

# TTK 166 ECO

EN

OPERATING MANUAL  
DEHUMIDIFIER



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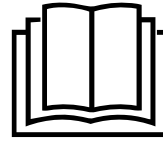
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You can download the current version of the instructions via the following link:



TTK 166 ECO



<https://hub.trotec.com/?id=41294>

**Notes regarding the instructions**

**Symbols**



**Danger**

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



**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.**

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 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. 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 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.
- 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 15 m<sup>2</sup>.
- 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.
- R290 is a refrigerant that complies with European environmental regulations. No part of the cooling circuit may be perforated.
- 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 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.

## 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.
- 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 15 m<sup>2</sup> aufgestellt, betrieben und gelagert werden.

**EN** Appliance shall be installed, operated and stored in a room with floor area larger than 15 m<sup>2</sup>.

**FR** L'appareil doit être installé, utilisé et entreposé dans une pièce avec une surface supérieure à 15 m<sup>2</sup>.





### Follow the manual

This symbol indicates that the operating manual 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

#### Natural refrigerant propane (R290)!

H220 – Extremely 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.

P377 – Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

P410+P403 – Protect from sunlight. 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

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. 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

### 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.

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.

Defrosting of the device takes place electronically in air circulation mode.

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

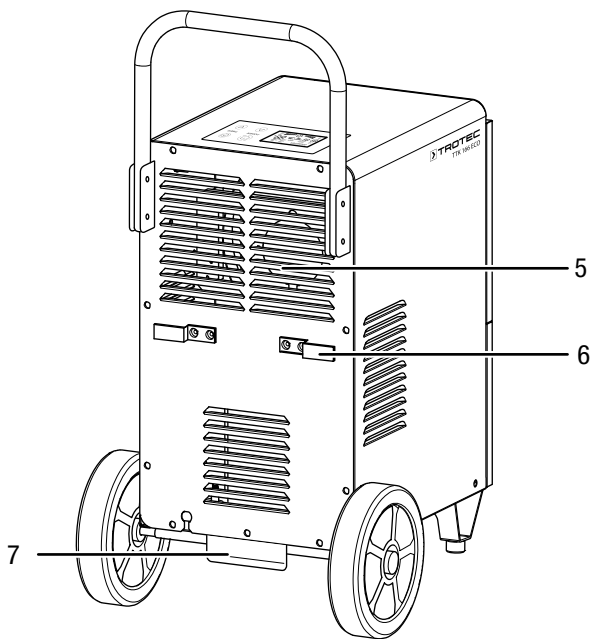
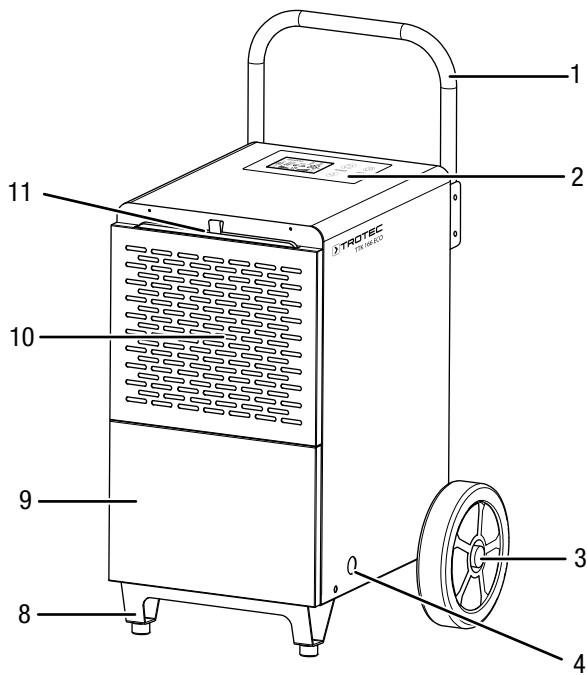
Once the maximum filling level of the condensation tank is reached or in case the condensation tank is not installed correctly, the condensation tank indicator light (see chapter Operation) on the control panel is illuminated. The device switches off. The condensation tank indicator light only goes out again once the emptied condensation tank is reinserted.

Optionally, the condensed water can be drained by attaching a hose at the condensation connection.

The device can reduce the relative humidity of a room to approx. 30 %.

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

**Device depiction**



No.	Designation
1	Transport handle
2	Control panel
3	Transport wheel
4	Condensation drain hose connection
5	Air outlet
6	Power cable holder
7	Tread plate (transport aid)
8	Foot
9	Condensation tank (behind cover)
10	Air inlet
11	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.

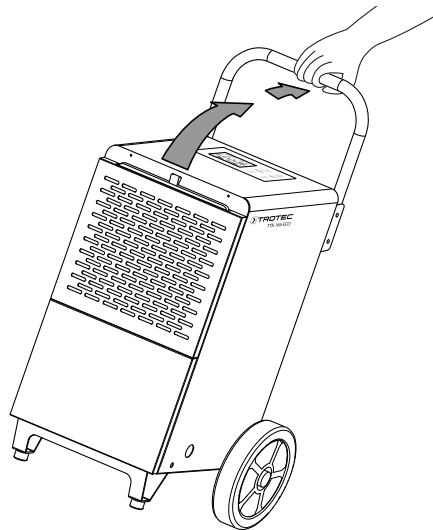
### Transport

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 two 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.
- Do not incline the device by more than 45°, for otherwise the device could be damaged.



- Only wheel the device on a level and smooth surface.

**After** transporting the device, proceed as follows:

- 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, 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.

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

- Only store the device in a room measuring more than 15 m<sup>2</sup>.
- 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 appliance 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
- 2 x Transport wheel
- 1 x Transport handle
- 1 x Foot
- 1 x Axle
- 2 x Washer
- 2 x Nut
- 4 x Large screw
- 4 x Small screw
- 1 x Condensation drain hose, length: 1 m, diameter: 13 mm
- 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.

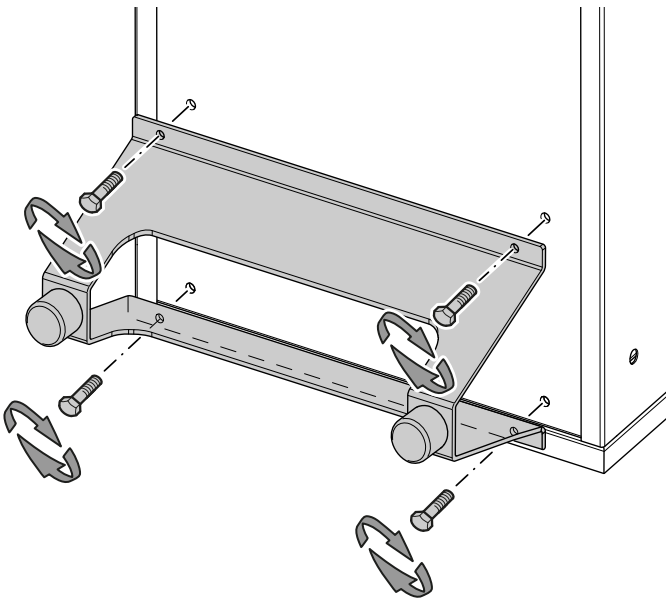
**Assembly**

Use tools suitable for the intended task.

**Mounting the foot**

The foot must be attached to the device prior to initial start-up. To do so, please proceed as follows:

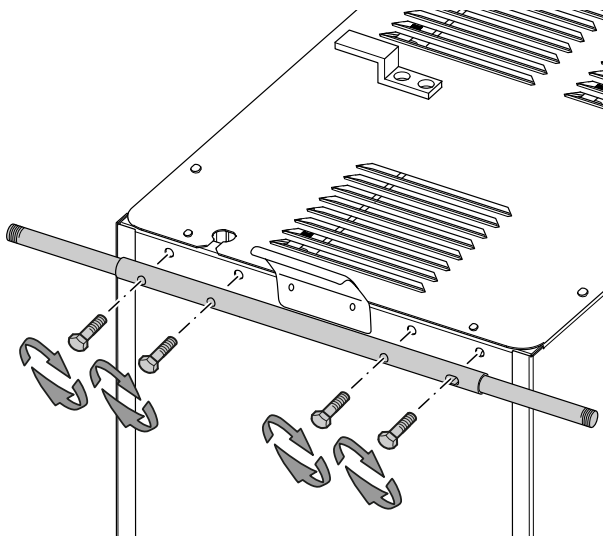
1. Place the device on its front side.
2. Mount the foot to the front bottom side of the device using the four small screws.



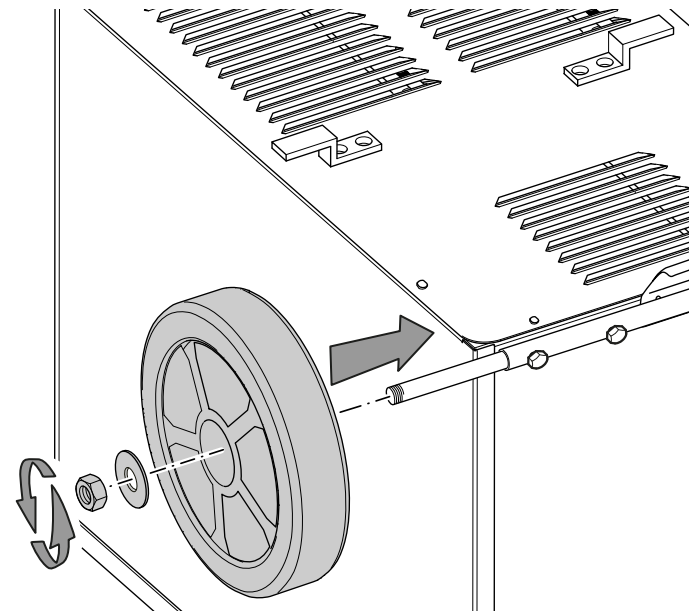
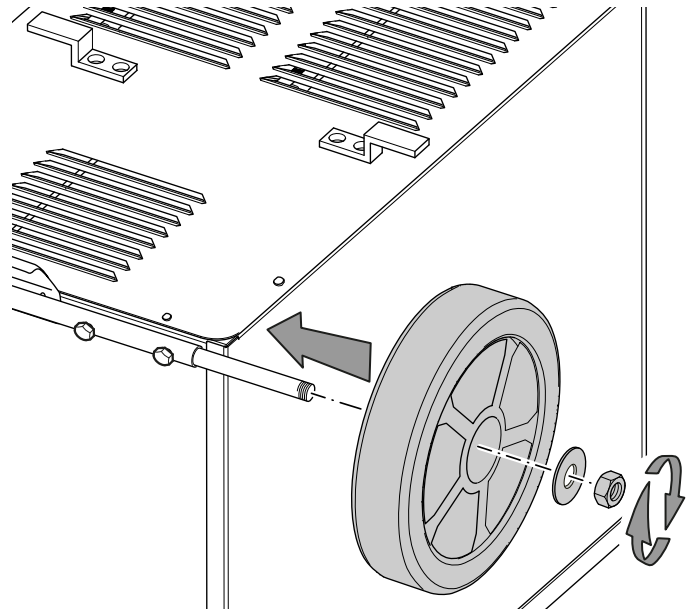
**Mounting the wheels**

Prior to initial start-up, the transport wheels and the axle must be attached to the device. To do so, please proceed as follows:

- ✓ The device is placed on its front side.
1. Use the four large screws to fasten the axle to the rear bottom side of the device.



4. Screw the two nuts to the axle.



5. After mounting the wheels and the feet, place the device in an upright position.

**Note**

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. Any warranty claims will be voided in this case.

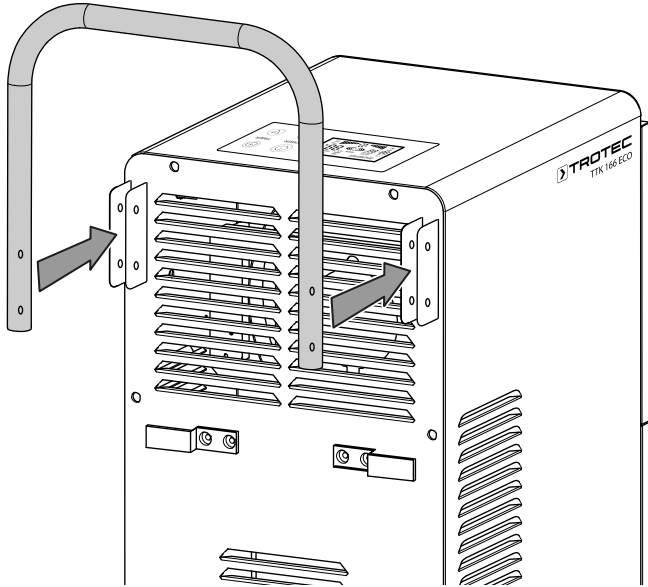
2. Attach the two wheels to the axle.
3. Attach the two washers to the axle.



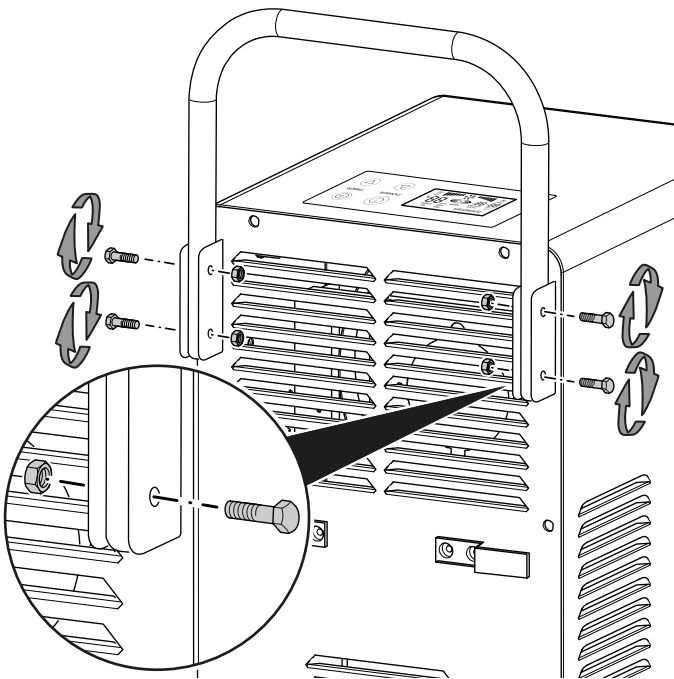
## Mounting the transport handle

Prior to initial start-up, the transport handle must be attached to the device. To do so, please proceed as follows:

1. Loosen both screws and nuts of each of the two holders.
2. Insert the transport handle into the holder.



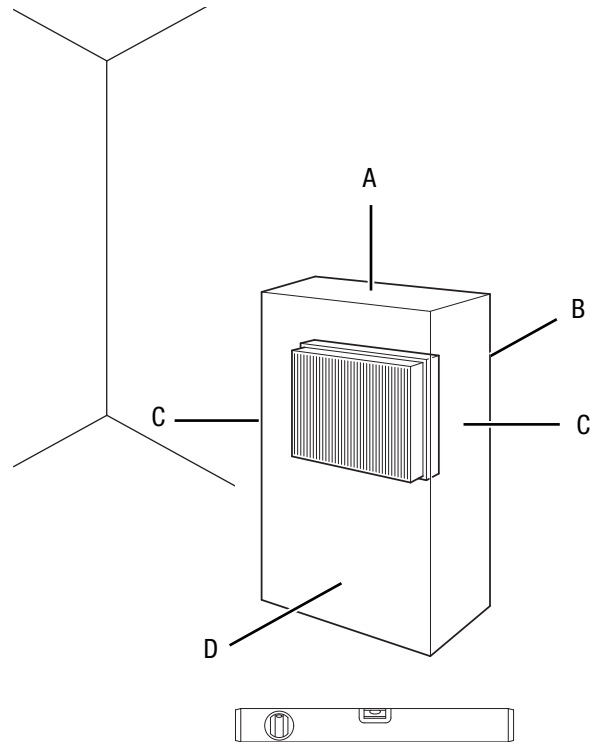
3. Screw the transport handle to the two holders.



4. Check the transport handle for tight fit.

## 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.
- Do not incline the device by more than 45°, for otherwise the device could be damaged.

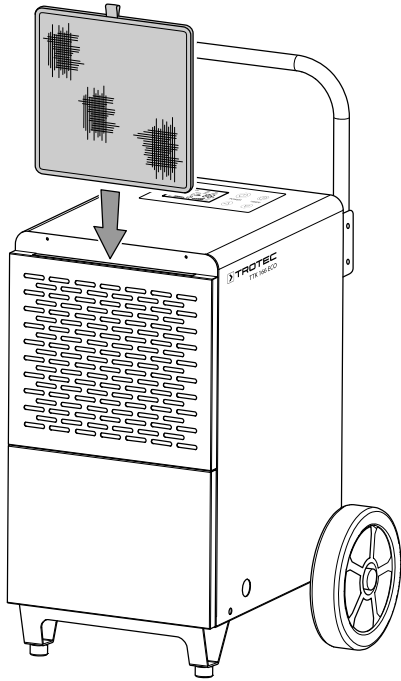
**Inserting the air filter**

**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.



**Inserting the condensation tank**

- Ensure that the float inside the condensation tank is inserted correctly.
- Ensure that the condensation tank is empty and inserted correctly.

**Connecting the power cable**

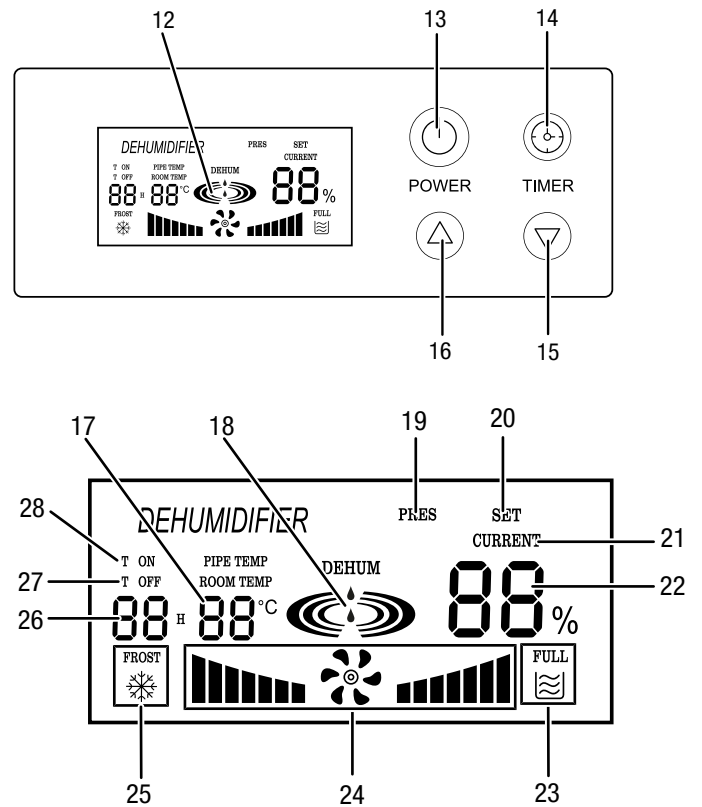
- Insert the mains plug into a properly secured mains socket.

**Operation**

**Notes:**

- Avoid open doors and windows.
- After being switched on, the device operates fully automatically.
- The compressor switches on approx. 3 minutes after the device has been switched on.
- The fan continuously runs in dehumidification mode until the device is switched off.

**Operating elements**



No.	Designation	Meaning
12	Display	Indicates the current relative room humidity Indicates the desired relative room humidity during setting. Indicates the current room temperature. Indicates the number of hours during timer programming Indicates compressor and fan operation Indicates whether the condensation tank is full or not installed correctly Indicates automatic defrost Indicates automatic switch-on and switch-off Indicates <i>DEHUM</i> if the humidity level needs to be set between 30 % and 60 %. Indicates <i>LO</i> if the operating temperature is below 5 °C Indicates <i>HI</i> if the operating temperature is above 38 °C
13	<i>POWER</i> button	Power button: Switches the device on or off.
14	<i>TIMER</i> button	Programming the timer for automatic switch-on or switch-off
15	Arrow buttons	For setting the relative room humidity
16		For setting the number of hours for the timer function
17	Room temperature segment display	Indicates the current room temperature Indicates error codes, see chapter Errors and faults
18	Dehumidification indicator	Indicates dehumidification operation (compressor running), animated
19	<i>PRES</i> indication	Illuminated when the ambient temperature is too high
20	<i>SET</i> indication	Illuminated while the room humidity is being set
21	<i>CURRENT</i> indication	Illuminated when the current room humidity is displayed
22	Room humidity segment display	Indicates the current relative room humidity Indicates the desired relative room humidity during setting. Indicates error codes, see chapter Errors and faults

No.	Designation	Meaning
23	<i>FULL</i> indication	Is displayed when the condensation tank is full or not installed correctly
24	Fan speed indication	Fan operation indicator, animated
25	<i>FROST</i> indication	Is displayed when automatic defrosting is in progress.
26	Hours segment display	Indicates the number of hours during timer programming Indicates the number of hours until automatic switch-on or switch-off
27	<i>T OFF</i> indication	Automatic switch-off activated
28	<i>T ON</i> indication	Automatic switch-on activated

## 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.

### Note

Only use the device in an upright position, otherwise the compressor could be damaged.



### Info

As soon as the device is connected to the mains, it starts running in standby mode and displays the current humidity level (22) and room temperature (17).



### Info

If *DEHUM* is indicated on the display, the humidity level must be set to between 30 % and 60 %.



### Info

The effective dehumidification range lies between 30 % and 80 %, even if the device allows for relative humidity levels between 10 % and 95 %.



### Info

If *LO* is indicated on the display, the operating temperature is too low. It is then below 5 °C. If *HI* is indicated on the display, the operating temperature is too high. It is then above 38 °C. The device can only be operated if the operating temperature is between 5 °C and 38 °C. Only operate the device within this temperature range.

1. Press the *POWER* button (13).
  - ⇒ *DEHUM* is displayed on the dehumidification indicator (18).
  - ⇒ After approx. 3 minutes the compressor switches on. The bars of the dehumidification indicator (18) light up alternately.

## Setting the operating mode

### Setting the desired relative room humidity

You can change the desired relative room humidity at any time.

1. Press the arrow buttons (15, 16) to set the desired relative room humidity. Setting is possible in the range between 10 % and 95 % in increments of 1 %.
  - ⇒ If you press and hold the arrow buttons, the setting changes more rapidly.
  - ⇒ The desired relative room humidity is indicated in the room humidity segment display (22) for approx. 10 seconds. Then the current relative room humidity is displayed again.

## Dehumidification

The compressor switches on after approx. 3 minutes.

The device keeps running until reaching the desired relative room humidity. Then the compressor switches off and the fan keeps running. Once the desired relative room humidity is exceeded, the compressor switches back on.

The desired relative room humidity can be set within a setting range from 10 % to 95 % in increments of 1 %.

The fan speed depends on the room humidity and cannot be set.

### Setting the timer

For the device to switch on or off automatically after a predefined number of hours (max. 24 h) you can programme the timer.

The timer has two modes of operation:

- automatic switch-on upon expiry of a preset number of hours.
- automatic switch-off upon expiry of a preset number of hours.

The timer can be programmed in increments of 1 hour (1 to 24 h).

### Note

The device must not be left unattended in a freely accessible room with an activated timer.



### Info

If the *TIMER* button (14) is pressed too long (approx. 10 s), the device might switch over to the mode for setting the desired relative room humidity.

### Automatic switch-on

1. Switch the device off.
2. Press the *TIMER* button (14).
  - ⇒ The number of hours flashes in the hours segment display (26).
3. Press the arrow buttons (15, 16) to set the desired number of hours.
4. Wait for approx. 5 seconds in order to save the setting.
  - ⇒ The *T ON* indication (28) appears on the display.
  - ⇒ The hours segment display (26) indicates the number of hours.
  - ⇒ The timer setting equals the desired number of hours.
  - ⇒ The device starts after the set time has passed.

Note regarding automatic switch-on:

- Pressing the *POWER* button (13) deactivates the automatic switch-on function.
- If you select 0 hours, the timer will be deactivated.

### Automatic switch-off

- ✓ The device is switched on.
- 1. Press the *TIMER* button (14).
  - ⇒ The number of hours flashes in the hours segment display (26).
- 2. Press the arrow buttons (15, 16) to set the desired number of hours.
- 3. Wait for approx. 5 seconds in order to save the setting.
  - ⇒ The *T OFF* indication (27) appears on the display.
  - ⇒ The hours segment display (26) indicates the number of hours.
  - ⇒ The timer setting equals the desired number of hours.
  - ⇒ The device switches off after the set period of time.

Note regarding automatic switch-off:

- Pressing the *POWER* button (13) deactivates the automatic switch-off function.
- If you select 0 hours, the timer will be deactivated.

### Memory function

During short power failures, the device memorizes the desired relative room humidity. Once the power supply has been restored, the device will start automatically.

### Auto stop function

If the condensation tank is full, not inserted correctly or the desired relative room humidity has been reached, the device will stop automatically. The fan keeps running for approx. 3 minutes and then switches off.



#### Info

The device does not switch off when the condensation tank is removed. Always switch off the device and disconnect it from the mains before removing the condensation tank.

### Operation with hose attached to the condensation connection

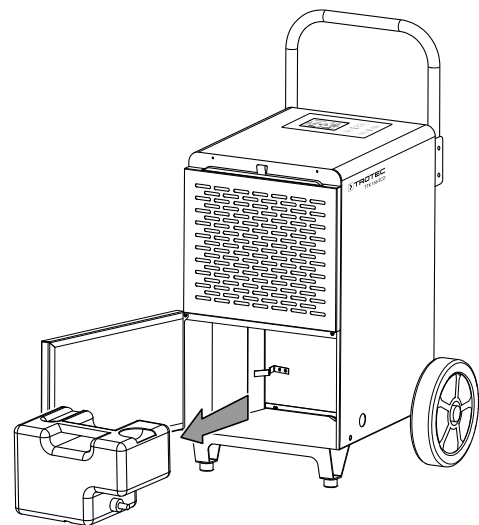
For continuous operation or unattended dehumidification, please connect a suitable condensation drain hose to the device.



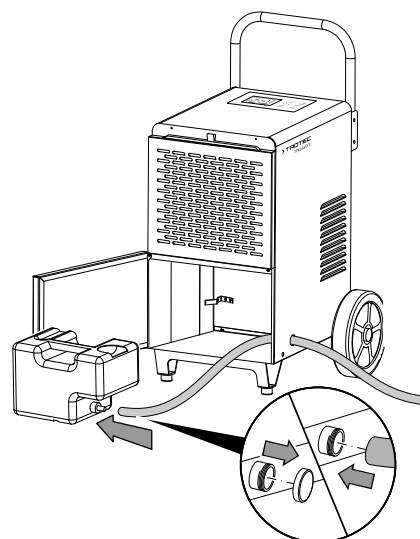
#### Info

When connecting the condensation drain hose for the first time, you first have to prepare the condensation tank. For this purpose, the plug must be unscrewed from the condensation tank and the condensation tank must be pierced at this point.

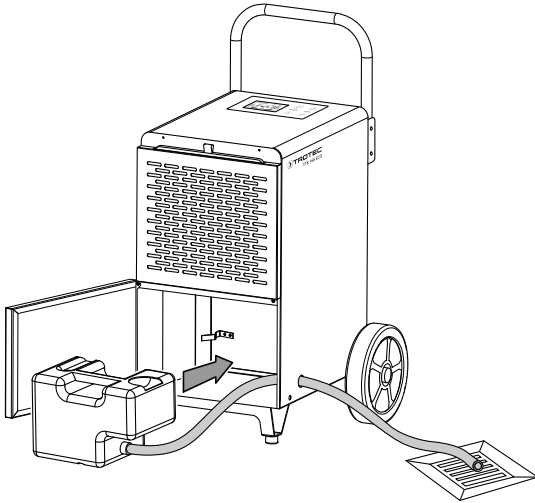
- ✓ The device is switched off.
- 1. Open the front cover.
- 2. Remove the condensation tank.



- 3. Guide the condensation drain hose through the hole in the device's bottom panel.
- 4. Push one end of the hose onto the hose connection at the condensation tank.



5. Refit the condensation tank into the device.
6. Guide the other hose end to a suitable drain or sufficiently dimensioned collection container. Please note that the hose must not be kinked.



Remove the hose and refit the plug on the condensation tank if you want to collect the condensate in the condensation tank again. Allow the hose to dry prior to storage. The hose can be connected in any operating mode for continuous operation.

#### 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.

Defrosting of the device takes place electronically in air circulation mode. In defrost mode, the compressor switches off while the fan keeps running and circulates the compressor's waste heat around the evaporator for defrosting.

The duration of the defrost process can vary, but it does not exceed 8 min. Do **not** switch off the device during automatic defrost. Do **not** remove the mains plug from the mains socket.

The *FROST* indication (25) is illuminated during automatic defrosting.

#### Setting the correction value for the room humidity

The ambient conditions might make it necessary to determine a correction value for the room humidity. This correction value is always added to or subtracted from the current room humidity value.

Example: The displayed room humidity is always 5 increments too high => change the correction value to -5

The correction value's default setting is 0. The correction value can be set in the range from -9 to +9.

- ✓ The *CURRENT* indication (21) appears on the display (12).
- 1. Press the *TIMER* button (14) for approx. 10 s until an acoustic signal is emitted.
  - ⇒ The *SET* (20) and *CURRENT* (21) indications flash.
- 2. Press the arrow buttons (15, 16) to set the desired correction value.
  - ⇒ The desired correction value is indicated in the room humidity segment display (22) for approx. 10 seconds. Then the current relative room humidity is displayed again.
  - ⇒ The correction value has been saved.



#### Info

Please note that the set correction value also influences the desired or set room humidity. The correction value is applied to every room humidity measurement.

#### 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.
- Empty the condensation tank, if need be.
- Clean the device according to the Maintenance chapter.
- Store the device according to the Transport and 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.

### The device does not start:

- Check the power connection.
- Check the power cable and mains plug for damage.
- Check the on-site fusing.
- Check the filling level of the condensation tank and empty it if necessary. The *FULL* indication (23) must not appear on the display.
- Check the condensation tank for correct seating.
- Check the room temperature. Observe the device's permissible operating range according to the technical data.
- 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.

### DEHUM is indicated on the display:

- Set the humidity level between 30 % and 60 %.

### HI is indicated on the display:

- The operating temperature is above 38 °C. The operating temperature must be between 5 °C and 38 °C for the device to work properly. Ensure that the operating temperature is between 5 °C and 38 °C.

### LO is indicated on the display:

- The operating temperature is below 5 °C. The operating temperature must be between 5 °C and 38 °C for the device to work properly. Ensure that the operating temperature is between 5 °C and 38 °C.

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

- 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.
- Ensure that the relative room humidity complies with the technical data.
- Check the preselected relative room humidity. The humidity in the room must be above the selected range.
- 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 might carry out an automatic defrost. During automatic defrost, the device does not dehumidify.

### 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.
- Ensure that the relative room humidity complies with the technical data.
- Check the preselected relative room humidity. The humidity in the room must be above the selected range.
- 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 frequently defrosts itself:

- If the temperature at the internal temperature sensor is  $\leq -1$  °C, the device defrosts itself approx. every 25 min. This is not an error but a normal device function. No measures are required.
- If there is an error at the internal temperature sensor (error E1), the device defrosts itself approx. every 20 min for up to 8 min, see chapter Error codes.

### 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 10 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.

## Error codes

The following error messages can be displayed on the segment displays (17, 22):

Error code	Cause	Remedy
E1	Error at the temperature sensor of the evaporator	The device continues to operate, but it defrosts itself approx. every 20 min for up to 8 min. Briefly disconnect the device from the mains while defrosting is not in progress. Should the error still be displayed after the restart, please contact the customer service.
E2 / E3	Error at the humidity and temperature sensor	The device continues to operate and dehumidifies continuously regardless of the humidity level. The humidity and temperature sensor may have to be replaced. Please contact the customer service.
EE	Leak in the coolant circuit	Disconnect the device briefly from the mains. Should the error still be displayed after the restart, please contact the customer service.



## 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
Check air inlet and outlet for dirt and foreign objects and clean if necessary	X			X		
Clean the exterior		X				X
Visually check the inside of the device for dirt		X				X
Check the air filter for dirt and foreign objects and clean or replace if necessary	X		X			
Replace the air filter		X				
Check for damage	X					
Check the attachment screws		X				X
Test run						X
Empty and clean the condensation tank and/or drain hose		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 air inlets and outlets for dirt and foreign objects and clean if necessary																
Check the air filter for dirt and foreign objects and clean or replace if necessary																
Clean the exterior																
Visually check the inside of the device for dirt																
Replace the air filter																
Check the attachment screws																
Test run																
Empty and clean the condensation tank and/or drain hose																
Comments																

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**

**Natural refrigerant propane (R290)!**

H220 – Extremely 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.

P377 – Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

P410+P403 – Protect from sunlight. 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**

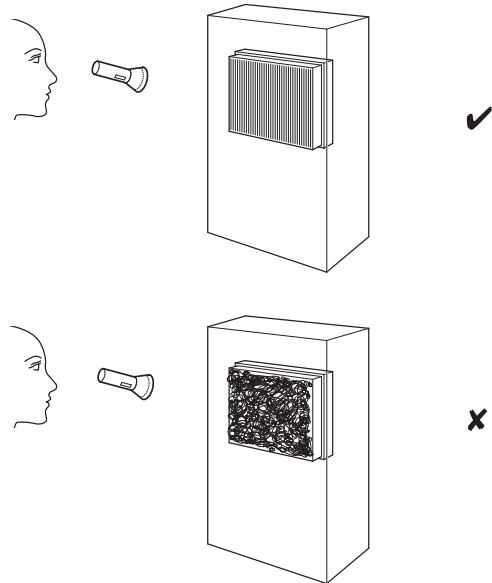
Check the safety signs and labels attached to the device at regular intervals. Replace illegible safety signs!

**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.



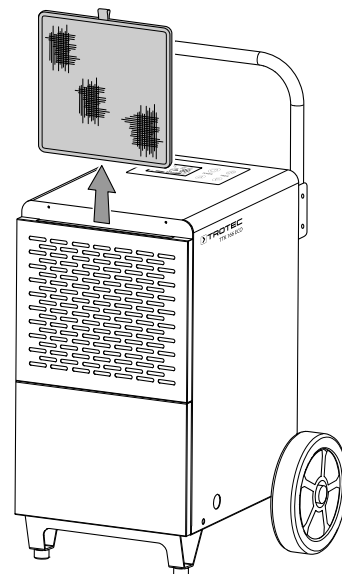
**Cleaning the air filter**

**Note**

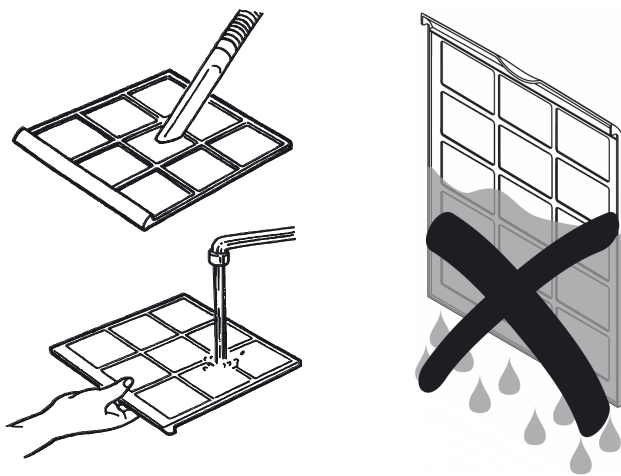
Ensure that the air filter is not worn or damaged. The corners and edges of the air filter must not be deformed or rounded. Before reinserting the air filter, make sure that it is undamaged and dry!

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).

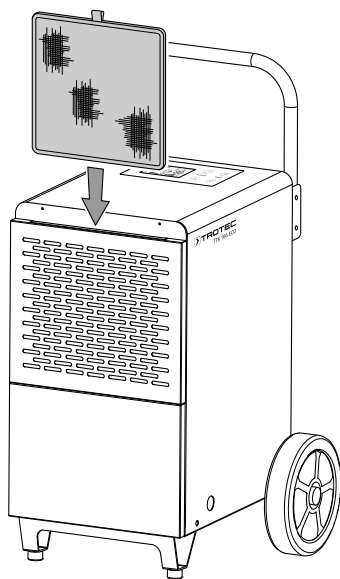
1. Remove the air filter from the device.



- 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.



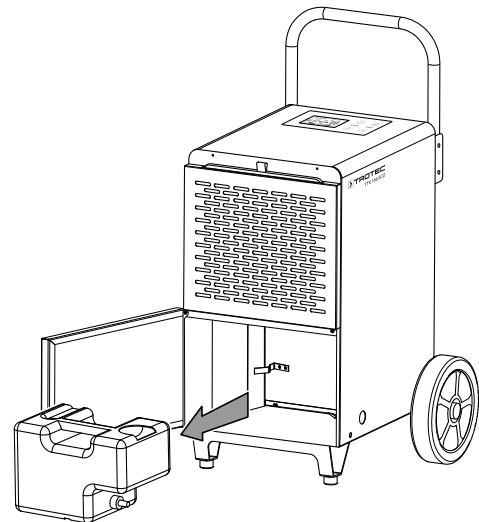
- Allow the filter to dry completely. Do not insert a wet filter into the device!
- Reinsert the air filter into the device.



### Emptying the condensation tank

If the condensation tank is full or not installed correctly, the *FULL* indication (23) will light up on the display. The compressor and fan will switch off.

- Take the condensation tank out of the device.



- Empty the condensation tank over a drain or sink.
- Rinse the tank with clear water. Clean the tank regularly using a mild cleaning agent (no detergent!).
- Refit the condensation tank into the device.

Make sure not to damage the float when inserting or removing the condensation tank.

In doing so, make sure that the float is positioned correctly.

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

### Activities required after maintenance

If you want to continue using the device:


- 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.
- Reconnect the device to the mains.

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

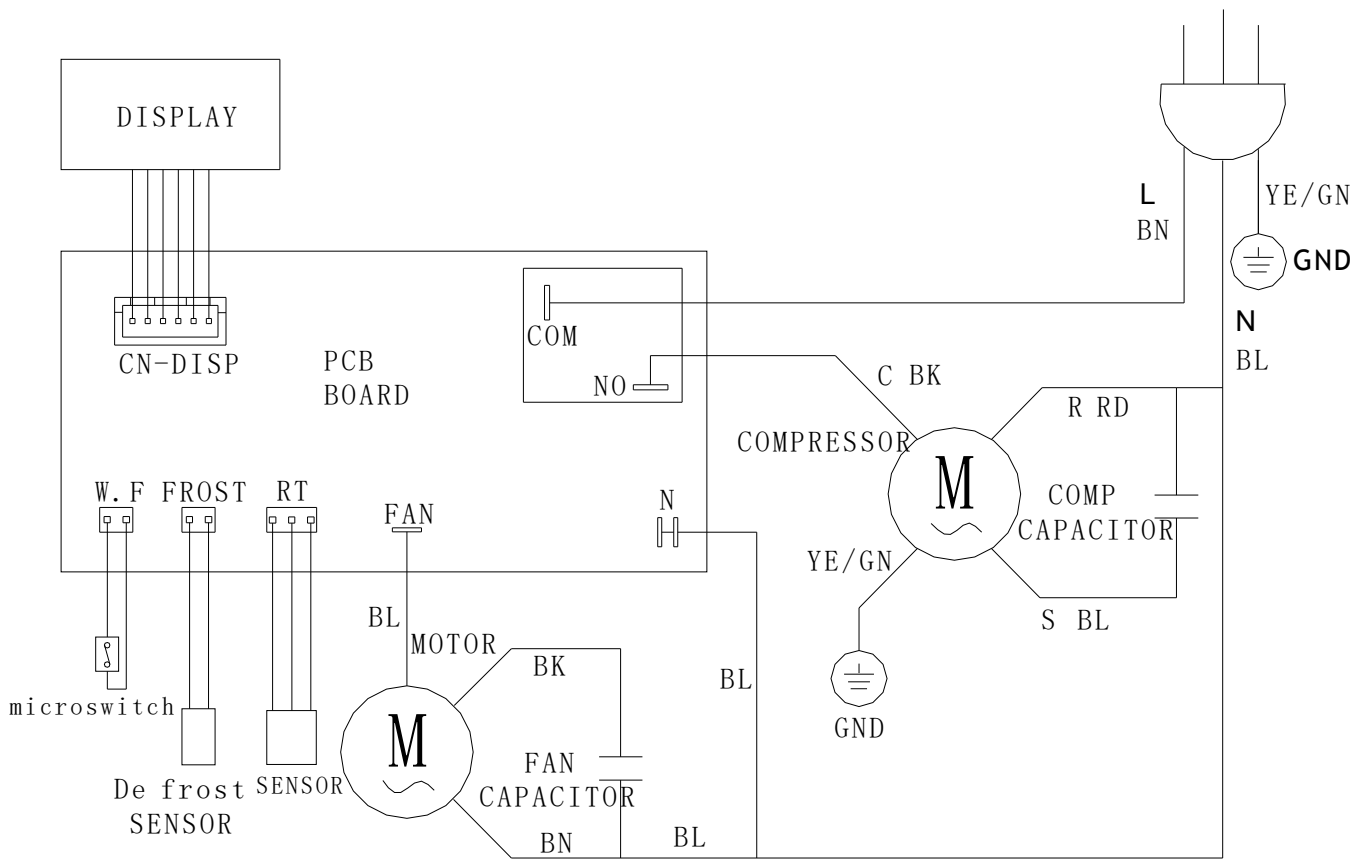
- Store the device according to the Transport and storage chapter.

## Technical annex

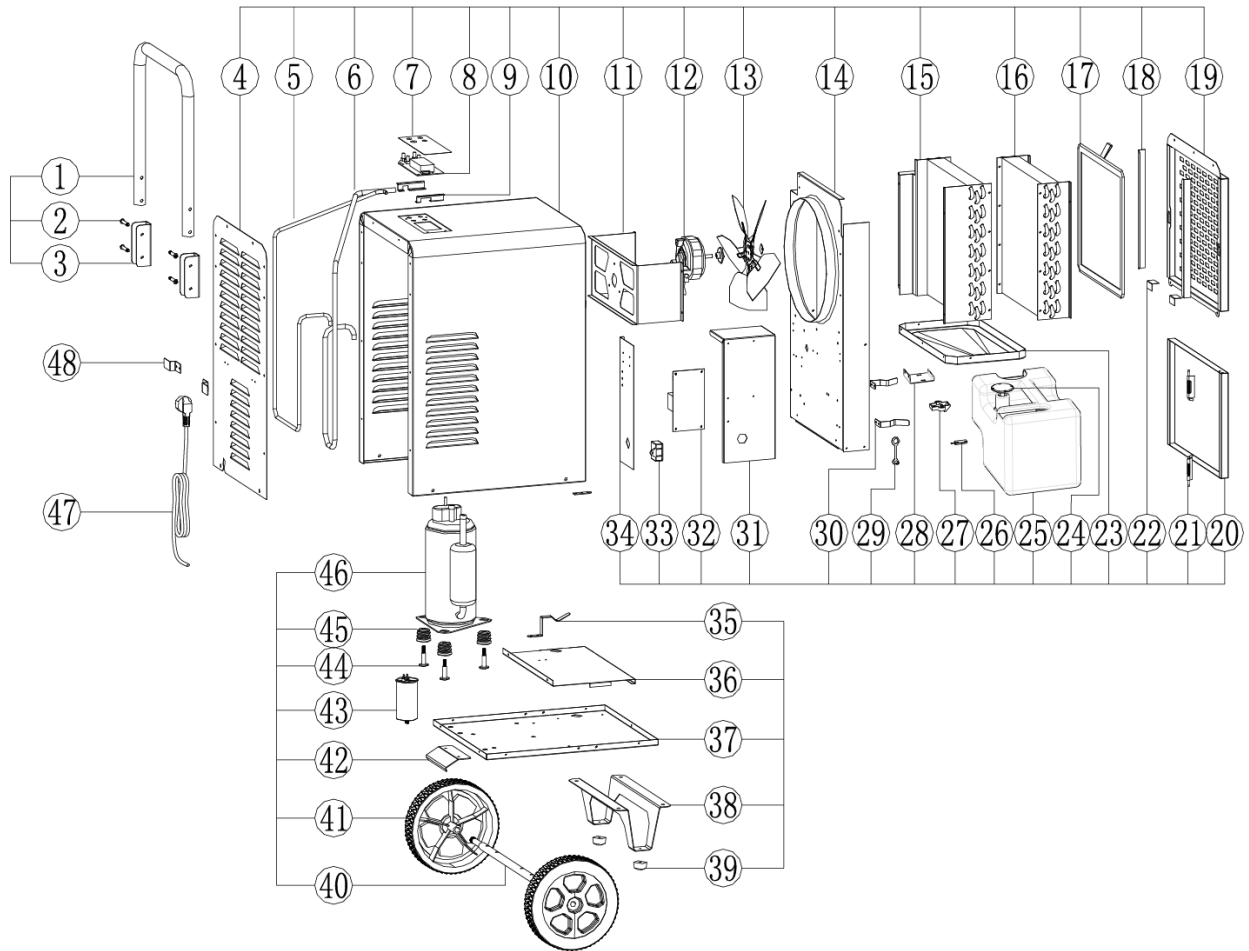
### Technical data

Parameter	Value
<b>Model</b>	<b>TTK 166 ECO</b>
Dehumidifying capacity max.	52 l / 24 h
Dehumidification performance @ 30 °C and 80 % RH	50 l / 24 h
Air flow rate	300 m <sup>3</sup> /h
Operating range (temperature)	5 °C to 35 °C
Operating range (relative humidity)	10 % to 95 % RH
Max. permissible pressure	2.5 MPa
Pressure suction side	1 MPa
Pressure outlet side	2.5 MPa
Mains connection	1/N/PE ~ 220–240 V / 50 Hz
Power input	0.9 kW
Nominal current	4 A
Fusing 	2 A (slow-blowing)
Type of protection	IP22
Refrigerant	R290
Amount of refrigerant	200 g
GWP factor	3
CO <sub>2</sub> equivalent	0.0006 t
Water tank	7 l
Sound pressure level (distance of 1 m)	56 dB (A)
Dimensions (length x width x height)	480 x 450 x 655 mm
Minimum distance to walls and other objects	A: top: 50 cm B: rear: 50 cm C: side: 50 cm D: front: 100 cm
Weight	30 kg

Wiring diagram



## Overview of spare parts



No.	Spare Part	No.	Spare Part	No.	Spare Part
1	The Steel Pipe (Ø25*1.0mm)	17	Filter	33	Capacitance (25µF/450VAC)
2	Phillips Screw (M6*35)	18	After The Shell Bracket (SPCC)	34	Electric Control Box of The Side Panel (SGCC)
3	Steel Pipe Fixed Frame (SPCC)	19	Back Cover (SPCC)	35	The Tank Right Holder (SGCC)
4	Front Shell (SPCC)	20	The Tank Panel (SPCC)	36	Radiator Support Plate (SPCC)
5	High-Voltage 1 Tube (Copper Parts)	21	Fixed Bolt	37	Floor (SPCC)
6	Low Pressure Pipe (Copper Parts)	22	Shell After Stent (SPCC)	38	Foot (SPCC)
7	Control The Face (PET)	23	Water Box (SPCC)	39	Foot Pad (NBR)
8	Display Panel (220V 50Hz)	24	Water Level Switch	40	The Foot Wheel (Ø16*462mm)
9	Around The Fixed Frame (SPCC)	25	The Water Tank	41	Plastic Heart Castor (Ø197mm/PP+PTR)
10	The Shell (SPCC)	26	Magnetic Switch	42	The Pedals
11	The Motor Bracket (SGCC)	27	Switch Support	43	Compressor Capacitance (25µF/450V AC)
12	Thanks To The Motor (220V/50Hz/2P)	28	Switch Mounting Frame	44	Pump Bolt (M8*40)
13	Aluminum Blades (Ø250mm)	29	Water Plug (Rubber)	45	Compressor Mat (Rubber)
14	The Partition (SGCC)	30	The Tank Left Bracket (SGCC)	46	The Compressor (220-240V/50Hz)
15	Condenser (Aluminum foil)	31	Electric Control Box (SGCC)	47	Power Line (10A 3*1.0mm <sup>2</sup> )
16	Evaporator (Aluminum foil)	32	Power Strip (220V 50Hz)	48	Reel (SPCC)

## 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. 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.

Have the refrigerant (propane) disposed of appropriately and according to the national regulations by a company with the relevant certification (European Waste Catalogue 160504).

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.

### Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (2013/3113) power tools that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

## 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 166 ECO

**Product type:** dehumidifier

**Year of manufacture as of:** 2022

### Relevant EU directives:

- 2011/65/EU: 01/07/2011
- 2012/19/EU: 24/07/2012
- 2014/30/EU: 29/03/2014

### Applied harmonised standards:

- EN 55014-1:2017/A11:2020
- EN 60335-2-40:2003
- 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
- EN 61000-3-3:2013

### Applied national standards and technical specifications:

- EN 55014-2:2015
- EN IEC 61000-3-2:2019
- EN 61000-3-3:2013/A1:2019
- EN 60335-1:2012/A1:2019
- EN 60335-1:2012/A2:2019
- EN 60335-1:2012/A14:2019
- EN 62233:2008

### Manufacturer and name of the authorised representative of the technical documentation:

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Place and date of issue:

Heinsberg, 01.03.2022



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