PAE 21



EN

OPERATING MANUAL
AIR COOLER

TRT-BA-PAE21-TC2019-10-001-EN

TROTEC

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Notes regarding the operating manual

Symbols

Warning of electrical voltage
This symbol indicates dangers to the life and health of persons due to electrical voltage.

Warning
This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.

Caution
This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

Note
This signal word indicates important information (e.g. material damage), but does not indicate hazards.

Info
Information marked with this symbol helps you to carry out your tasks quickly and safely.

Follow the manual
Information marked with this symbol indicates that the operating manual must be observed.

You can download the current version of the operating manual and the EU declaration of conformity via the following link:

PAE 21

https://hub.trotec.com/?id=43267

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use!

Warning
Read all safety warnings and all instructions.
Failure to follow the warnings and instructions may result in electric shock, fire and / or serious injury.
Save all warnings and instructions for future reference.
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.

- Do not use the device in potentially explosive rooms.
- Do not use the device in aggressive atmosphere.
- Set the device up in an upright and stable position.
- Let the device dry out after a wet clean. Do not operate it when wet.
- Do not use the device with wet or damp hands.
- Do not expose the device to directly squirting water.
- Never insert any objects or limbs into the device.
- Do not cover or transport the device during operation.
- Do not sit on the device.
- This appliance is not a toy! Keep away from children and animals. Do not leave the device unattended during operation.
- Check accessories and connection parts for possible damage prior to every use of the device. Do not use any defective devices or device parts.

- Ensure that all electric cables outside of the device are protected from damage (e.g. caused by animals). Never use the device if electric cables or the power connection are damaged!
- The electrical connection must correspond to the specifications in chapter Technical data.
- Insert the mains plug into a properly secured mains socket.
- Observe the device's power input, cable length and intended use when selecting extensions to the power cable. Completely unroll extension cables. Avoid electrical overload.
- Before carrying out maintenance, care or repair work on the device, remove the mains plug from the mains socket. Hold onto the mains plug while doing so.
- Switch the device off and disconnect the power cable from the mains socket when the device is not in use.
- Do not under any circumstances use the device if you detect damages on the mains plug or power cable.
  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.
  Defective power cables pose a serious health risk!
- When positioning the device, observe the minimum distances from walls and other objects as well as the storage and operating conditions specified in the Technical data chapter.
- Make sure that the air inlet and outlet are not obstructed.
- Make sure that the suction side is kept free of dirt and loose objects.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Only transport the device in an upright position with an emptied water tank.
- Empty the water tank before transport and storage. Do not drink the water. Health hazard!
- Only fill the water tank with fresh drinking water, ice cubes made of fresh drinking water and / or suitable ice packs.
- Ice packs are not toys. Keep away from children and animals.
- Never open an ice pack. The liquid inside the ice packs can be harmful to health.
- Do not eat the ice that may form on the ice packs. Health hazard!

Intended use

Only use the device for cooling the air in interior spaces while adhering to and following the technical data.

Intended use comprises cooling the air in:

- living spaces
- museums
- warehouses and archives
- libraries
- call centres and computer rooms

Improper use

- Do not place the device on wet or flooded ground.
- Do not place any objects, e.g. clothing, on the device.
- Do not use the device outdoors.
- Any unauthorised modifications, alterations or structural changes to the device are forbidden.
- Any operation other than as described in this manual is prohibited. Non-observance renders all claims for liability and guarantee null and void.

Personnel qualifications

People who use this device must:

- be aware of the dangers that occur when working with electric devices in damp areas.
- have read and understood the operating manual, especially the Safety chapter.

Maintenance tasks which require the housing to be opened must only be carried out by specialist electrical companies or by Trotec.

Residual risks

Warning of electrical voltage
Work on the electrical components must only be carried out by an authorised specialist company!

Warning of electrical voltage
Before any work on the device, remove the mains plug from the mains socket!
Hold onto the mains plug while pulling the power cable out of the mains socket.

Warning
The liquid inside the ice packs can be harmful to health!
If the liquid was swallowed, immediately seek medical attention.
If the liquid came into contact with your eyes, rinse with water and immediately consult an ophthalmologist.

Warning
Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way!
Observe the personnel qualifications!

Warning
The device is not a toy and does not belong in the hands of children.

Warning
Risk of suffocation!
Do not leave the packaging lying around. Children may use it as a dangerous toy.

Note
Do not operate the device without an inserted air filter! Without the air filter, the inside of the device will be heavily contaminated. This could reduce the performance and result in damage to the device.

Behaviour in the event of an emergency

1. Switch off the device.
2. In an emergency, disconnect the device from the mains feed-in: Hold onto the mains plug while pulling the power cable out of the mains socket.
3. Do not reconnect a defective device to the mains.

Information about the device

Description of the device

The air cooler lowers the room temperature to a comfortable degree by evaporation-based cooling.

The device is filled with cold water or optionally with ice cubes and / or ice packs in order to cool down the incoming warm air at the evaporation filter and to blow out the cold air thus generated via the fan.

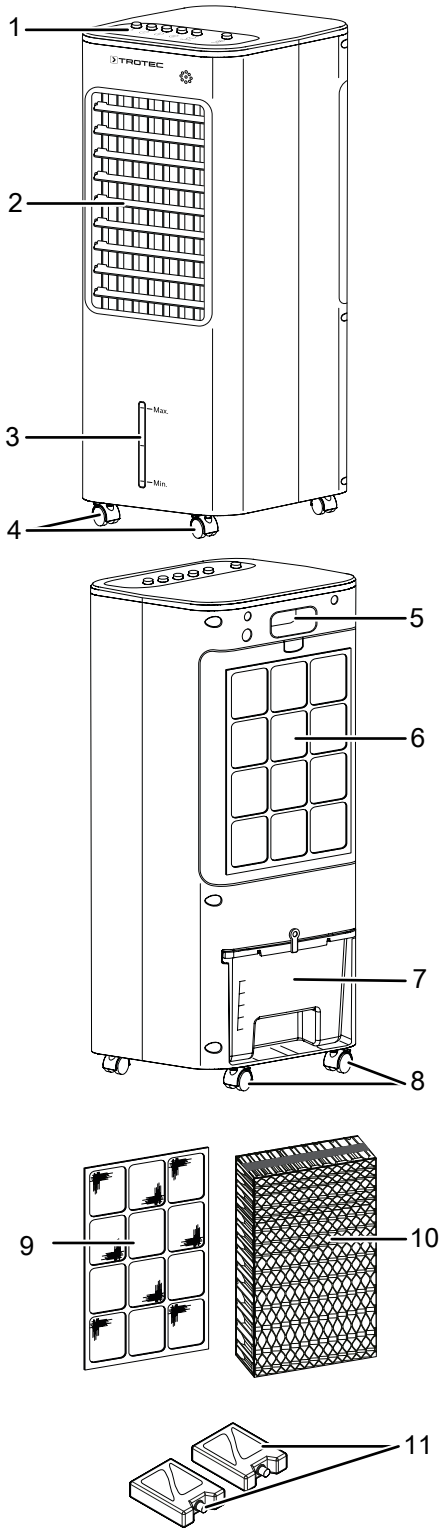
Besides its cooling function, the device can also be used for air freshening: thanks to an integrated air filter and the evaporation filter's honeycomb structure, the sucked-in air is filtered and humidified.

The fan speed can be set to three stages.

The discharge direction of the cooled air can be manually adjusted via the ventilation flaps as well as via the optionally selectable automatic swing mode.

The device can be operated via the control panel at the device.

Device depiction



No.	Designation
1	Control panel
2	Air outlet with adjustable ventilation flaps and air flaps for swing function
3	Water level indicator
4	Wheels
5	Transport handle
6	Air inlet with air filter and honeycomb filter
7	Water tank with filling level indicator
8	Wheels with parking brake
9	Air filter
10	Evaporation filter/honeycomb filter
11	Ice packs

Transport and storage

Note

If you store or transport the device improperly, the device may be damaged.
Note the information regarding transport and storage of the device.

Transport

To make the device easier to transport, it is fitted with wheels.

To make the device easier to transport, it is fitted with a carry handle.

Before transporting the device, observe the following:

- Switch off the device.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Do not use the power cable to drag the device.
- Empty the water tank.
- Release the brakes at the castors.
- Only wheel the device on a level and smooth surface.

After transporting the device, observe the following:

- Set up the device in an upright position after transport.

Storage

Before storing the device, proceed as follows:

- Empty and clean the water tank prior to storage (see chapter Maintenance).
- Allow the honeycomb filter to dry prior to storage. Otherwise the device may distribute a musty smell after restart.
- Hold onto the mains plug while pulling the power cable out of the mains socket.

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- in an upright position where it is protected from dust and direct sunlight
- with a cover to protect it from invasive dust, if necessary
- Place no further devices or objects on top of the device to prevent it from being damaged.

Assembly and start-up

Scope of delivery

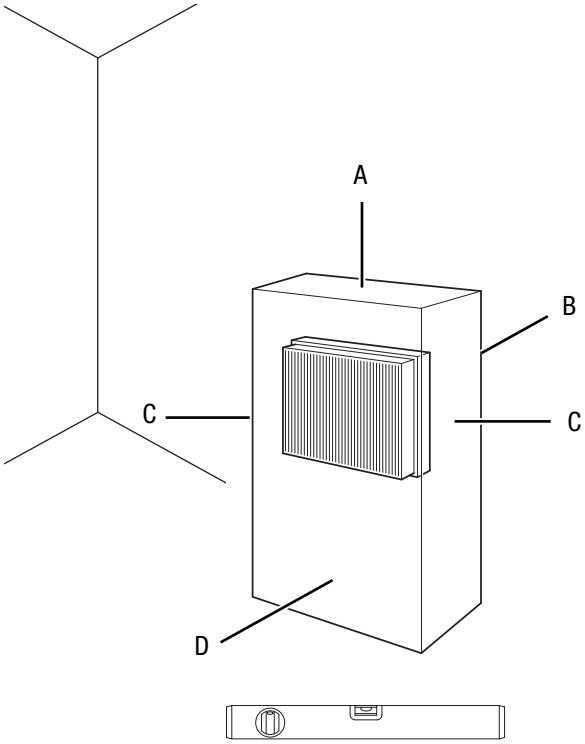
- 1 x Device
- 1 x Honeycomb filter
- 1 x Air filter
- 2 x Wheel
- 2 x Wheel with parking brake
- 2 x Ice pack
- 1 x Manual

Unpacking the device

1. Open the cardboard box and take the device out.
2. Completely remove the packaging.
3. Fully unwind the power cable. Make sure that the power cable is not damaged and that you do not damage it during unwinding.

Start-up

When positioning the device, observe the minimum distance from walls or other objects as described in the Technical data chapter.



- Before restarting the device, check the condition of the power cable. If there are doubts as to the sound condition, contact the customer service.
- Set the device up in an upright and stable position.
- Do not create tripping hazards when laying the power cable or other electric cables, especially when positioning the device in the middle of the room. Use cable bridges.
- Make sure that extension cables are completely unrolled.
- Make sure that no curtains or other objects interfere with the air flow.

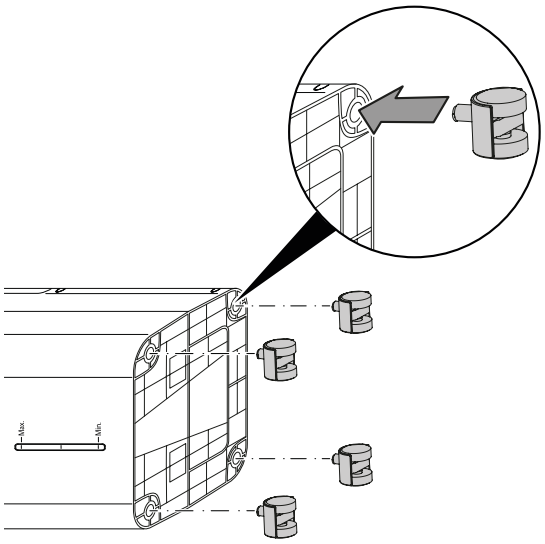
Mounting the wheels

To ensure simple transportation and a stable position, the supplied wheels must be mounted. To do so, please proceed as follows:

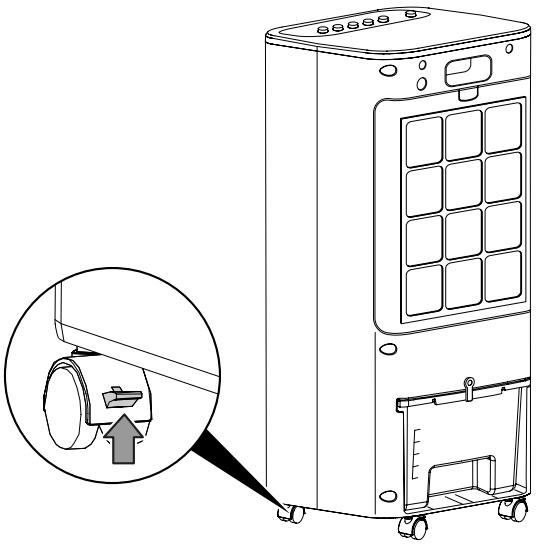
Note

When mounting the wheels, make sure that the filled water tank is not located inside the device.

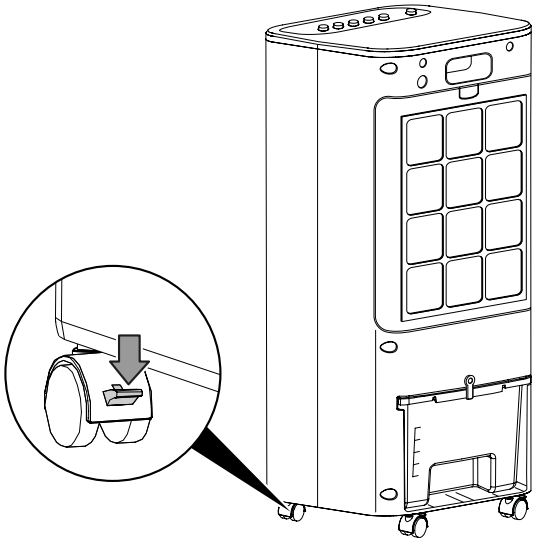
1. Place the device on its side and insert a roller. Repeat this step for the 3 remaining wheels.
   ⇨ Please note that the wheels equipped with a parking brake ought to be positioned at the front of the device.



- To facilitate easy transport, release the parking brakes.



- To ensure a firmly fixed position, apply the parking brakes.



Filling the water tank

The device requires fresh drinking water for air cooling.

Note

Fill the device with fresh drinking water only. The water temperature must not exceed 40 °C.

Info

If possible, change the water on a daily basis to prevent bacterial growth.

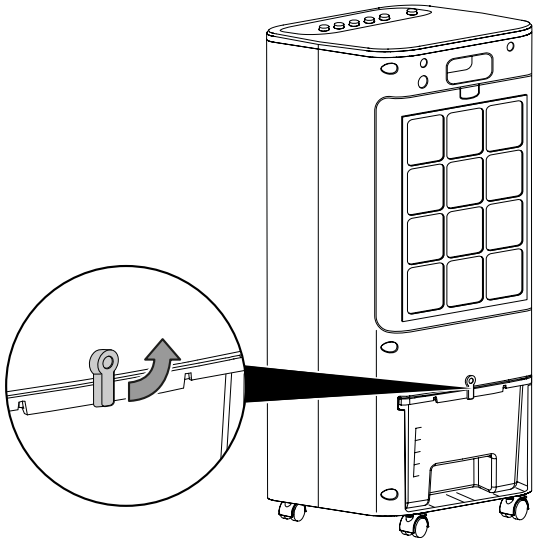
Observe the following when using the ice packs:

- Put the ice packs into a freezer for at least 4 hours before use.
- The water tank (7) should be filled with water before inserting the ice packs.

Info

When using ice packs at high outside temperatures, condensation may form at the water tank and drip onto the floor.

1. Disconnect the device from the mains before refilling water or putting ice packs into the device.
2. Release the water tank by turning the clip upwards.



3. Pull the water tank out a little from the device.

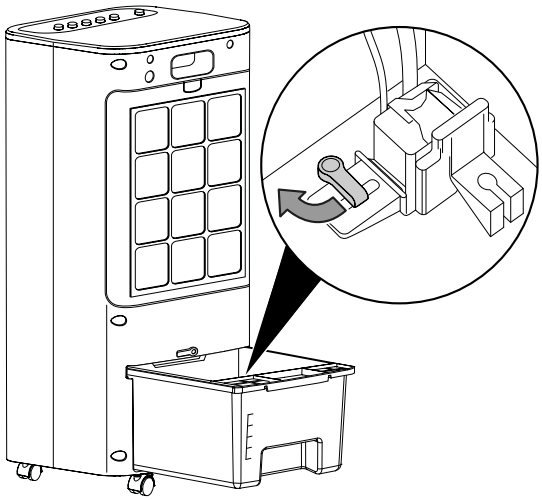
Info

There are two ways to fill the water tank:

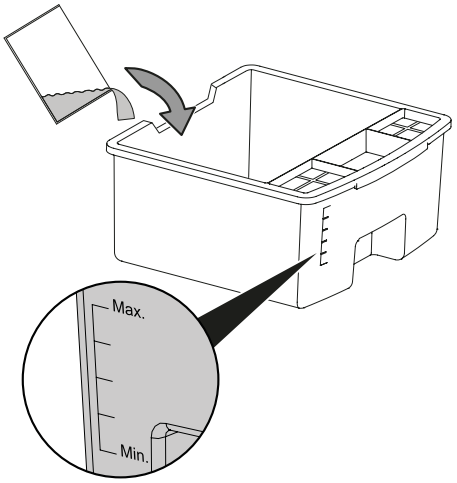
Version A: Pull the water tank out of the device as far as possible and use a suitable vessel to fill the water tank. Please note that you cannot pull the water tank completely out of the device since there is a pump installed in the water tank. Continue with step 6 in this case.

Version B: Completely remove the water tank from the device and then fill the water tank. To do so, follow steps 4 and 5.

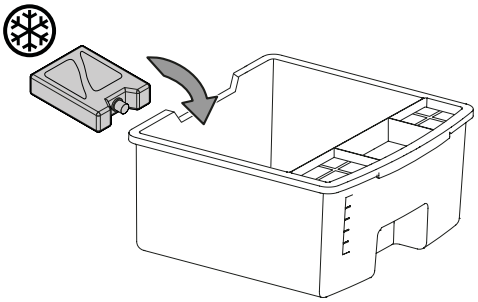
4. Release the pump and remove it from the water tank by turning the locking lever 90° clockwise. While doing this, make sure not to damage or loosen the connected cable or the hose attached to the pump.



5. Remove the water tank from the device.
6. Fill the water tank with fresh drinking water only. Optionally, you can add ice cubes made of drinking water for additional cooling.
   ⇨ Observe the minimum and maximum filling level at the filling level indicator.
   The water tank must be filled up to minimum filling level to enable pump operation.

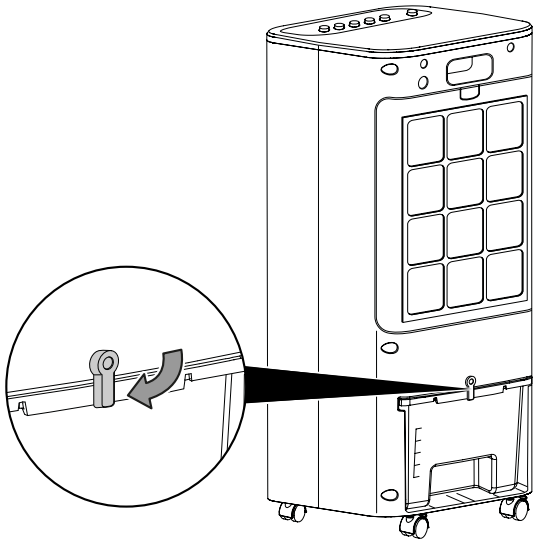


7. If required, put the ice packs into the water tank for additional cooling.



8. Reinsert the water tank into the device and, if applicable, secure the pump in the water tank by inserting the pump into the retainer and turning the locking lever 90° counter-clockwise.

9. Lock the water tank by turning the clip downwards in front of the water tank.



10. Make sure that the device is neither damp nor wet on the outside. Otherwise wipe it dry.

Inserting honeycomb filter and air filter

Note

When set to air cooling mode, the device should not be operated without the honeycomb filter, otherwise *cooling* will not work.

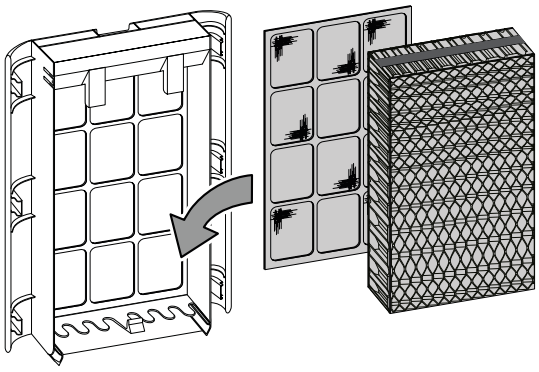
Note

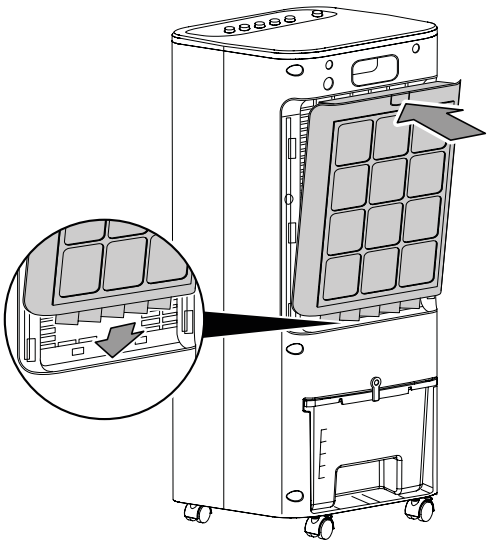
Do not operate the device without an inserted air filter! Without the air filter, the inside of the device will be heavily contaminated. This could reduce the performance and result in damage to the device.

Note

For an even distribution of water please make sure that the groove of the honeycomb filter is positioned at the top.

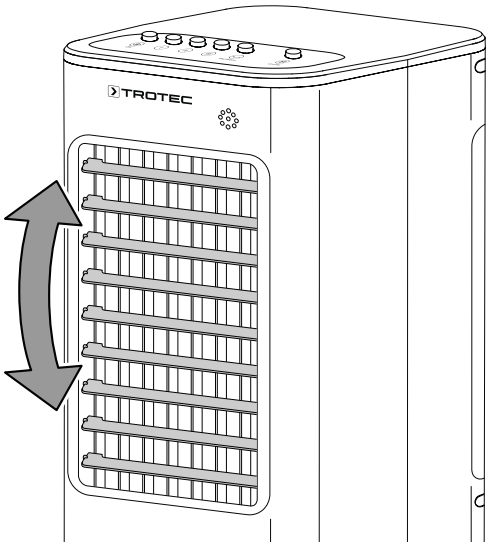
- Make sure that both the honeycomb and the air filter are installed before switching the device on.





Opening the ventilation flaps

- Prior to switching the device on, adjust the ventilation flaps at the air outlet.



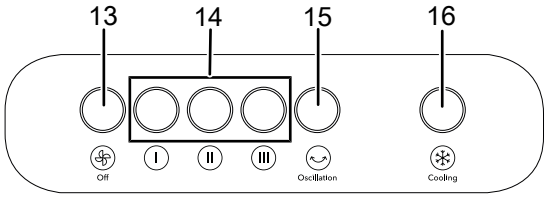
Connecting the power cable

- Insert the mains plug into a properly secured mains socket.

Operation

- Avoid open doors and windows.

Operating elements



No.	Designation	Meaning
13	*Off* button	Switches ventilation off
14	*Fan speed* buttons	Setting the fan speed: I Stage 1 = low II Stage 2 = medium III Stage 3 = high
15	*Oscillation* button	Switching the swing function on or off
16	*Cooling* button	Switching air cooling on or off

Switching the device on

Once you have completely installed the device as described in the Start-up chapter, you can switch it on.

Setting the operating mode

The device comes with the following operating modes:

- *ventilation*
- *air cooling*

Ventilation

Please proceed as follows to activate ventilation:

1. Press one of the *fan speed* buttons (14).
   ⇨ The device activates ventilation at the corresponding fan speed.
2. Press the *Off* button (13) to switch off ventilation.

Note

Please note that the device does not switch off automatically.

Air cooling

During air cooling the pump is switched on and the water is distributed over the honeycomb filter to cool the circulating air.

Please proceed as follows to activate air cooling:

1. Press the *Cooling* button (16).
   ⇨ The pump switches on.
2. Press the *Cooling* button (16) again to switch off the pump and thus to deactivate air cooling.

Note

Please note that pressing the *Off* button does not switch off the pump for air cooling. The *Off* button only deactivates ventilation.

Note

When *air cooling* mode is activated, the water tank must not be removed, otherwise the water from the filter will drip down into the device.

Swing function

The swing function can be switched on in any operating mode if required.

Behind the horizontal ventilation flaps, there are vertical air flaps integrated in the device. By means of the swing function, these air flaps are moved automatically and thus ensure continuous air circulation.

Press the *Oscillation* button (15) to switch the swing function on or off.

Refilling water

If you want to use air cooling mode, the water tank must be filled as soon as it is empty.

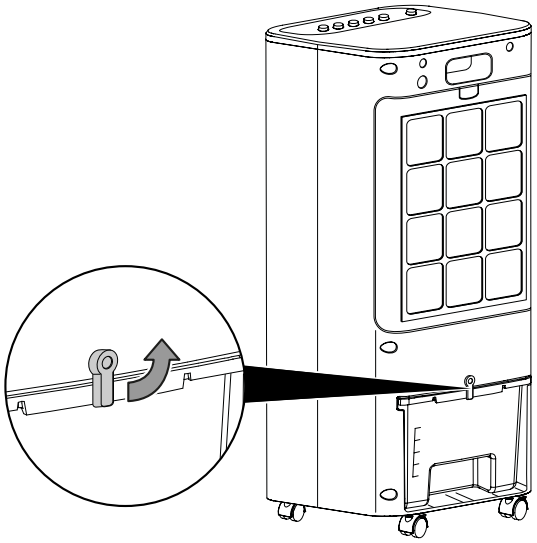
Observe the following when using the ice packs:

- Put the ice packs into a freezer for at least 4 hours before use.
- The water tank (7) should be filled with water before inserting the ice packs.

Info

When using ice packs at high outside temperatures, condensation may form at the water tank and drip onto the floor.

1. Disconnect the device from the mains before refilling water or putting ice packs into the device.
2. Release the water tank by turning the clip upwards.



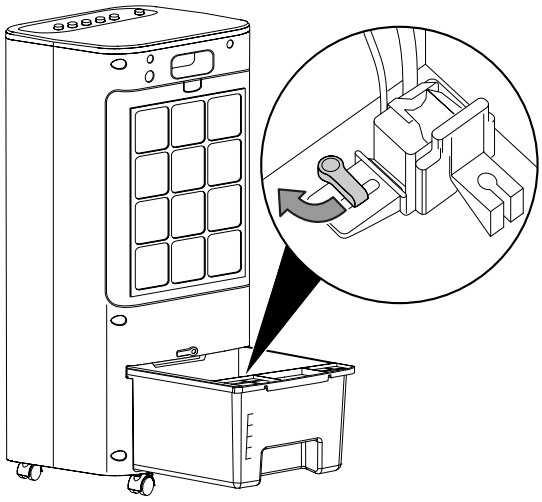
3. Pull the water tank out a little from the device.

Info
There are two ways to fill the water tank:

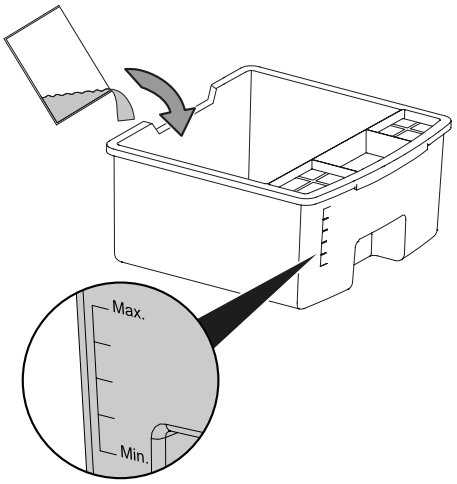
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Version B: Completely remove the water tank from the device and then fill the water tank. To do so, follow steps 4 and 5.

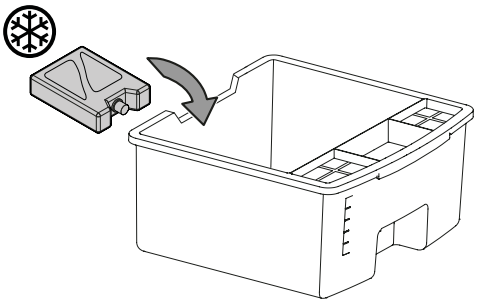
4. Release the pump and remove it from the water tank by turning the locking lever 90° clockwise. While doing this, make sure not to damage or loosen the connected cable or the hose attached to the pump.



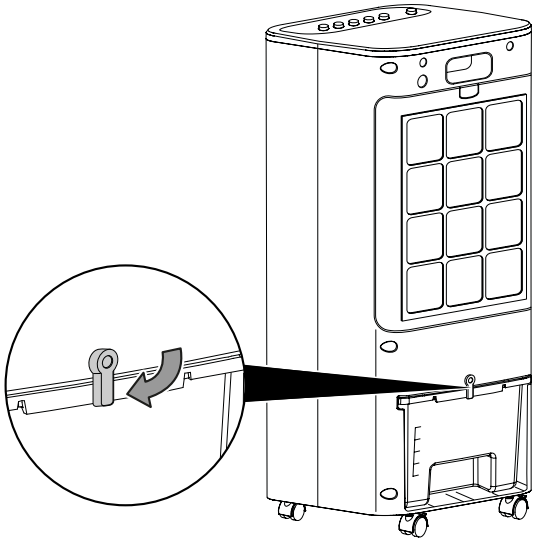
5. Remove the water tank from the device.
6. Fill the water tank with fresh drinking water only. Optionally, you can add ice cubes made of drinking water for additional cooling.
   ⇨ Observe the minimum and maximum filling level at the filling level indicator.
   The water tank must be filled up to minimum filling level to enable pump operation.



7. If required, put the ice packs into the water tank for additional cooling.



8. Reinsert the water tank into the device and, if applicable, secure the pump in the water tank by inserting the pump into the retainer and turning the locking lever 90° counter-clockwise.
9. Lock the water tank by turning the clip downwards in front of the water tank.



10. Make sure that the device is neither damp nor wet on the outside. Otherwise wipe it dry.

Shutdown

Warning of electrical voltage
Do not touch the mains plug with wet or damp hands.

- Switch off the device.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Empty and clean the water tank (see chapter Maintenance).
- Clean the device according to the Maintenance chapter.
- Store the device according to the Storage chapter.

Available accessories

Warning
Only use accessories and additional equipment specified in the operating manual.
Using insertion tools or accessories other than those specified in the operating manual may cause a risk of injury.

Designation	Article number
Evaporation filter PAE 21	7.710.000.865

Errors and faults

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

The device does not start:

- Check the power connection.
- Check the power cable and mains plug for damages.
- Check the on-site fusing.
- Wait for 10 minutes before restarting the device. If the device is not starting, have the electrics checked by a specialist company or by Trotec.

The device works with reduced or no capacity:

- Check the position of the horizontal ventilation flaps. They should be opened to the maximum.
- Check the air filter for dirt. If necessary, clean or replace the air filter.
- Check the minimum distance to walls or other objects. Position the device a little more in the room's centre if required.

The device is running, but there is no air cooling or pump operation:

- Check whether *air cooling* mode is activated.
- Check the filling level of the water tank (see chapter Filling the water tank).
- Check whether there are any objects blocking the pump inlet. Make sure that the pump inlet is not blocked.
- In case the pump does not operate despite a correctly filled water tank and activated air cooling mode, the pump might be defective. Please contact the customer service.
- Make sure that the pump is correctly installed and secured in the water tank (see chapter Filling the water tank).

Water is leaking:

- Check the device for leaks.
- Check the water tank for tight fit.

The swing function is not working:

- The swing function motor might be defective. Please contact the customer service.

The device is loud or vibrates:

- Check whether the device is set up in a stable and upright position.

Note
Wait for at least 3 minutes after maintenance and repair work. Only then switch the device back on.

Your device still does not operate correctly after these checks?

Please contact the customer service. If necessary, bring the device to an authorized specialist electrical company or to Trotec for repair.

Maintenance

Maintenance intervals

Maintenance and care interval	before every start-up	as needed	at least every 2 weeks	at least every 4 weeks	at least every 6 months	at least annually
Clean the water tank	X		X			
Check the air inlets and outlets for dirt and foreign objects and clean if necessary	X			X		
Clean the exterior		X				X
Visually check the inside of the device for dirt		X				X
Check the air filter for dirt and foreign objects and clean if necessary	X		X			
Replace the honeycomb filter		X				
Check for damage	X					
Check the attachment screws		X				X
Test run						X

Maintenance and care log

Device type: .....

Device number: .....

Maintenance and care interval	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Clean the water tank																
Check the air inlets and outlets for dirt and foreign objects and clean if necessary																
Clean the exterior																
Visually check the inside of the device for dirt																
Check the air filter for dirt and foreign objects and clean if necessary																
Replace the honeycomb filter																
Check for damage																
Check the attachment screws																
Test run																
Remarks:																

1. Date: ..... Signature:	2. Date: ..... Signature:	3. Date: ..... Signature:	4. Date: ..... Signature: .....
5. Date: ..... Signature:	6. Date: ..... Signature:	7. Date: ..... Signature:	8. Date: ..... Signature: .....
9. Date: ..... Signature:	10. Date: ..... Signature:	11. Date: ..... Signature:	12. Date: ..... Signature: .....
13. Date: ..... Signature:	14. Date: ..... Signature:	15. Date: ..... Signature:	16. Date: ..... Signature: .....

Activities required before starting maintenance

Warning of electrical voltage

Do not touch the mains plug with wet or damp hands.

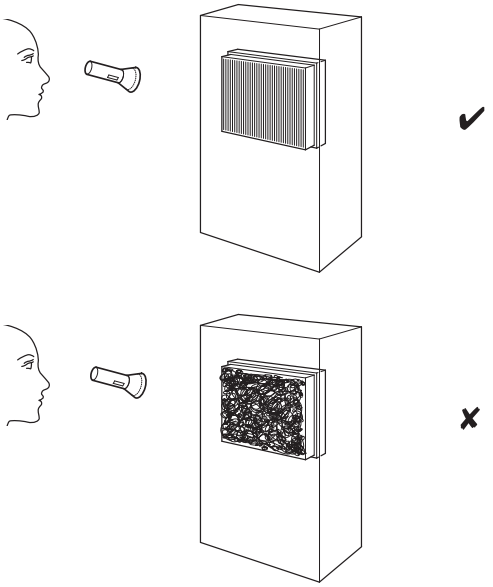
- Switch the device off.
- Hold onto the mains plug while pulling the power cable out of the mains socket.

Warning of electrical voltage

Tasks which require the housing to be opened must only be carried out by authorised specialist companies or by Trotec.

Visual inspection of the inside of the device for dirt

1. Remove the air filter.
2. Use a torch to illuminate the openings of the device.
3. Check the inside of the device for dirt.
4. If you see a thick layer of dust, have the inside of the device cleaned by a specialist electrical company or by Trotec.
5. Put the air filter back in.



Cleaning the housing

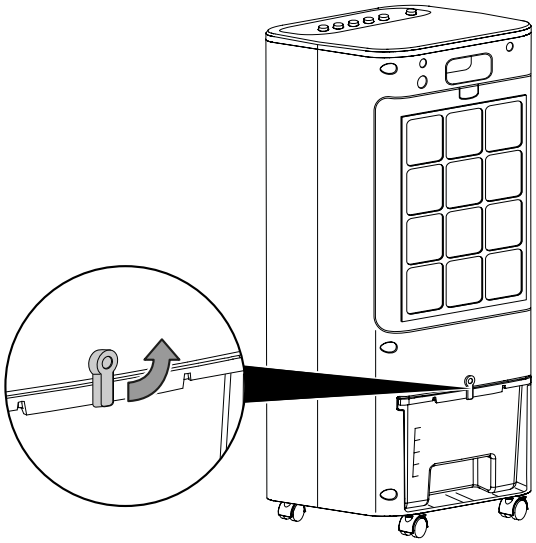
Clean the housing with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Protect electrical components from moisture. Do not use any aggressive cleaning agents such as cleaning sprays, solvents, alcohol-based or abrasive cleaners to dampen the cloth.

Cleaning the water tank

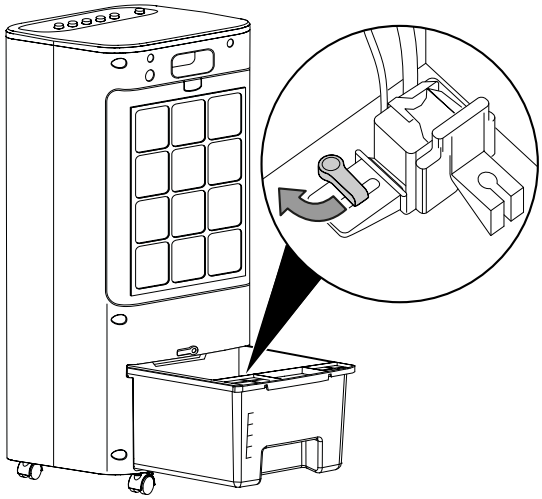
The water tank should be cleaned every two weeks.

Before a longer period of non-use or storage the water tank should be drained.

1. Release the water tank by turning the clip upwards.

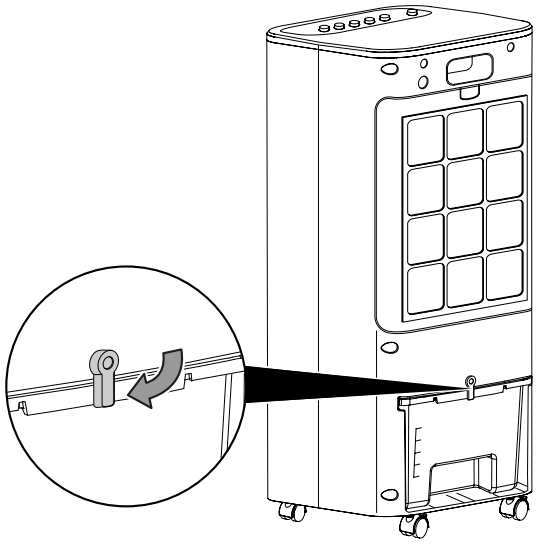


2. Pull the water tank out a little from the device.
3. Release the pump and remove it from the water tank by turning the locking lever 90° clockwise. While doing this, make sure not to damage or loosen the connected cable or the hose attached to the pump.



4. Remove the water tank from the device.
5. Thoroughly rinse the water tank in a sink or similar.
6. Clean the tank using a mild cleaning agent (no dish detergent!).
7. Remove all calcium deposits in the water tank.
8. Dry the inside of the tank with a lint-free cloth.
9. Fill the water tank with fresh drinking water if you want to continue operation (see chapter Adding water).
10. Secure the pump in the water tank by inserting the pump into the retainer and turning the locking lever 90° clockwise.

11. Reinsert the water tank into the device.
12. Lock the water tank by turning the clip downwards in front of the water tank.



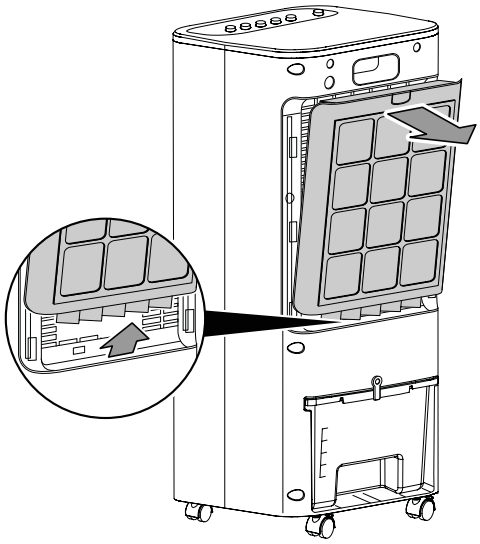
13. In doing so, make sure that the water tank is inserted correctly, for otherwise the device cannot be switched back on.

Cleaning the air filter

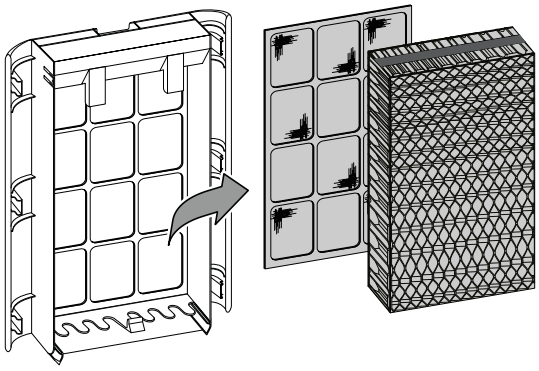
The air filter has to be cleaned as soon as it is dirty. This is brought to light e.g. by a reduced capacity (see chapter Errors and faults).

Warning
Ensure that the air filter is not worn or damaged. The corners and edges of the air filter must not be deformed or rounded. Before reinserting the air filter, make sure that it is undamaged and dry!

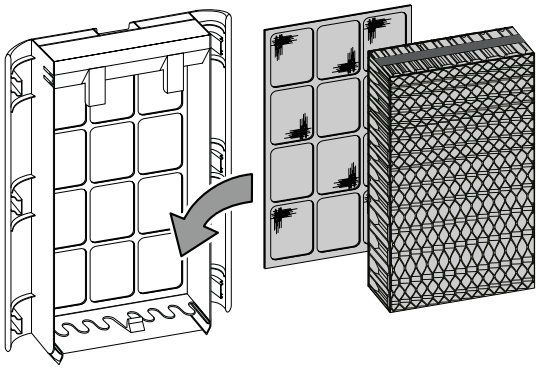
1. Remove the air filter from the device.



2. Remove the honeycomb filter from the air filter.
3. Remove the air filter from the retainer.



4. Clean the filter using a slightly damp, soft, lint-free cloth. If the filter is heavily contaminated, clean it with warm water mixed with a neutral cleaning agent.
5. Allow the filter to dry completely. Do not insert a wet filter into the device!
6. Reinsert the air filter into the retainer.
7. Reinsert the honeycomb filter to the air filter.



8. Reinsert the air filter into the device.

Replacing the honeycomb filter

Note

When set to air cooling mode, the device should not be operated without the honeycomb filter, otherwise *cooling* will not work.

Note

Do not operate the device without an inserted air filter! Without the air filter, the inside of the device will be heavily contaminated. This could reduce the performance and result in damage to the device.

Note

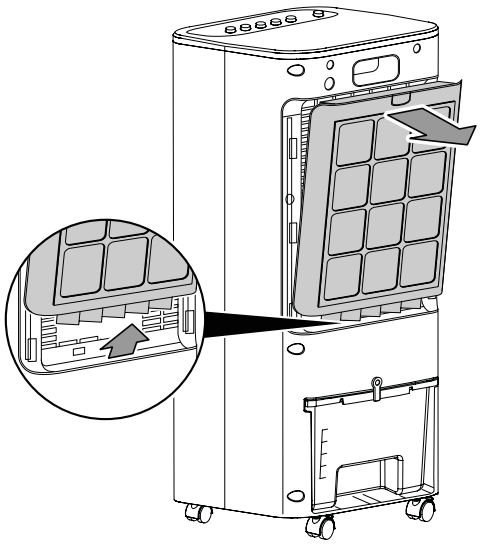
For an even distribution of water please make sure that the groove of the honeycomb filter is positioned at the top.

The honeycomb filter should be replaced in case of heavy soiling.

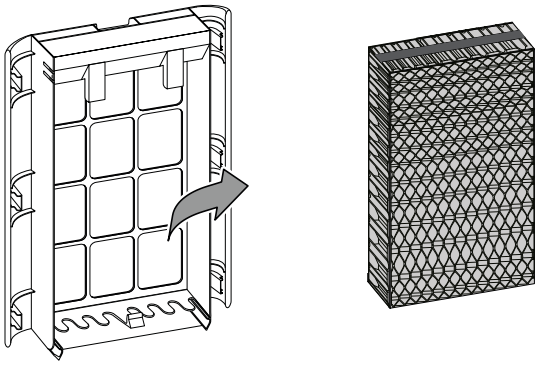
In standard operation, the interval for replacing the honeycomb filter is approx. 1 year.

Allow the honeycomb filter to dry before removing it from the device.

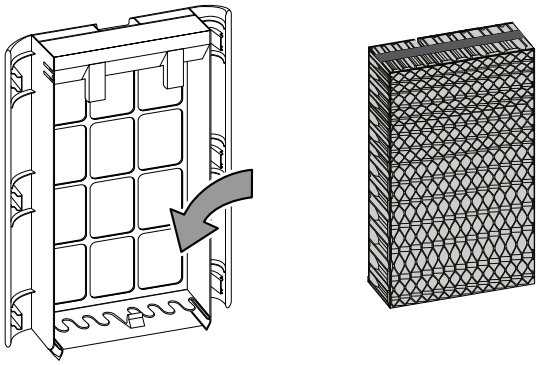
1. Remove the air filter and the honeycomb filter from the device.



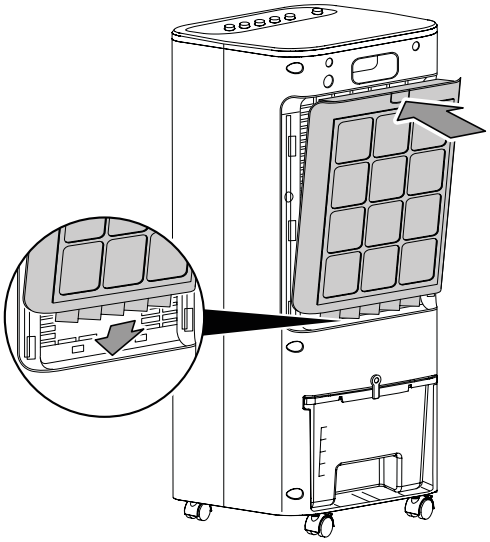
2. Remove the honeycomb filter from the air filter.



3. Dispose of the used honeycomb filter according to the national regulations.
4. Insert the new honeycomb filter into the device.



5. Reinsert the air filter into the device.



Activities required after maintenance

If you want to continue using the device:

- Reconnect the device to the mains.

If you do not intend to use the device for a considerable time:

- Store the device according to the Storage chapter.

Technical annex

Technical data

Parameter	Value
Model	**PAE 21**
Evaporation capacity	800 ml/h
Air flow rate	276 m^3/h
Mains connection	220–240 V / 50 Hz
Nominal current consumption	0.3 A
Power consumption	50 W
Sound pressure level (at a distance of 1 m)	60 dB(A)
Water tank capacity	5.6 l
Weight	6.5 kg
Dimensions (length x width x height)	290 x 260 x 700 mm
Minimum distance to walls and other objects:	
top (A):	100 cm
rear (B):	100 cm
sides (C):	100 cm
front (D):	100 cm

Disposal



The icon with the crossed-out waste bin on waste electrical or electronic equipment stipulates that this equipment must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. For further return options provided by us please refer to our website www.trotec24.com.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

Trotec GmbH & Co. KG

Grebbener Str. 7
D-52525 Heinsberg
+49 2452 962-400
+49 2452 962-200

info@trotec.com
www.trotec.com