



EXTERNAL AQUARIUM FILTER/PUMP

USER MANUAL

**RETAIN THIS MANUAL FOR FUTURE REFERENCE
PLEASE READ THIS MANUAL CAREFULLY BEFORE USE**

TABLE OF CONTENTS

INSTRUCTION FOR USE	1
SYMBOLS	2
UNPACKING	3
IN THE BOX	4
PRODUCT SPECIFICATIONS	5
APPROPRIATE USE	6
SAFETY GUIDELINES	7
HOW IT WORKS	9
DEFINITION OF CLEAR WATER	11
ASSEMBLY INSTRUCTIONS	12
Pressure Loss due to Height Difference	12
Installing and Connecting the Pressure Filter.....	12
Connecting the Hoses	13
Connecting the Water Inlet	13
Starting the Pressure Filter	13
CLEANING AND MAINTAINING THE FILTER	14
Washing the Filter Sponges.....	14
Replacing the UVC Lamp	16
TROUBLESHOOTING	17

INSTRUCTION FOR USE

Use these instructions to familiarise yourself with the device before you use it for the first time. It is imperative that you observe the safety guidelines on the proper and safe use of this device.

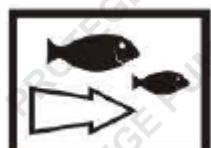
For safety reasons, children and young people under 16 years of age, as well as people who cannot recognize potential hazards or who are not familiar with these instructions must not use the device.

Please keep these instructions in a safe place! In the event of a change of ownership, please pass these instructions on to the new owner along with the product.

SYMBOLS



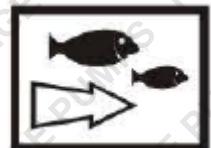
WATER INLET FROM THE PUMP INTO THE FILTER.



WATER OUTLET FROM THE FILTER INTO THE POND.



CLEANING OUTLET FROM THE FILTER INTO THE SEWERAGE SYSTEM OR ONTO A FLOWER BED, FOR EXAMPLE.



FUNCTION SWITCH SETTING "FILTER."



FUNCTION SWITCH SETTING "CLEAN."

UNPACKING

When unpacking, if external damage is visible, which could impact the functioning of important parts of the equipment, please inform the carrier of the defects immediately, on the same day if possible, and insist on the facts being recorded in writing. Then contact your supplier who will take care of everything else.

EXTERNAL AQUARIUM FILTER/PUMP

IN THE BOX

- 1X** PBF pressure filter with integrated UVC
- 1X** Spiral stepped hose adapter 1 ½" transparent
- 2X** Spiral stepped hose adapter 1 ½" black
- 1X** Spiral stepped hose adapter 1 ½" threaded, black
- 4X** Union nuts 1 ½"
- 1X** Glass seal cover
- 4X** Flat seal

PRODUCT SPECIFICATIONS

VOLTAGE	220 – 240V
FREQUENCY	50Hz
UVC POWER	11w
FILTER VOLUME	20L
FLOW RATE	10,000L/h
OUTLET / INLET HOSE ADAPTOR	¾", 1", 1 – ¼", 1 – ½"
STRAINER SURFACE	40 square meter
SUITABLE FOR POND WITH FISH	10 cubic meter
SUITABLE FOR DECORATIVE POND	30 cubic meter
DIMENSIONS (L X W X H)	420 x 450 x 560mm
GROSS WEIGHT	8kg

SHOULD THE FILTER NOT HAVE ACCESS TO POWER, THE MECHANICAL AND BIOLOGICAL FILTRATION SYSTEMS WILL STILL FUNCTION PERFECTLY. A STANDARD POWER POINT IS REQUIRED HOWEVER FOR THE UV LAMP TO FUNCTION.

APPROPRIATE USE

The pressure filter with integrated UVC is a sealed pressure filter system for biological and mechanical filtering of normal pond water, with a temperature of +4°C to 35°C. This pressure filter is exclusively intended for private use for cleaning garden ponds with or without pond fishes.

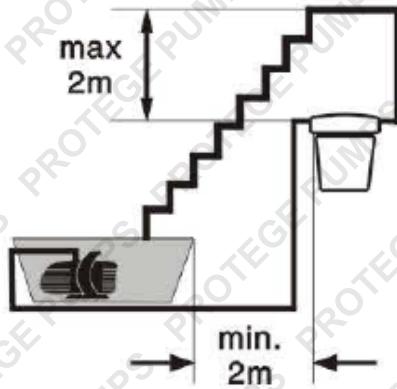


SAFETY GUIDELINES

- **DANGEROUS ULTRAVIOLET RADIATION. THE RAYS FROM THE UVC LAMP ARE HARMFUL TO YOUR EYES AND SKIN!** Never operate the lamp of the UVC outside the casing!
- The pressure filter with UVC should be placed at least 2 meters from the edge of the pond in order to prevent it falling into the pond.
- Before running the UVC filter, the pump should be turned on first. The UVC lamp must not be operated without water flowing through it.
- Do not use the UVC pressure filter if the connecting lead, UVC lamp or casing appear to be defective.
- Do not use the UVC filter when there are people in the water.
- The built-in temperature monitor in the UVC filter automatically switches off the UVC lamp if it overheats. After it has cooled down, the UVC lamp is automatically switched back on again.
- Never open the casing of the UVC or its accessories unless expressly directed to do so in the instructions.
- The electrical data of the supply grid must correspond to the data on the type of label.
- Make sure that the UVC filter is equipped with a measured fault current not greater than 30mA via a fault current protection switch (FI or RCD).
- Always disconnect the plugs of the UVC filter and of all devices that are in the water before you carry out any work on the filter.
- For your own safety, contact an electrician if you have any questions or problems regarding the electrical connection.
- **NEVER IMMERSE THE DEVICE IN WATER!**
- Never use the installers, adapters, extension or connecting cables without a safety contact.
- Mains power cables must have a cross-section not less than that of a rubber hose line with the code H05RNF.
- Electrical installations near garden ponds and swimming pools must comply with international and national installation guidelines.
- Keep the connecting points dry.
- **DO NOT CARRY OR PULL THE FILTER BY ITS CONNECTING LEAD!** Protect the connecting lead from heat, oil and sharp edges.
- Lay the hoses and connecting lead in such a way that they are not an obstacle and do not become damaged.
- **NEVER OPERATE THE UVC FILTER WITH A WATER PRESSURE GREATER THAN 0.2BAR (2MWH)!** The height difference between the filter lid and the pressure-free outlet point can

EXTERNAL AQUARIUM FILTER/PUMP

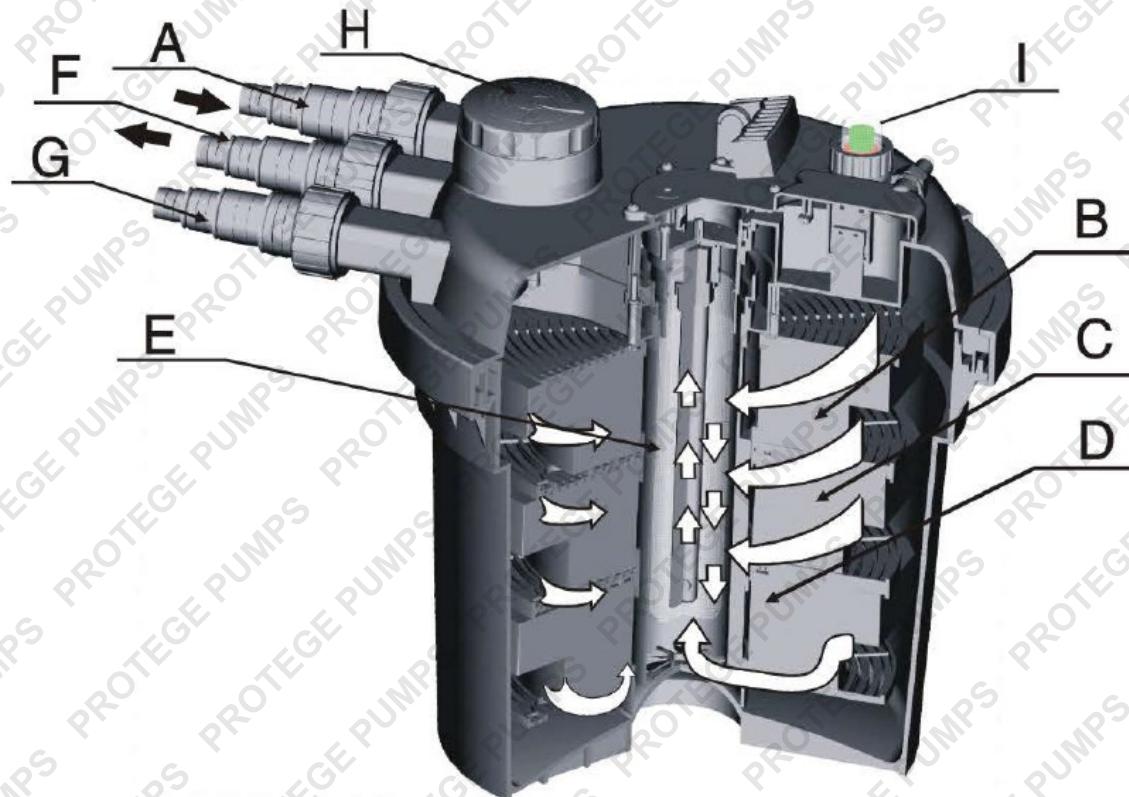
therefore be 2 meters max. The maximum delivery of the pump being used must not exceed 0.5 bar (5mwh).



- Operate the filter only with pressure hoses that are approved for at least 0.2bar, i.e. the maximum pressure of the pump.
- Check and clean the water outlet to the pond on a regular basis. The outlet should always be clear, as any blockage would result in the filter being operated at a pressure greater than 0.2bar. This in turn would lead to the risk of leaking and therefore of the pond emptying completely.
- When the filter is being used in "filter" mode, the cleaning connection or any drainage hose connected to it must always be sealed with the sealing cap and inserted flat seal in order to prevent the pond from emptying. At the same time, the sealing cap acts as a safeguard in case the function switch is accidentally set to "clean" mode.
- Make sure that the function switch is always set to "filter" mode when the pump is in operation. The function switch may only be set to "clean" mode when cleaning the filter sponges with the handle function.
- Before starting up the filter, check that the connected hoses, the sealing cap and the tension ring with safety latch are sitting correctly.
- Never filter any liquids other than water.
- If it is a frosty day, you must remove the filter.
- Install the filter where it will not be exposed to direct sunlight.

HOW IT WORKS

THE PRESSURE FILTER WITH INTEGRATED UVC IS A SEALED FILTER SYSTEM FOR THE BIOLOGICAL AND MECHANICAL CLEANING OF POND WATER.



A WATER INLET

The pump is connected to the water inlet with a pressure hose.

B VORTEX SYSTEM

Suspended matter and bio-sludge are precipitated by the centrifugal effect and gravity.

C MECHANICAL FILTER

Dirt particles are trapped by the outer surface of the filter sponges before the water flows the entire height of the filter from the edge into the inner chamber of the filter.

D BIOLOGICAL CLARIFIER

These are pores of the filter sponges from a large inner surface which microorganisms can colonize. The yellow and blue filter sponges differ in size and density. This creates zones in which the water can flow at different speeds. Zones with a high flow speed (blue filter sponges) favour the colonization of microorganisms, which convert ammonium to nitrate via nitridation. Zones with a low flow speed (yellow sponges) support the colonization of anaerobic microorganisms, which reduce nitrate to nitrogen (denitrification).

E POUND WATER PRE-CLARIFIER

As the water flows out, it is briefly exposed to ultraviolet radiation under the UVC lamp. This kills off germs and bacteria and inhibits algae growth. The water subsequently flows from the edge into the filter in a circular fashion.

EXTERNAL AQUARIUM FILTER/PUMP

F WATER OUTLET WITH FLOW INDICATOR

In the water outlet, the clarified water is fed back into the garden pond via pressure hose or a watercourse, etc.

G CLEANING CONNECTOR

When cleaning the filter, a drainage hose can be connected to the cleaning connector, which diverts dirty water into the sewerage system or onto a flower bed.



H FUNCTION SWITCH

The function switch is used to switch between normal water discharge into the pond "filter" and the cleaning connection "clean". Press it to wash the filter sponge.

I TURBIDIMETER

When waste and dirt on the sponge is too much, the turbidimeter's light will switch from green to yellow. It means that the sponge needs to be cleaned.

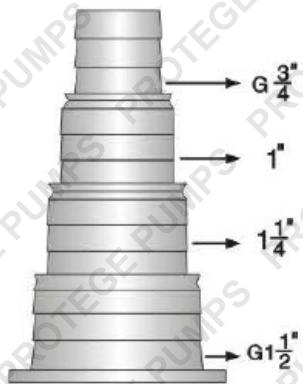
DEFINITION OF CLEAR WATER

- Clear water is achieved if the fishes or stones at the bottom of the pond can be seen at a depth of 1 meter.
- The filter system with integrated UVC must be running permanently, 24 hours a day.
- The UVC lamp must be replaced after 8,000 hours of use in order to ensure that the UVC filter continues to operate with optimum efficiency.
- The filter system must be cleaned regularly.

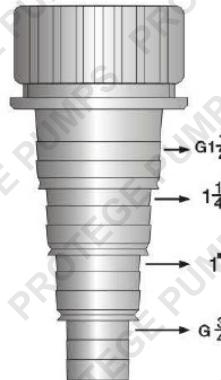
ASSEMBLY INSTRUCTIONS

PRESSURE LOSS DUE TO HEIGHT DIFFERENCE

- The pump allows for a maximum height difference of 1 meter between the surface of the water and the highest point of the filtering system. If the height difference is greater than 1 meter, you should use a more powerful pump.



- For hoses that are longer than 4 meters, please always use hoses that correspond to the upper value of the scale.
- In order to avoid pressure loss, cut the spiral stepped hose adapter at the relevant points for each hose.



- Avoid unnecessary corners and bends which contribute to further pressure loss.

INSTALLING AND CONNECTING THE PRESSURE FILTER

Choose a suitable location for the pressure filter. Please note the installation guidelines regarding the clear water guarantee as well as the following guidelines:

- Install the filter so that it is safe from flooding. Secure your filter so that it will not fall into the pond. It should be placed at least 2 meters away from the edge of the pond.
- Place the filter on a firm and level base, e.g. on a slab. The filter can also be buried into the ground up to the lid.
- Please make sure that there is unhindered access to the lid in order to be able to carry out maintenance on the filter, e.g. cleaning the filter sponges.

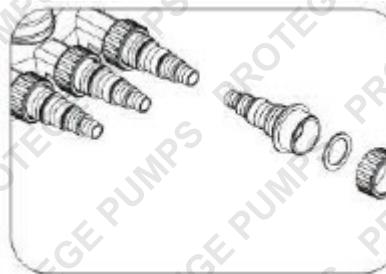
CONNECTING THE HOSES

- Operate the filter only with pressure hoses that are approved for a pressure of 0.2 bar, i.e. the maximum pressure of the pump.
- We recommend warming the hose with hot water first, then pushing it onto the spiral stepped hose adapter and securing it with a hose clip. This makes the connection more watertight.
- To avoid pressure loss, cut the spiral stepped hose adapter at the relevant point to fit each hose.

CONNECTING THE WATER INLET

- Push the union nut onto the black spiral stepped hose adapter. Push/Twist the hose securely with a hose clip. Insert the flat seal into the union nut and screw tight onto the water inlet nozzle.
- We recommend diverting clean water via a small watercourse instead of feeding it directly back into the pond. This enriches the water with additional oxygen.
- Connecting to the cleaning connection: You can have a drainage hose permanently connected to the cleaning connection. This allows you to drain dirty water directly into the sewerage system or onto a flower bed.

STARTING THE PRESSURE FILTER



Before each start-up, you should check that the connected hoses, sealing cap and tension ring with safety latch are sitting correctly. The function switch must be set to the “filter” symbol. It is imperative that you read and follow the safety guidelines before starting-up.

1. Switch on the pump

CAUTION! The UVC lamp must not be operated without water flowing in it.

2. After starting up the pump, check that all the connections are watertight. Improve those that are not.
3. Plug the filter into the mains. The power indicator will turn on with a blue light.

In the case of a new installation, the pressure filter only reaches its full biological cleaning efficiency after a few weeks. Extensive bacterial activity only starts at temperatures of 10°C or above.

CLEANING AND MAINTAINING THE FILTER

The pressure filter is largely maintenance-free. The filter sponges should, however, be cleaned regularly.

Suspended matter and dirt are deposited in the filter sponges over time. These deposits reduce the effectiveness of the filter, so the filter sponges should be cleaned regularly, e.g. every two weeks.

The filter sponges should be cleaned when cloudy or dirty water flows out of the water outlet and back into the pond. When there is too much dirt in the sponge, the turbidimeter's light indicator will turn from green to yellow. It means that the sponge need to be cleaned.

1. Twist off the sealing cap at the cleaning connection or at the drainage hose that is connected to the cleaning connection. There will be a small flow of water.
2. Turn the function switch in a clockwise direction until it clicks into the "clean" position.
3. Press the function switch firmly. This squeezes the filter sponges and cleans them mechanically.
4. As soon as clean water could be seen through the transparent spiral stepped hose adapter at the cleaning connection, turn the function switch in a counter clockwise direction until it clicks back into the "filter" position.
5. Screw the sealing cap with the inserted flat seal tightly onto the cleaning connection or the drainage hose that is connected to the cleaning connection.
6. The filter is now back to full operation. Check the water flowing into the pond.



WASHING THE FILTER SPONGES

If the water flow is too weak due to dirty filter sponges and cannot be improved through cleaning with the handle function, the filter sponges must be washed or replaced.

Please do not use any chemical cleaning agents so as not to kill off the microorganisms in the filter sponges.

1. Disconnect the mains plug of the filter.
2. Switch off the pump and ensure that it cannot be switched on unintentionally.
3. Remove all hoses by unscrewing the union nuts.
4. Open the tension ring to remove it.

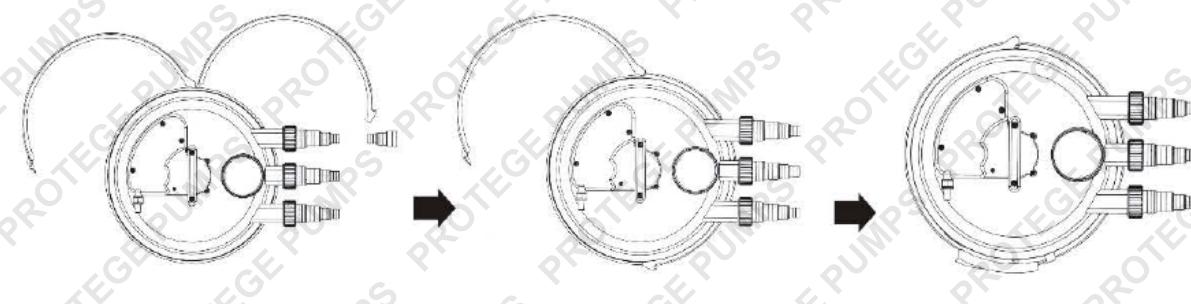


EXTERNAL AQUARIUM FILTER/PUMP

5. Lift the lid off with the filter sponge assembly. Place the lid upside-down on another clean surface. The filter sponges are lying with the filter plate facing up.
 The filter sponges are pre-stressed. The filter sponges can fall apart due to the mechanical strain and due to normal ageing. This can result in the filter short-circuiting.
 To check the filter sponges, the distance between the sponge and the filter pad cannot be more than 5mm,
6. Turn the filter pad with the arrow in the opposite direction to get the filter pad out.
7. Pull the filter sponges off and wash it with clean, flowing water. Then, give the filter sponges a good squeeze.
8. In the same way with steps 6 – 7, pull out the other filter pads and sponges.
9. Clean the filter box, lid with the lattice pipe, filter plates and the tension ring by spraying them with a water hose.
10. Lift the bypass valve slightly and clean the inlet comb of the filter.
11. Clean the lid, sealing ring and the edge of the filter box.
12. Push one filter plate, with the collar facing up, onto the lattice pipe and the cleaning rods.
13. The filter sponges are then pushed in from the casing lid, starting with a large blue filter sponge and always alternating with a small yellow filter sponge. The cleaning rods lie in the two openings of the large chamber of the filter sponges.
14. Put in the filter plate with the collar facing down. Fasten the cleaning rods to the filter plate using the two screws.
15. Place the lid seal onto the upper edge of the filter box (in order for it to easily fit, moisten the seal ring).



16. Press the lid with the filter sponges assembly into the filter box.
17. Place the tension ring onto the edge of the filter box and lid, press down on the lid and put the fastening into place. Push the safety latch in.



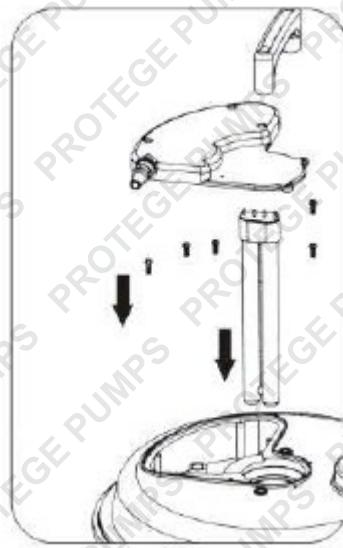
EXTERNAL AQUARIUM FILTER/PUMP

18. Fasten all hoses with flat seals or a flow vane to the corresponding connection by screwing on the union nuts tightly.
19. Turn on the pressure filter again.

REPLACING THE UVC LAMP

The UVC lamp must be replaced after 8,000 hours of operation in order to ensure that the filter continues to operate with optimum efficiency.

1. Unscrew the eight screws of the filter cover and handle. Pull out the lamp from the lid of the filter.
2. Pull out the UVC lamp and replace it.
3. Insert the UVC filter in the lid of the filter and screw in the eight screws.



4. Turn on the pressure filter again.

TROUBLESHOOTING

PROBLEMS	CAUSES	POSSIBLE SOLUTIONS
Water isn't clearing up.	<ul style="list-style-type: none"> ▪ Filter hasn't been used that long yet. ▪ Inappropriate pump capacity; water is extremely dirty. ▪ Fish and/or animal population too large. ▪ Filter sponges and quartz tube are dirty. 	<ul style="list-style-type: none"> ▪ Full effectiveness of biological cleaning is only reached after a few weeks. ▪ Reset pump capacity. ▪ Remove algae and leaves from the pond; change the water. ▪ Guideline: approx. 1kg fish to every 1000 cubic meter of pond water. ▪ Clean the filter sponges. ▪ Remove the UVC filter and clean the quartz tube.
UVC lamp indicator not turning on.	<ul style="list-style-type: none"> ▪ Mains plug of UVC filter not connected. ▪ Defective UVC lamp. ▪ Faulty connection. ▪ Lamp has no UVC output. ▪ Protective tube not fitted properly. ▪ UVC filter overheating. 	<ul style="list-style-type: none"> ▪ Connect the mains plug of the UVC filter. ▪ Replace the UVC lamp. ▪ Check the electrical connection. ▪ The lamp should be replaced after approx. 8,000 hours of operation. ▪ See Replacing the UVC Lamp. ▪ After cooling down, UVC is turned on automatically.
No water is being discharged from the pond inlet.	<ul style="list-style-type: none"> ▪ Function switch set to "clean" mode. ▪ Mains plug of pump not connected. ▪ Pond inlet is blocked. 	<ul style="list-style-type: none"> ▪ Reset the function switch to "filter" mode. ▪ Connect the mains plug of the pump. ▪ Clean the pond inlet.

PARTS THAT WEAR OFF EASILY:

1. UVC lamp, 11 watts
2. Spare filter set (3x yellow sponges, 3x blue sponges).
3. Spare set of seals (outer diameter 60 x 3.1 and outer diameter 346 x 8 O-ring)



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

