protective mask (min. FFP2) BEFORE performing service and/or maintenance work to prevent the inhalation of built-up harmful particles inside the filter. Consult section 6.1.

The filters are available for purchase from <u>airflow.com</u>. The filters are only guaranteed if purchased from Airflow developments. No responsibility will be accepted for use of 3<sup>rd</sup> party filters or other filters. 3<sup>rd</sup> party filters may not perform as intended.

Filter	Unit Name	Dimensions (LxWxD)(mm)	Ref. No
ePM10 70%	Purigo 1750	457x610x100	90001507
ePM1 80%		457x610x100	90001508
HEPA 14		457x610x292	90001509
ePM10 70%	Purigo 2200	610x610x100	90001510
ePM1 80%		610x610x100	90001511
HEPA 14		610x610x292	90001512

#### Replacement filters must be ordered from Airflow Developments.

To replace the filters follow the step by step guidance below:

1. Open the front door using the door key provided, **after** following the safety instructions in section 6.1 and waiting **5** *minutes after power off.* Wear protective clothing and masks.

2. The filters should be clear and easy to remove, following the diagram in section 6.3 (*figure 7 and 8*). The filters will be heavy and may require some force to remove, simply pull them out, and slot the new filters back in. All filters of the type should be replaced in one go.

#### Additionally, when the filters must be changed the LED for each will light up.



Figure 9: LEDs for each respective filter will light up

#### 6.5 Silencers

To maintain and replace the silencer follow the step-by-step guidance below:

1. Use the key supplied with the unit to unlock the 3 locks and use the handle to open the door. The silencers are located as according to the below diagram:

2. Ensure that the silencer is clean and damage free from foreign objects. Remove the dirt on each silencer using a vacuum cleaner and/or a cleaning product without damaging the fabric covering the rock wool.



**Danger:** after cleaning ensure all components are put back in their correct positions. The fabric is fragile, and a maintenance vacuum cleaner may be too powerful, wipe with a cloth. If the fabric is damaged or rock wool is on the silencer, replace the silencer and stop using it.

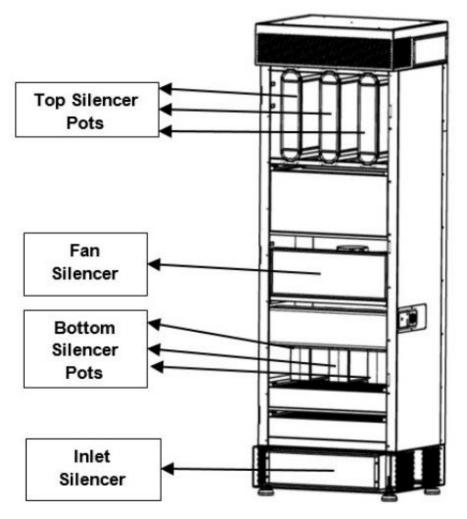


Figure 10: Location of silencers

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