

Instruction manual

Wiltec Pressure Pond Filter

6.000 / UVC 11 W (CPF-180)

11.000 / UVC 11 W (CPF-250)

30.000 / UVC 18 W (CPF-15000)

ARTICLE 50123, 50105, 50121



Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!

Due to further developments, illustrations, functioning steps and technical data can differ insignificantly.

Updating the documentation

If you have suggestions for improvement or have found any irregularities please contact us.

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Although Wiltec Wildanger Technik GmbH has made every effort to make sure that this user manual is complete, accurate and updated, errors cannot always be avoided. In the event of problems with this user manual please complete and send this form back to us.

FAX-notification (+49 2403 55592-15),

from: _____

Name: _____

Firm: _____

Tel/Fax: _____

I would like to report the following mistakes:

Customer Service Wiltec Wildanger Technik GmbH
e-mail: **service@wiltec.info**
Tel:++ +49 2403 55592-0

Introduction

Thank you for purchasing this quality product. **To minimize the risk of injury by means of fire or electric shock we urge that our clients take some basic safety precautions when using this device. Please read the operation instructions carefully and make sure you have understood its content.**

Always use a grounded power connection with the appropriate mains voltage. You can find the corresponding mains voltage on the type plate. If you have any doubts about the connection being grounded, have it checked by a qualified professional. Never use a faulty electric cable.

Do not inspect the electrical part of the pressure pond filter in a wet or damp environment or when you are wet yourself and protect it from direct sunlight. Install this device in a safe location so that nobody can step on the cable, fall over or damage it. Make sure additionally you provide sufficient cooling through the ambient air and avoid heat accumulation. Disconnect the power plug before cleaning it and use only a damp cloth for cleaning.

The electric part of the device contains no parts that can be inspected or serviced by the user. Leave the maintenance, adjustment and repair to qualified technical personnel. In case of unauthorised intervention the 2-year warranty is no longer valid! Keep these operation instructions safe.

Delivery content

1x pressure filter with a built-in UVC
2x stepped hose tails (up to 1½ inch) transparent
1x stepped hose tails (up to 1½ inch) black
1x stepped hose tails (up to 1½ inch) with thread, black
4x connection pieces (1½ inch)
1x glass sealing cap
4x sealing rings
1x instructions manual

The delivery content can vary slightly depending on the model
Filter material (model dependent on bio balls and filter materials)

Safety guideline



BEWARE:

The use of this device is allowed on standing bodies of water, garden ponds' water or swimming ponds and their surrounding areas only with fault current protection-switch with a triggering nominal current up to 30mA (according to VDE 0100 article 702 and 738).

The device is not suitable for use in swimming pools, paddling pools and other bodies of water in which during operation people or animals linger. The operation of the device during the stay of people and animals in the danger zone is not allowed. Ask your electrician.

The device is not intended for use by persons (including children) with impaired or limited physical, sensory and mental abilities or lack of experience and/or real knowledge, unless they are supervised by a person responsible for their safety or you follow the instructions made by this person how to use the device correctly.

Children should be supervised to make sure that they do not play with the device.



ATTENTION:

- Run a visual inspection of the device before every use. Do not use the device if the safety appliances are damaged or worn out. Never override safety regulations.
- Use the device exclusively according to the intended purpose stated in the instructions for use.
- You are responsible for the safety of the working environment.

- If the cable or the plug is damaged due to external influences the cable must not be repaired! It has to be replaced with a new one. This work can be carried out only by an electrician.
- The voltage indicated on the type plate of the device of 230 Volt alternating voltage has to correspond to the existent mains voltage.
- Never lift, carry or fixate the device by using the power cable.
- Make sure that the electrical plug connection is placed in a flood-proof area and is protected from moisture.
- Before working on the pond filter disconnect the appliance by taking the plug out of the socket.
- Avoid exposing the appliance to a direct water jet or rain.
- The user is responsible for the compliance with location specific safety and installing regulations. (Ask an electrician).
- Consequential damage arising from flooded rooms caused by disfunctions of the appliance must be avoided by means of the appropriate measures. (installing an alarm system, reserve pump).
- In case of malfunction the repair work can be carried out only by a qualified electrician or the WilTec-service.
- The appliance must not run dry or with a completely closed intake port. The manufacturer's warranty is no longer valid if the damage is caused by dry running.
- The appliance must not be used for swimming pools.
- The appliance must not be used for drinking water circuits.
- The device has to be installed out of water.
- The distance from device to the pond has to be at least 2m.
- You have to make sure that the filter cannot fall into the water.
- You have to make sure that the filter is not exposed directly to sunlight.
- The pond pressure filter has to be horizontally fixed with screws on a suitable mounting place.
- The universal-hose stepped tails can be shortened according to the hose diameter if necessary.
- Attach hoses and hose clamps.
- Although the ultraviolet radiation is the lowest of the ionizing radiation it can be dangerous for people and other organisms as well. Also UV-radiation with longer wavelengths can destroy the chemical bonds of the organic molecules. Therefore a responsible approach is necessary when dealing with technical UV-sources.
- Operate the tubes only if the housing is closed and not cracked.



WARNING:

Read carefully all the safety guidelines and the instructions.

Non-compliance with the safety rules and regulations can lead to an electric shock, fire and/or serious injury. Keep the instructions and the safety guidelines in a safe place in case you need them in the future.

Stability

The max. temperature of the conveyed liquid should not exceed +35°C in permanent operation.

The conveyance of flammable, gassing or explosive fluids is forbidden. This pump cannot be used for other fluids particularly not for motor fuels, cleaning agents or other chemical products.

Electrical connection

- The electrical connection takes place via an electric safety socket 230 V ~ 50 Hz. Fuse protection at least 10 Amperes.
- The appliance is turned on/off by means of the ON-/OFF-switch.



Warning

1. The UVC-Filter should be placed in such a way so that the water cannot reach it. The distance between the pond's edge and the filter should reach at least 2m. The UV lamp cannot be operated under water.
2. The power supply of the UVC-Filters must not be turned on before the water circulation has been carried out.
3. Please position the UVC-Filter on a safe and stable place because the light tube (the tube that conveys the light) of the pond filter is made of quartz glass that can burn easily.
4. Do not turn the power on before all the component parts of the device are installed.
5. If the quartz glass tube or the upper part of the UVC-Filter is damaged, the pond pressure filter cannot be used.
6. The UVC-Filter can also not be used if there are people in the pond water.
7. Make sure that the used voltage and the frequency correspond to those indicated on the filter label.
8. When the device is installed you have to pay attention to the domestic installation rules.
9. Please do not pull on the connecting cord. Keep it away from heat, grease and sharp objects.
10. Make sure the upper part of the filter is exposed to pressure lower than 0,3 bar.
11. In frosty weather please remove the UV-Filter.
12. When you install the UV-Filter do not expose it to direct sunlight.
13. Dirt influences the efficiency of the quartz glass tube; therefore it needs to be regularly cleaned.
14. To secure the proper functioning of the device the UV-quartz tube should be replaced after 8000 operating hours.
15. If the upper part is blocked by sand, the quartz tube can be destroyed. Please place the filter sponge in the inlet of the water pump.
16. UV-light is harmful for the eyes and skin. Do not look directly into the UV-light and do not expose your skin to it.
17. If you install the device or repair it, switch off the power supply of the lamp and the pump.
18. The device must be installed on a horizontal flat surface with the feet downwards. For safety reasons it is not allowed to install the device otherwise.

Application area / Functioning

This UVC-device ensures clear water for healthy fish. The water is conveyed by a pump through the UVC-device. There it flows past the UV-lamp and is exposed to UVC-radiation. This way the bacteria, germs and floating algae in the water are destroyed and the water becomes clear.

To achieve an optimal result the device should be operated 24 hours in the frost-free seasons.

Commissioning

Switch on the pump and wait until the device is filled with water. Check if all connections are well sealed. By plugging in the power cable the device you put the device into operation.

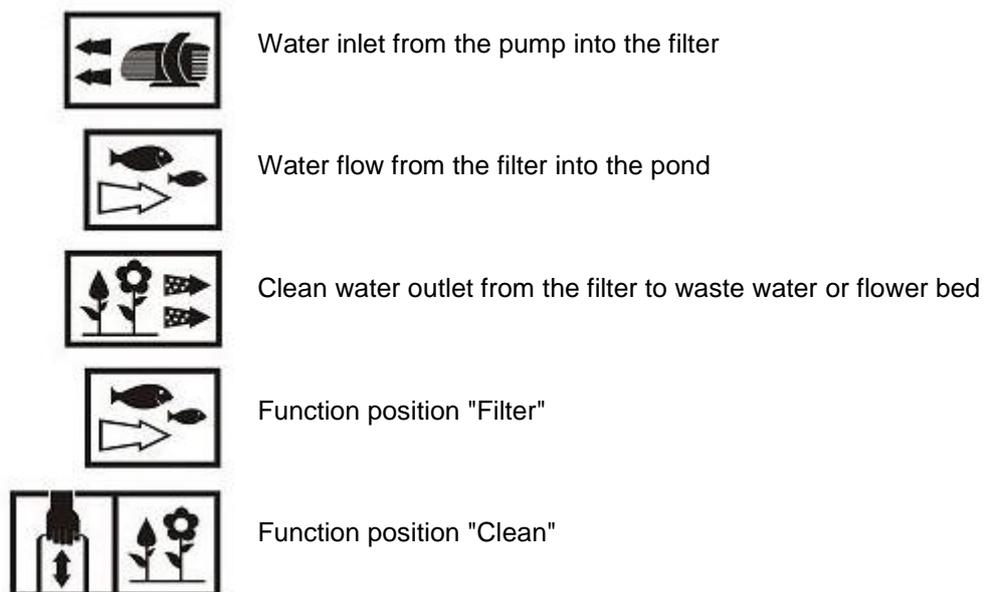
Technical data

Model	Watt	Volt	Liter/h	Input/Output
CPF-180	11	230V/50Hz	6 000	38/38/40mm
CPF-250	11	230V/50Hz	11 000	38/38/50mm
CPF-15000	18	230/50Hz	30 000	38/38/73mm

Safety

- This device dangerous radiation. Direct contact to skin and eyes may is harmful and must be avoided.
- If the pond filter is damaged it must not be operated.
- When no water is conveyed the device must be switched off.
- By frosty weather the device must be removed and kept dry in a place free of frost.

Description



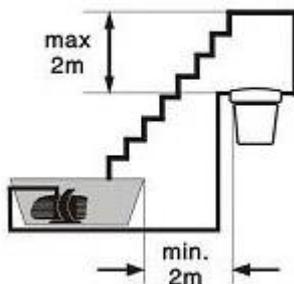
The Wiltec pressure filter is an ideal filter system for your garden pond. The filter has more advantages

- ◇ high cleaning capacity
- ◇ combine mechanical and biological (Model dependent) filtering
- ◇ performant filter material
- ◇ Built-in UVC-unit and dirt indicator
- ◇ remains waterproof also by high pressure
- ◇ water delivery 3 m height (dependent on pump output which is connected)
- ◇ easy installation and maintenance of the filter

Function of the Wiltec Pond filters

The Wiltec pond filter purifies the water in 3 phases

1. The first stage is mechanic. The visible particles of dirt, from coarse to fine are removed by means of a 3-layer filter foam
2. The second stage is biologic. With the help of the so-called bio balls (model dependent) the settling of bio-organisms is stimulated. These bio-organisms remove the organic components from the pond water. (Dependent on model)
3. The third stage comprises a UVC-water treatment. The UV-light destroys swimming algae and germs. The result is healthy water.

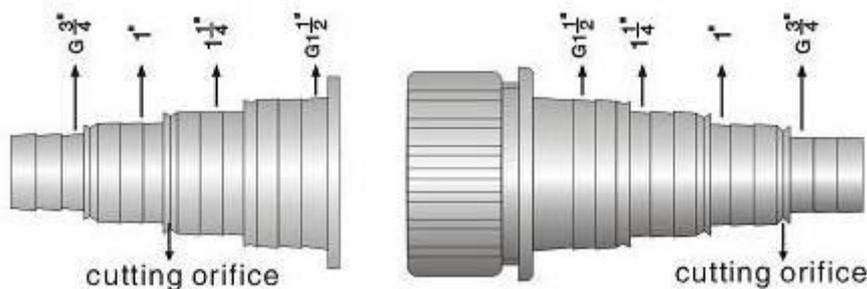


Commissioning

The pressure filter should be placed at least at a 2-meter distance from the pond edge. The water outlet back to pond should be placed max. 2 m over the filter cover (0,2 bar Water pressure!).

The pump must be started first. The UVC-Lamp must not be operated as long as no water flows through it. Do not use the UVC-lamp if the lamp or the connections shows damage signs. Do not use the UVC-filter, if there are people in the water. The built-in temperature sensor of the UV-Filter stops the UVC-Lamp. After the cooling, it is automatically started.

The Wiltec filter is delivered with all the necessary filter mats. Wash the filter mats with pond water carefully before using. The bio balls (dependent on model) are placed at the bottom in the filter, above comes the grating with the protective tube for the UVC unit. Put the filter foam layers on it, arranged from fine to coarse. Position the cover lid on and close the filter with the supplied cramping bracket. If properly installed the filter is waterproof up to a 0,5 bar working pressure. The power supply has to be equipped with an earth leakage circuit breaker that does not exceed 30 mA.



Cutting orifice = Schneidkerben
Install the stepped hose tails:

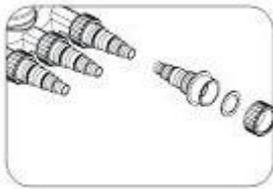
Place the coupling rings around the black hose tails, insert the flat gaskets in the coupling ring and screw it on the water inlet and outflow connection. Screw the hose tails with the flat gaskets on the device.

Connection to the water inlet

The pump is connected to the hose tail whose arrow is directed towards the filter. Use a hose diameter which is exactly the same as the diameter of the pump outlet. Saw off the diameter-hose steps that you do not need.

Connection to the water outlet:

The hose tail with the arrow showing away from filter is the outflow towards the pond. Connect a suitable hose to the large diameter step of the hose tail and saw off the other diameter- hose steps. Use hose clamps prevent the loosening of the hoses.



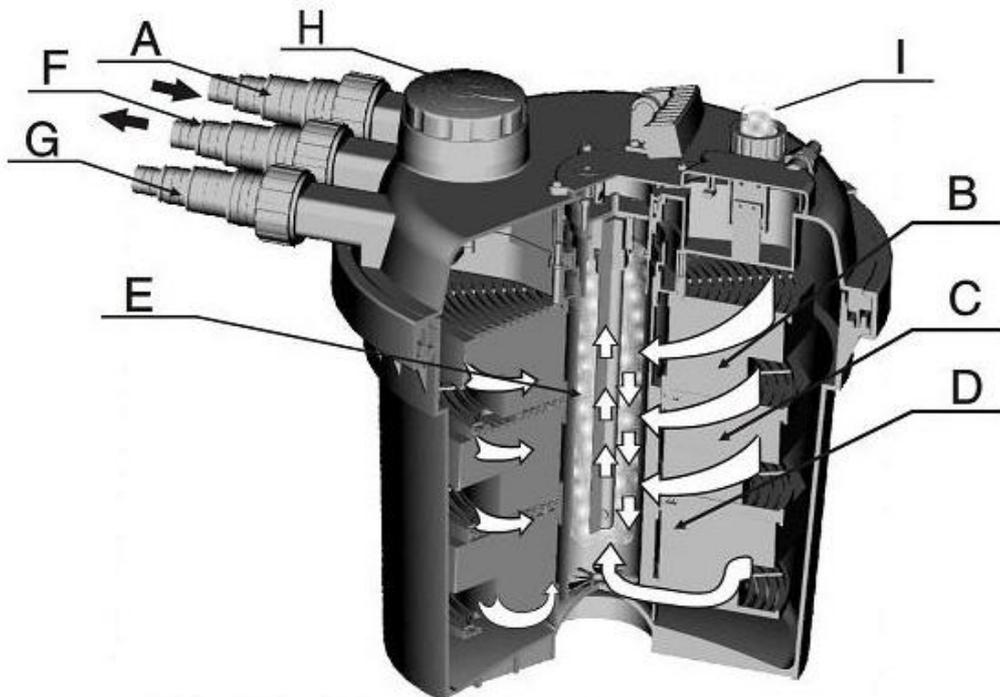
Connection to the cleaning outlet:

To install a permanent drain hose to the cleaning connection (Clean), you have to unscrew/remove the stepped tail to the cleaning connection (Clean), install the third stepped hose tail and connect a suitable hose. In the filter operation the cleaning connection or a connected drain hose must be always closed and sealed with a hose tail (closure cap) and gasket seal, as safety, in case the function switch is accidentally set on „Clean“.

Attention! Do not operate the device without water flow or pump filter!

The operating principle of the pressure filter.

The pressure filter with the integrated UV lamp is a sealed filter system for biological and mechanical cleaning of pond water.



- A: Water inlet
The pump is connected to the water inlet via a pressure hose.
- B: Strudel-System
The water permeates through the bio -filter materials due to the centrifugal and the gravitational forces.
- C: Mechanical Filter
Dirt particles are retained on the surface of the sponge filter before the water flows towards the inner of the Filter.
- D: Biological cleaning
Micro organisms settle on the pores of the filter sponge. The blue and the yellow filter sponge differ in size and density. This generates zones/areas through which the water flows at different speeds. In the zones/areas with a high flow speed (blue filter) mainly micro organisms settle that convert ammonium to nitrate. In the areas in which the water flows even faster (yellow filter), mainly anaerobic micro organisms accumulate themselves that reduce the nitrate to nitrogen.
- E: Pre-cleaning of the pond water.
When the water flows out, it is shortly exposed to UV radiation of the UV lamp. As a result, germs, bacteria, algae are destroyed. The water circulates when flowing through the filter from inside outwards.
- F: Water discharge with flow display
The cleaned water flows back into the pond.
- G: Hose tails for rinsing water when on cleaning.
- H: The function-switch changes between "filtration" und "clean filter"
- I: Flow indicator
The filter system has to remain switched on for 24 hours a day.
The UV-lamp should be changed after 8.000 operating hours so that the device can work effectively and efficiently. The filter system must be cleaned regularly.

Connecting the pump:

On the filter cover/lid there are three connections equipped with hose tails. The pump is connected to the first hose tail. Use a hose diameter that is the same with the diameter of the pump outlet. Saw off the diameter-hose steps that you do not need.

The hose tail in the middle of the filter cover/lid is the outflow to the pump. Connect to the large diameter of the tail a suitable hose and cut away the rest of the tail diameter. To avoid the loosening of the hoses please use hose clamps.

Never use the filter with a built-in UVC-unit with a water pressure higher than 0,2 bar! The height difference between the filter lid and the pressure-free outflow point of the supply line can amount to max. 2 meter. The pressure of the water pumped to the filter cannot exceed 0,5 bar. Use the filter only with hoses that can withstand at least a pressure of 0,2 bar, the max. pressure of the pump.

Make sure that outflow /discharge in the pond is positioned on a clean place. If the outflow is blocked a higher pressure may result. Higher pressure can lead to leaking spots in the filter and therefore to a complete emptying of the pump.

When the filter is used in „filter-modes“, the user should be careful and make sure that all seals are properly installed in order to avoid the emptying of the pond. The sealing cap functions simultaneously as safety measure in „Clean“-mode. Make sure that filter always operates in the „filter-mode“ as long as the pump is running. The filter should be set on „Clean“, if the filter sponges are cleaned. Before you start the filter, check and make sure that all hoses and seals are correctly fastened. Filter only water and no other fluids. By frost the filter has to be removed. Do not expose the filter to the direct sun light.

After the filter has been placed on the right place and the pump has been connected the integrated UV-unit can be switched on.

The UV-unit:

The Wiltec Filter is delivered with all the equipment you need and an integrated UV-unit. The UV-PL lamps have ca. 8000 working hours that correspond to a season period of use from March till November. The UV-lamps can be replaced by loosening the screws from the spherical upper part of the cover lid.

It is recommended to change the UV-lamp with a new one at the beginning of the season. The UV-lamp clears as the green water and destroys germs. The Wiltec filters have a separate chamber, through which UVC-rays are not exposed to contact with the filter media. Because of this the micro organisms in the filter material are not damaged.

Maintenance / Cleaning/Adjustment Possibilities (setting options)



- A = Pump connection
- B = Return pond (backflow)
- B1 = Setting – filter operation
- C = Watering connection
- D = Setting - cleaning
- E = Switch / cleaning mechanism

Filter operation: bring the rotating switch **E** into position **B1**. With the help of a pump, the water is led to the filter through the connection **A**, here it is cleaned and via connection **B** discharged back into the pond.

Cleaning operation: bring the switch **E** into position **D**. This setting enables the cleaning mechanism, by pressing down the setting switch **E**. By means of this pressure, the sponges inside the filter are squeezed. By using this switch setting the dirty water is not led back into the pump but it is discharged via connection **C** and it can be used for garden watering.

The pond filter with the article number 50121 (CPF-15000) has a fast cleaning function that can be activated with the aid of the hand crank. Instead of the setting switch (press button), described above turn the crank handle so long (like by a salad spinner) until the filter sponges have lost enough dirt.

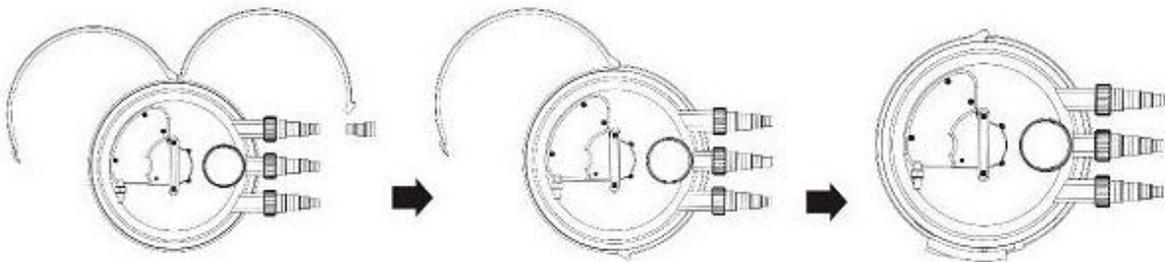
The filter materials as well as the lamp should be replaced 1 x year to ensure a problem-free operation of the filter.

When the filter is used for normal operation, "the watering- connection" (C) with the screwed ring + sealing and the viewing glass (included in the delivery) should be closed to avoid leaking. The pressure filter model 50121 (CPF-15000) has a stepped hose tail with integrated ball valve to close the connection.

Before every commissioning of the filter the user should check if sealings and connections are fitted correctly. Pressure pond filters are exclusively designed for filtering pond water with typical impurities. Do not expose the filter to the direct sun light over a longer period.

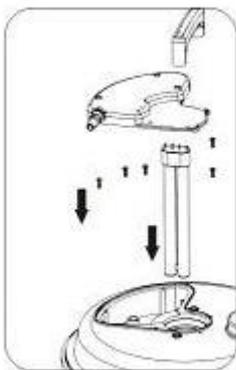
By frost the filter has to be completely emptied, if necessary dug out and stored in a dry, frost-free place.

After work that requires the removal of the lid, please make sure when attaching the cover lid that the sealing rings are fitted correctly! Fit the clamp ring around the lid, press on the cover lid and close the sealing clam.



Changing the light tube

If the algae proliferate, it is necessary to check the correct the functioning of the UV-C lamp. You recognise on the UV-indicator if the lamp lights at all. Change it every season.



Before changing the UV-Lamp disconnect the pump. Release the 8 screws of the UV-unit from the filter lid. Carefully remove the UV-lamp. After the UV-unit has been cooled down and dried up grab the base of the light tube (not the glass!) with a soft cloth and pull it cautiously out of its socket. Grab the base of the new light tube with a soft cloth and delicately insert it in the socket. Now the quartz glass inside which the light bulb is placed must be cleaned. For this purpose the lime has to be dissolved under heating with appropriate agents (coffee machine or kettle descaler like citric acid). After this rinse the quartz glass from residues remaining from the cleaning agents. After rinsing all parts are reassembled in reverse order. The pump and the device are connected again to the power supply.

The wear parts (Filter materials, light tubes, quartz sleeves, seals) are usually by **WilTec Wildanger Technik GmbH** www.wiltec.info in stock available.

CPF-15000

By this model the four screws on the cover lid of the filter have to be loosened in order to remove/replace the UV-unit.



WARNING:

- For all maintenance work the UVC has to be disconnected from the power supply!
- The filter can be put into operation only if the UVC is FULLY assembled!
- Never tinker with the running UVC lamp!
- The UVC must NOT be carried by the cable!
- Always place the UVC outside the pond (not in the water)!
- Remove the UVC by frosty weather!

Warranty information

The warranty of the filter amounts to 24 months starting with the date of purchase (proof of purchase). The wearing parts (light tubes, quartz sleeves, seals) are not covered by the warranty. Damage that result from non-compliance with the operation instructions, transportation, incorrect positioning, carelessness or incorrect use are not covered by warranty. For consequential damages resulting from the use of this device, no liability is assumed.

Disposal regulations

EU guidelines regarding the disposal of scrap electric appliances (WEEE, 2002/96/EC) were implemented in the law related to electrical and electronic equipment and appliances.

All Wiltec electric devices that fall under the WEEE regulations are labelled with the crossed-out wheeled waste bin logo. This logo indicates that this electric equipment must not be disposed with the domestic waste.

The company Wiltec Technik GmbH has been registered in the German registry EAR under the WEEE-registration number **DE45283704**.

Disposal of used electrical and electronic appliances (intended for use in the countries of the European Union and other European countries with a separate collection system for these appliances).

The logo on the article or on its packaging points out that this article must not be treated as normal household waste but must be disposed to a recycling collection point for electronic and electrical waste equipment. By contributing to the correct disposal of this article you protect the environment and the health of your fellow men. Environment and health are threatened by inappropriate disposal.



Materials' recycling helps reduce the consumption of raw materials.

Additional information on recycling this article can be provided by your local community, municipal waste disposal facilities or the store where you purchased the article.

Address:
WilTec Wildanger Technik GmbH
Königsbenden 12 / 28
D-52249 Eschweiler

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