elektra
BY ECOFROG

User manual

Version 2.0

O3

SHAKE HANDS WITH THE FUTURE

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Caring for the environment, everyone's responsibility.

The ECOFROG project was created as a solution to meet an increasing demand from our society in recent years: the creation of eco-friendly cleaning systems that are healthy for users. Although according to their nature and definition, cleaning systems should, in principle, be eco-friendly and healthy for humans, the majority of solutions are not. What is more, the majority of these solutions discharge pollutants into our rivers and seas, causing increasingly more important environmental problems in quantitative and qualitative terms. They also cause health problems for users, both families and cleaning professionals.

ECOFROG's exclusive cleaning system, which involves the generation of ozone and its instantaneous mixing with water, the resulting product of which is ozonised water, not only cares for the environment and human health, but also cleans, deodorises, degreases and disinfects.

CHANGE

Welcome to the ECOFROG family!

Today, the ECOFROG range of products covers a wide range of needs.

In this manual we present Elektra, intended mainly for domestic use, but we have further models to cover a variety of needs, including Avatar, our flagship model, with multiple applications for both professional and domestic use; Wash by Ecofrog, the perfect complement to Avatar so that it can be used in industrial dishwashers; and Ecofrog Commercial Purifier, intended for industrial use and with a higher water flow capacity.

ECOFROG's MIND IS A GREEN FUTURE

REDUCE | REUSE | RECYCLE

Find out all the information at the Ecofrog Factory:

- www.ecofrog.es
- @ecofrog
- @ecofrog.oficial
- @EcoFrog.Oficial

Or visit the official website of your distributor.

The ECOFROG system

The efficiency of the ECOFROG system applied to domestic use, thanks to its exclusive, patented O_3zone technology, has led to the project being developed in other more professional channels and areas, with different needs and requirements, for a highly varied sector, towards eco-friendly, healthy cleaning and disinfection. Hotels, restaurants, hospitals, schools, nursing homes, laundries, spas, gyms and other businesses are now benefiting from this technology.

Economical Eco-friendly Healthy Convenient

For a better tomorrow

O_3zone technology.

Washing with ozonised water is the most efficient way to disinfect, with the additional advantage that it does not produce chemical waste.

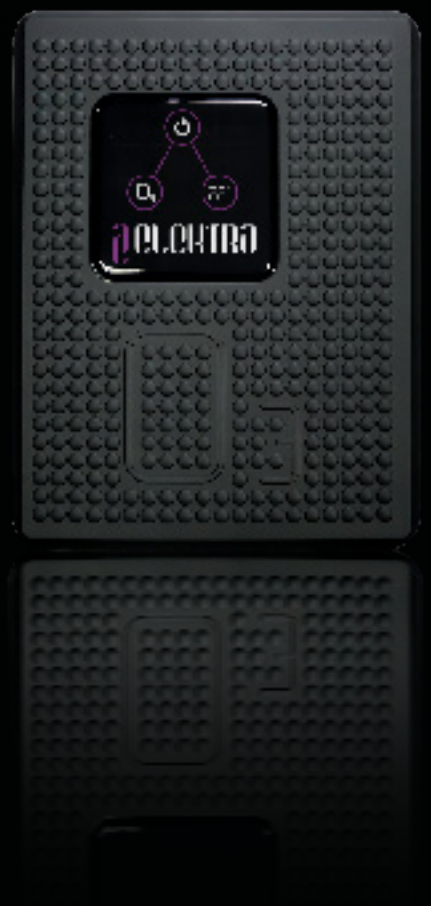
The properties of ozonised water guarantee the reduction of viruses, bacteria and other pathogens in food, surfaces and industrial machinery.

What is ozone?
Ozone (also called O_3) is a molecule composed of three oxygen atoms.

Properties

> Cleaner-disinfectant.
> High disinfecting power.
> Eliminates all types of food and surface pollutants.
> No chemical waste.
> Does not require rinsing.
> Does not leave odours.
> Lengthens the life of food.
> Acts in less time than other chemical products.

O_3zone is generated through the technology used by the whole range of ECOFROG products. This is injected into the water molecule and provides high stability in the mixture, allowing you to clean and disinfect. Due to the disinfectant nature of the O_3zone, the ECOFROG system also allows a significant reduction in the consumption of laundry chemicals and a complete reduction in surface disinfection products.



Notes and remarks on this instruction manual

1.- Always keep this manual in a safe place so that you can consult it when necessary.

2.- Before using the product, read the manual carefully and follow all instructions and safety measures specified in it.

3.- The manual describes the performance of the product in detail, so the company is not responsible for any other uses that the final consumer may perform and which are not described in this product manual.

4.- Our company shall not be liable for any kind of damage resulting from use of the product in a way that is not indicated in the manual, or from failure to comply with the safety and prevention measures indicated in the manual, or from an operating error in accordance with the instructions in this manual.

5.- Do not disassemble, repair, modify or tamper with this product, as any such action will void the product warranty. In the event of a fault or problem with Elektra, contact your nearest dealer or the official Ecofrog technical service on 93 114 06 17. Do not remove or break the warranty seal of the product under any circumstances, as any tampering with the seal will result in the forfeiture of the product warranty.

6.- Do not insert or use any power adapter that is not originally supplied by our company for this equipment as this could cause permanent damage in the circuits of the unit during use. In such cases, the product warranty will be forfeited.

7.- The manufacturer shall not be liable for any damage or malfunction that may occur due to any kind of impact or blow that the product may have received once it has been delivered or installed by the official service.

8.- Our company is not liable for any loss, direct or indirect damage caused by users or third parties, owing to the incorrect use of Elektra.

9.- The contents of this manual are subject to changes without prior notice. The latest version will be published on our website for your information.

Package contents

You will find the following articles in the product box:

- Elektra.
- Protective cover of the Elektra designed as a multipurpose bag.
- Sheet explaining how to download the user manual.
- Elektra mounting bracket.
- Assembly screws and plugs (no.6)
- 1 Universal power transformer (use the appropriate adapter for your country).
- 1 3/4" water supply hose.
- 2 black 1/2" to 3/4" adapters for the inlet and outlet.
- 1 Tap.
- 1 Tap connector.
- 1 Tap bracket with screws and plugs.
- 1 Splitter (Y) for Elektra outlet.
- 1 3/4" female to 1/2" male metal reducer for the splitter.

Uses of the product

Elektra is the home counterpart of the well-known ECOFROG system for laundry care that connects to the washing machine. Elektra can also be used as a dispenser for cleaning and disinfecting floors, windows, worktops and surfaces in general, as well as for cleaning items outside, such as vehicles.

The Elektra system is easy to connect in your bathroom or washing machine, enriching the mains water with O_3zone and providing its exceptional qualities. Under no circumstances can Elektra supply the entire household water network with ozonised water in all taps and water outlets.

The O_3zone generated by the Elektra system breaks down dirt and disinfects any material and surface.

What is ozonised water?
Ozonised water is the result of generating ozone (also called O_3, which is composed of three oxygen atoms) in situ and dissolving it immediately in water.

Elektra does not store the water, which means that it ozonates and uses the water at the same time to avoid secondary contamination by storage.

Elektra has the following main functions:

- Disinfects
- Cleans and softens
- Saves energy and protects the environment
- Consumes in an intelligent and reduced manner

Technical specifications

Model:	Elektra by Ecofrog
Input:	AC 100-240V/50-60 Hz
Output / Electrical power:	DC 12V 1A
Electricity consumption:	12W/h
Water flow:	2.5l/min - 5l/min
Maximum effectiveness of O_3zone in water:	1 hour in an open container 3 hours in a closed container
Optimal water pressure range:	14.5 psi / 1 bar
Maximum water pressure allowed:	50,8 psi / 3,5 bar
Operating temperature:	Water 5~30°C
O_3zone concentration:	0.5 - 1.2mg/l
Product dimensions:	37 x 28 x 9cm
Net weight:	1.9kg

Instructions for use and safety considerations

- Please read the user manual thoroughly before using the Elektra.
- Disconnect the power supply before undertaking any operation.
- Elektra is designed for domestic use.
- Use the enclosed connection pipe when connecting Elektra to the water mains.
- Elektra works smoothly in the range of pressures and temperatures indicated in the technical specifications table, without any faults occurring in the components. Operating outside this range may result in damage and/or failure which would not be covered by the warranty.
- The maximum water input pressure is 50,8 psi (3,5 bar).

- The water pressure range of 14.5 to 50.8 psi (1 to 3 bar) is optimal for Elektra to work properly. Water quality may affect the performance of the apparatus. If you are concerned about water quality, consult an expert in water filtration.
- DO NOT install Elektra horizontally or at an angle.
- Do not use a power adapter other than the one supplied with Elektra.
- Do not clean Elektra with harsh chemicals, abrasives or cleaners. Use a soft cloth moistened with ozonised water.

Warnings/safety measures

Do not apply ozonised water in the presence of people or animals.

Before applying ozonised water to surfaces to be disinfected, the area must be properly ventilated.

Ozonised water is not flammable or combustible.

Do not apply ozonised water on unpackaged food.

If ozonised water comes into contact with the eyes or skin, rinse with plenty of water.

Under no circumstances should the resulting solution be ingested. If ozonised water is accidentally swallowed, rinse your mouth out with water and consult your doctor about the symptoms you are experiencing.

Respiratory protection is not necessary if the instructions for use regarding on-site ozone generation and dissolution in water are followed and the maximum exposure limits established for this operation are respected. The concentration of ozone in the air at the time of dissolution in water remains below the exposure limit indicated in the exposure limit information (0.02 ppm, equivalent to 0.1 mg/m^3) provided that the handling instructions set out in this manual are followed.

Ozone exposure limits, according to different international organisations, are the following:

OZONE EXPOSURE LIMITS	
FDA (Food and Drug Administration)	Requires that the ozone production from indoor medical devices in must not exceed 0.05 ppm.
OSHA (Occupational Safety and Health Administration)	Requires workers not to be exposed to an average concentration of more than 0.10 ppm for 8 hours.
NIOSH (National Institute of Occupational Safety and Health)	Recommends an upper limit of 0.10 ppm, which should not be exceeded at any time.
EPA (Environmental Protection Agency)	Sets a maximum 8-hour average outdoor concentration of 0.08 ppm.
WHO (World Health Organisation)	It sets a limit of 0.10 mg/m^3 for a maximum daily average of eight hours.

Occupational exposure limits for ozone are determined by INSHT 2011:

OZONE EXPOSURE LIMITS	
INSST (Spanish National Institute for Safety and Health at Work)	This establishes different exposure limit values VLA-ED® depending on the type of work carried out or its duration:
	HEAVY work: 0.05 ppm or 0.10 mg/m^3
	MODERATE work: 0.08 ppm or 0.16 mg/m^3
	LIGHT work: 0.10 ppm or 0.20 mg/m^3
	HEAVY, MODERATE OR LIGHT WORK < 2 hours: 0.20 ppm or 0.40 mg/m^3

indicate that during ozone production and dissolution in water by the Elektra equipment, part of the ozone produced is not dissolved and remains in gaseous form, passing into the air as it leaves the equipment.

According to the conditions under which ozonised water is produced, ozone concentrations in the air do not exceed the values for 8 hours of occupational exposure.
Considering that the normal use time of the equipment is between 30 seconds and 1 minute (5 litres/minute), ozone exposure is not significant.
Under normal conditions of use, and following the instructions in this product manual, no special protective measures are required, taking into account adequate ventilation of the area and the production times of the ozonised water. It is recommended that a shower head always be used, and that this is submerged in the filling container.

Hazard identification. Classification of the substance generated in-situ (ozone) or dissolving ozonised water

Classification of the substance generated in situ (ozone) or in solution (ozonised water):
Exposure to ozone gas, which is generated in situ by our product for its exclusive dissolution in water, could cause headaches, eye and respiratory tract irritation.

> The level of exposure depends on the duration and the work to be performed. It is therefore very important to follow the instructions in this manual regarding the use of the product and to respect the exposure limits in order to avoid possible risks and their consequences.

> Description of first aid in relation to ozone generation and the solution obtained (ozonised water):

- If exposure or ventilation limits for the area are not complied with and inhalation symptoms affecting the respiratory tract or eye irritation occur MOVE THE AFFECTED PERSON TO AN UNCONTAMINATED AREA AND CONSULT A DOCTOR.

- The product must not be ingested. In case of accidental ingestion of ozonised water: RINSE THE MOUTH AND CONTACT A DOCTOR IF SYMPTOMS APPEAR.

- The product must not be applied to the skin of humans or animals. At the dissolution concentrations there is no skin irritation. Should they appear: RINSE THE AREA WITH PLENTY OF WATER AND CONSULT A DOCTOR.

Basic installation

1. Elektra includes a "universal" power adapter (suitable for most countries), wall mounting plate, screws and plugs, 1/2" to 2/4" inlet and outlet adapters, 3/4" hose for water connection, outlet splitter, 1/2" hose, tap and a wall bracket for the tap.

2. Elektra must be fixed to the wall. First, fix the metal plate to the wall. The metal plate has three mounting holes and 3 anchor screws. Fix the metal plate to the wall with the anchor screws to fasten the product.

3. The bottom of the unit has three slots. Match the three slots with the holes in the metal plate, pull down slowly, so that the unit is positioned on the metal plate.

4. Ensure that the metal plate is in a horizontal position. Installation at an angle may compromise the function and display of the product.

5. Connect the water inlet socket of the Elektra to the water tap and connect water with the tube supplied. Make sure that the rubber washers are correctly placed on both ends of the tube before connection. Correctly adjust the tube to the inlet connection, without overtightening but ensuring that the fastening is secure.

6. Connect the tap to the hose supplied with Elektra on the side with the conical trim. Then connect the hose (on the hexagonal thread side) to the Elektra outlet. Finally, attach the wall bracket so that the tap can be hung on it.

7. First connect the supply adapter on the side of the Elektra and then plug in the adapter to the wall socket.

Washing machine installation

1. Elektra should be fastened to the wall and placed near the washing machine. First, fix the metal plate to the wall. The metal plate has three mounting holes and 3 anchor screws. Fix the metal plate to the wall with the anchor screws to fasten the product.

2. Fix the mounting bracket to the wall using the anchor screws, making sure that the metal plate is level. (We recommend using a spirit level to ensure the mounting bracket is horizontal). Tilting the device during installation may affect the performance of the product and its display.

3. There are three slots located at the back of Elektra. Carefully slide the apparatus downwards aligning the three slots on the metal plate. Elektra should hang securely on the metal plate.

4. Turn off the cold water tap or valve close to the washing machine. Set the washing machine to operate with cold water only and turn it on for a while to remove excess cold water from the hose.

Note: Some washing machines mix hot and cold water to ensure a minimum water temperature, which means that water may continue to enter the washing machine. Operating the washing machine for a second should be enough to expel any excess cold water.

5. Remove the existing hose from the cold water tap but keep it connected to the washing machine. Connect the existing hose to the area marked "OUTLET" on the Elektra. Do not tighten it too hard. But ensure that it is securely connected.

6. Connect the hose included to the area marked "INLET" on Elektra Now connect the other end of the hose to the cold water tap. Tighten both ends of the hose, but be careful not to tighten it too much.

7. Very gradually turn on the cold water tap. Make sure there are no leaks from any

of the cold water hoses.

8. Connect the DC adaptor to the Elektra and then connect it to the mains. It is now installed and ready to operate.

9. Finally, start the washing cycle of the washing machine 2-3 times before putting clothes in. This will help eliminate all of the detergent accumulated in the washing machine.

Note: Use the washing machine and Elektra only when you are at home. If you go on holiday and are not going to use the washing machine for a long period of time, you should unplug both the washing machine and the Elektra and turn off the water supply. This will help to prevent accidental flooding caused by variations in water pressure while you are away.
The greater the water quality (less lime), the greater the efficiency of the Elektra.

Full installation

The complete installation involves Elektra being connected to both the washing machine and the water outlet with the hose and tap to obtain ozonised water for cleaning and disinfecting any surface.

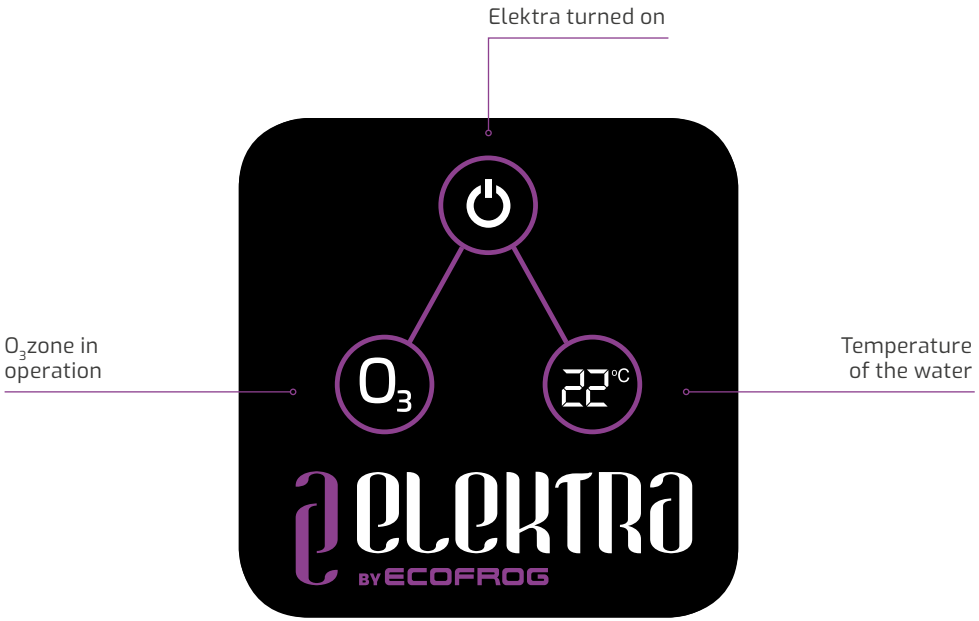
To do this, simply connect the splitter (Y-shaped) to the Elektra outlet in order to have a double outlet. Screw the splitter firmly but loosely into the Elektra outlet and then follow the steps for the basic connection as well as those for connecting the washing machine. Please note that the hose should be connected to the outlet of the Y splitter which takes the 3/4" to 1/2" reducer while the washing machine hose will be connected directly to the 3/4" outlet of the splitter.

LED panel: indicator lights

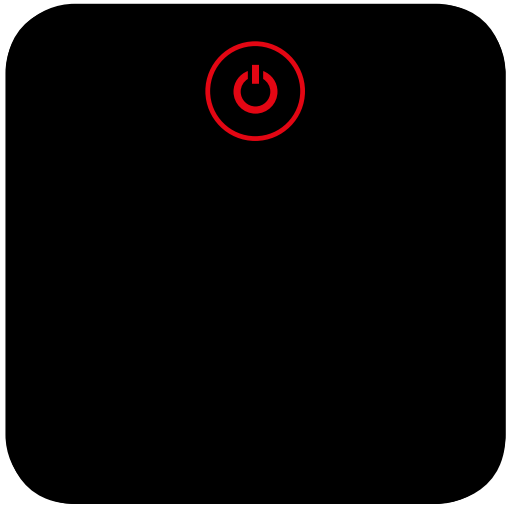
The control panel displays the operation of Elektra:

Elektra in operation:

Elektra is automatic and turns on when water passes through it. The LED panel lights will switch on only when water is passing through the system.

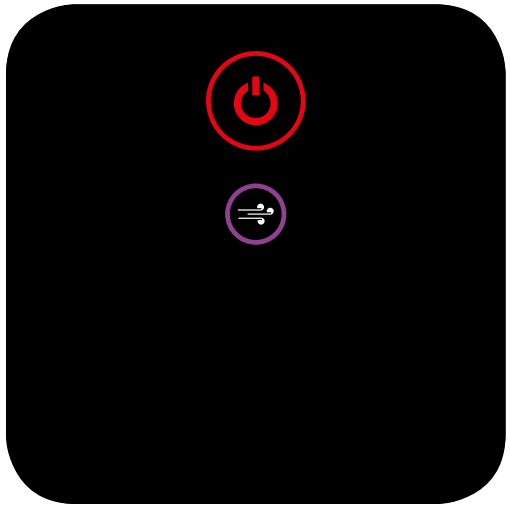


Stand-by:



Power on/standby indicator. When Elektra is connected to the mains it will remain on standby and when water flows through it will switch on. The indicator will always be red.

Air dryer:



Air dryer

Two hours after Elektra has finished its working cycle, the air dryer will start working and the pilot light will come on. It will continue to work for several hours until the moisture has been removed and the symbol will automatically switch off. Once the process is completed, Elektra will remain in power saving mode.

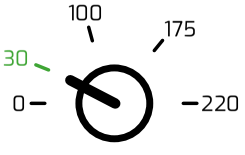
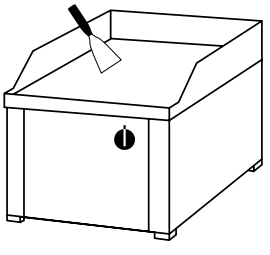
Note: The air dryer is used to remove internal humidity and to ensure the efficiency of the following use. It is preferable not to use the equipment when the air dryer is in operation, although you can do so if necessary. The machine will automatically interrupt the drying mode and start again later on.

Use on SURFACES

SEQUENCE 1: CLEANING			
			
STEP 1: Fill the sprayer marked O_3 with the ozonised water generated by the Ecofrog system.	STEP 2: Spray the surface you wish to clean with ozonised water.	STEP 3: Leave for 1 to 5 minutes.	STEP 4: Rub with a scouring pad until the dirt is removed.
RECOMMENDATIONS: If there is a lot of organic material adhered to the surface to be cleaned, it is recommended to use water at a maximum temperature of 30°C, and to leave ozonised water to work for the maximum time. Repeat sequence 1 if the dirt persists.			

SEQUENCE 2: DISINFECTION		
		
STEP 1: Spray the surface you wish to disinfect with ozonised water.	STEP 2: Leave for 1 to 5 minutes.	STEP 3: Wipe with paper, dishcloth or dry cloth.
INDICATION: Rinsing with running water is not required after the last step in any of the two sequences.		

Instructions for use on GRILLS

SEQUENCE 1: CLEANING AND DISINFECTION		
		
STEP 1: Turn off the grill and leave to cool to 30ºC	STEP 2: Remove loose remains	STEP 3: Spray the grill with ozonised water.
RECOMMENDATIONS: For the plate surface, it is advisable to pour ozonised water directly onto the plate to increase its quantity and improve its effect.		
		
STEP 4: Leave for 5 to 10 minutes.	STEP 5: Rub with a scouring pad until the dirt is removed.	STEP 6: Dry with paper.
INDICATION: Rinsing with running water is not required after this final step.		

Instructions for use on CUTLERY and UTENSILS

SEQUENCE 1: CLEANING AND DISINFECTION PROCEDURE

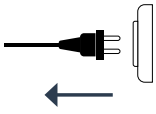
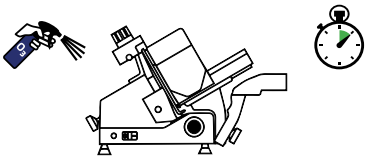
			
STEP 1: Fill the spray marked with O_3zone with ozonised water generated with the Ecofrog system.	STEP 2: Remove organic remains manually	STEP 3: Spray with ozonised water and leave for 1 to 5 minutes.	STEP 4: Rub until the dirt is removed and then dry with paper.

RECOMMENDATIONS: If there is a lot of organic material adhered to the surface to be cleaned, it is recommended to use water at a maximum temperature of 30°C, and to leave ozonised water to work for the maximum time. Repeat sequence 1 if the dirt persists.

INDICATION:Rinsing with running water is not required after this final step.

Instructions for use on SLICING MACHINES

SEQUENCE 1: CLEANING AND DISINFECTION PROCEDURE

				
STEP 1: Fill the sprayer marked O_3 with the ozonised water generated by the Ecofrog system.	STEP 2: Turn off and unplug the machine	STEP 3: Remove organic remains manually	STEP 4: Spray with ozonised water and leave for 1 to 5 minutes.	STEP 5: Rub until the dirt is removed and then dry with paper.

RECOMMENDATIONS: If there is a lot of organic material adhered to the surface to be cleaned, it is recommended to use water at a maximum temperature of 30°C, and to leave ozonised water to work for the maximum time. Repeat sequence 1 if the dirt persists.

INDICATION:Rinsing with running water is not required after this final step.

Warranty specifications

The legal guarantee that covers the Elektra product is the one that is regulated at all times by current regulations regarding the lack of conformity of the product from the moment of its delivery or commissioning to the client and/or final consumer.

The warranty is subject to the following conditions: Any damage or breakdown caused by negligence, abuse or misuse by not following the user manual are not covered by this warranty. Likewise, any defect or damage caused by servicing not authorised by the manufacturer is not covered.

The manufacturer, at its discretion, will repair or replace a defective apparatus or a part or parts of the apparatus covered by the warranty. As a matter of policy regarding the warranty, the manufacturer will not refund the purchase price paid by the Customer.

To receive the guarantee service, the defective apparatus or the parts covered by the guarantee, should be returned along with the purchase receipt to the dealer or to the dealer's authorised insurer. All costs relating to the transport of parts or units submitted under the terms of this warranty will be paid by the purchaser. Unless this warranty is renewed or extended explicitly by the dealer, any repair or replaced part of the unit is guaranteed to the purchaser for the remaining part of the original guarantee, and at least 6 months from the date of repair of the part.

Please keep the original invoice or purchase contract to the device, in order to certify the duration of the guarantee.

Please keep the Elektra packaging for 14 calendar days in case you need to return the product.

CHANGING our mentality regarding waste and pollutant products is an **OPPORTUNITY** to improve the environment for future generations.

elektra BY ECOFROG

REDUCE | REUSE | RECYCLE

Elektra's box and packaging parts are produced from recycled material.
The protective cover of the Elektra is manufactured with eco-friendly polypropylene, as water is not used in the production process. It disintegrates if permanently exposed to the sun and is manufactured using pollutant-free materials.
The cover is also designed to be reused as a multi-purpose bag.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