

ESSENTIAL FOR SURVIVAL

LIFESAVER CUBE USER MANUAL



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YOUR LIFESAVER CUBE



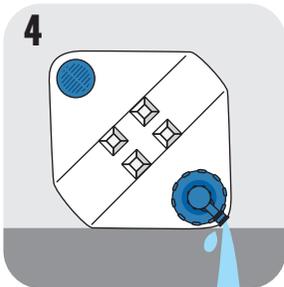
- A** Unique twist/push top with child friendly on/off tap
- B** Tap outlet
- C** Protective mesh to protect cartridge

- D** Replaceable LifeSaver ultra filtration (UF) cartridge
- E** Pump handle
- F** Removable pump for easy filling
- G** Carry handle

PRIMING

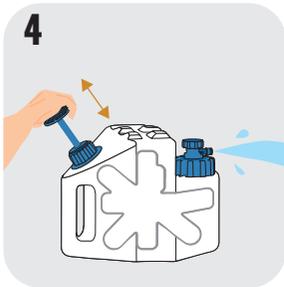
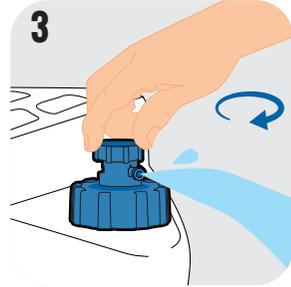
Priming is an essential step that must be performed before you start to use the Cube to drink from.

The flow rate will improve over the first 24 hours following the priming.



- Fill Cube with clean water and leave for 10 minutes. ❶
- Discard water. ❷
- Fill with clean water and pump 30–40 times. ❸
- Lay Cube on its side (tap facing down), open tap and allow water to flow. As flow rate drops pump again, until empty. ❹
- If not using immediately, repeat steps 3 and 4.
- Leave at least 1 inch of water in Cube when finished.

ROUTINE USE



- Fill with water. ❶ Ensure tap area doesn't come in contact with contaminated water. Replace pump.
- With tap closed, pump 30–40 times. ❷
- Open tap to allow clean drinking water to flow. As flow rate reduces, pump to maintain flow. ❸
- Continue to pump whilst the tap is open at a rate of approximately 1 pump per second to maintain flow. ❹ Turn tap off after use.

Using the tap:

Twist tap clockwise and lock into position for a sustained flow of water or push and hold down tap for an instant shot of water.

To release tap, twist anti-clockwise.

IMPORTANT

Always leave at least 1 inch of water in your Cube. Ensure pump is screwed back on tightly.

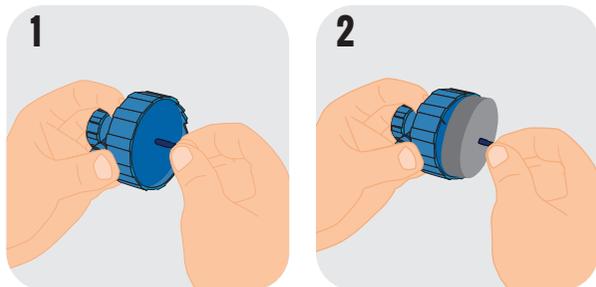
CAUTION THIS IS A PRESSURE VESSEL

- Keep the membranes of the cartridge in the Cube hydrated by storing at least 1 inch of water in the Cube at all times whilst keeping the Cube sealed with the pump and tap in place. Failure to do so will cause the membranes to dry out, the nano pores to close and the system will shut down. This is not covered under your warranty and you will need to purchase another cartridge (see page 13 for storage instructions).
- Do not pump if water is not flowing from the Cube; this will over pressurise the Cube, which will result in the product becoming stressed. To release pressure from the Cube unscrew the pump slowly by $\frac{1}{4}$ of a turn until you hear a hiss sound. Hold on to the pump firmly whilst unscrewing.
- Do not operate the pump whilst the Cube is empty.

HELPFUL TIPS

- The flow rate will be faster when the Cube is full of water.
- The flow rate will be faster when the Cube is used with warmer water, therefore glacier melt water will slow the flow.
- The Cube is designed to be used on a table, but as water level decreases, to increase flow rate, lay on its side (tap facing down) or hold by hand like a jug.

ACTIVATED CARBON FILTER



The activated carbon filter block improves the palatability of water by removing chlorine, taste and odour. Your Cube will arrive without the activated carbon filter installed. See below for installation and replacement instructions.

Installation

- Unscrew and remove tap from Cube.
- Insert activated carbon filter into tap and rescrew tap onto Cube.

Removal

- Unscrew and remove tap from Cube.
- Using a small screw, screw clockwise into the centre of the carbon filter until it's over halfway through the carbon block. **1**
- Using a sharp pulling motion remove carbon filter from tap. **2**
- When fitted, the water flowing from the Cube may contain grey / black particles. This is harmless carbon dust and will disappear after 2–3 uses.

CAUTION

Leaving the activated carbon filter inside the Cube whilst in long-term storage may cause microbiological growth to occur. Always remove and discard the activated carbon filter when storing the Cube long-term.

MAINTENANCE AND CARE

Always use the cleanest water available. Dirt and debris will build up on the surface of the cartridge, reducing the cartridge's life span. The effects can be reduced with regular cleaning.

How to clean the Cube when outdoors

- Fill the Cube with around 1 litre of the cleanest water available and swirl around the Cube to remove debris and dirt from the bottom of the Cube. Empty the water through the pump hole.
- Refill the Cube $\frac{1}{4}$ full with the cleanest water available and re-fit the pump. Swirl the water around the Cube, turning the Cube upside down to distribute the water around the Cube. Continue for up to 1 minute.
- Empty the water through the pump hole.
- Repeat this process until the water being tipped away is visibly clean.

CAUTION

Do not attempt to touch the membranes of the cartridge through the protective mesh as this can cause damage and will void your warranty. Keep the cartridge free from dirt and debris.

How to clean the Cube when at home



- Remove the filter from the Cube by removing the tap and lifting the filter out. Remove the o-ring from the top of the filter and keep it to one side. **1**
- Place the protective cap provided over the clean face of the filter. **2**
- Soak the filter in a basin of tepid water for ½ hour. We recommend a small amount of sterilizing solution is added to kill any pathogens left on the filter surfaces or your basin. A dissolved chlorine tablet or liquid sterilizing solution will do the job (follow manufacturer's instructions for dilution). Rinse the filter with clean running water and leave to drain for 4 hours. **3**
- Whilst the cartridge is draining, wash all of the plastic components including the o-ring with a mild detergent solution in warm water using a soft cloth. Rinse the components thoroughly under running water and drain for 1 hour.
- Refit the o-ring to the top of the filter. Ensure that it is positioned tightly against the flange (lip) of the filter.
- With clean hands, insert the filter into the Cube and press down to fix into place.
- Wipe the clean face of the filter with a sterile wipe or clean cloth to clean any contamination from the clean face.
- Fit the tap and ensure it is tightened firmly with the top facing straight forward.

MAINTENANCE AND CARE

How to replace the filter cartridge

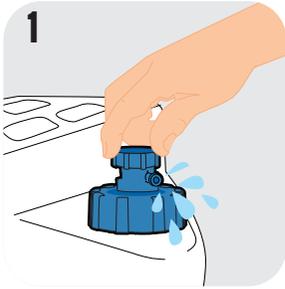
- Unscrew and remove pump from Cube and empty any water.
- Remove tap.
- Remove filter and discard as mixed recyclable plastic waste.
- Wash all plastic components including the white flat seal (found under the pump handle) in warm water with mild detergent solution using a soft cloth. Rinse thoroughly under running water and leave to drain for 1 hour.
- Remove new filter from packaging and ensure the two o-rings are positioned tightly against the flange (lip) of the filter. Insert filter into the Cube and press down to fix into place.
- Replace tap. Ensure that the tap is tightened firmly and facing straight forward.
- Prime new filter, as per instructions on page 4.

Installing a new cartridge whilst outdoors causes a heightened risk of cross contamination. When changing the cartridge ensure you have clean, dry hands and the tap and cartridge remain sterile.

How to check your filter is working correctly

The ultra filtration membranes have been integrated into a robust cartridge and have been designed for a long service life. However, if treated incorrectly the cartridge is liable to break.

The membrane integrity check should be performed every time the Cube has been subjected to shock or when you suspect damage may have occurred to the Cube cartridge.



Membrane integrity check

- Remove pump from Cube and fill $\frac{3}{4}$ with water.
- Replace pump and pump 30–40 times to pressurise the Cube.
- Turn tap to open position.
- Continue to pump as required to maintain flow rate.
- If the Cube spits water from the tap **1** and does not flow freely then air is being expelled from the tap along with water. This means that the filter is damaged. Stop using the Cube and replace the filter (see page 10 for how to install a new filter).
- If water flow is normal but very slow, despite the Cube being $\frac{3}{4}$ full at either the horizontal or vertical position, clean the Cube as dirt and debris maybe causing slower water flow. If the Cube has been cleaned and water flow remains slower than normal, the cartridge may be reaching the end of its life (see page 16 for Failsafe™ technology).

STORAGE

The Cube

Before first use, the Cube should be kept in a cool, dry place. To make water more palatable it is suggested to keep it in the shade. Protect the Cube against extreme temperatures at all times.

Keep the membranes of the cartridge hydrated by storing at least 2 inches / 5 cm of water in the Cube at all times whilst keeping the Cube sealed with the pump and tap in place. Failure to do so will cause the membranes to dry out, the nano-filter pores to close and the system to shut down. This is not covered under your warranty and you will need to purchase another cartridge.

To ensure the Cube remains in the best condition, use on a regular basis.

Activated carbon filter

After opening a pack of activated carbon filters ensure that you store the additional, spare activated carbon filters within the foil zip lock bag or within a sealed container. This will preserve their shelf life for up to 3 years. If left unsealed, the activated carbon filters will expire within 2 months.

When storing the Cube for a period of 1 month or more, the activated carbon filter should be removed and discarded. Replace with a new carbon filter before next use.

LONG-TERM STORAGE

1 MONTH OR MORE

Before storing the Cube:

- Remove and discard the activated carbon filter from the Cube and clean the Cube (see page 9 for how to clean the Cube).
- Release pressure from the Cube by unscrewing the pump slowly by ¼ turn until you hear a hiss sound. Hold on to the pump firmly whilst unscrewing. After pressure is released screw the pump back into place.
- Store at least 2 inches / 5 cm of water in the Cube at all times.
- Ensure the pump and tap are sealed.

Before re-using the Cube:

- Clean the Cube before re-use (see page 9 for how to clean the Cube).
- Fit a new activated carbon filter before re-use (see page 7 for how to install an activated carbon filter).

How to prevent hardness salts building up on the cartridge during long-term storage

Prolonged storage in areas of hard water will result in the crystallisation of calcium, magnesium and salts on and within the membranes of the cartridge. To prevent this from happening, change the storage water on a regular basis, every 4-6 weeks. Failure to do so will cause the membranes to fill up, the nano pores to block and the system to shut down. This is not covered under your warranty and you will need to purchase another cartridge.

SHELF LIFE

Standard packaged cartridge

Product can be stored as a minimum for 3 years from the point of purchase (from authorised resellers) further shelf life after the initial 3 years is dependent on storage conditions.

Aluminium barrier foil heat sealed product

Heat sealed products provide the lowest moisture transition rate available and are ideal for long-term storage. If still sealed in the condition it was purchased, the shelf life of the product will be up to 10 years from the date of purchase.

EXTREME TEMPERATURES

Cold temperatures

After first use the Cube should be protected from freezing. Freezing can compromise the integrity of the cartridge. If you suspect the Cube has been frozen, perform a membrane integrity check (page 11).

Hot temperatures

Do not leave the Cube in direct sunlight for long periods of time.

For minimum and maximum operating and storage temperatures refer to Performance and Technical data (page 17).

Transporting your LifeSaver Cube on a plane

When taking the Cube on a flight ensure that you:

- Release pressure from the Cube by unscrewing the pump slowly by $\frac{1}{4}$ turn until you hear a hiss sound. Hold on to the pump firmly whilst unscrewing.
- Remove the pump and completely drain the Cube of water.
- After draining the Cube screw the pump back into place.
- Ensure the pump and cap are correctly sealed.
- Pack the Cube securely in the hold or within hand luggage.
- When destination is reached pour 2 inches / 5 cm of water into Cube.
- Perform a membrane integrity check before re-use (page 11).

FAILSAFE™ **TECHNOLOGY**

The Cube incorporates Failsafe™ technology which stops you drinking contaminated water. As the filter is used to purify water, the pores in the membranes will be getting blocked up by contaminants and the flow rate will slow down.

There will come a point at which despite completing the recommended number of pumps, water will not flow. At this point you should replace the filter.

PERFORMANCE AND TECHNICAL DATA

Minimum operating temperature	>0°C (32°F)
Maximum operating temperature	50°C (122°F)
Minimum storage temperature*	-10°C* (14°F)
Maximum storage temperature	50°C (122°F)
Initial flow rate**	1.25L/min
Cartridge service rating**	5,000 litres (1325 US gallons)
Dry weight of product inc. cartridge	1.2kg (42 oz)
Product storage capacity	5L (168 US oz)
Product materials and water effluent BPA and BPS free	

MICROBIOLOGICAL FILTRATION EFFICACY

Exceeds EPA Guidelines for microbiological purifiers:

Bacteria retention***	>99.9999% (Log 6)
Virus retention***	>99.99% (Log 4)
Cysts reduction***	>99.99% (Log 4)

Chemical retention Optional activated carbon filter improves the palatability of water by removing chlorine, taste and odour from water

* After first use the product should be protected against freezing

** Flow rates and service rating dependent on the composition, temperature and turbidity of the feed water

*** Tested by BCS laboratories issued 18/02/16 based on an adaption of NSF/ANSI P231 Protocol

LIFESAVER CUBE TEST COMPLIANCE

Testing is based on a suitable adaption of NSF/ANSI P231. These units are tested with two different types of water to challenge the filtration capability beyond the standard use. All figures quoted are taken from the stressed challenge phase of the test imitating sewage contaminated water.

DISCLAIMER

The information and data contained in this document are based on our general experience and are believed to be correct. They are given in good faith and are intended to provide a guideline for the selection and use of our products. Since the conditions under which our product may be used are beyond our control, this information does not imply any guarantee of final product performance and we cannot accept any liability with respect to the use of our products.

The quality of our products is guaranteed under our conditions of sale.

Existing industrial property rights must be observed.

All details given on this data sheet are believed to be correct at the time of creation. We reserve the right to make improvements and/or modifications to the equipment herein.

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