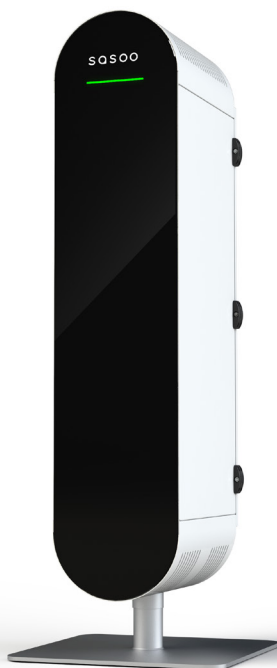


SASOO



Operating instructions for the

sasoo aircleaner

Article no.: 2-00211

IMPORTANT:

Read these instructions carefully before using your new aircleaner. Retain the instructions for future use.

Status 02/2021

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Introduction

General information

The reproduction, duplication and distribution of this document is prohibited without prior written approval of the manufacturer. The product related to these operating instructions is suitable only for the purpose specified in the intended use of this document, and may be operated only in accordance with the instructions below.

ULT AG shall accept no liability for injuries and damage to persons, animals, machines, the environment and property caused by incorrect installation, repair and maintenance or by improper use. Every type of usage not mentioned in these operating instructions is deemed improper use and is therefore prohibited. This document is used exclusively for the purpose of information and has no contractual character.

As part of improving the product and product customization, ULT AG reserves the right to alter the product specifications and the related documents at any time without notice. This does not give rise to an obligation in updating previous documents.

Intended purpose

The purposes for which the unit is intended are specified in chapter "Unit versions and application".

The sasoo is a robust unit for mobile and stationary use in interior spaces. The sasoo must not be used for any other purposes except by agreement with the manufacturer. For reasons of safety, unauthorized changes and modifications of the sasoo are prohibited.

The sasoo is suitable for the extraction and filtration of non-explosive and non-flammable air contaminated with aerosols. The cleaned air can be fed back into the working area.

Use of the sasoo significantly reduces the concentration of aerosols in interior spaces.

A CO₂ sensor continuously measures the air quality and gives an indication when additional ventilation is required.

The air passes through the H14 HEPA filter. Aerosols, viruses, pollen and other small particles in the nanoscale range are separated from the air at a separation efficiency of 99.995%. The activated carbon filter removes odors from the purified air. The clean respiratory air is returned into the room draft-free at the underside of the unit.

Intended use includes compliance with the start-up, operating and maintenance instructions issued by the manufacturer.

Any use not covered by these applications constitutes improper use. No liability will be accepted for damage thus caused.



Notice: The supplied sasoo will only work correctly with the filter system that matches the unit type.

Operation with other filter systems does not constitute intended use.

Safety

The sasoo is constructed in accordance with state-of-the-art technology and is safe to operate. Nevertheless, hazards may arise from the unit if it is used incorrectly by untrained personnel or not as intended.

In the development and production of the sasoo, all steps were taken to ensure that the safety requirements stated in the directives and standards listed in the EU declaration of conformity are complied with.

The information given in this manual is on no account to be classified higher than personal responsibility and/or local regulations.

During operation and in all other types of work on the sasoo, the operating company is always responsible for the following:

- The safety of all persons involved.
- The safety of the unit and all other unit parts
- Environmental protection

Symbols

All actions described in these instructions are supplemented by the required safety instructions.

Safety instructions warn you:

- against residual risks which could arise unexpectedly
- against residual risks which could lead to grave injuries



Danger: Indicates a high-risk hazard which will lead to death or grave injury if it is not avoided.



Warning: Indicates a medium-risk hazard which could lead to death or grave injury if it is not avoided.



Caution: Indicates a low-risk hazard which could lead to minor or moderate injury if it is not avoided.



Notice: Indication of possible property damage without injuries.

Basic safety instructions

The sasoo may only be used, maintained and serviced by personnel who are familiar with the unit and are trained on possible hazards. They must be familiar with the intended use of the system and the operating instructions.



Explosion hazard! Do not extract any explosive concentrations of gases, vapors or dusts!



Health hazard! No extraction of carcinogenic and/or toxic gases, vapors or dusts!



Danger of short-circuit caused by penetrating liquids! Do not extract any liquid media!



Fire hazard! Do not extract any ignition sources!

Obligation of the operating company

The operating company undertakes to permit only those persons to work on the sasoo who:

- are familiar with the regulations for safety at work and the prevention of accidents
- have read and understood the safety and warning notices, and signed to confirm this.



The safety awareness of the personnel must be tested regularly.

The installation and operating instructions must be stored in a suitable, dust-proof and damp-proof place. The place of storage must be easy to access and clearly visible at all times for every person using the system.

Obligations of personnel



Before starting work, personnel who are tasked with working on the sasoo undertake to read the safety instructions and to confirm by their signature that they have understood them.



Make sure never to operate damaged products.

Read these operating instructions carefully before starting erection and installation work. Always make sure you observe the safety instructions included.

Take heed of the safety symbols for Mechanical hazard and electrical hazard (for instance, working with live parts) on the sasoo. These symbols indicate an imminent hazard. If they are not avoided, very serious injuries or death may result.

Live and moving parts can cause serious injuries or death.

Installation, connection, commissioning, servicing and repair work may be performed only by qualified personnel in accordance with these instructions and all other attached instructions for any accessories that are fitted in accordance with the current national / regional regulations (safety / accident prevention).

Safety instructions relating to fire hazards



The sasoo is only intended for the extraction of air contaminated with aerosols in non-flammable concentrations. The filter unit is designed for the precipitation of non-explosive aerosols, dusts and gases. The extraction of potentially explosive mixtures is prohibited..

Explosion hazard! Never spray disinfectant into the unit during operation.

No sources of ignition may be extracted!

In order to prevent fires and explosions, do not allow sources of ignition such as hot, red-hot or smoldering parts, red-hot chips or smoldering cigarettes to be sucked into the system!

Since the risk of fire cannot be fully ruled out, we recommend providing a fire extinguisher in the immediate vicinity of the unit.

Fire extinguishers with a suitable extinguishing material are to be selected depending on the reactive properties of the substances sucked into the entire system.

In the event of fire:

1. Immediately switch off the unit..
2. If possible, close the intake opening to prevent any further supply of oxygen.
3. If possible, close the outlet openings.
4. Position the fire extinguisher and spray extinguishing agent into the intake openings.
5. Do not open the remaining parts of the housing..



Note that the filter materials are also flammable, and may emit toxic gases and vapors if ignited.

Safety instructions for CRM substances

Extraction and filtration of carcinogenic, mutagenic or reprotoxic substances (CMR substances) is not permitted.



Safety at work

Before installing and starting up the unit, read the operating instructions for the unit, especially the safety instructions, and comply with them strictly!



The user must be instructed and trained by an authorized person for initial start-up. Personnel must be instructed regarding all necessary safety precautions, impermissible types of operation and potential hazards.

The unit may be operated, maintained and repaired only by personnel of minimum statutory age who have been authorized, trained and instructed accordingly.

Work on the electrical and mechanical systems of the machine may only be performed by instructed personnel or under the direction and supervision of a trained technician according to the applicable electrotechnical and mechanical regulations.

Qualified technicians are persons possessing the technical training, knowledge and experience and knowledge of the currently applicable regulations necessary for assessing the assigned tasks and associated potential hazards.



- Unplug the unit from the power supply after use, before performing cleaning and maintenance of the and before replacing any parts.
- Always comply with the applicable regulations for waste disposal when disposing of clogged filter media.
- Only use genuine spare parts and wearing parts from ULT AG.
- Improper work on the machine can compromise safety.
- Do not use a liquid spray lance to clean the sasoo.
- Safety devices for preventing or eliminating hazards must be regularly maintained and checked at least once a year to verify that they are in correct working order for maintaining safety.
- Make sure the power supply cable cannot be damaged by heat or oil or by being driven over, crushed, pulled or similar.
- Regularly check the power supply cord for signs of damage.
- Do not operate the sasoo if the power supply cord is not in good condition. When replacing the power supply cable, use genuine spare parts only.
- During start-up, make sure that no foreign objects (cleaning cloths, tools or the like) can be sucked into the unit.
- All persons must refrain from any type of operation that impairs or puts the safety of personnel, the unit and the workplace environment at risk.
- The user must immediately report any change that affects safety in the behavior of the unit.
- Comply with the safety notices on the system!
- During long or extended breaks in operation, switch off the unit and disconnect it from the mains.
- If a hazardous situation develops, switch the unit off immediately.

Residual risks

Guarding against mechanical hazards

Access to all moving parts (fan, motor) is protected by fixed guards which are securely fastened and require the use of tools for removal.



RESIDUAL RISK:

- Injuries may result if tools are used to remove a securely attached permanent guard while the unit is running.
- The opening or closing of the screw connection on the filter module can lead to crushing and injuries. The screw connection must be treated with the necessary caution.

Guarding against electrical hazards

All live parts within the sasoo are insulated against being touched, or are protected by fixed guards which are securely attached and require the use of tools for removal.



The system satisfies protection class I in accordance with EN 60 335.

RESIDUAL RISK:

- Electric shock injuries may result if tools are used to remove a firmly attached, permanent guard from a system that has not been disconnected from the power supply.

Protection against toxic material hazards

Only those filters suitable for use in the unit type may be used. Do not operate the unit without filters or with a defective filter.



RESIDUAL RISK:

- There is a health risk if the unit is operated with defective or unsuitable filters.

Guarding against hazards during disposal

At the end of their service life, the sasoo, the filter inserts, and other accessory parts must be disposed of in accordance with the applicable rules and regulations.



RESIDUAL RISK:

- If disposal is not performed correctly there may be a health risk and a risk of polluting the environment.

Unit components and technical data

Rating plate The rating plate is an integral part of the unit and must never be removed or altered!

The specification of the type is unit-dependent.

		<ul style="list-style-type: none"> • Extracting Units • Filtering Units • Plant Construction 	
		<p>ULT AG Am Gopelteich 1 D-02708 Löbau www.ult.de</p> <p>Tel: +49(0) 35 85 - 41 28 - 0 Fax: +49(0) 35 85 - 41 28 - 11 e-mail: ult@ult.de</p>	
<p>Type sasoo aircleaner</p>			<p>Made in Germany</p>
<p>Serial Number</p>	<p>Connected Load 230 V 50Hz 4 A</p>		

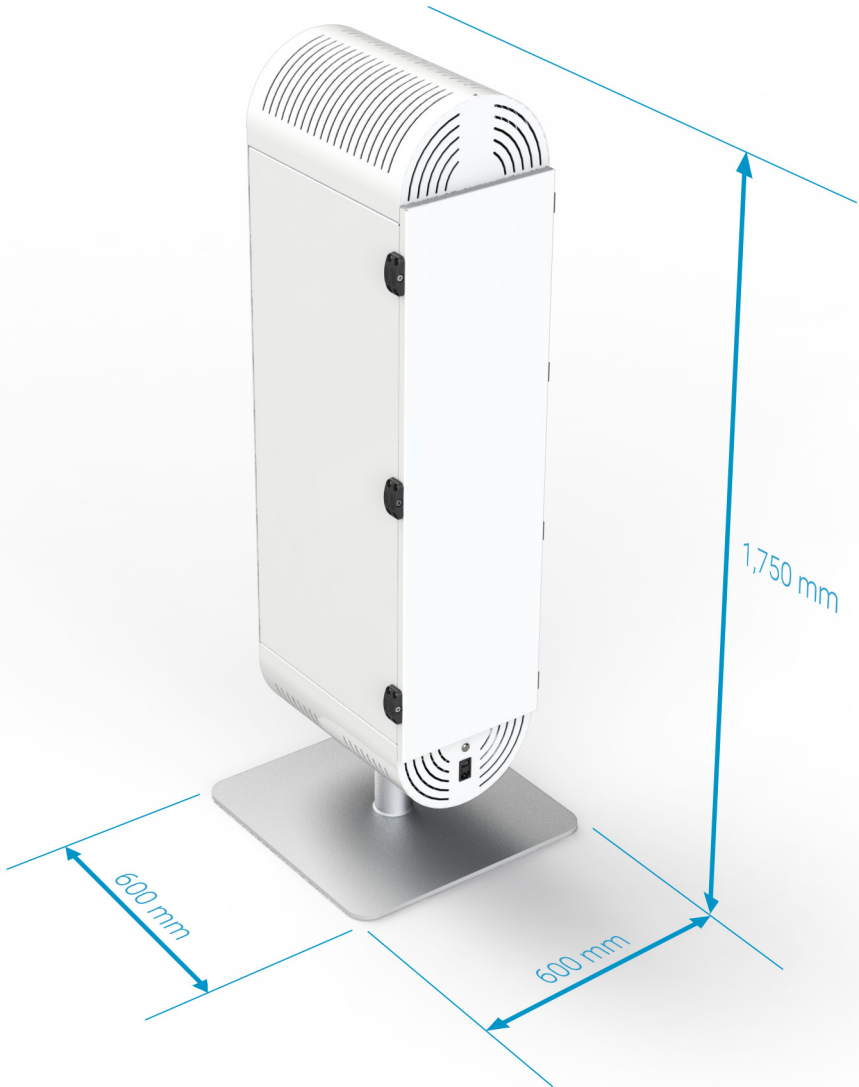
Technical overview



- ① Intake grille
- ② Screw connection filter chamber
- ③ Unit door
- ④ Exhaust grille
- ⑤ Stand with swivel joint
- ⑥ LED light for status indication
- ⑦ Potentiometer for setting the extraction power

- ⑧ Filter reset button
- ⑨ Boost button for temporary amplification of the extraction power
- ⑩ On/Off switch
- ⑪ Mains connection

Technical depiction



Technical data

Dimensions

Width	600 mm
Height with stand	1,750 mm (with mounted castors +53 mm)
Depth with stand	600 mm
Weight with filter	90 kg

Temperatures

Ambient air during operation	min. 10 °C, max. 35 °C
Transport and storage	max. 70 °C
Intake process air	min. 10 °C, max. 60 °C

Air

Humidity	10 - 80 % (non-condensing)
Air intake	Intake grille, top
Air exhaust	Outlet grille, bottom

Performance data

Volume flow max.	750 m ³ /h
Max. volume flow (boost mode)	1,400 m ³ /h
Negative pressure max.	1,000 Pa
Room volume, 6-fold air exchange	up to 122 m ³ (approx 50 m ² with 2,3 m ceiling height)
Room volume, 6-fold air exchange (boost mode)	up to 232 m ³ (approx. 100 m ² with 2,3 m ceiling height)

Electrical connection

Rated voltage	1~230 V
Nominal frequency	50 Hz
Rated current	4,0 A
Rated power consumption	0.75 kW

Protection level	IP 54
-------------------------	-------

Technical data

Noise level

Average value at 1 m distance all around the unit 52 dB(A)

Material (housing)

- Powder coated aluminum sheet
- Chemical resistant
- Corrosion resistant
- Temperature resistant

Equipment

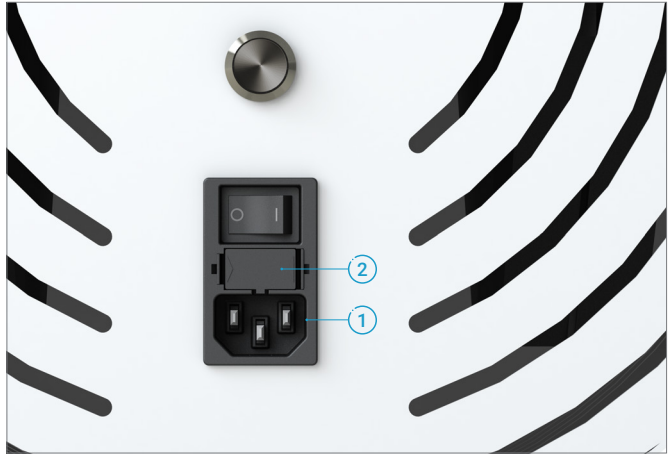
- Continuously adjustable air flow control
- Boost mode
- CO₂ sensor
- Indicator for indicating room ventilation
- Filter change indicator

Scope of supply

- sasoo aircleaner
- Stand
- 2 braked and 2 unbraked castors
- Filter elements
- Power cable
- Operating instructions
- Mounting wrench

Connections and control elements

Electrical interfaces



- ① Connection for the power cord
- ② Mains voltage fuse (4 A)

Electrical connection

Connect the sasoo to the 230 V / 50 Hz power supply using the mains cable and plug provided. The power supply line must be fuse-protected with at least 5 A.

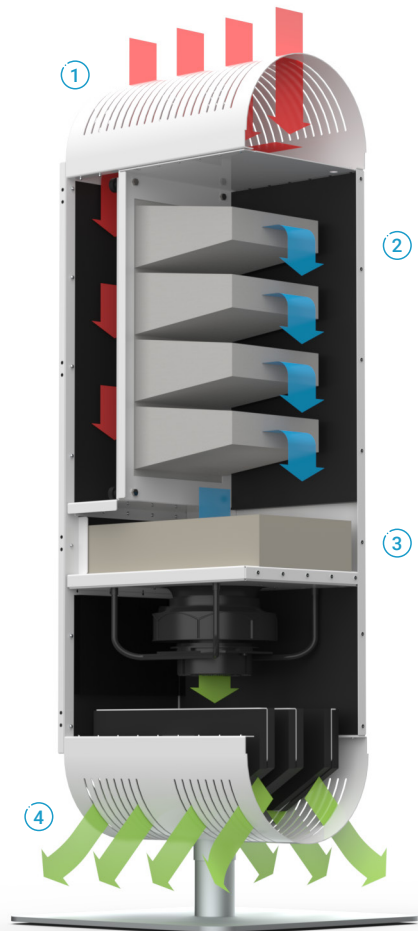
Do not touch the unit with wet hands or when standing on a wet or moist surface.

Function and type of operation

Functional principal

- ① The blower installed in the sasoo generates a vacuum at the intake grille on the top of the unit. Airborne substances can thus be sucked in directly from the room air.
- ② The air sucked in with pollutants flows through the HEPA filter in the sasoo. Aerosols, viruses and other extremely fine particles in the nanoscale range are filtered out of the air at a separation efficiency of 99.995 %.
- ③ The activated carbon filter removes additionally occurring odors.
- ④ The cleaned air is returned draft-free into the room at the underside of the unit.

A CO₂ sensor continuously measures air quality and provides a front panel indication when additional ventilation is required.



The sasoo is an important element of health protection and has been proven to reduce aerosol exposure for rooms up to 100 m², and thus the risk of infection. A 6-fold air exchange is recommended. (Source: Deutsches Beratungszentrum für Hygiene (German Advisory Center for Hygiene): SARS-CoV-2 (COVID 19); Version: 2020-4.0).

The high extraction and filtration performance makes it possible to reduce the aerosol concentration by 90% of the original concentration within 30min after switching on the unit. By activating the boost mode, this recovery time can be shortened even further.

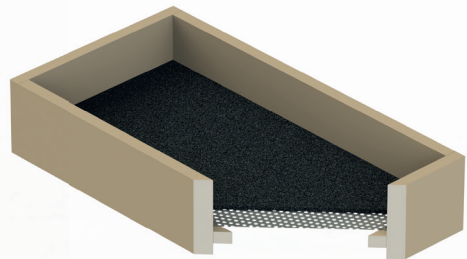
Filter system

The aspirated air flows through the HEPA filter ① in the sasoo. Aerosols, viruses and other extremely fine particles in the nanoscale range are filtered out of the air at a separation efficiency of 99.995 %.

The activated carbon filter ② removes any additional odors that occur.



① HEPA H14 filter



② odor filters with activated carbon filter inserts

Transport and storage

Comply with the following conditions for transport and storage:



- Temperatur: 5°C to +55°C
- for a short time (max. 24 hours): up to +70 °C
- Relative humidity: 0 - 65 % relative humidity (non-condensing)



The stability of the unit is at risk when transported with industrial trucks.

The unit must be transported by means of a furniture dolly or disassembled before transport. For this, min. 2 persons are necessary.

Unit installation and connection

Before starting the installation:



- Check the unit and the filter for any transport damage.
- Report any damage to the transport company.
- Compare the delivered unit with your order.
- Remove all transport packaging materials.
- All transport packaging materials can be recycled; contact your local waste disposal company to find out about proper disposal..



The sasoo can be operated in a vertical position at the designated location.



The sasoo is operated in an upright position. Min. 2 persons are required for assembly.

To set up, proceed as shown in the following illustrations.



Set up without castors

- ① Place the unit stand at the installation site.
- ② Carefully place the unit on the unit stand and lower it.
- ③ Screw the grub screw into the nut using an Allen key to secure it.

The unit can rotate so it can be orientated to meet the respective requirements.



Do not rotate the unit more than 360°! Risk of damage to the power cord.




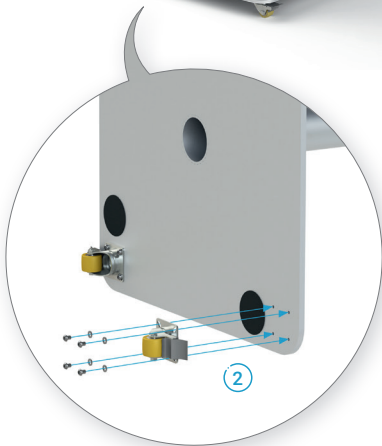
Danger of tipping!

Do not lean against the installed unit!

Set up with castors

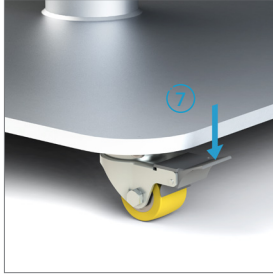
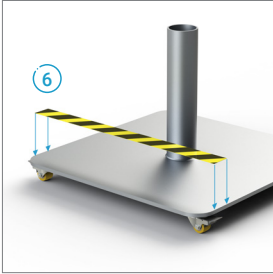
- ① Place the unit stand on its side.
- ② Mount the unit castors according to the illustration. (Allen key)

 **Notice:** Mount castors with brake side by side.



- ③ Place the unit stand at the installation site. Apply the brakes to the castors.
- ④ Carefully place the unit on the unit stand and lower it.
- ⑤ Screw the grub screw into the nut using an Allen key to secure it.

- ⑥ Attach warning tape to the unit base on two opposite sides (optional)..



- ⑦ To brake the castors, press the brake lever down.

- ⑧ To release the brake, pull the brake lever upwards.



Danger!

Moving the unit by means of the mobile stand (with castors) is only permitted on even surfaces. When rolling on inclined planes, there is a risk of losing control of the machine and injuring people and damaging objects and equipment.

Do not roll the unit over door thresholds or similar.



Danger of tipping!

Do not lean against the installed unit!

Start-up Unpack and set up the sasoo.

- Open the three latches on the left side of the unit using a tool ① and open the unit door.



- Install the filter according to the filter replacement instructions.
- Close the unit door and close the latches again.
- Perform a full visual inspection of the assembled unit.
- Connect the power supply cable..



Never operate the unit without filters.

Operation Start the sasoo by switching the On/Off switch (1). Before commissioning, check that the air inlets and the air outlets of the unit are free and not covered.

The indicator light (2) signals the status of the unit, the HEPA filter and the CO₂ content of the room air.

The extraction power of the unit can be adjusted freely (anywhere in the range from 0 - 750 m³/h) to the desired application requirement using the potentiometer (3). At full power, this makes it possible to clean a room with up to 122 m³ with 6 times air exchange per hour.







The extraction power can be continuously increased by clockwise rotation and continuously reduced by counterclockwise rotation. Lower extraction power helps reduce energy consumption and noise emissions in smaller rooms.

The unit has a boost mode (4) Pressing this button increases the blower output to a maximum of 1,400 m³/h. This significantly increases the air exchange rate, and the room air is cleaned faster. Pressing the button again terminates the boost mode.



In boost mode, the unit's volume increases to 68 dB(A).

Indicator light The indicator light on the front of the unit reports the current status of the filter and the CO₂ content in the room.

Display	Status
Constant green 	Normal operation
Flashing red 	Filter replacement necessary after 1,500 operating hours – (see page 31)
Constant orange 	1,000 ppm CO ₂ in the room air → Ventilate
Constant red 	From 2,000 ppm CO ₂ in the room air → Ventilate urgently!

Shutdown Comply with the safety instructions in these operating instructions when shutting down.

- Switch off the unit.
- Disconnect the sasoo from the power supply.
- The used filter must be replaced with a new filter if the sasoo is not used for a long period of time (> 1 month).

Maintenance and servicing

General maintenance and servicing instructions

The maintenance required for the sasoo is limited to checking and replacing the filter elements. Perform maintenance and inspection tasks at regular intervals. Application-specific and country-specific pertinent rules and regulations, such as the DGUV in Germany, are to be determined and implemented by the user of the system. Written records should be kept of work performed, and made available to the monitoring authorities on demand.

Daily inspection – Check the particulate filter status and replace the filter insert, if necessary.

Regularly after 1,500 operating hours – The HEPA filter needs to be changed and this is indicated by the red flashing indicator light.

Annual inspection – The main inspection can be performed by ULT Service by arrangement with ULT AG.

Further actions in addition to the points listed above can be performed by ULT Service by arrangement with ULT AG.



For your own safety, wear your protective equipment, i.e. at least a breathing mask (filter category P3) and gloves during all maintenance and repair work!



The unit must be switched off and secured against inadvertent restarting before starting any work. Wait until the blower has stopped turning.

Clean the area where the work was performed after any maintenance work.



Perform maintenance work only when the equipment is disconnected from the power supply and voltage-free. Comply with the following points:

- Switch off the unit and secure it against switching on again.
- Wait until the blower has come to a stop.
- Disconnect the power plug.

Filter replacement

The maintenance required for the unit is limited to checking filter saturation and replacing the filter.

The indicator light signals the status of the HEPA filter.



Saturation of the adsorption filter is not indicated via the indicator light.

Depending on the amount of contaminants, the activated carbon filter will become saturated after a certain time. The adsorption filter inserts must be replaced immediately if the odors are obvious in the exhaust air.



Substances harmful to health can be released from the filter elements and come into contact with personnel during all work on the open unit.



Any released dust is to be eliminated using an extraction unit that features at a minimum the same filter class as this unit and that is equipped with a suitable collection system.

The storage filter elements are not suitable for cleaning with compressed air. Blowing out the filter destroys the filter diaphragm and accumulated dusts are released.



If the indicator light on the front of the unit flashes red, it is necessary to change the HEPA filter.

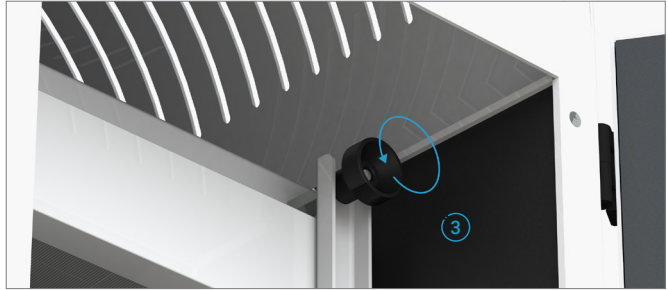
**Change
HEPA filter**

To change the filter, proceed as follows:

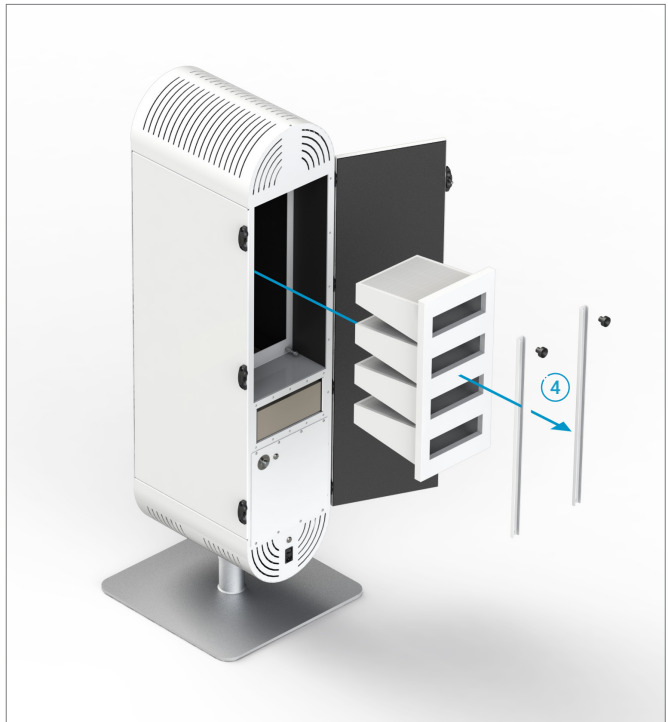
1. Switch off the unit and disconnect the power plug.
2. Open the side latches on the door using an Allen key **①** and open the door **②**.



3. Disinfect the filter with disinfectant using a spray bottle.
4. Open the knurled screws by turning them counterclockwise **③** and remove the filter rails.



5. Carefully remove the saturated filters (4) and place them in a suitable disposal container that can be closed with an airtight seal.



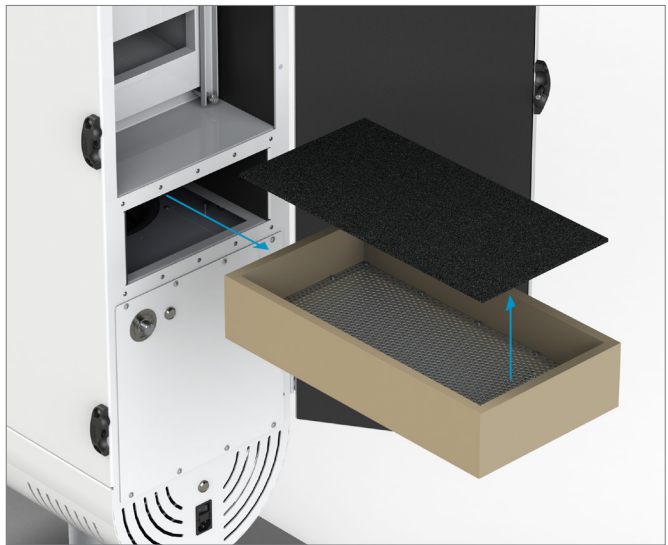
- Carefully insert the new HEPA filter.
- Insert the filter rails, close the knurled screws by turning them clockwise.
- Close the door and screw the side latches onto the door using an Allen key.



- Reset the filter status. To do this, press the reset button for 7 seconds. After a successful reset, the indicator light will turn white for 10 seconds. Afterwards, the status changes to green and the unit operates in normal mode again.

Change activated carbon filter

- Pull the filter cartridge out of the unit towards the front. Remove the filter mat and place it in a suitable disposal container that can be closed with an airtight seal.



2. Fit the new filter mat in the filter cartridge. Carefully insert the filter cartridge.
3. Close the door and screw the side latches onto the door using an Allen key.
4. Reconnect the power plug.



Do not put any unit into operation that is damaged or incomplete!



The owner of the waste, in this case usually the producer of the waste, is responsible for disposing (recycling or disposal) of it. The operating company is responsible for generated waste and contaminated filters.

Dispose of the clogged filters correctly in accordance with the applicable regional regulations.

Possible malfunctions

Possible cause	Remedy
Fan does not start	
No power supply to the unit	Check the power supply at the socket outlet
Error in the unit/ control electronics	Repair by specialist (specialist dealers)
Unit fuse defective	Replace fuse
Insufficient extraction and filtration power	
Obstruction of the air passage	Check the intake and exhaust air ducting
Filters are clogged	Check filter light, change filter
Poor filtration	
Filters are clogged	Check filter light, change filter
Filters not in the correct position	Check filter position

Replacement filter

Designation	Article no.
Particulate filter H14	4-00727
Activated carbon filter cartridge with insert	4-00728
Activated carbon filter inserts	4-00737

Always state the article number when placing your order.



Use only genuine spare filters from ULT AG to ensure the safety and functional reliability of the unit.

Any and all of the guarantees and warranties on the unit provided by us become null and void when spare filters from other manufacturers are used or applied.

Service

The following services are available:

- Shipment of accessories
- Shipment of spare parts
- Shipment of replacement filters
- Servicing as required
- Performance of any necessary repairs
- Unit disposal

Notices on electronic device disposal

ULT AG products are designed exclusively for commercial use. ULT AG is registered as a manufacturer in Germany under the WEEE reg.no DE 42863881 with the national register for waste electric equipment (Stiftung Elektro-Altgeräte EAR) in accordance with the EU Directive (WEEE Directive 2012/19/EU) and the German Electrical and Electronic Equipment Act (ElektroG). We accept no responsibility for disposal of waste from non-private users. For regulations regarding registration and disposal outside of Germany, please refer to your dealer or importer.

Upon request, ULT AG can offer you waste disposal in Germany as a service.

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