

TTK 500

EN

ORIGINAL INSTRUCTIONS
DEHUMIDIFIER



 **TROTEC**

Table of contents

Notes regarding the instructions 2

Safety 2

Information about the device 5

Transport and storage 6

Assembly and start-up 7

Operation 11

Available accessories 12

Errors and faults 13

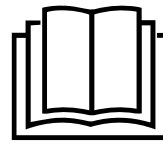
Maintenance 14

Technical annex 18

Disposal 25

Declaration of conformity 25

You can download the current version of these instructions via the following link:



TTK 500



<https://hub.trotec.com/?id=42346>

Notes regarding the instructions

Symbols



Danger

This symbol indicates dangers to the life and health of persons due to flammable refrigerants.



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 instructions 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.

- In the scope of European normative requirements (EN 60335-1):
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.
- In the scope of International normative requirements (IEC 60335-1):
This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in aggressive atmosphere.
- Only put up the device in an upright, stable position on firm ground.
- 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.

- Do not cover the device during operation.
- Do not sit on the device.
- This appliance is not a toy. Keep away from children and animals.
- Occasionally observe the device 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 mains connection must correspond to the specifications in the Technical annex.
- Insert the mains plug into a properly fused 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.
- Do not under any circumstances use the device if you detect damages on the mains plug or power cable. If the power cable 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!
- 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.
- 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 annex.
- 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.
- Never insert any objects or limbs into the device.
- 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!
- Only use original spare parts, for otherwise safe and functional operation cannot be ensured.



Safety warnings for devices containing flammable refrigerants

- Only position the device in rooms where potentially leaking refrigerant cannot accumulate. Unventilated rooms, in which the device is installed, operated or stored, must be built in a way to ensure that potentially leaking refrigerant cannot accumulate. This serves to avoid fire or explosion hazards resulting from an ignition of the refrigerant by an electric furnace, cooking stove or another ignition source.
- Only position the device in rooms where there is no source of ignition (e.g. open flames, an active gas appliance or an electric heater).
- Please note that the refrigerant is odourless.
- Only install the device in compliance with the national installation regulations.
- Please observe the local regulations.
- Observe the national gas regulations.
- Only install, operate and store the device in a room measuring more than 4 m².
- Store the device in a way that no mechanical damage can occur.
- Please note that the connected pipelines must not contain any sources of ignition.
- R454C comes with a low GWP factor (Global Warning Potential) of 146 and an ODP (ozone depletion potential) of 0.
- Observe the maximum refrigerant capacity in the technical data.
- Do not drill through or burn.
- Do not use any means other than those recommended by the manufacturer for accelerating the defrosting process.
- Every person working with or at the refrigerant circuit must be able to provide a certificate of qualification issued by a body accredited by the industry, demonstrating their competence in the safe use of refrigerants based on a procedure well-known in the industry.
- Service work may only be carried out in accordance with the manufacturer's specifications. If maintenance and repair work require the support of additional persons, the person trained in handling flammable refrigerants shall continuously supervise the work carried out.
- 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.

Intended use

Only use the device as mobile construction dryer for drying and dehumidifying room air (e.g. after water damages from burst pipes or flooding) whilst adhering to the technical data. The construction dryer can be used at low temperatures of about 5 °C.

Intended use comprises:

- drying and dehumidifying:
 - production plants, underground rooms
 - store rooms, archives, laboratories
 - rooms and areas after water damages from burst pipes or flooding
- maintaining the dryness of:
 - instruments, devices, files
 - electric control devices, boiler plants, turbines and pipe systems in power plants
 - moisture-sensitive loads etc.

Foreseeable misuse

- 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 out of doors.
- This device must not be used in wet rooms (e.g. laundry rooms).
- Never immerse the device in water.
- Do not make any unauthorised modifications, alterations or structural changes to the device.
- Any use other than the intended use is regarded as a reasonably foreseeable misuse.

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 instructions, 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.

Safety signs and labels on the device

Note

Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.



The following safety signs and labels are attached to the device:

WARNING • WARNUNG • ATTENTION

DE Das Gerät muss in einem Raum mit einer Grundfläche größer als 4 m² aufgestellt, betrieben und gelagert werden.

EN Appliance shall be installed, operated and stored in a room with floor area larger than 4 m².

FR L'appareil doit être installé, utilisé et entreposé dans une pièce avec une surface supérieure à 4 m².



Follow the manual

This symbol indicates that the instructions must be observed.



Follow the repair manual

Disposal, maintenance and repair work of the refrigerant circuit may only be carried out in accordance with the manufacturer's specifications and by persons having a certificate of qualification. A corresponding repair manual is available from the manufacturer upon request.

Residual risks



Danger

Refrigerant R454C!

H221 – Flammable gas.

H280 – Contains gas under pressure; may explode if heated.

P210 – Keep away from heat, sparks, open flames and other ignition sources. No smoking.

P381 – Eliminate all ignition sources if safe to do so.

P403 – Store in a well-ventilated place.



Warning of electrical voltage

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



Warning of electrical voltage

Risk of electric shock!

The device does not have the appropriate protection class for use in wet rooms.

There is a risk of electric shock!

Never use the device in wet rooms (e.g. in bathrooms and laundry rooms) and never immerse the device in water!



Warning of electrical voltage

Before any work on the device, remove the mains plug from the mains socket!

Do not touch the mains plug with wet or damp hands. 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 air filter inserted into the air inlet!

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. 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

Device description

The device 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 condensation or rime. The dehumidified, cooled air is slightly warmed at the condenser 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.

The condensate is discharged through a pressure-resistant pipe connection by means of a condensation drain hose. For the collection you can for instance place a sufficiently dimensioned collection container beside the construction dryer.

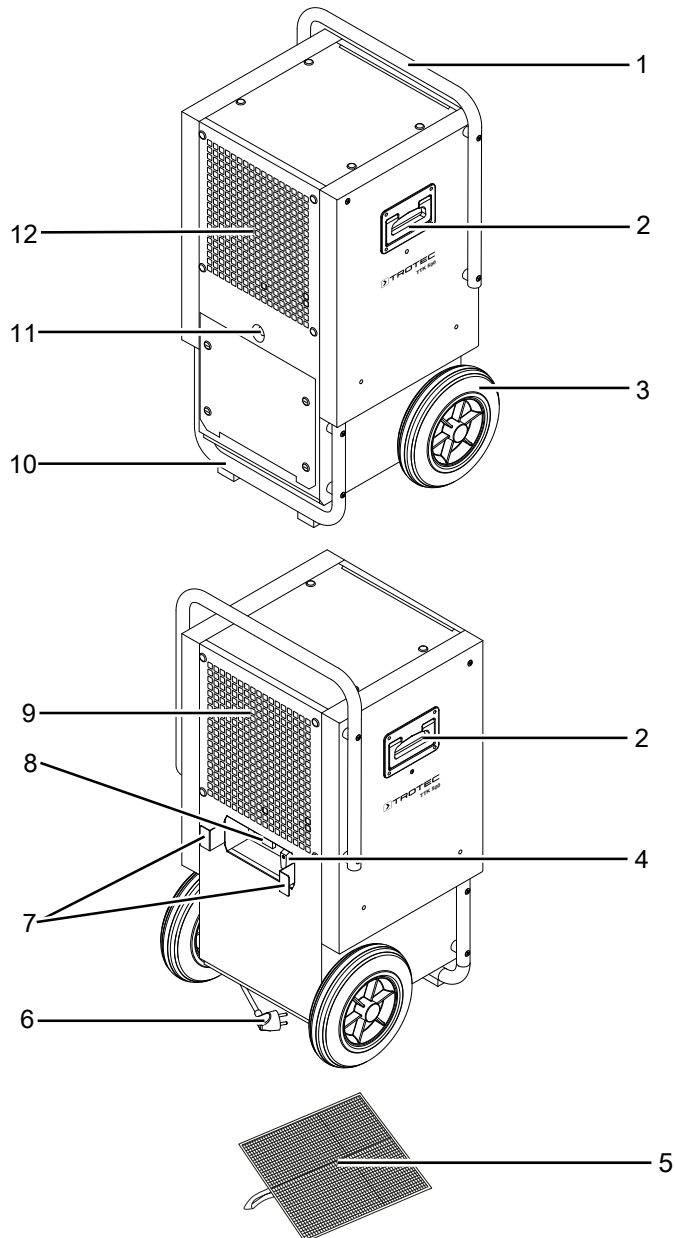
Optionally, the condensed water can also be discharged from the device by means of a retrofitted condensate pump (see chapter Installing the condensate pump).

For easy operation and transport, the device is fitted with an on / off switch, an operating hours counter, a transport handle and wheels. Two feet with rubber buffers prevent the device from rolling away.

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	Carrying handle
3	Wheels
4	On/off switch
5	Air filter
6	Mains power cable
7	Power cable holder
8	Operating hours counter (optionally energy meter and operating hours counter)
9	Air outlet
10	Foot with rubber buffers
11	Condensation hose connection
12	Air inlet with slot for air filter

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

Please note that additional transport regulations might apply to devices containing flammable refrigerants. The equipment's arrangement and the maximum number of components to be transported together can be gathered from the applicable transport regulations.

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

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 firm and level surfaces.
- On uneven surfaces, carry the device by lifting it by the carry handles. Ask another person to help you.
- To carry the device up or down stairs, lift it by the transport handle and by the foot. Ask another person to help you.

After transporting the device, proceed as follows:

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

Storage

Before storing the device, proceed as follows:

- Drain the remaining condensate from the device and the condensation drain hose (see chapter Maintenance).
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Drain any possibly remaining condensate.

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

- Only store the device in a room measuring more than 4 m².
- Only position the device in rooms where there is no source of ignition (e.g. open flames, an active gas appliance or an electric heater).
- Store the device in a dry location and protected from frost and heat.
- Store the device in an upright position where it is protected from dust and direct sunlight.
- If required, use a cover to protect the device from invasive dust.
- Place no further devices or objects on top of the device to prevent it from being damaged.

Assembly and start-up

Scope of delivery

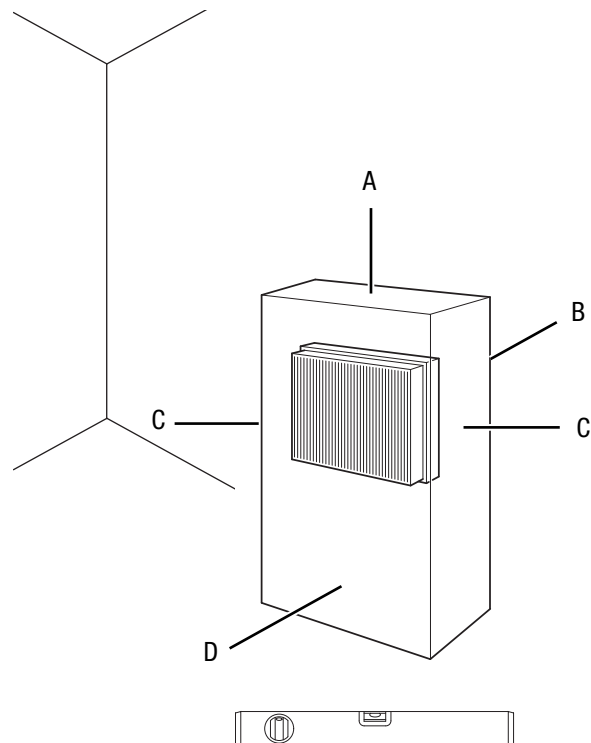
- 1 x device
- 1 x air filter
- 1 x Condensation drain hose, diameter: 16 mm, length: 0.5 m
- 1 x manual

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 chapter Technical annex.

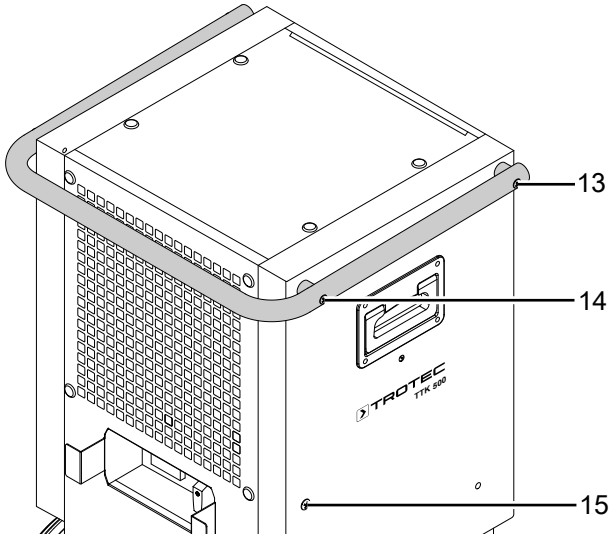


- Before restarting the device, check the condition of the power cable. If there are doubts as to the sound condition, contact the customer service.
- Only position the device in rooms where potentially leaking refrigerant cannot accumulate.
- Only position the device in rooms where there is no source of ignition (e.g. open flames, an active gas appliance or an electric heater).
- Only put up the device in an upright, stable position on firm ground.
- 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.
- When positioning the device, keep a sufficient distance to heat sources.
- Make sure that no curtains or other objects interfere with the air flow.
- When positioning the device, secure the device locally with an RCD (Residual Current Device) which complies with the appropriate regulations.

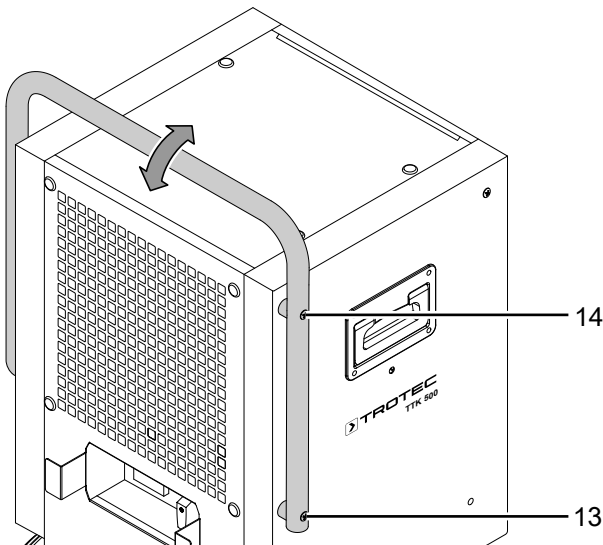
Relocating the transport handle

Depending on your requirements, the transport handle can be installed horizontally or vertically. To adjust the position of the transport handle, carry out the following steps on both sides of the device:

1. Unscrew or loosen the screw (14).
2. Remove the screw (13).



3. Turn the transport handle by 90°.



4. Insert the screw (13) in the rivet (15).
5. Tighten the screws (13, 14).

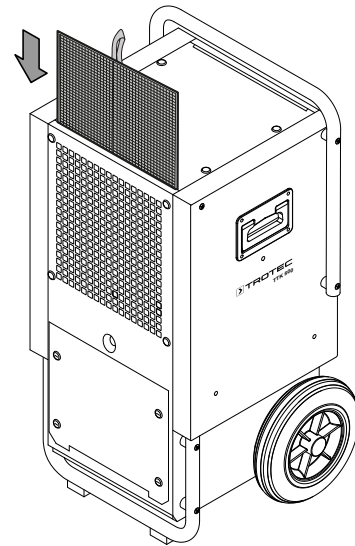
Inserting the air filter

Note

Do not operate the device without an air filter inserted into the air inlet!

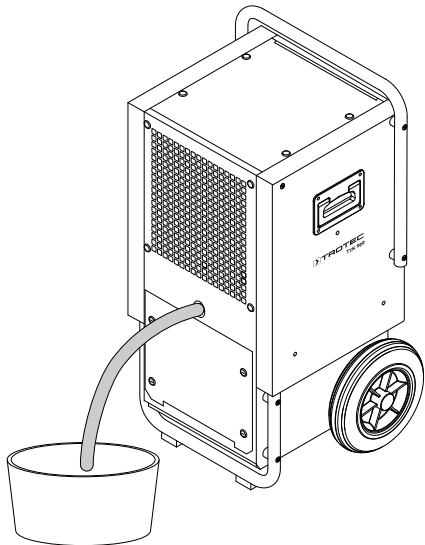
Without the air filter, the inside of the device will be heavily contaminated. This could reduce the performance and result in damage to the device.

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

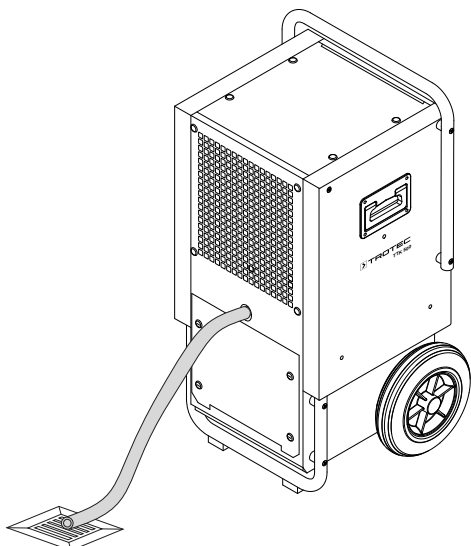


Positioning the condensation drain hose

1. Connect the condensation drain hose to the condensation hose connection (11) at the device.
2. Make sure that the condensation drain hose is properly connected to the device and free of damage.
3. Depending on the application, position the end of the condensation drain hose as follows:
 - ⇒ Place a sufficiently dimensioned container (at least 90 litres) beside the device and insert the hose end. Check the filling level of the container regularly.

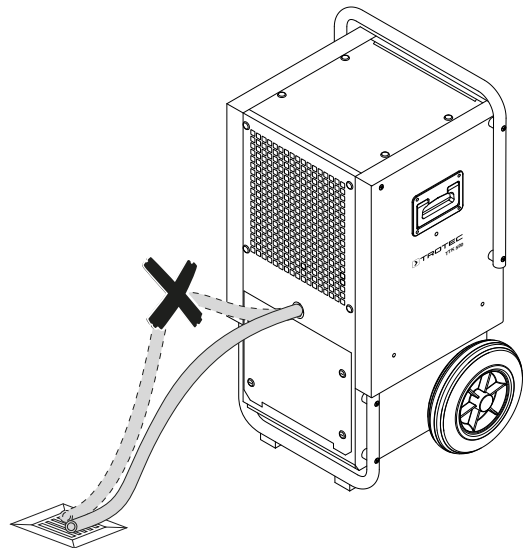


- ⇒ Position the end of the condensation drain hose above a water drain. For larger distances, a longer hose of the same type can also be used.



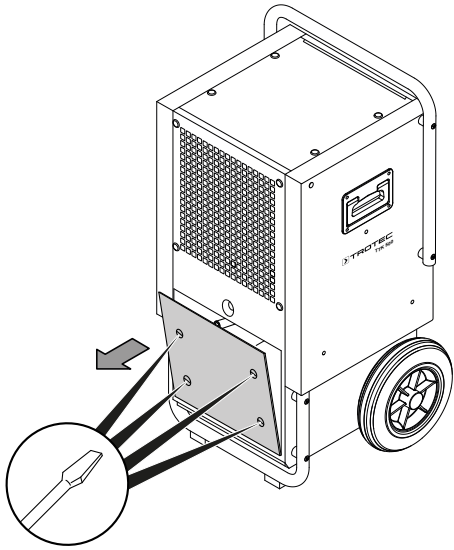
- ⇒ The device can also be operated with a condensate pump. Contact your Trotec customer service.

4. Make sure that the condensation drain hose is installed with a continuous decline.

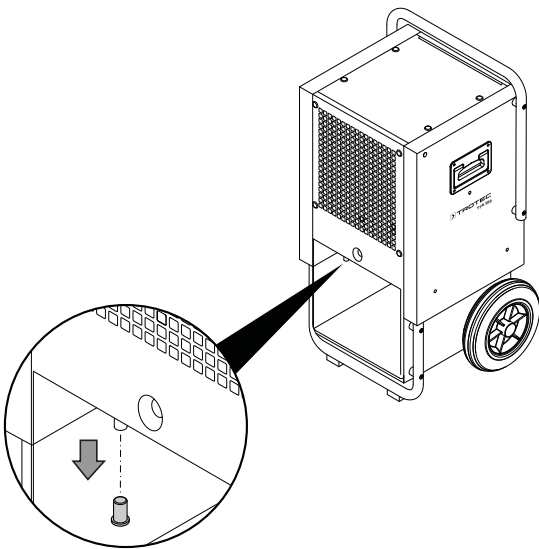


Installing the condensate pump (optional)

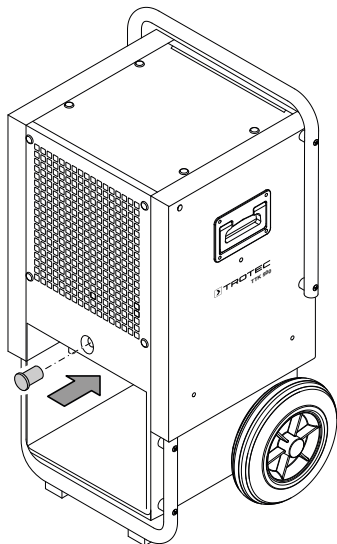
1.



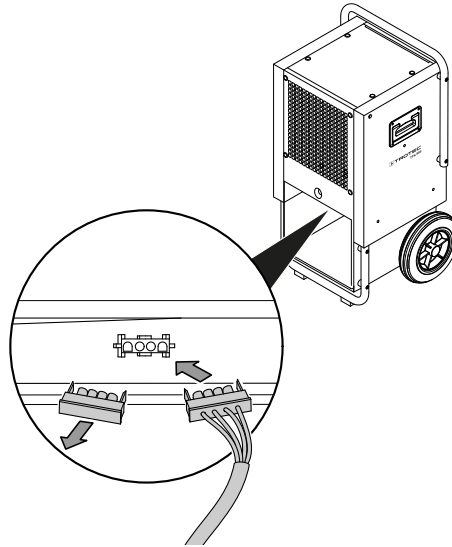
2.



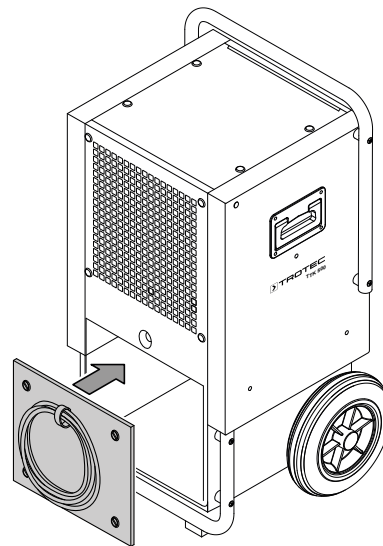
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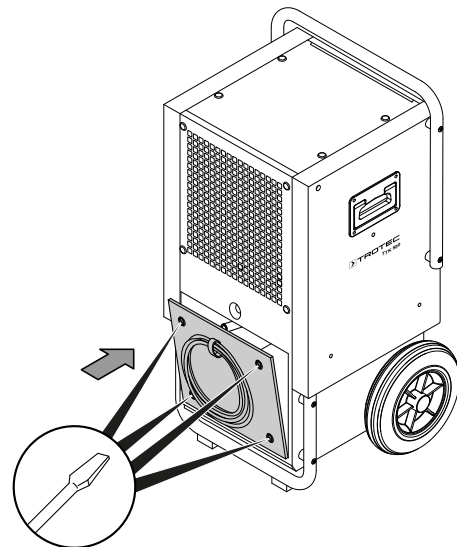
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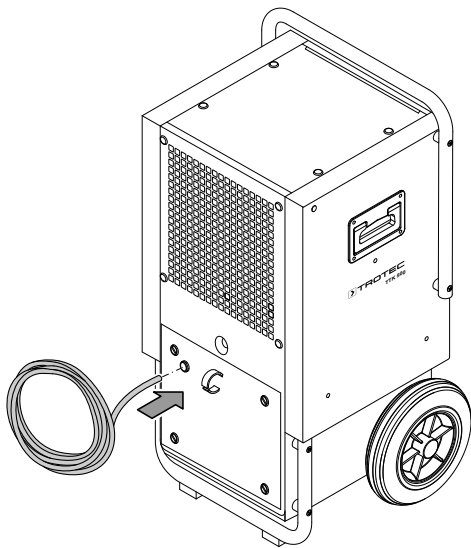
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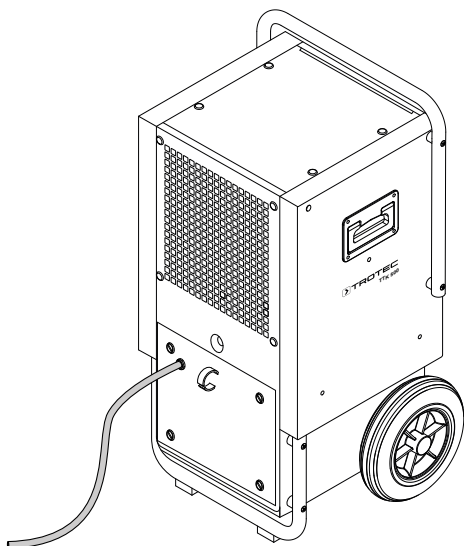
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7.



8.



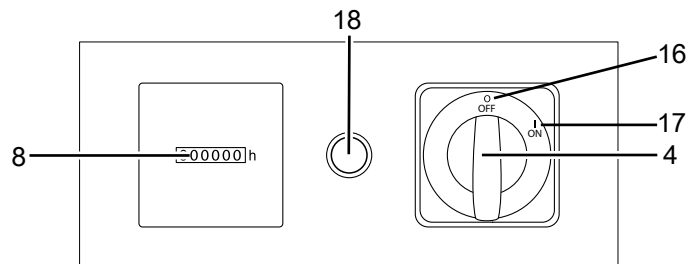
Connecting the power cable

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

Operation

- Avoid open doors and windows.
- After being switched on, the device operates fully automatically.
- During operation with an external hygrostat (optional) the fan continues to run in dehumidification mode until the device is switched off even after having reached the set target value.

Operating element



No.	Designation	Meaning
4	On/off switch	For switching the device on or off
8	Operating hours counter (optionally energy meter and operating hours counter)	Indication of operating hours (optionally indication of operating hours and energy consumption)
16	OFF position	Device switched off
17	ON position	Device switched on
18	Hygrostat connection	Connection for hygrostat operation (optional)



Warning of electrical voltage

Risk of electric shock!

The device does not have the appropriate protection class for use in wet rooms.

There is a risk of electric shock!

Never use the device in wet rooms (e.g. in bathrooms and laundry rooms) and never immerse the device in water!

Switching the device on

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

1. Make sure that the condensation drain hose has been properly laid and connected. Do not create tripping hazards.
2. Make sure that the condensation drain hose is neither kinked nor jammed and that there are no objects on the condensation drain hose.
3. Make sure that the condensate can run off properly.
4. Turn the on / off switch (4) to the *ON* position (17).
 - ⇒ The device is switched on.
 - ⇒ The compressor always starts with a delay of approx. 7 s.
 - ⇒ The fan starts approx. 10 s after that.

Continuous operation mode

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

Hygrostat operation mode (optional)

Note

Before connecting the hygrostat, switch the device off and remove the mains plug from the mains socket.

The device can also be operated with a hygrostat. The hygrostat switches the device on or off depending on the relative humidity.

If you choose to operate the device with an optional hygrostat, set the desired relative humidity at the hygrostat (see operating manual of the optional hygrostat).

In doing so, observe the switching point. Provided the external hygrostat activates the compressor via the set humidity value, then hygrostat and drying unit operate correctly.

You can tell the incorrect operation of the external hygrostat if the compressor of the device operates below the set value and switches off above it. In this case you need to open the hygrostat (HG 110) and reconnect the connections (an according explanation is provided inside the cover of the HG 110).

Automatic defrost

At low ambient temperatures, ice may form at the evaporator during dehumidification. The device will then carry out an automatic defrost. Dehumidification is briefly interrupted during defrosting. The fan keeps running. 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.

Operation with condensate pump (optional)



Warning of electrical voltage

Always disconnect the condensate pump from the plug connection before connecting the pump. This process has to be carried out with the device disconnected from the mains.

Otherwise there is a risk of an electric shock!

Optionally, the condensed water can also be discharged from the device by means of a retrofitted condensate pump (see chapter Available accessories). With a pump performance of up to 50 m and a maximum pump height of 4 m, the condensate can even be continuously discharged across storeys of a building.

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.
- If necessary, remove the condensation drain hose and any residual fluid from it.
- Clean the device according to the Maintenance chapter.
- Store the device according to the Transport and storage chapter.

Available accessories



Warning

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

Designation	Article number
Room hygrostat HG 110	6.100.002.044
Condensate pump TTK 500	6.100.003.030
Air filter TTK 500	7.160.000.008

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 damage.
- Check the on-site fusing.
- If you operate the device with a hygrostat (optional), check the set value. In order for the construction dryer to operate, the humidity level at the installation site needs to be higher than the set value. Set the hygrostat to a lower value.

The device is running, but there is no formation of condensate:

- Check whether the condensation drain hose is positioned correctly.
- When using the condensate pump: Check the condensation tank and hoses for dirt.
- Ensure that the relative room humidity complies with the technical data.
- If you operate the device with a hygrostat (optional), check the set value. In order for the construction dryer to operate, the humidity level at the installation site needs to be higher than the set value. Set the hygrostat to a lower value.
- 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 the condenser is dirty, have it cleaned by a specialist company or by Trotec.

The device is loud or vibrates:

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

Condensate is leaking:

- Check the device for leaks.

The compressor does not start:

- Check the room temperature. Observe the device's permissible operating range according to the technical data.
- Check whether the overheating protection of the compressor has tripped. Disconnect the device from the mains and let it cool down for approx. 10 minutes before reconnecting it.
- The device might carry out an automatic defrost. During automatic defrost, the device does not dehumidify.

The device gets very warm, is loud or is losing performance:

- Check the air inlets and air filters 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 for cooling and air-conditioning or by Trotec.

Note

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

The device still does not operate correctly after these checks:

Please contact the customer service. If necessary, bring the device to a specialist company for cooling and air-conditioning 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
Empty the condensate pump, condensation tank and construction dryer and clean if necessary		X				
Check 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		
Clean the inside with compressed air		X				X
Check air inlet grid and air filter for dirt and foreign objects and clean or replace if necessary	X		X			
Clean the air filter, replace if necessary		X			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
Empty the condensate pump, condensation tank and construction dryer and clean if necessary																
Check 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																
Clean the inside with compressed air																
Check air inlet grid and air filter for dirt and foreign objects and clean or replace if necessary																
Clean the air filter, replace if necessary																
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 device to be opened must only be carried out by authorised specialist companies or by Trotec.

Refrigerant circuit



Danger

Refrigerant R454C!

H221 – Flammable gas.

H280 – Contains gas under pressure; may explode if heated.

P210 – Keep away from heat, sparks, open flames and other ignition sources. No smoking.

P381 – Eliminate all ignition sources if safe to do so.

P403 – Store in a well-ventilated place.

- 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.

Safety signs and labels on the device

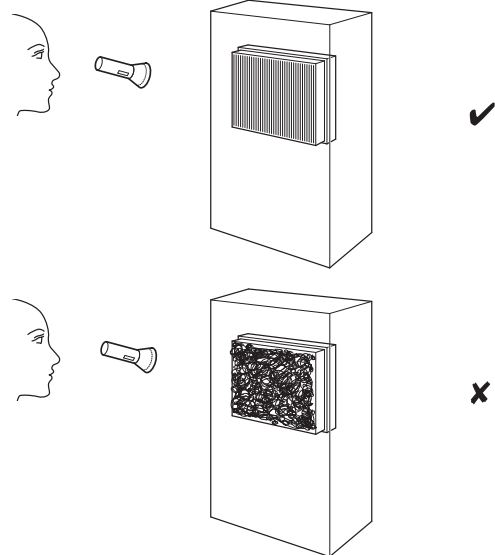
Check the safety signs and labels attached to the device at regular intervals. Replace illegible safety signs!

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.

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 company for cooling and air-conditioning or by Trotec.
5. Put the air filter back in.



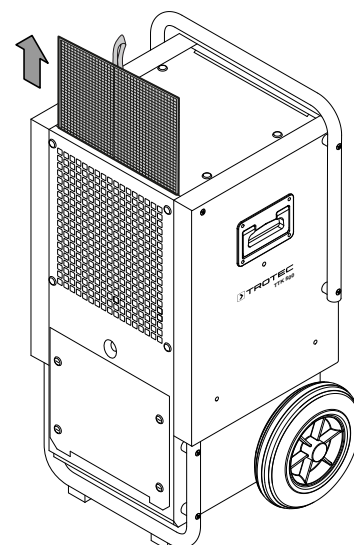
Cleaning the air filter

Note

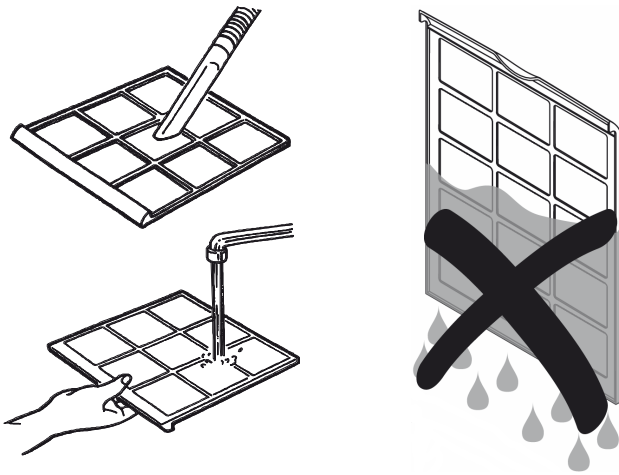
Ensure that the air filter is not worn or damaged. The corners and edges of the air filter must not be deformed or rounded. Before reinserting the air filter, make sure that it is undamaged and dry!

The air filter 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).

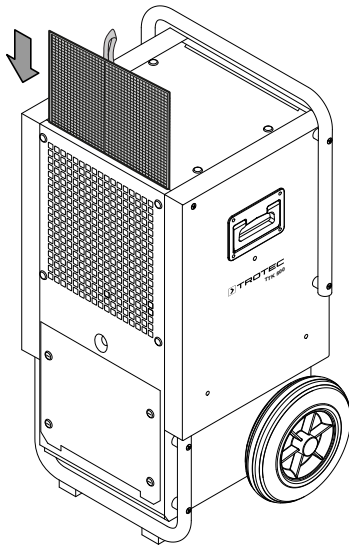
1. Remove the air filter from the device.



- 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.



- Allow the filter to dry completely. Do not insert a wet filter into the device!
- Reinsert the air filter into the device.



Cleaning the inside with compressed air



Warning

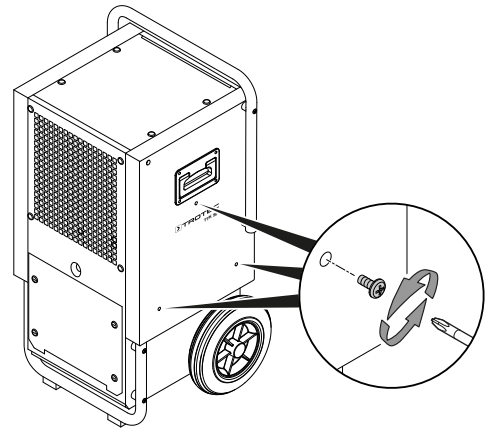
Risk of injury caused by ejected compressed air upon activation of the compressed air supply. Hold the compressed-air hose away from your body. Pointing the compressed-air hose at another person is prohibited.

Note

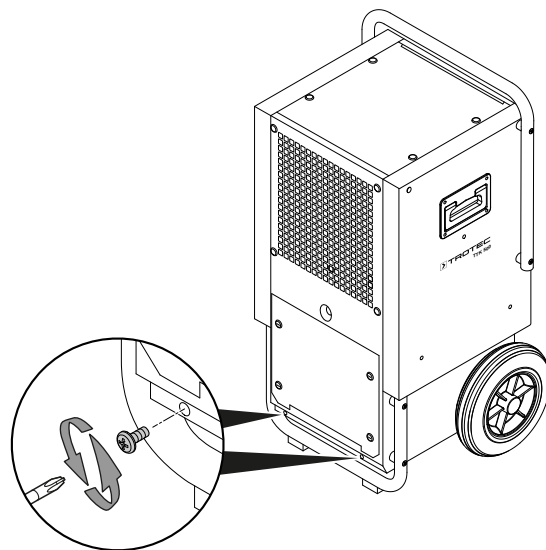
If required, you can carefully clean the heat exchanger with a compressed-air cleaner. Select a low pressure stage in order to prevent damaging the heat exchanger.

The housing has to be completely removed in order to perform cleaning and maintenance tasks inside the device.

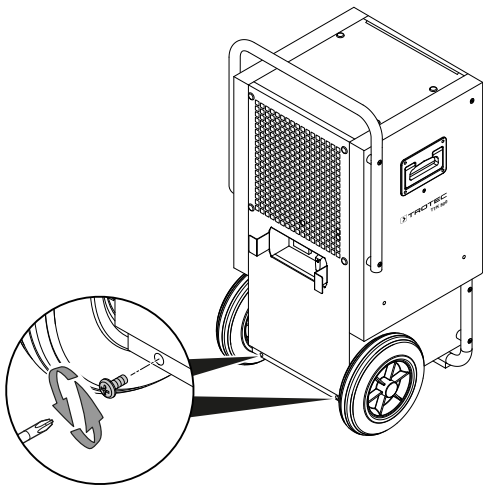
- Loosen and remove the screws on both sides of the device.



- Loosen and remove the screws at the device front.



- Loosen and remove the screws at the rear of the device.



Activities required after maintenance

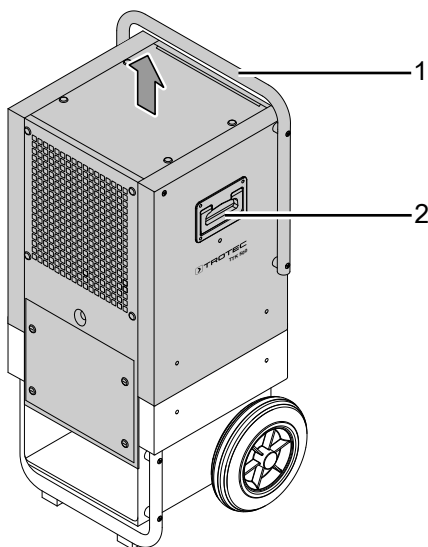
If you want to continue using the device:

- 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 Transport and storage chapter.

- Keep the screws (10 in total) safe for later use.
- Fully unwind the power cable. If required, remove the condensation drain hose from the device.
- Lift the housing by the transport handle (1) and / or the carrying handle (2) off the base frame and the cooling system.



- Carefully set the housing aside.
- Clean the interior of the device by means of compressed air.
- Reassemble the housing on base frame and cooling system. Finally retighten all screws.

Technical annex
Technical data

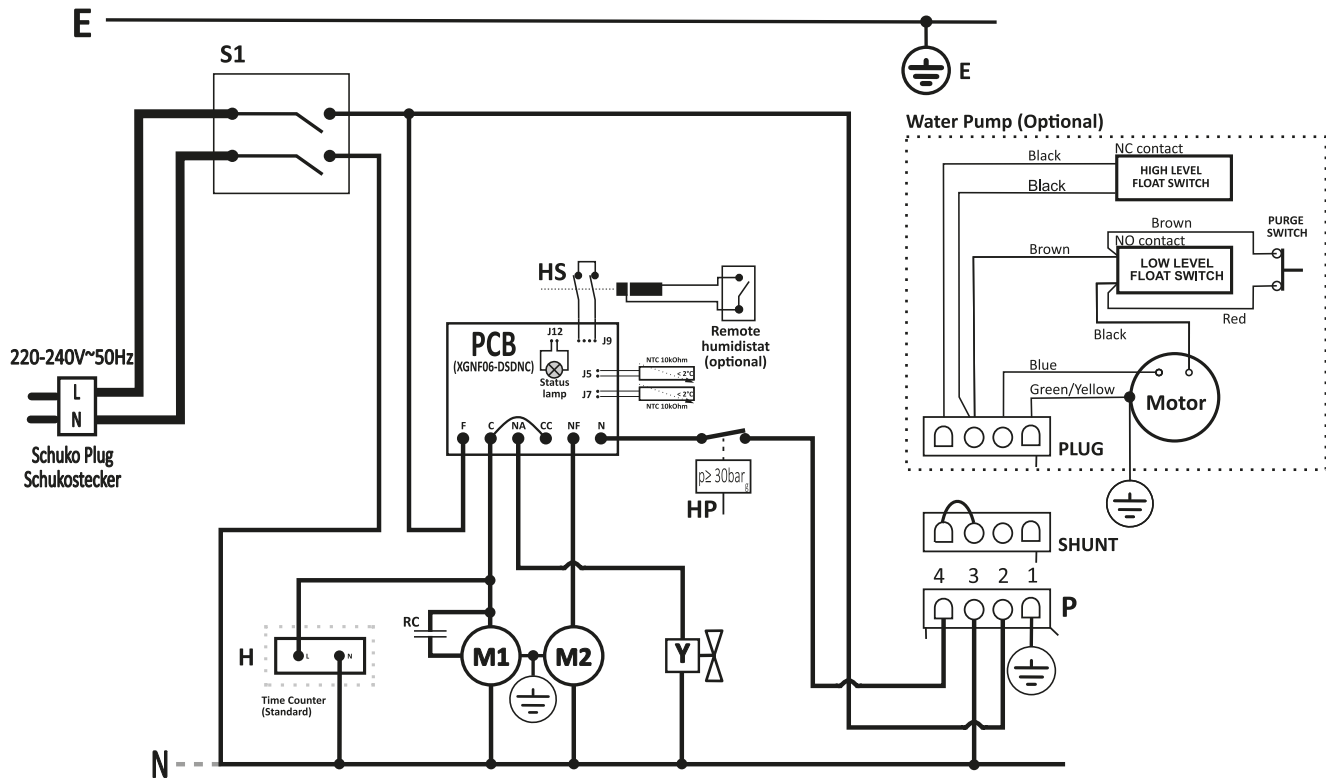
Parameter	Value	Value
Model	TTK 500	TTK 500
Art. no.	1.120.000.410	1.120.000.413
Max. dehumidification performance	76 l / 24 h	76 l / 24 h
Dehumidification performance at 30 °C and 80 % RH	64 l / 24 h	64 l / 24 h
Air flow rate	400 m ³ /h	400 m ³ /h
Operating range (temperature)	5 °C to 35 °C	5 °C to 35 °C
Max. permissible pressure	3.0 MPa	3.0 MPa
Pressure suction side	0.6 MPa	0.6 MPa
Pressure outlet side	2.2 MPa	2.2 MPa
Nominal voltage	220 – 240 V / 50 Hz	110 / 230 V ~ 50 Hz
Max. power consumption	1593 W	1593 W
Nominal current	7.3 A	14.7 / 7 A
Protection	16 A	16 A
Type of protection	IPX0	IPX0
Refrigerant	R-454C	R-454C
Amount of refrigerant	650 g	650 g
GWP factor	146	146
CO ₂ equivalent	0.095 t	0.095 t
Dimensions (length x width x height)	470 x 438 x 870 mm	470 x 438 x 870 mm
Minimum distance to walls and other objects	A: top: 50 cm B: rear: 50 cm C: side: 50 cm D: front: 50 cm	50 cm 50 cm 50 cm 50 cm
Weight	52 kg	58 kg

Wiring diagram

With operating hours counter

For the unit to work, either the *condensates pump shunt* or the *condensates pump* itself must be connected to the pump socket located in the back of the controls box.

According to this diagram *Time counter* is measuring just the compressor operation Time.



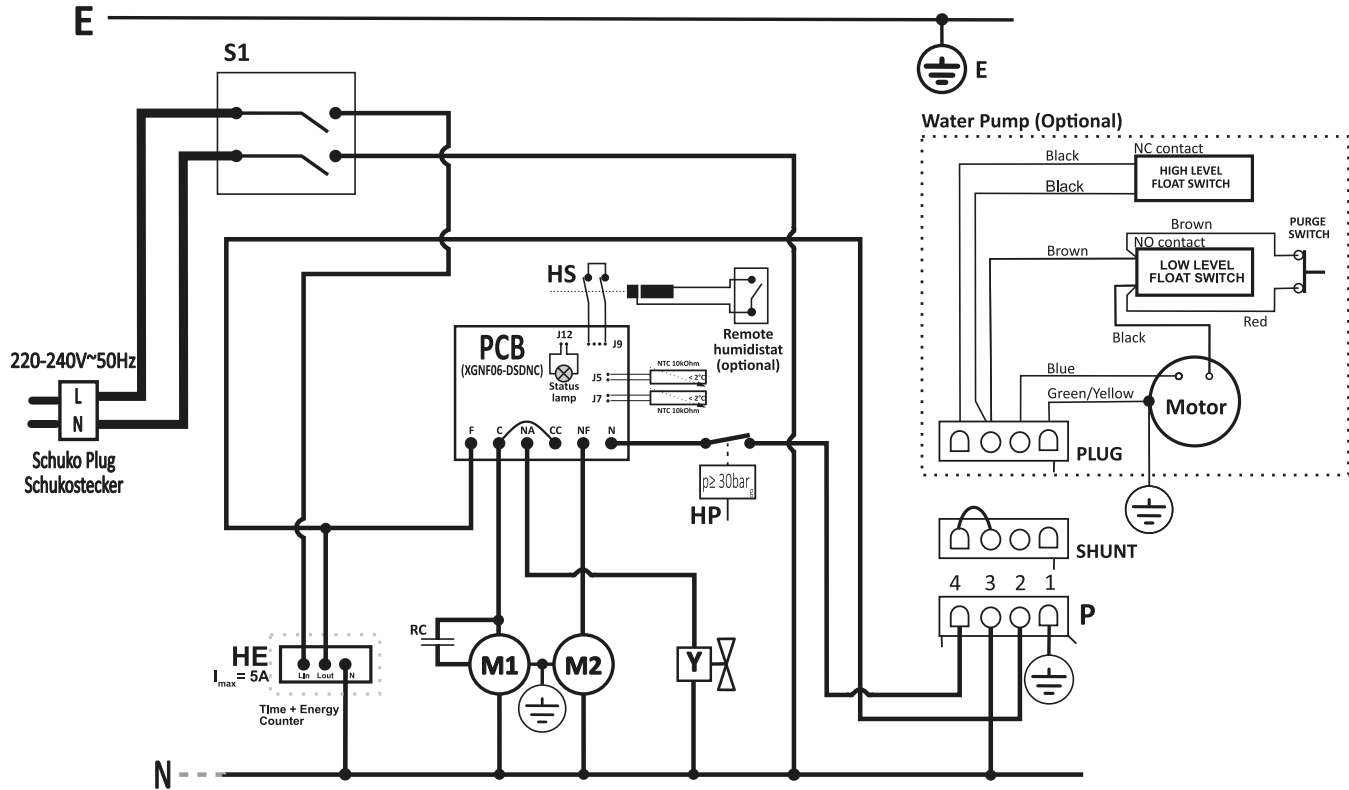
- E - Earthing / Erdung
- N - Common Line / Gemeinsame
- L - Line / Außenleiter
- S1 - On-Off Switch / Geräteschalter 0/1
- M1 - Compressor / Kompressor
- HP - High pressure switch/ Hochdruckschalter
- M2 - Fan motor / Lüftermotor
- Y - Two Way Valve / Abtau-Magnetventil
- RC - Running Capacitor / Motorbetriebskondensator
- H - Time Counter (Standard) / Zeit Zähler (Standard)
- P - Water Pump Socket / Wasserpumpe Stockdose
- HS - Humidistat Socket / Hygrostat Stockdose

NOTE: Wiring is prepared to connect both Time Counter as well as Time & Energy Counter

With operating hours counter and MID counter

For the unit to work, either the *condensates pump shunt* or the *condensates pump* itself must be connected to the pump socket located in the back of the controls box.

According to this diagram *Energy & Time counter* is measuring all electric components downstream the I/O switch, though HW66 M device is not suitable for an application with such a high absorbed current!



- E - Earthing / Erdung
- N - Common Line / Gemeinsame
- L - Line / Außenleiter
- S1 - On-Off Switch / Geräteschalter 0/1
- M1 - Compressor / Kompressor
- HP - High pressure switch/ Hochdruckschalter
- M2 - Fan motor / Lüftermotor
- Y - Two Way Valve / Abtau-Magnetventil
- RC - Running Capacitor / Motorbetriebskondensator
- H - Time Counter (Standard) / Zeit Zähler (Standard)
- P - Water Pump Socket / Wasserpumpe Stockdose
- HS - Humidistat Socket / Hygrostat Stockdose

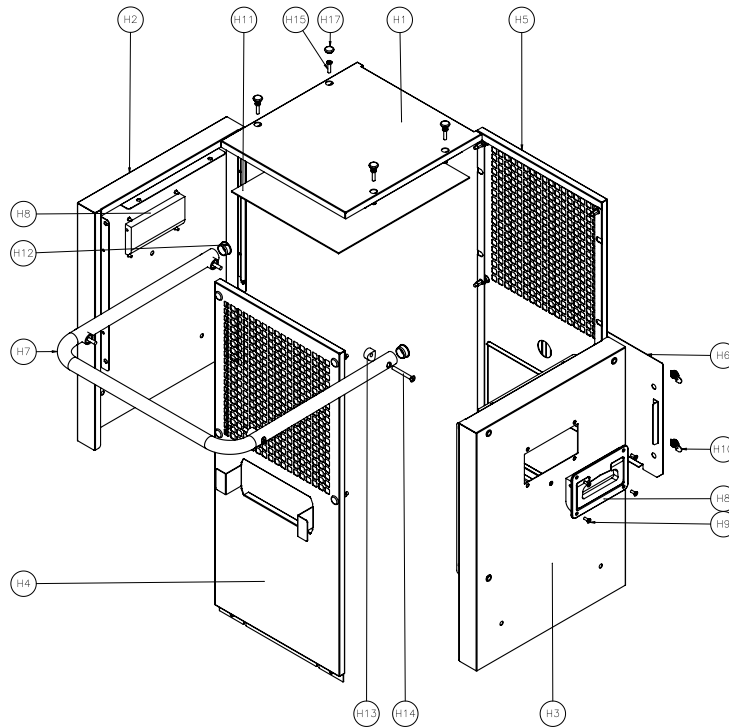
NOTE: Wiring is prepared to connect both Time Counter as well as Time & Energy Counter

Overview and list of spare parts

TTK 500

Housing

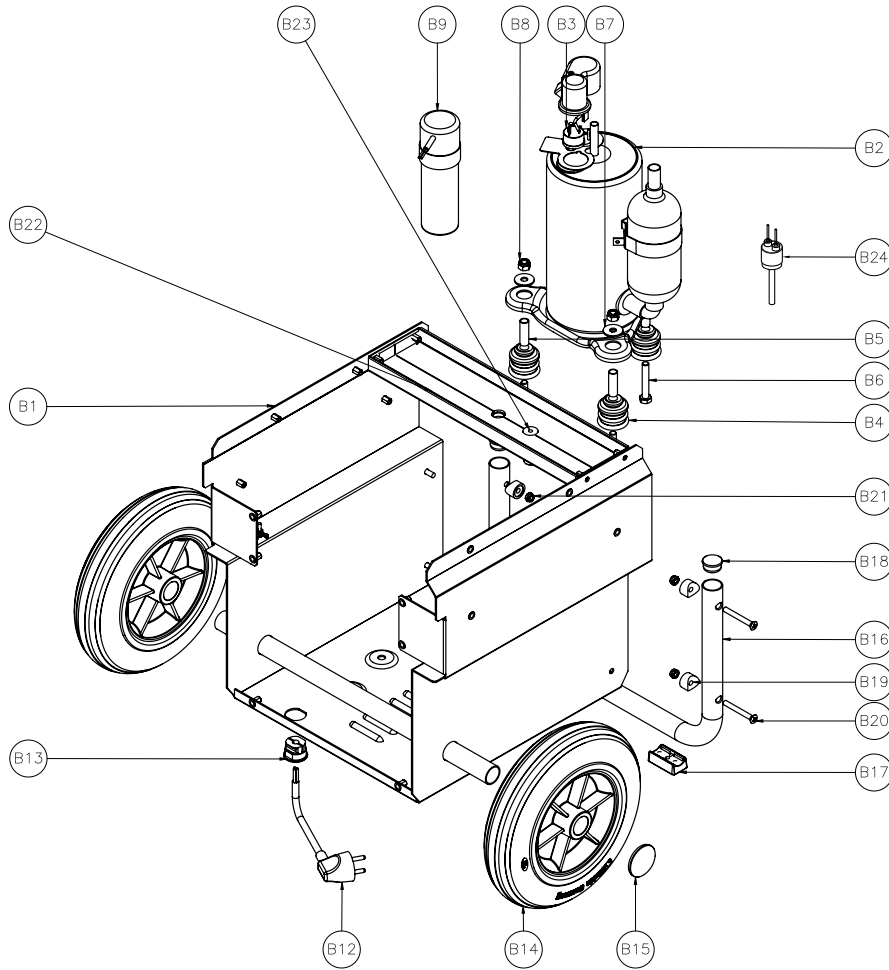
Note: The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



ITEM NO.	SPARE PART	QTY.	ITEM NO.	SPARE PART	QTY.
H1	Top panel	1	H10	Latch	4
H2	Left panel	1	H11	Foam sheet	1
H3	Right panel	1	H12	Round insert	2
H4	Front panel	1	H13	Saddle spacer	4
H5	Rear panel	1	H14	Tubular handle screw	4
H6	Pump kit dummy cover	1	H15	Housing screw	12
H7	Tubular handle	1	H16	Finishing washer	12
H8	Folding handle	2	H17	Hole finishing cap	12
H9	Folding handle screw	8			

Base frame with components

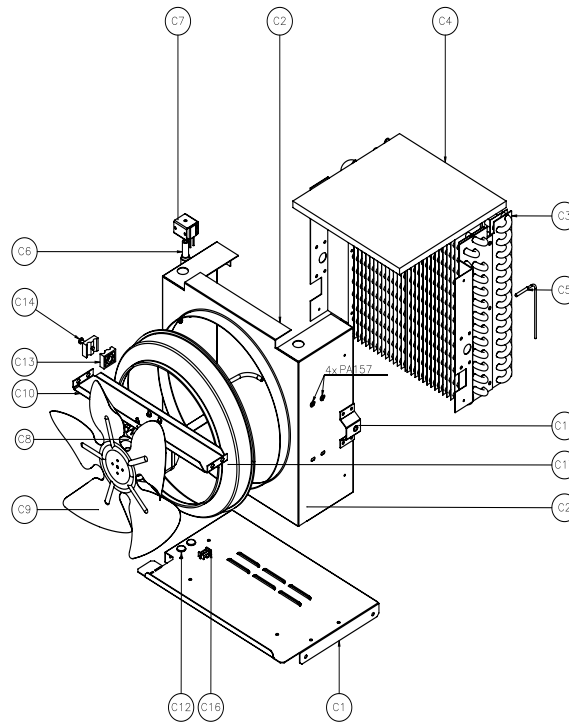
Note: The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



ITEM NO.	SPARE PART	QTY.	ITEM NO.	SPARE PART	QTY.
B1	Base plate	1	B13	Cable clamp	1
B2	Compressor	1	B14	Wheel	2
B3	Overload protection switch	1	B15	Starlock washer with cap	2
B4	Grommet	3	B16	Tubular foot	1
B5	Pin spacer	3	B17	Saddle foot	2
B6	Compressor screw	3	B18	Round insert	2
B7	Compressor washer	3	B19	Saddle spacer	4
B8	Compressor nut	3	B20	Tubular foot screw	4
B9	Running capacitor	1	B21	Foot nut	4
B10	Capacitor washer	1	B22	Water pan	1
B11	Capacitor nut	1	B23	Water pan rubber plug	1
B12	Power supply cable	1	B24	Pressure switch	1

Cooling system

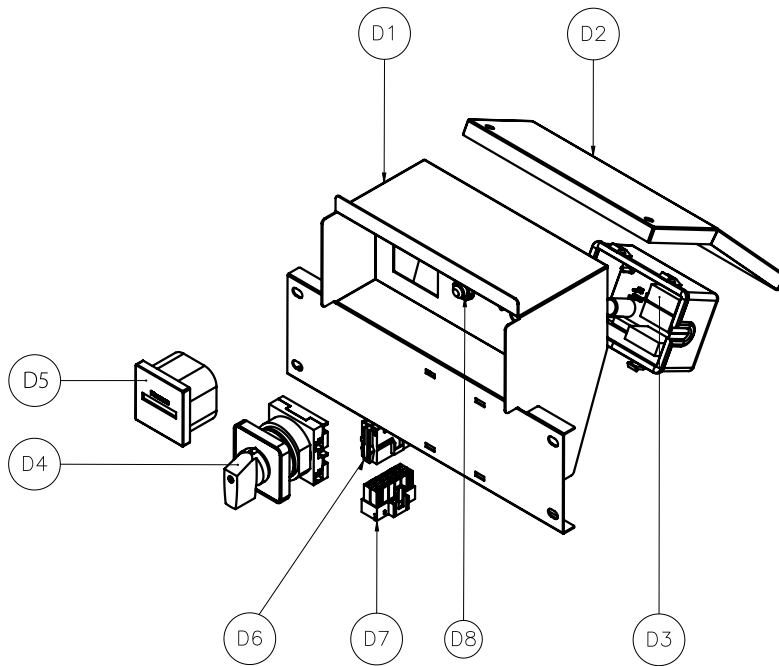
Note: The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



ITEM NO.	SPARE PART	QTY.	ITEM NO.	SPARE PART	QTY.
C1	Cooling system baseplate	1	C9	Fan blade	1
C2	Ventilation duct	1	C10	Fan motor support	1
C3	Heat exchanger	1	C11	Side panel spacer	2
C4	Heat exchanger insulation EPS	1	C12	Grommet	2
C5	Defrost temperature sensor	1	C13	Copper tube bracket	2
C6	Defrost valve	1	C14	Screw M5×30	1
C7	Defrost valve coil	1	C16	Condensates pump connector	1
C8	Fan motor	1	C17	Air outlet nozzle	1

Operating element

Note: The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



ITEM NO.	SPARE PART	QTY.	ITEM NO.	SPARE PART	QTY.
D1	Control's box	1	D6	Control box internal wiring	1
D2	Control's cover	1	D7	Unit internal wiring	1
D3	Sealed electronic controller	1	D8	Remote humidistat socket	1
D4	On/Off switch	1			
D5	Time counter	1			
	Energy & time counter (optional)	1			

Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out waste bin on waste electrical or electronic equipment is taken from Directive 2012/19/EU. It states that this device 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. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

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.

Declaration of conformity

Declaration of conformity in accordance with the EC Machinery Directive 2006/42/EC, Annex II, Part 1, Section A

We – Trotec GmbH – declare in sole responsibility that the product designated below was developed, constructed and produced in compliance with the requirements of the EC Machinery Directive in the version 2006/42/EC.

Product model / Product: TTK 500
Product type: dehumidifier
Year of manufacture as of: 2022

Relevant EU directives:

- 2011/65/EU
- 2012/19/EU
- 2014/30/EU
- 2015/863/EU

Applied harmonised standards:

- EN 60335-1:2012/A15:2021
- EN 60335-2-40:2003/A1:2006
- EN 60335-2-40:2003/A2:2009
- EN 60335-2-40:2003/A11:2004
- EN 60335-2-40:2003/A12:2005
- EN 60335-2-40:2003/A13:2012/AC:2013
- EN 60335-2-40:2003/AC:2006
- EN 60335-2-40:2003/AC:2010

Applied national standards and technical specifications:

- EN IEC 55014-1:2021
- EN IEC 55014-2:2021
- EN IEC 61000-3-2:2019
- EN IEC 61000-3-2:2019/A1:2021
- EN 60335-1:2012/A1:2019
- EN 60335-1:2012/A2:2019
- EN 60335-1:2012/A14:2019
- EN 61000-3-3:2013/A1:2019
- IEC 60335-1:2010
- IEC 60335-1:2010/A1:2013/A2:2016
- IEC 60335-2-40:2018
- IEC 61000-3-2:2018
- IEC 61000-3-2:2018/A1:2020
- IEC 61000-3-3:2013
- IEC 61000-3-3:2013/A1:2017
- IEC 61000-3-3:2013/A2:2021

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Place and date of issue:
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