# Lavaero 900







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### Dear Customer,

Thank you for buying the Lavaero 900 from Comedes GmbH.

You have bought a powerful air purifier, which has been developed in accordance with the latest technical standards. In order that the device will become a loyal servant to you, please read the manual and particularly the safety instructions in detail.

If you still have any questions about the device after you have read the operating instructions, please do not hesitate to contact us:

E-mail address: service@comedes.com If you give us your telephone number, we will call you back free of charge.

We look forward to all customer feedback and would be delighted to hear from you.

Yours sincerely

R- RL

Philipp Thannhuber Managing Director

Comedes GmbH

www.comedes.com

Be sure to read the instructions before using for the first time. Any errors made in following the safety information and instructions may result in an electric shock,

fire and/or serious injury. Keep all the safety information and instructions in a safe place for future use.

#### Important:

Make sure that the power plug is removed from the socket outlet before opening the device. Electric shock can cause fatal injury. Have repairs carried out only by an authorized workshop.

### **Safety information**

- Check the voltage of 220-240V ~50Hz before use.
- Check the power plug before plugging it in.
- Pull the power plug out of the socket outlet whenever the device is not in use.
- Never poke any small objects in the air inlet and outlet vents on the device. This may result in a short-circuit. Be especially careful when operating the device within reach of children.
- Use the Power switch to switch the device "ON and OFF".
- Do not under any circumstances use the plug to switch the device "ON and OFF".
- Always switch off the device and pull the plug before you start to adjust it.
- Never attempt to clean the air inlet and outlet vents with pointed objects.
- Never immerse the device in water.
- Never spray inflammable liquids into the device.
- Never use the device in a wet room (e.g. bathroom). Danger of electric shock or current transfer.
- Never use hairspray, thinners or inflammable gases in the vicinity of the device, because they could pose a risk of fire and explosion.
- If candles are lit or gas heaters are on in the same room while the device is being used, open the window occasionally.
- Never cover the air inlet or outlet vents. This could cause irreparable damage to the blower motor.
- Never use the device in the vicinity of sources of heat such as heaters, naked flames or direct sunlight. This may cause deformation to plastic parts.
- The device must not be used as a substitute for a fan. This will drastically reduce the service life of the filter.
- The device must not be used in environments containing lots of dust or chlorine.
- Do not place any heavy objects on the device and keep it out of the reach of children.
- Do not use the device in enclosed and confined spaces.
- If the power lead is damaged, stop using the device and have the lead replaced immediately.
- If the device develops a defect, switch off the power switch and pull the plug.
- To avoid interference, never use the device in the vicinity of microwaves or televisions.
- The device is allowed to be used only by persons who are physically and mentally capable of operating it in accordance with these operating instructions, or by persons who have been given training on the use of the device by a responsible person.
- Never switch the device on or off with wet hands.
- Never attempt to carry out any repairs or modifications, either of an electrical or a mechanical nature, on the device yourself.
- Do not allow children to play with any of the packaging such as sheets of plastic.
- Make sure, that there is a minimum distance of 15 cm between the device and the nearest wall.

### Intended use

The air purifier is designed only for use for purifying the air in privately used rooms (e.g. living rooms, bedrooms, storage areas or basements). The user must observe all the operational parameters specified in this manual.

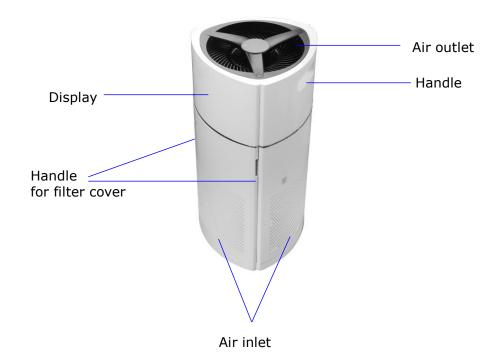
The device is allowed to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user/operator and not the manufacturer will be liable for any damage or injuries of any kind resulting from such misuse.

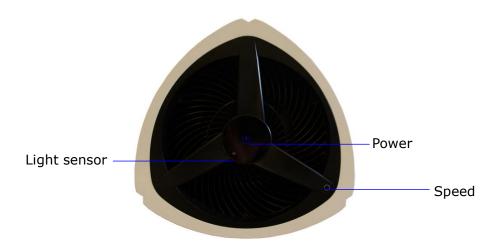
### **Technical data**

Product name: Voltage: Power consumption: Timer (hours): Weight: Dimensions (W\*H\*D): Room size: Comedes Lavaero 900 220-240V / 50 Hz 40W 1-24 7,5 kg 306x604x306 mm max. 60m<sup>2</sup>

### Layout

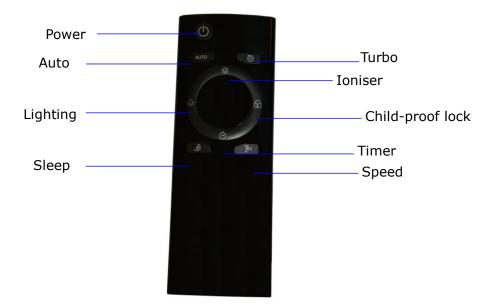
Figure 1:





#### **Remote control**

For the remote control two AAA batteries are needed. (Not included in delivery.)



### Before starting up

Remove the front cover, take the main filter out of the plastic film and insert it back into the device. Therefore observe the steps at the chapter "Filter change".

The main filter should normally be changed every 6-9 months.

In order not to overlook this, the device has a filter change indicator. This lights up when the filter needs changing or cleaning.

### Starting up

#### A) Operation on the device 1. POWER

The power switch is located centrally on top of the device and is used to switch the device on and off.

The switch can be operated by simply pressing it. The device is also equipped with a gesture control to switch it on and off.

If the hand is moved in a distance of approx. 3-4cm over the switch, it is operated.

If the unit is switched on, the PM2.5 pollution on the room air is displayed numerical and qualitatively via a light ring.

#### 2. Speed

<u>A) Fan Speed:</u> With this button, the fan speed and therefore the airflow could be adjusted. The first time this button is pressed, the currently selected value is always shown on the display (here: 1, 2, 3, A or H).

By repeatedly pressing the button, a fan speed of 1 (low), 2 (medium), 3 (high) and A (automatic mode) can be selected.

If you use the unit in automatic mode, the fan is controlled via the air quality sensor (PM2.5).

<u>B) Child-proof lock:</u> The speed button can also be used to activate/deactivate the child-proof lock.

To do this, press and hold the button for approx. 3 seconds until an acoustic signal sounds. When the childlock is on, no button on the unit and the remote control can be pressed except the childlock button and the power button.

If the childlock is active, this is indicated by the power LED flashing.

#### **B)** Operation via the remote control

#### 1. Power

If this button is pressed, the unit is switched on. If it is pressed again, the unit is switched off. If the unit is switched on, the PM2.5 pollution on the room air is displayed numerical and qualitatively via a light ring.

#### 2. Speed

With this button, the fan speed and therefore the airflow could be adjusted.

The first time this button is pressed, the currently selected value is always shown on the display (here: 1, 2, 3, A or H).

By repeatedly pressing the button, a fan speed of 1 (low), 2 (medium) and 3 (high) can be selected.

The first time this button is pressed, the currently selected value is always shown on the display (here: 1, 2, 3, A or H).

By pressing this button again, the unit switches to automatic mode. This is indicated by the symbol "A" on the display. If the switch is pressed twice again, the air purifier is in manual mode again and the different fan speeds can be set as required.

If you use the unit in automatic mode, the fan is controlled by the air quality sensor (PM2.5).

#### 4. Timer

The first time this button is pressed, the currently selected value is always shown on the display (here: 0-24).

With the timer you can set the running time of the device. Times between 1 and 24 hours can be selected by pressing the button repeatedly. If the timer is active, this is indicated by the corresponding symbol on the display.

To end the timer function, the timer button must be pressed and held for approx. 3 seconds. When the time has elapsed, the unit switches off automatically.

#### 5. Ioniser

This key can be used to switch the ioniser on or off. If the ioniser is active, this is indicated by the corresponding symbol on the display.

#### 6. Lighting

If this button is pressed, the display lighting including all notes is switched off completely and the POWER LED flashes.

If you press the button again, the lighting including all notes switches on again.

#### 7. Sleep.

By pressing this button, the sleep function is activated.

This mode behaves as follows:

- The display lighting including all notes is switched off.
- The power LED only lights up with half brightness.
- The unit changes to the lowest and therefore quietest fan stage.
- The acoustic signals are deactivated.
- Except for Power and Sleep all buttons/switches are disabled.

To exit sleep mode, press the sleep button again.

#### 8. Child-proof lock

The childlock can be activated or deactivated by using the button on the remote control. When the childlock is on, no button on the unit and the remote control can be pressed except the childlock button and the power button. If the childlock is active, this is indicated by the power LED flashing.

#### 9.Turbo

The first time this key is pressed, the currently selected value is always shown on the display (here: 1, 2, 3, A or H). Pressing this button again will activate turbo mode. The unit now operates with the highest air flow rate "H". By pressing the button twice again, the air purifier returns to the prior mode.

### Filter change

- After some time in operation, the main filter has to be changed.
- To do this, switch and unplug the device.

• Now open the filter cover on the unit by gripping the cover by the two handles for the filter cover (Figure 1), folding it forward and then pulling it upwards out of the locks.

A fan to

- Next, the filter must be unlocked. To do this, slide the bar
- The filter can now be pulled forward out of the unit.
- Now check the filter.
- If the filter is not too discoloured yet, vacuum it (preferably outdoors).

• Please note that the replacement filter must be removed from the protective film before it can be inserted into the device.

• If the new filter is inserted, the filter must be locked in the device again. To do this, slide the gr from to



#### Filter change indicator:

The device is equipped with a modern filter change indicator.

If the filter has to be checked/replaced, this is indicated by the corresponding LED on the display.

If the filter is replaced, the filter change indicator must be reseted. To do this, press and hold the power and speed buttons on the device simultaneously. After about 3 seconds, a signal tone sounds and the filter change indicator is reseted.

### Information about the sensors and PM2.5

#### Light sensor

The Comedes Lavaero 900 is equipped with an innovative light sensor which is active when you use the air purifier in automatic mode.

The sensor detects when it is dark in the room and switches to sleep mode after approx. 1 minute, automatically.

#### Sensor-controlled gesture control

The Comedes air purifier is equipped with a gesture control which makes it possible to switch the unit on and off without direct contact. If the hand is moved at a distance of approx. 3-4 cm above the sensor on the on/off switch, it is actuated.

#### **Particle sensor**

The sensor used in the Comedes Lavaero 900 is an optical particle sensor.

The optical particle sensor in the Comedes Lavaero 900 is based on the principle of reflection. Often you can see dust in the air in the sunlight, because the dust particles reflect the sunlight. The optical particle sensor operates with an infrared LED directed at the air inlet of the sensor chamber.

In addition to the air inlet, a resistor generates a small amount of heat, creating a flow of air from the air inlet to the air outlet. In this way, a room air sample is continuously passed over the optical sensor.

#### PM2,5

Particulate matter is also known as PM2.5. This refers to the size of the dust particles, half of which at PM2.5 consist of particles with a diameter of 2.5µm and also of a smaller proportion of larger particles and a larger proportion of smaller particles.

The size of the fine dust is usually less than that of a bacterium and can therefore not be seen with the naked eye.

PM2.5	Value	Colour-indicator	Fan speed
Excellent	1-75	Green	1
Good	76-150	Yellow	2
Bad	>150	Red	3

The different air quality levels of the Lavaero 900 air purifier:

### **Interesting Facts**

The filter we use in our device is no different in terms of design to the types of filters which are used extensively in laboratories throughout the world wherever the creation of absolutely clean ambient air is a must. We apply exactly the same principle of operation for improving the air in your home and office.

The installed filter reflects the state-of-the-art in technology. It can filter out up to 99% of all microparticles (>0,3 $\mu$ m) from the ambient air. By way of comparison, the human nose filters out particles bigger than 10 $\mu$  from the inhaled air.

### **Cleaning the device**

#### Pull out the power plug before starting cleaning work.



Clean the unit with a dry cloth. Do not use chemicals. You can also clean the air inlets with a vacuum cleaner (it is best to clean the unit outdoors).

### **Further information**

#### Filter system:

#### **Pre-filter**

The main filter has a prefilter covering. This is a relatively wide-meshed filter that catches the coarsest particles from the air flowing through it. This process also protects the HEPA filter element from these particles and thus increases the service life of the HEPA filter.

#### Nanosilver

Nanosilver has been woven into the prefilter covering. This material has an antibacterial effect and thus effectively inhibits the growth of bacteria and germs.

#### **HEPA filter**

To remove even the smallest particles, the room air flows through a HEPA filter during the cleaning process, which absorbs pollen, fine dust and spores, among other things.

#### Activated carbon filters

In the next step, the air, which is now freed of solids, is filtered by an activated carbon filter. prepared. In this work process, odours and toxins are absorbed. Here, the granulated activated carbon, as it has a high degree of efficiency and a large total surface area.

#### Ioniser

In the last step, a small amount of negatively charged ions is added to the air that finally flows out of the device. These ions attach themselves to the smallest particles in the room air and charge them statically. The charged particles then tend to accumulate with other particles and form larger clusters, which can then be more easily absorbed by the filter medium.

#### Tips on purifying the air in case of cigarette smoke

Cigarette smoke is comprised of a large range of complex chemical compounds. For the air purifier these are essentially divided into the solid and gaseous components of the smoke. The solid smoke particles are filtered out by the HEPA filter. The gaseous components are absorbed by the activated carbon filter.

- The device needs to be set up as close to the source of smoke as possible.
- The device should not be set up on the floor (for smokers we recommend positioning it on a table).
- The device will have a shorter service life depending on the number of cigarettes smoked.

#### Tips on purifying the air in case of problems with pollen

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The air purifier is capable of filtering all standard types of pollen out of the air. These remain in the HEPA filter. To enable the device to work as effectively as possible and significantly reduce the concentration of pollen, we recommend that you create a refuge in which the air purifier can be stood. The device can only eliminate allergens which are present in the air, but not allergens which have settled on beds, walls, furniture, etc.

Therefore, please follow the instructions below:

- Clean the room thoroughly before using the device.
- Do not use a dustcloth for cleaning, use a damp cloth instead.
- Clean upholstered furniture with a vacuum cleaner at least once a week. Use a vacuum cleaner suitable for allergy sufferers.
- Mop the room at least once a week.
- Run the device at setting 1 during the day. Place the device on a table. Do not place it on the floor.
- Switch the device off before going to sleep.
- Set the fan setting to III while ventilating. Ventilate the rooms ideally between 6:00 a.m. and 8:00 a.m. in urban areas or after 7:00 p.m. in rural areas.

#### Tips on purifying the air in case of problems with household dust

Household dust is generally produced by mites that live in upholstered furniture, cushions, covers and mattresses. This is where the household dust remains at first. The air purifier can only remove household dust which is present in the air. It is therefore advisable to seal off the sources of household dust before you start to use the air purifier.

- Cover mattresses in allergen-proof encasings.
- Cover pillows and blankets in allergen-proof encasings.
- Wash pillows and blankets frequently.
- Replace old mattresses.
- Use a vacuum cleaner with a fine filter.
- Vacuum clean mattresses once a month.
- Keep dust catchers out of the bedroom.
- Do not put any indoor plants in the bedroom.

### Faults and troubleshooting

#### For our latest operating instructions please go to www.comedes.com

## Switch off the device immediately and contact your dealer if any of the following problems occur:

- Burned out fuse.
- Extraneous material gets into the device.
- The plug or the power cable get hot.

#### Do not open the device without authorized service personnel. However, you can check the following faults yourself:

#### The device cannot be switched on:

- Is the plug properly connected?
- Has the fuse burned out or is there no voltage supply at the socket outlet?
- Is the filter cover correctly fitted on the device?

#### There is less air flow at the outlet:

• Is the filter too dirty or clogged?

#### The device is unusually noisy:

- Has the device been set up on an uneven surface?
- Is the filter too dirty or clogged?

#### The remote control does not work:

• Replace the battery.



Don't dispose this product with household waste. This air purifier must be returned to a collection station for electronic and electrical equipment. For further information on these collection station, please contact your local municipal administration, or the Comedes GmbH.



#### **Comedes GmbH**

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