

TTK 96 E / TTK 127 E

EN

OPERATING MANUAL
DEHUMIDIFIER



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



TTK 96 E



<https://hub.trotec.com/?id=42501>

TTK 127 E



<https://hub.trotec.com/?id=42502>

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.

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.
- Ensure that the air inlet and outlet are not obstructed.
- Ensure that the side of the device where the air inlet is found 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 condensation tank or drain hose.
- Discharge the collected condensate before transport and storage. Do not drink it. Health hazard!

Intended use

Only use the device for drying and dehumidifying room air, while adhering to and following the technical data.

Intended use comprises:

- dehumidifying and drying:
 - living rooms, bedrooms, bathrooms and basements
 - laundries, holiday homes, camper vans, boats
- maintaining the dryness of:
 - storage spaces, archives, laboratories, garages
 - bathrooms, wash rooms, changing rooms etc.

Improper use

The device is not intended for industrial 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 companies for cooling and air-conditioning 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

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 the device off.
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 device TTK 96 E / TTK 127 E uses the principle of condensation to automatically dehumidify rooms.

The fan sucks damp room air through the air inlet, the air filter, the evaporator and to the condenser located behind it. The air is cooled at the cold evaporator until it is below the dew point. Water vapour contained in the room air precipitates on the evaporator fins as either condensation or rime. The dehumidified, cooled air is slightly warmed and blown out again. The drier air thus conditioned mixes with the air in the room. The humidity in the room where the device is positioned is reduced as air constantly circulates through the device.

Depending on the air temperature and the relative humidity, the condensed water either drops continuously or only during the defrost phase through the integrated drain nozzle into the condensation tank below. It is fitted with a float to measure the filling level.

The device has a control panel for operating and controlling the functions.

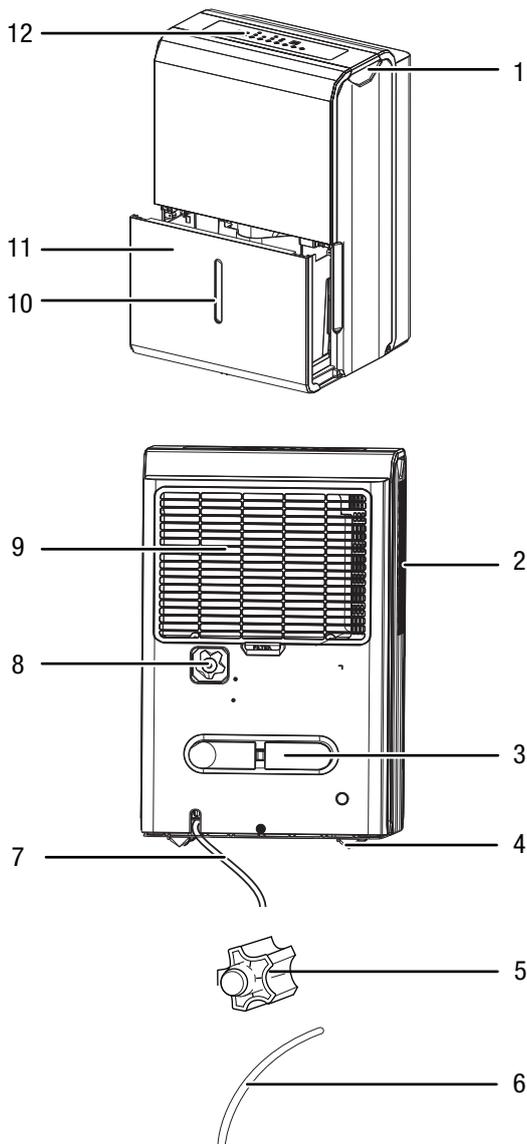
Once the maximum fill level of the condensation tank is reached, the condensation tank indicator light (see chapter Operating elements) on the control panel is illuminated. The device switches off. The condensation tank indicator light only goes out again once the emptied condensation tank is reinserted.

Optionally, the condensed water can be drained by attaching a hose ($\varnothing = 14$ mm) at the condensation connection.

The device can reduce the relative humidity of a room to approx. 35 %.

Because of the heat radiation generated during operation, the room temperature may rise slightly.

Device depiction



No.	Designation
1	Transport handle
2	Air outlet
3	Power cable holder
4	Wheels
5	Hose adapter for condensation drain hose
6	Condensation drain hose
7	Power cable
8	Condensation hose connection with sealing cap
9	Air inlet with air filter
10	Filling level indication
11	Condensation tank
12	Control panel

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 the device off.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Drain the remaining condensate from the device and the condensation drain hose (see chapter Maintenance).
- Do not use the power cable to drag the device.
- 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.
- Leave the device to rest for 12 to 24 hours, so the refrigerant can accumulate within the compressor. Wait 12 to 24 hours before switching the device back on! Acting contrary might lead to compressor damage and a malfunctioning device. If so, any warranty claims will be voided.

Storage

Before storing the device, observe the following:

- Drain the remaining condensate from the device and the condensation drain hose (see chapter Maintenance).
- Empty and clean the condensation tank prior to storage.
- Drain any possibly remaining condensate.

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.

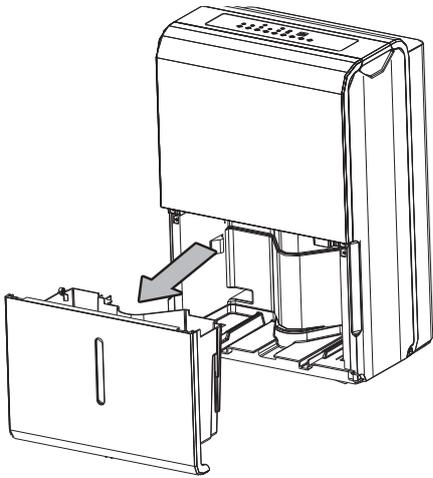
Assembly

Scope of delivery

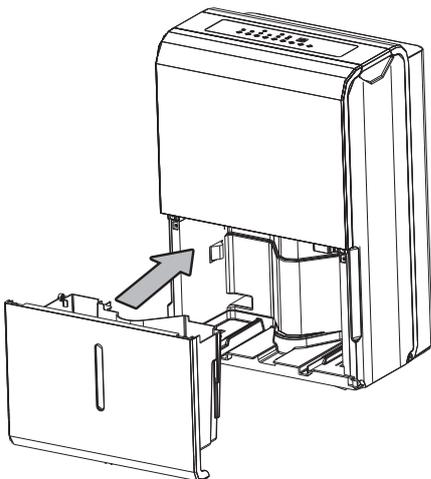
- 1x dehumidifier
- 1x air filter
- 1x power cable holder
- 1x hose adapter for condensation drain hose
- 1x condensation drain hose (l = 60 cm, Ø = 14 mm)

Assembling the power cable holder

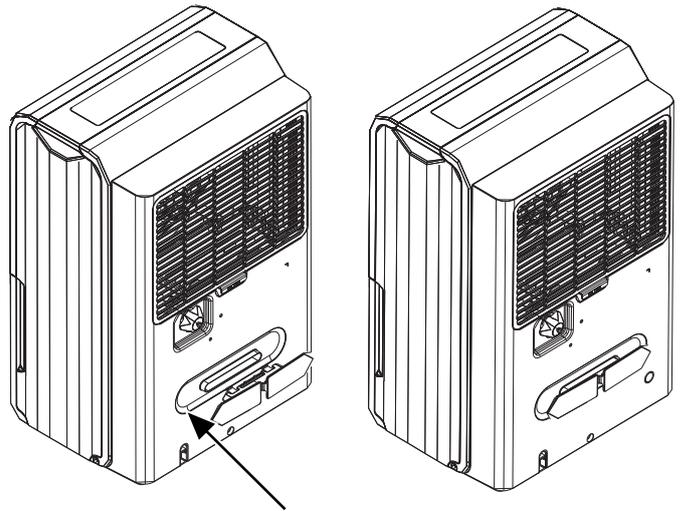
1. Unpack the device and remove the cardboard box as well as any other outer packaging.
2. Remove the condensation tank.



3. Remove the power cable holder (3), the condensation drain hose (6) and the hose adapter (5) from the condensation tank.
4. Put the condensation tank back in.



5. Press the holder into the provided recess.



⇒ The holder should click into place.

6. Check the holder for tight fit.

⇒ If needed, you may now wind the power cable around the holder.

Set-up and installation

Positioning

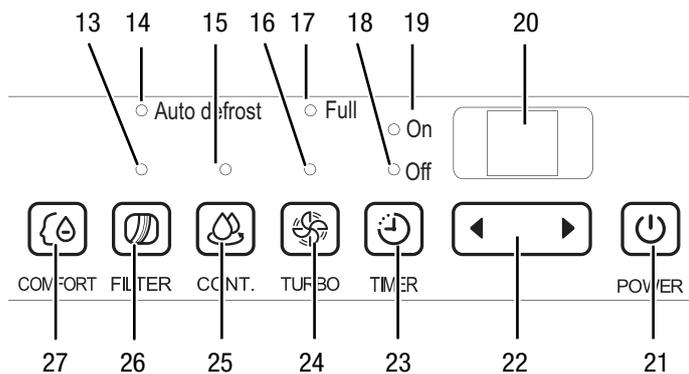
When positioning the device, observe the minimum distance from walls or other objects as described in chapter Technical Data.

- Set the device up in a level and stable position.
- When positioning the device, keep a sufficient distance to heat sources.
- When positioning the device, particularly in wet areas, secure it locally with an RCD (residual current device) which complies with the respective regulations.

Operation

- After being switched on, the device operates fully automatically.
- The fan is running continuously until the device is switched off.
- Avoid open doors and windows.

Operating elements



No.	Designation	Meaning
13	<i>FILTER</i> LED	Illuminated when the filter needs to be cleaned.
14	<i>Auto defrost</i> LED	Illuminated when the device carries out an automatic defrost.
15	<i>CONT.</i> LED	Illuminated when the device runs in continuous operation.
16	<i>TURBO</i> LED	Illuminated when the fan runs at maximum power.
17	<i>FULL</i> LED	Illuminated when the condensation tank is full. See chapter Emptying the condensation tank
18	<i>Off</i> LED	Illuminated when the timer is programmed for automatic switch-off.
19	<i>On</i> LED	Illuminated when the timer is programmed for automatic switch-on.
20	Display	Indicates the current humidity level. Indicates the selected humidity value during the humidity setting. Indicates the number of hours during the timer setting.
21	<i>POWER</i> button	Switches the device on or off.
22	Selection button	Selection button for the humidity level (35 % to 85 % in increments of 5 %) or the timer function (0 to 10 h in increments of 0.5 hours or 10 to 24 h in increments of 1 h)

No.	Designation	Meaning
23	<i>TIMER</i> button	Switches the timer function on or off.
24	<i>TURBO</i> button	Sets the fan stage. Stage 1 = normal Stage 2 = function for drying laundry
25	<i>CONT.</i> button	Switches continuous operation on or off.
26	<i>FILTER</i> button	Resets the cleaning cycle for the filter.
27	<i>COMFORT</i> button	Switches comfort mode on or off.

Inserting the air filter

Make sure that the air filter is installed before switching the device on.

The device should not be operated without air filter. Without air filter the inside of the device will be heavily contaminated, which affects the dehumidification performance adversely and may further result in damage to the device.

Switching the device on

1. Ensure that the condensation tank is empty and inserted correctly.
2. Insert the mains plug into a properly secured mains socket.
3. Press the *POWER* button (21).

Setting the humidity level

You can adjust the preset humidity level at any time during operation.

1. Press the left or right-hand side of the selection button (22) to adjust the desired humidity level.
 - ⇒ The desired humidity level will be indicated on the display (20) for approx. 5 s.
 - ⇒ Then the currently measured humidity level reappears on the display.
 - ⇒ The device switches off automatically upon reaching the desired humidity level.

Setting the fan stage

1. Press the *TURBO* button (24) to switch between the normal and maximum fan stage.
 - ⇒ The *TURBO* LED (16) is illuminated when the fan runs at maximum power.
 - ⇒ The function for drying laundry is activated.

Continuous operation

In continuous operation mode, the device dehumidifies the air constantly, regardless of the humidity.

Note:

For continuous operation mode the condensation drain hose should be connected in order to continuously drain the accumulating condensate.

1. Press the *CONT.* button (25) to switch continuous operation on or off.
 - ⇒ With activated continuous operation mode the *CONT.* LED (15) is illuminated.

Laundry drying function

The device may be used to dry clothes in a more timely manner. When positioning the device or a clothes horse, please observe the minimum distances specified in the technical data.

1. Press the *TURBO* button (24) to set the maximum fan stage (stage 2).
 - ⇒ The *TURBO* LED (16) is illuminated.
 - ⇒ The function for drying laundry is activated.

Comfort mode

Comfort mode ensures an agreeable humidity level ranging between 45 % and 55 %. Depending on the room temperature the device automatically regulates the convenient humidity level choosing a value from 45%-50%-55%.

In this operating mode it is not possible to regulate the humidity level manually.

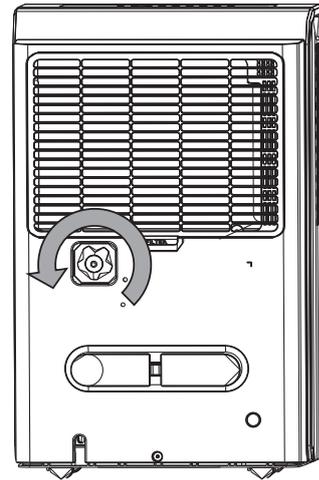
1. Press the *COMFORT* button (27) to switch comfort mode on or off.

Operation with hose attached to the condensation connection

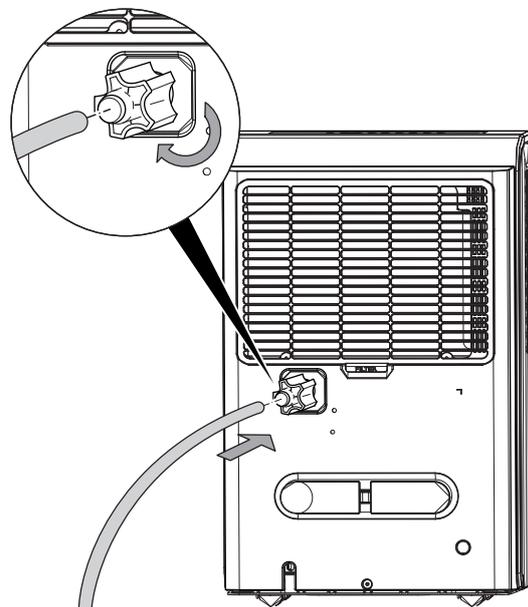
For a continuous dehumidification (continuous operation mode) the condensation drain hose should be connected to the device.

- ✓ The hose included in the scope of delivery is ready for use.
- ✓ The hose adapter included in the scope of delivery is ready for use.
- ✓ The device is switched off.

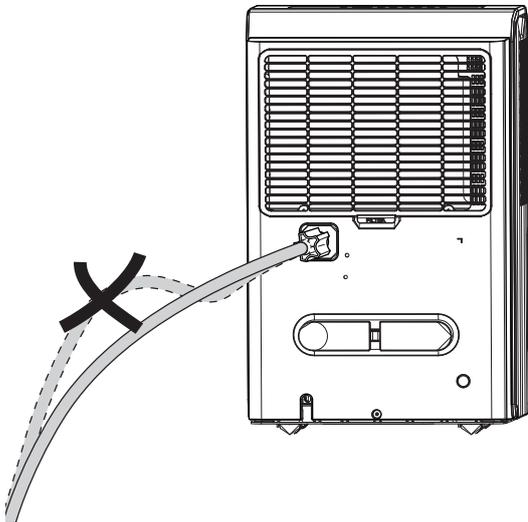
1. Unscrew the sealing cap from the connection.



2. Screw the hose adapter (5) onto the connection.
3. Push one end of the hose onto the hose adapter.



4. Guide the other hose end to a suitable drain or sufficiently dimensioned collection container. Please note that the hose must not be kinked.



Disassemble the hose again when no longer operating the device continuously. Allow hose and hose adapter to dry prior to storage.

Setting the timer

For the device to switch on or off automatically after a predefined number of hours (max. 24 hrs) you can programme the timer. It is possible for the switch-on time and the switch-off time to be activated at the same time, if so, both LEDs (18 and 19) will be illuminated.

The timer can be programmed in increments of 0.5 hours (0 to 10 h) or in increments of 1 hour (10 to 24 h).

Note:

Do not leave the operating device unattended in a freely accessible room with an activated timer.

1. Press the *TIMER* button (23) to activate the timer.
 - ⇒ The *Off* LED (18) is illuminated.
 - ⇒ The display indicates the number of hours until automatic switch-off (default: 0.0).
2. Press the selection button (22) to choose the number of hours until automatic switch-off.
3. Alternatively, press the *TIMER* button (23) again to programme automatic switch-on.
 - ⇒ The *On* LED (19) is illuminated.
 - ⇒ The display indicates the number of hours until automatic switch-on (default: 0.0).

4. Press the selection button (22) until the desired number of hours until automatic switch-on has been set.
 - ⇒ The number of hours is indicated on the display for approx. 5 s. Then the current humidity level of the room will be indicated.
5. It keeps running until the given switch-off time has expired or until the device is switched off manually.
 - ⇒ The device switches off or on after the predefined time.
 - ⇒ The corresponding LED (*Off* for automatic switch-off or *On* for automatic switch-on) is illuminated.

Note:

You can deactivate automatic switch-on and switch-off by setting the respective number of hours back to 0. When P2 is indicated on the display, the timer is also deactivated.

Automatic defrost

At low ambient temperatures, ice may form at the evaporator during dehumidification. The device will then carry out an automatic defrost. The compressor switches off and the fan keeps running until defrosting is completed.

The duration of the defrost process can vary. Do not switch off the device during automatic defrost. Do not remove the mains plug from the mains socket.

Memory function

In case of brief power failures the device memorizes the programmed nominal value for humidity. The pre-programmed start and stop times for automatic operation are not saved.

Auto stop function

If the water tank is full, not inserted correctly or the set humidity level has been reached, the device stops automatically.

Shutdown



Warning of electrical voltage

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

1. Press the *POWER* button (21).
2. Remove the mains plug from the mains socket.
3. If necessary, remove the condensation drain hose and any residual fluid from it.
4. Empty the condensation tank, if need be.
5. Clean the device, and especially the air filter, according to the chapter Maintenance.
6. Store the device according to the Storage chapter.

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.

Note:

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

The device does not start:

- Check the power connection.
- Check the mains plug for damages.
- Check the condensation tank for correct seating. Check the filling level of the condensation tank and empty it, if necessary. The indicator light must not light up.
- Wait for 10 minutes before restarting the device. If the device is not starting, have the electricians checked by a specialist company or by Trotec.

The device is running, but no condensate forms:

- Check the float in the condensation tank for dirt. If necessary, clean the condensation tank. The float must be able to move freely.
- Check the room temperature. Observe the device's permissible operating range according to the technical data.
- Check the air filter for dirt. If necessary, clean or replace the air filter.
- From the outside, check the condenser for dirt (see chapter Maintenance). If your condenser is dirty, have it cleaned by a specialist company or by Trotec.

The device is loud or vibrates; condensate is leaking:

- Check whether the device is standing upright and on an even surface.

The device gets very warm, is loud or loses power:

- Check the air inlets and air filter for dirt. Remove external dirt.
- From the outside, check the device for dirt (see chapter Maintenance). If the inside of the device is dirty, have it cleaned by a specialist company or by Trotec.

Your device still does not operate correctly after these checks?

Have the device repaired by authorised expert staff or by Trotec.

Error codes

The following error codes can be displayed:

Error code	Cause	Remedy
AS	Error humidity sensor	Disconnect the device briefly from the mains. Should the error still be displayed after the restart, please contact the customer service.
ES	Error at the temperature sensor of the evaporator	Disconnect the device briefly from the mains. Should the error still be displayed after the restart, please contact the customer service.
P2	Condensation tank full or not inserted correctly	Empty the condensation tank or check the condensation tank for correct fit.
EC	Leakage in the refrigerant circuit	Switch the device off and contact the customer service. Also see the information regarding the refrigerant circuit in chapter Maintenance.
E3	General fault at the device	Disconnect the device briefly from the mains. Should the error still be displayed after the restart, please contact the customer service.

Maintenance

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.

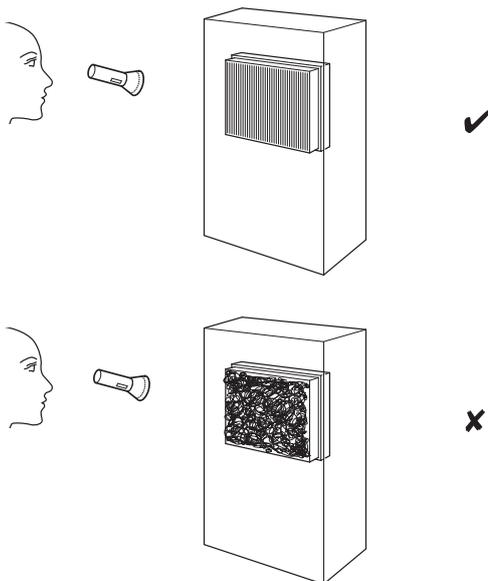


Warning of electrical voltage

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. If you see a thick layer of dust, have the inside of the device cleaned by a specialist company for cooling and air-conditioning or by Trotec.
4. Put the air filter back in.



Cleaning the housing

Clean the device with a soft, damp and lint-free cloth. Ensure that no moisture enters the housing. Do not use abrasive cleaners.

Refrigerant circuit

- The entire refrigerant circuit is a maintenance-free, hermetically sealed system and may only be maintained or repaired by specialist companies for cooling and air-conditioning or by Trotec.

Cleaning the air filter



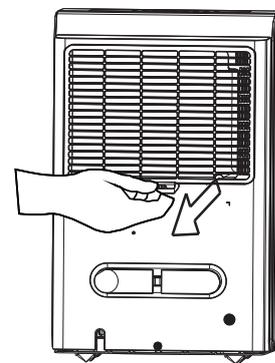
Caution

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!

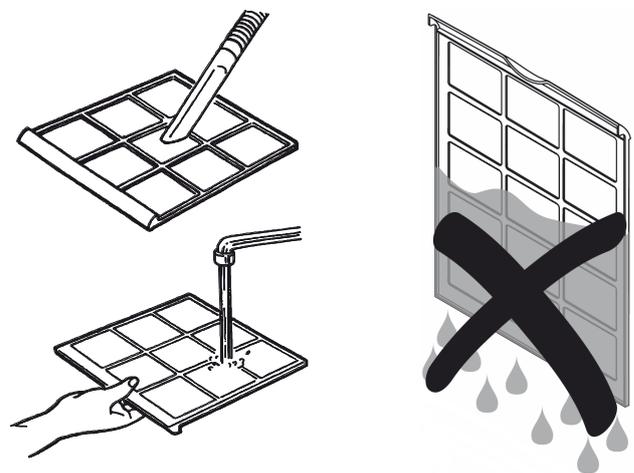
The air filter must be cleaned after 250 operating hours at the latest or as soon as it is dirty. This is brought to light e.g. by a reduced cooling capacity (see chapter Errors and faults).

The *FILTER* LED (13) will be illuminated after 250 operating hours.

1.



2.



- Reinsert the cleaned, dry filter in the device in reverse order.
- Press the *FILTER* button (26) to carry out a filter reset. This is only possible when the *FILTER* LED (13) was illuminated previously. The *FILTER* LED (13) goes out after the reset.

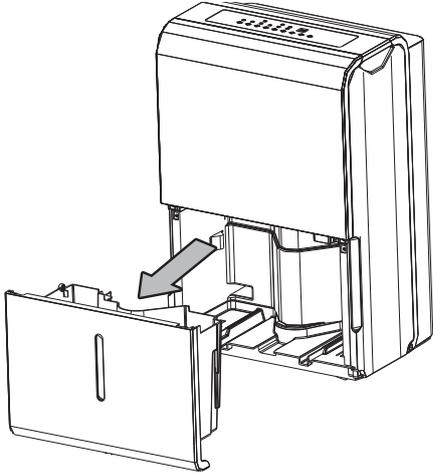
Note:

If the device stops, it cannot be restarted within the next 3 minutes so as to protect the device. After 3 minutes the device starts automatically.

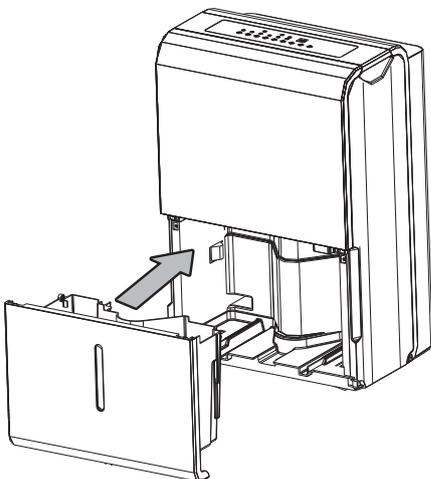
Emptying the condensation tank

If the condensation tank is full or not inserted correctly, the *Full* LED (17) lights up the the message *P2* appears on the display. Compressor and fan will switch off.

1. Take the condensation tank out of the device.



2. Empty the condensation tank over a drain or sink.
3. Rinse the tank with clear water. Clean the tank regularly using a mild cleaning agent (no detergent!).
4. Refit the condensation tank into the device. In doing so, make sure that the condensation tank is inserted correctly, for otherwise the device cannot be switched back on.



Technical annex

Technical data

Parameter	Value	
Model	TTK 96 E	TTK 127 E
Max. dehumidification performance	30 l / 24 h	50 l / 24 h
Dehumidification performance @ 30 °C and 80 % RH	28.3 l / 24 h	46.8 l / 24 h
Air volume [m ³ /h]	stage 1: 180 stage 2: 210	stage 1: 320 stage 2: 345
Ambient temperature	5 °C - 35 °C	5 °C - 35 °C
Operating range relative humidity	35 % - 100 % RH	35 % - 100 % RH
Pressure suction side	1.5 MPa	1.5 MPa
Pressure outlet side	4.2 MPa	4.2 MPa
Mains connection	1/N/PE~ 230 V / 50 Hz	1/N/PE~ 230 V / 50 Hz
Power consumption	465 W	775 W
Nominal current	2.5 A	3.6 A
Refrigerant	R-410A	R-410A
Amount of refrigerant	220 g	290 g
GWP factor	2,088	2,088
CO ₂ equivalent	0.459 t	0.606 t
Condensation tank	3 l	6 l
Sound pressure level	52 dB (A)	51 dB (A)
Dimensions (length x width x height)	386 x 260 x 500 (mm)	392 x 282 x 616 (mm)
Minimum distance to walls and other objects	top: 40 cm front: 20 cm rear: 20 cm right: 20 cm left: 40 cm	top: 40 cm front: 20 cm rear: 20 cm right: 20 cm left: 40 cm
Weight	15 kg	20 kg

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.

The device is operated with fluorinated greenhouse gas which can be dangerous for the environment and contribute to global warming when emitted to the atmosphere.

Further information is provided on the nameplate.

Dispose of the refrigerant appropriately and according to the national regulations.

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