

TTK 125 S

EN

OPERATING MANUAL
DEHUMIDIFIER



 **TROTEC**
AT WORK.

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Notes regarding the operating manual

Symbols



Hazardous electric current!

Warns about hazards from electric current which can lead to injuries or even death.



Danger!

Warns of a hazard which can lead to personal injury.



Caution!

Warns of a hazard which can lead to property damage.

The current version of the operating manual can be found at:



TTK 125 S



<http://download.trotec.com/?sku=1120000124&id=1>

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Warranty and liability

The device complies with the fundamental health and safety requirements of the applicable EU regulations and was tested at the factory for perfect functionality multiple times.

However, if faults in the functionality occur and cannot be remedied with the measures in the chapter Errors and faults, please get in touch with your dealer or distributor.

When making a warranty claim, supply the device number (see the rear of the device).

When manufacturer's instructions or legal regulations have not been followed, or after unauthorised changes to the device are made, the manufacturer is not responsible for the resulting damages. Changes to the device or unauthorised replacement of individual parts can drastically impact the electrical safety of this product and leads to the forfeit of the warranty. Liability does not extend to damages to people or property caused by the device being used other than as described in the instructions in this operating manual. Subject to changes to technical design and model changes as part of constant development and product improvement without prior notice.

No liability is accepted for damages resulting from improper use. In such a case, any warranty claims be voided also.

Safety

Carefully read this manual before starting / using the device and keep it within reach.

- 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.
- 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.
- Never reach or put objects into the device.
- Do not cover or transport the device during operation.
- Do not use the device with wet or damp hands.
- Ensure that all electric cables outside of the device are protected from damage (e.g. from animals). Never use the device if the cable or power connection is damaged!
- Only use extensions to the connecting cable which are appropriate to the device power consumption, the length of its cable and its use. Completely unroll extension cables. Avoid electrical overload.
- Only transport the device in an upright position with an emptied condensation tank.
- Dispose of the collected condensate. Do not drink it. Health hazard!
- Unplug the device from the mains before starting with maintenance, service or repair work.

Intended use

Only use the device TTK 125 S for drying and dehumidifying room air (e.g. after water damages from burst pipes or flooding), while adhering to and following the technical data.

Intended use comprises:

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

Improper use

Do not place the device on flooded ground. Do not use the device outdoors. Do not place any objects, e.g. wet clothing, on the device for drying.

Any unauthorised changes, modifications or alterations to the device are forbidden.

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.

Residual risks



Hazardous electric current!

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



Hazardous electric current!

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



Caution!

To avoid damages to the device, do not operate the device without an air filter inserted!



Danger!

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

Behaviour in the event of an emergency

1. In an emergency, disconnect the device from the mains feed-in: Switch the device off and disconnect it from the mains.
2. Do not reconnect a defective device to the mains.

Information about the device

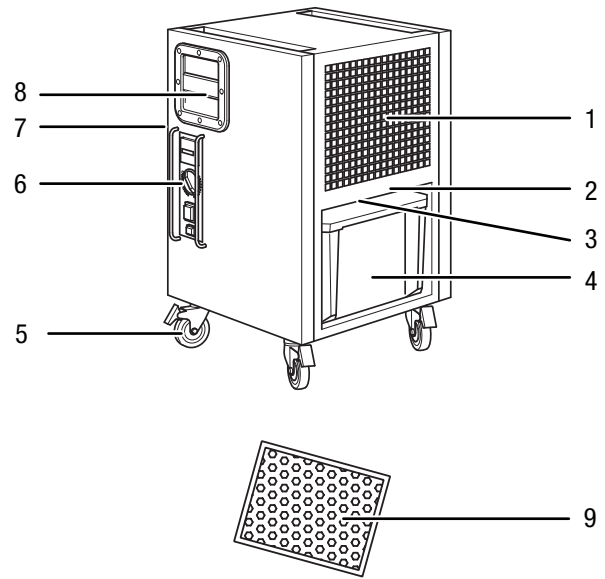
Description of the device

The device uses the principle of condensation to automatically dehumidify rooms. The fan sucks in humid room air through the air inlet (1), the air filter (9), the evaporator and 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 rewarmed at the condenser and blown out at a temperature of approx. 5 °C above room temperature. 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 into the condensation tray and through the integrated drain nozzle into the condensation tank (4) below.

The filling level of the condensation tank (4) is detected by a rocker. The device has a control panel (6) for operating and controlling the functions. Once the maximum filling level of the condensation tank (4) is reached, the condensation tank indicator light (see chapter "Operating elements") on the control panel (6) flashes orange. The device switches off. The condensation tank indicator light only goes out again once the emptied condensation tank (4) is reinserted. The condensed water can be diverted by attaching a condensation drain hose to the hose connector (3) (see chapter Operation with hose attached to the condensation connection) or by using a retrofitted condensate pump (see chapter Installing the condensate pump).

The device can reduce the relative humidity of a room to approx. 32 %. Due to the heat radiation generated during operation, the room temperature may rise by approx. 1–4 °C.

Device depiction



No.	Designation
1	Air inlet
2	Connection for optional condensate pump
3	Hose connector for condensation drain hose
4	Condensation tank
5	Wheels
6	Control panel
7	Air outlet
8	Carrying handle
9	Air filter

Transport and storage

Transport

To make the device easier to transport, it is fitted with adjustable wheels and carry handles on the sides.

Before transporting the device, proceed as follows:

1. Switch off the device at the mains switch (see chapter Operating elements).
2. Remove the mains plug from the mains socket. Do not use the power cable to drag the device!
3. Empty the condensation tank or the condensation drain hose or the condensate pump (optional). Check for dripping condensation.

After transporting the device, observe the following:

1. Set up the device in an upright position after transport.
2. Lock the wheels so that the device cannot roll away.

Storage

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

- dry,
- under roof,
- in an upright position where it is protected from dust and direct sunlight,
- With a cover to protect it from invasive dust, if necessary.
- The storage temperature is the same as the range given for the operating temperature in the technical data.

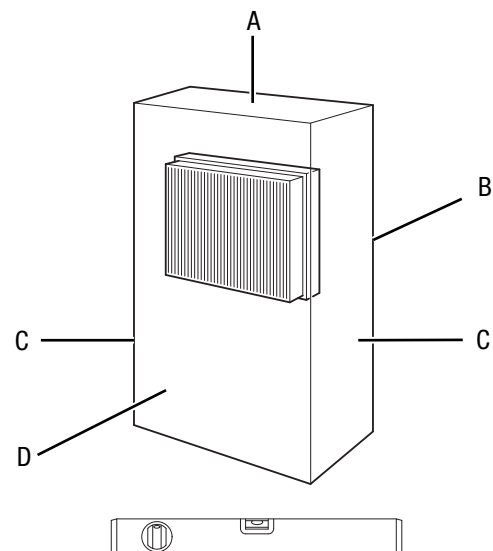
Operation

- After being switched on, the device operates fully automatically until the condensation tank is full and the device switches itself off.
- Avoid open doors and windows.

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.



- Make sure that extension cables are completely unrolled.

Notes regarding the dehumidification performance

The dehumidification performance depends on:

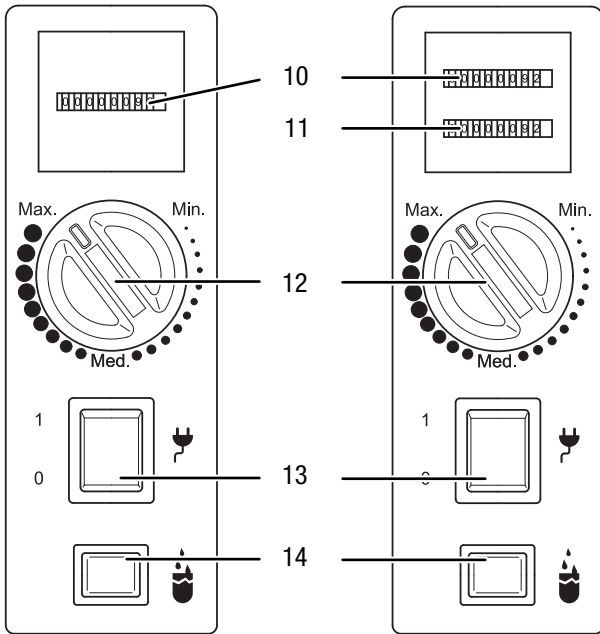
- the layout of the room
- the room temperature
- the relative humidity

The higher the room temperature and relative humidity, the greater the dehumidification performance.

For use in living rooms, a relative humidity of approx. 50 to 60 % is sufficient. In storage facilities and archives, the humidity should not exceed approx. 50 %.

Operating elements

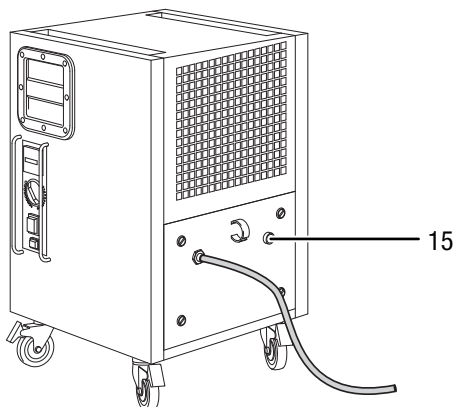
Control panel



No.	Designation
10	Operating hours counter
11	Kilowatt hours counter (optional)
12	Rotary switch
13	Mains switch; Illuminated when the device is switched on.
14	Condensation tank indicator light

The device is optionally available with a control panel with two counters (see the image at the top right). Contact your Trotec customer service.

Condensate pump (optional)



No.	Designation
15	Button for draining residual water from the condensate pump

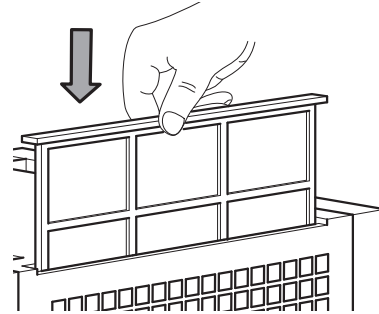
The device can optionally be operated with a condensate pump (see chapter Installing the condensate pump (optional)). Contact your Trotec customer service.

Start-up

Inserting the air filter

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

A.



Switching the device on

1. Ensure that the condensation tank is empty and inserted correctly. Otherwise, the device will not operate!
2. Insert the mains plug into a properly secured mains socket.
3. Switch on the device at the mains switch (13).
4. Ensure that the mains switch (13) is illuminated.
5. Check whether the condensation tank indicator light (14) is out. Otherwise, empty the condensation tank.
6. Adjust the room humidity level with the rotary switch (12).

Continuous operation mode

In continuous operation mode, the device dehumidifies the air constantly, regardless of the humidity. To start continuous operation mode, set the rotary switch (12) to Max.

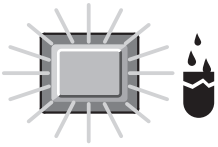
Automatic defrost

If the room temperature is below 11 °C, the evaporator will freeze during dehumidification. The device will then carry out an automatic defrost. The duration of the defrost process can vary.

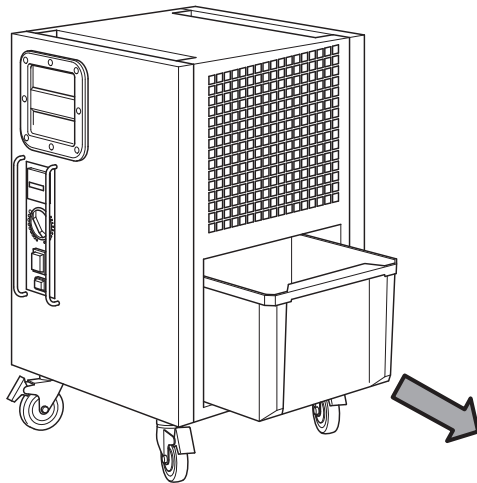
- Do not switch off the device during automatic defrost. Do not remove the mains plug from the mains socket.

Emptying the condensation tank

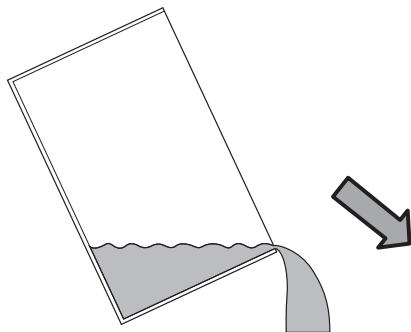
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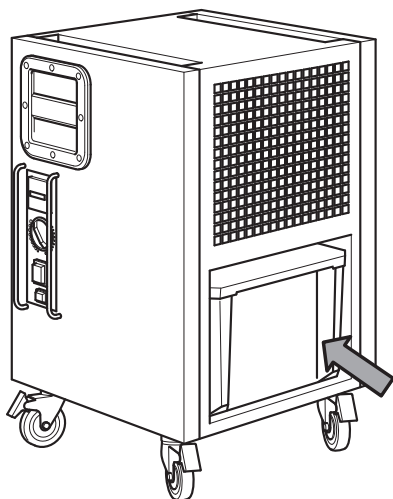
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3.

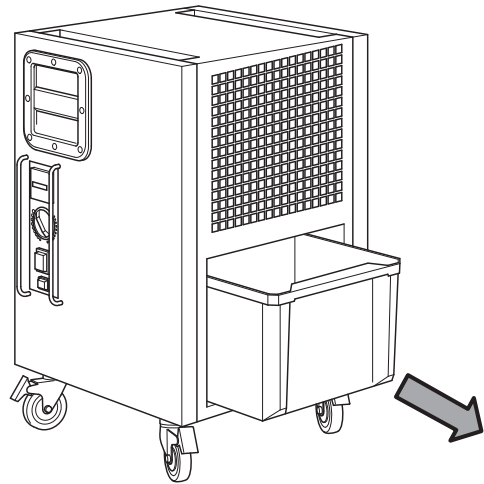


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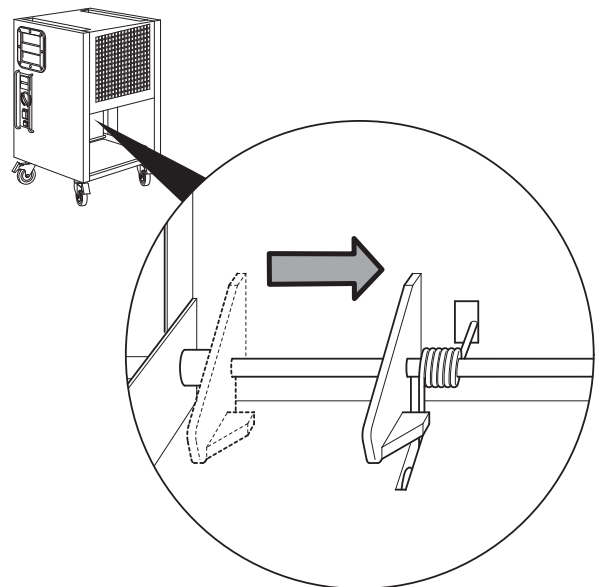


Operation with hose attached to the condensation connection

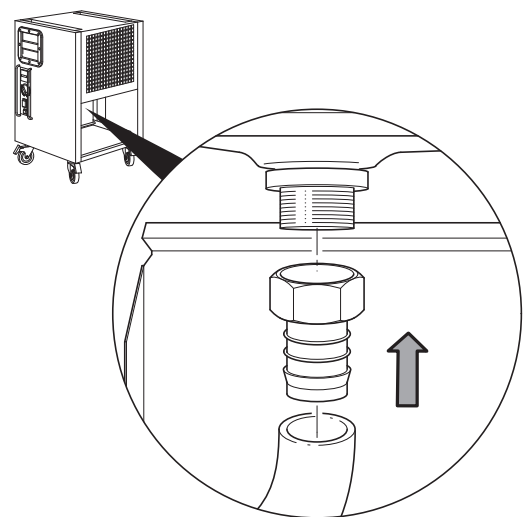
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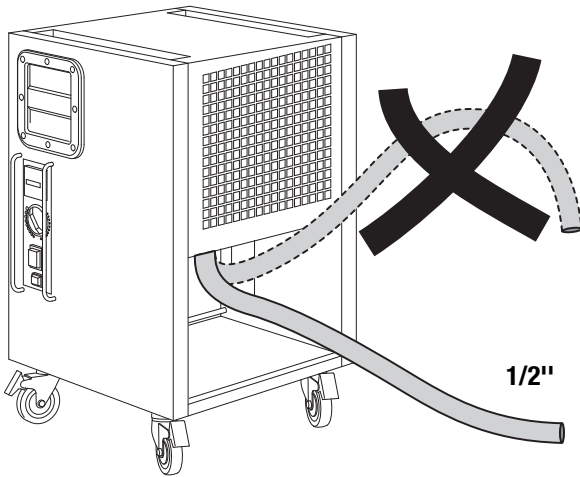


2.



3.





Shutdown

1. Switch off the device at the mains switch (see chapter Operating elements).
2. Depending on the model, proceed as follows to remove condensation from the device:
 - ⇒ Empty the optional condensate pump by pressing the key for draining residual water from the condensate pump.
 - ⇒ Empty the condensation tank and wipe it dry with a clean cloth. Check for dripping condensation.
 - ⇒ Remove the condensation drain hose and any residual fluid from it.
3. Do not touch the mains plug with wet or damp hands.
4. Remove the mains plug from the mains socket.
5. Clean the device, and especially the air filter, according to the chapter Maintenance.
6. Store the device according to the chapter Storage.

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 (1/N/PE ~ 230V/ 50 Hz).
- Check the mains plug for damages.
- Have the electrics checked by a specialist company for cooling and air-conditioning or by Trotec.

The device is running, but no condensate forms:

- Check the condensation tank for correct seating. Check the filling level of the condensation tank and empty it, if necessary. The condensation tank indicator light must not light up.
- Check the condensation tank is not dirty. If necessary, clean the condensation tank.
- Check the room temperature. Observe the device's permissible operating range according to the technical data.
- Ensure that the relative humidity complies with the technical data.
- Check the selected desired humidity level. The humidity in the room must be above the selected range. Reduce the selected relative humidity by turning the rotary switch, if necessary.
- 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 for cooling and air-conditioning 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.

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 tray and/or condenser dryer		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 inlet grid and air filter for dirt and foreign objects and clean or replace if necessary	X		X			
Replace air 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
Check the air inlets and outlets for dirt and foreign objects and clean if necessary																
Check the condensate pump and tank and clean if necessary																
Clean the exterior																
Visually check the inside of the device for dirt																
Check the air inlet grid and air filter for dirt and foreign objects and clean or replace if necessary																
Replace air 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

- Do not touch the mains plug with wet or damp hands.
- Before any work, remove the mains plug!



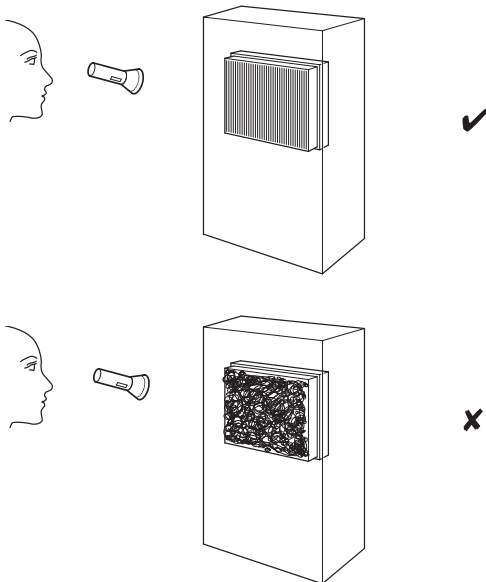
Danger!



Maintenance 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 air filter

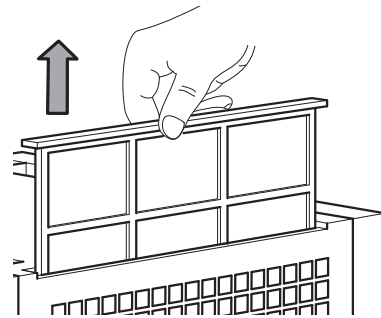
The air filter has to be cleaned as soon as it is dirty. This is brought to light e.g. by a reduced capacity (see chapter Errors and faults).



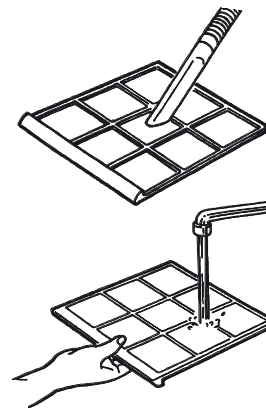
Caution!

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!

A.



B.



C.



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.

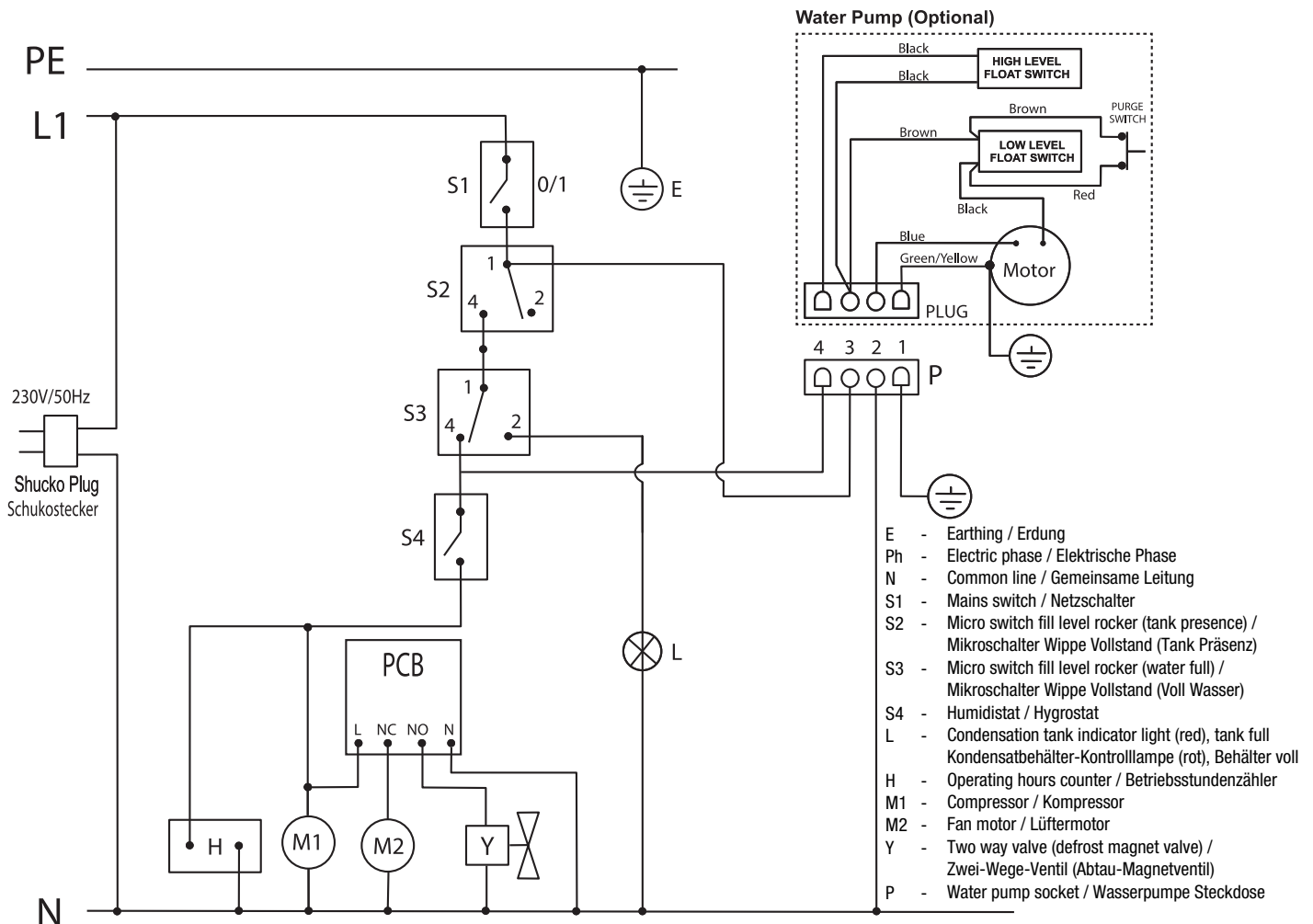
- Reinsert the cleaned, dry filter in the device in reverse order.

Technical annex

Technical data

Parameter	Value
Model	TTK 125 S
Dehumidification performance @ 30 °C / 80 % RH	28 l / 24 h
Dehumidification performance, max.	32l / 24 h
Operating temperature	5 °C - 32 °C
Operating range for relative humidity	32% - 100% RH
Air volume flow	300 m ³ /h
Mains connection	1/N/PE~ 230 V, 50 Hz
Power consumption, max.	0.58 kW
Nominal current	2.6 A
Water tank capacity	6 l
Refrigerant	R407c
Amount of refrigerant	530 g
Weight	26 kg
Dimensions (HxDxW)	603 x 375 x 375 mm
Minimum distance to walls or other objects	A: Top: 50 cm B: Rear: 50 cm C: Side: 50 cm D: Front: 50 cm
Sound pressure level LpA (1 m; complies with DIN 45635-01-KL3)	52 dB(A)

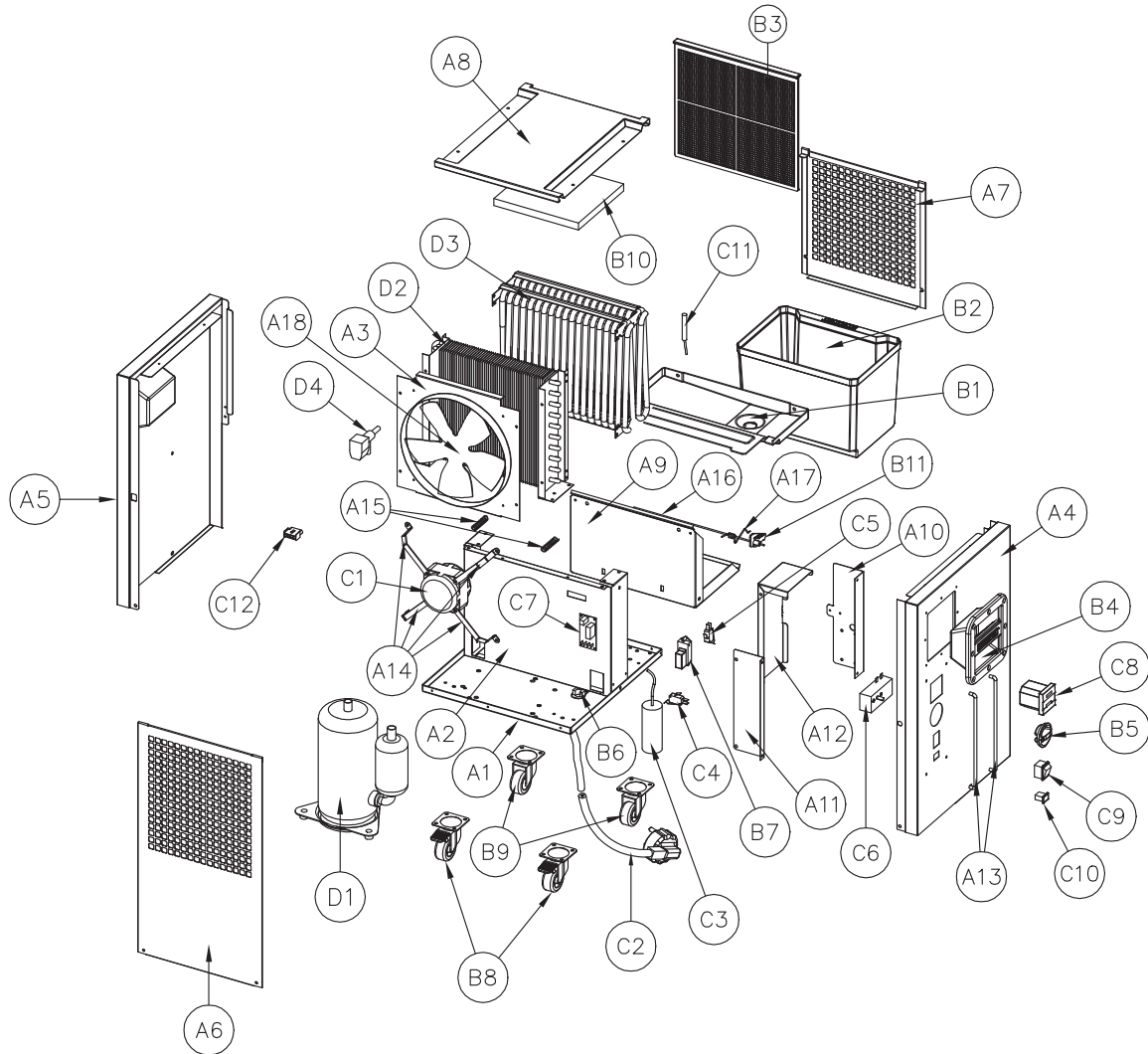
Wiring diagram



Exploded assembly drawing

Note!

The position numbers of the spare parts differ from those describing the positions of other parts mentioned in this operating manual.

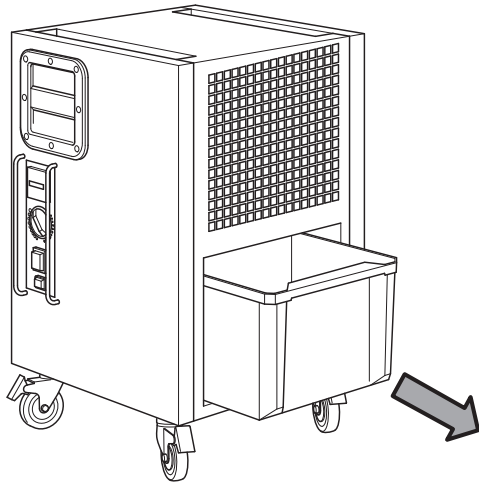


List of spare parts

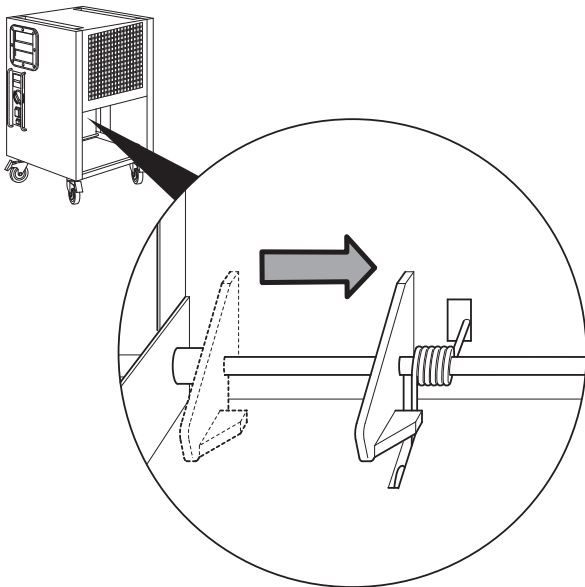
No.	Spare part	No.	Spare part	No.	Spare part
A1	Baseplate	B1	PS Condensates' Water Pan	C8	Hour Counter (Standard)
A2	Structural Element	B2	5l 1/4 PP Water Tank	C9	Hour + Power Counter (Optional)
A3	Ø 230 Fan Panel	B3	Reinforced PP Air Filter	C10	Power Switch + Transparent Silicon Cover
A4	Controls' Side Panel	B4	ABS Trotec Grip	C11	Tank Full Warning Lamp + Transparent Silicon Cover
A5	Left Side Panel	B5	ABS Humidistat Adjusting Knob	C12	Temperature Probe
A6	Air Outlet Ventilation Grid	B6	Cable Gland PA107	C13	Pump Socket
A7	Air Inlet Ventilation Grid	B7	ABS Full Tank Microswitch Protection Case	D1	R407c Rotary Compressor
A8	Top Hood	B8	Spinning Castor with Brake	D2	Finned Pack Condensing Coil
A9	Water Tank Base Plate	B9	Loose Spinning Castor	D3	Aluminium Evaporating Coil + Capillary Tube + Filter Drier
A10	Protection Box - PCB Support	B10	EPS Top Plate	D4	R407c Solenoid Valve
A11	Protection Box - Left Support	B11	ABS Piece for Spring Pressure (Bucket Simulator)	n/a	Housing - M4 x 10 Screws; Black Passivated; ISO 7380
A12	Protection Box - Cover	C1	5W Output Electrical Motor Fan	n/a	Housing - PA M4 Washers
A13	Controls' Protection Bars	C2	1.60 m H05VVF3G0.75 Supply Cable	n/a	Handle - M4 x 16; Black Passivated; DIN 7500
A14	Motor Fan Brackets	C3	35 µF Starting Capacitor	n/a	Castors - M6 Hexagonal Head Screws; Zinc Plated; DIN 6921
A15	Full Tank Helical Springs	C4	Tank Present Microswitch	n/a	Castors - M6 Washers; Zinc Plated; DIN 125A
A16	Tank Base Plate Shaft	C5	Full Tank Microswitch	n/a	Castors - M6 Safety Nuts; Zinc Plated; DIN 982
A17	Tank Detection Spring	C6	Mechanical Humidistat	n/a	General - 4 x 6 Aluminium Blind Rivet
A18	Ø 230 Aluminium Sucking Fan Blade	C7	Printed Circuit Board		

Installing the condensate pump (optional)

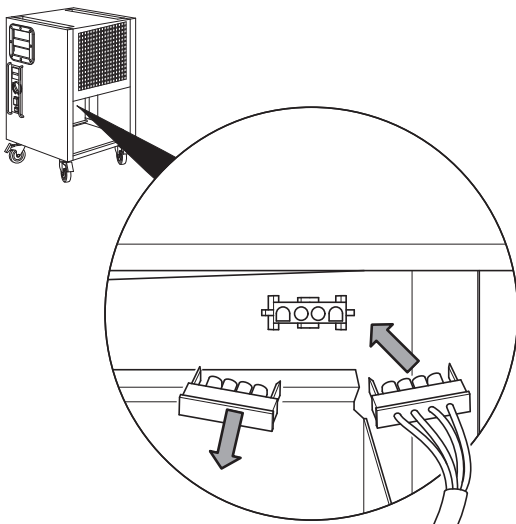
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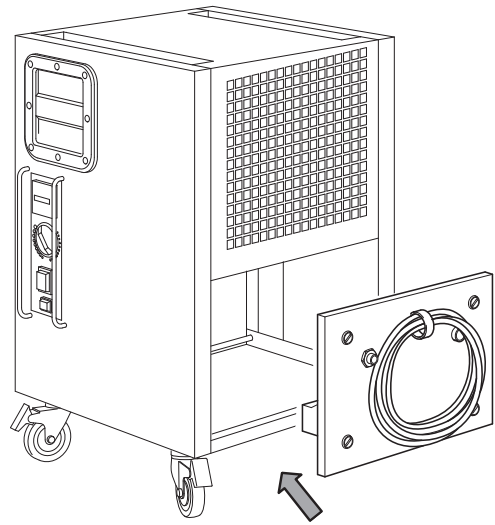
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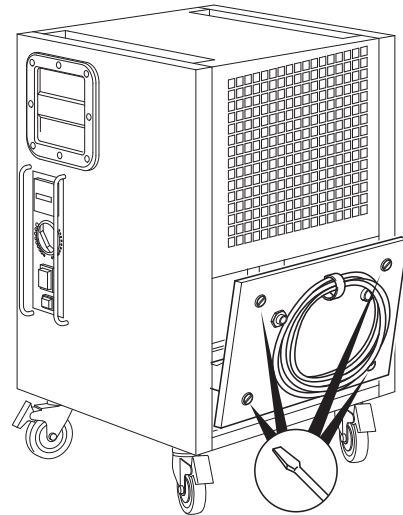
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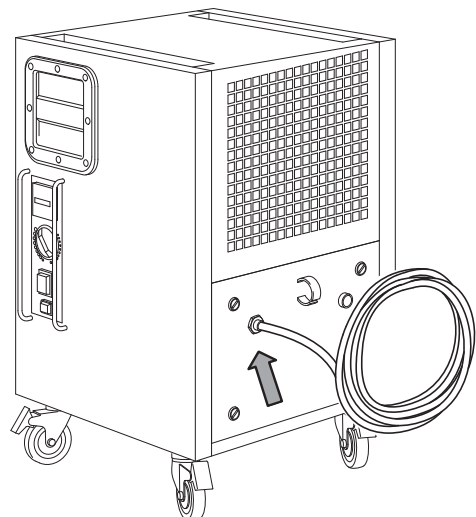
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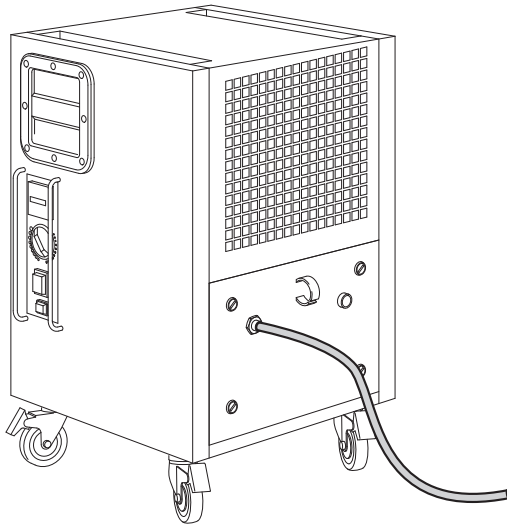
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6.



7.



Disposal



In the European Union, electronic equipment must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE). At the end of its life, please dispose of this device according to the valid legal requirements.

The device uses an environmentally and ozone-neutral cooling agent (see Technical Data).

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

Declaration of conformity

in accordance with the EC Low Voltage Directive 2006/95/EC and the EC Directive 2004/108/EC about electromagnetic compatibility.

Herewith, we declare that the device TTK 125 S was developed, constructed and produced in compliance with the named EC directives.

Applied standards:

EN 60335-1:2012

EN 60335-2-40:2003 + A1:2006 + A2:2009 + A11:2004 + A12:2005 + A13:2012

EN 61000-3-2:2006 +A1:2009 + A2:2009

EN 61000-3-3:2008

EN 55014-1:2006 +A1:2009 + A2:2011

EN 55014-2:1997 +A1:2001 + A2:2008

The **CE** marking is found on the rear of the device.

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