



User manual

Model: ECAIA nitrate cartridge



Replaceable nitrate filter
Compatible with ECAIA ionizer S, ECAIA ionizer, AlkaBest

Worldwide distribution:

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1 ECAIA nitrate cartridge



The **ECAIA nitrate cartridge** reduces the amount of nitrate in drinking water.

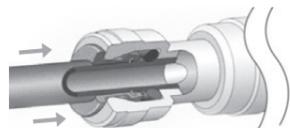
Please be aware that the **ECAIA nitrate cartridge** is a product that is to be used for filtering cold drinking water (5 - 25° C). The filter's performance may vary depending on the quality of the drinking water.

2 Operating the Quick Release Fastener

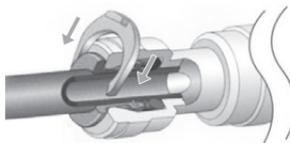
The **ECAIA nitrate cartridge** has quick-release fasteners (1/4"). Below is a description of how these quick-release fasteners work.



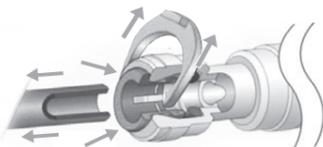
⚠ Always make sure that the drinking water supply hose (1/4") is not kinked or otherwise damaged at the point where it is inserted into the quick-release fastener opening. If this is the case, cut off the damaged piece.



1. Insert the drinking water supply hose (1/4") at least 1 cm deep into the quick-release fastener opening.



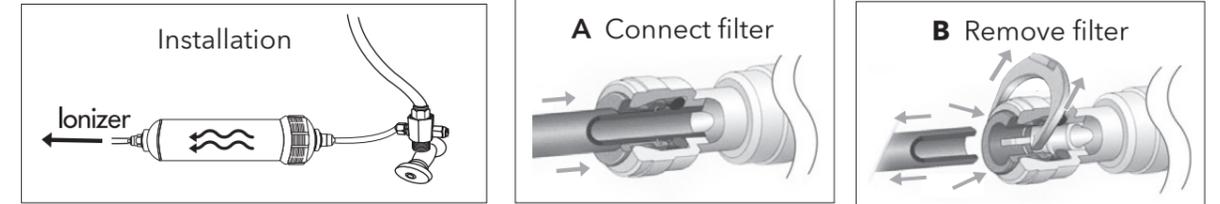
2. Fasten the safety pin.



3. To release the hose from the quick-release fastener, the drinking water supply hose (1/4") must no longer be pressurized.

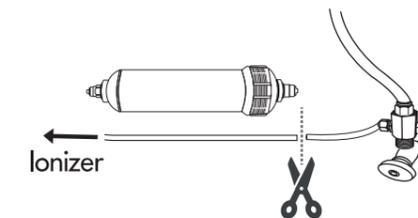
Remove the safety pin, push the locking ring all the way back and then pull only the drinking water supply hose (1/4") out of the quick-release fastener opening.

3 Installation and replacement



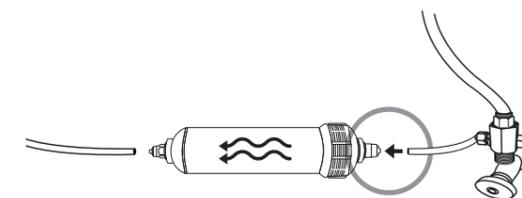
3.1 First Installation

1. Turn off the water supply to the **ECAIA ionizer S** (or other model). The drinking water supply hose, which supplies the unit with water, must no longer be pressurized.
2. Cut the drinking supply hose at the point where you want to place the **ECAIA nitrate cartridge** so that you have two hose pieces.



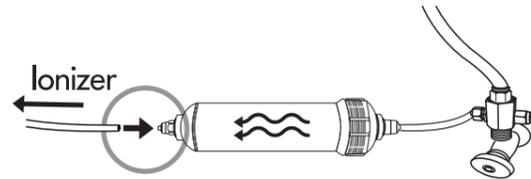
⚠ **Note:** Please note that residual water could still leak from the drinking water supply hose.

3. Remove the safety pins on both quick-release fasteners on the new **ECAIA nitrate cartridge**. Then pull the protective caps out of the quick-release fastener openings.
4. Take one end of the drinking water supply hose connected to the T-piece or the reversible aerator. Connect the water supply hose to the quick-release fastener opening of the **ECAIA nitrate cartridge** and fasten the safety pin.



⚠ **Note:** Pay attention to the flow direction when connecting the **ECAIA nitrate cartridge**. The water must flow into the **ECAIA nitrate cartridge** at the quick-release fastener of the screw-off cap.

- Turn on the water supply so that water flows into the **ECAIA nitrate cartridge**. By doing so, any residue from the filter granulate is flushed out. As soon as all the filter granulate has been flushed out, turn off the water supply.
- Take the other end of the drinking water supply hose connected to the **ECAIA ionizer S**. Connect the water supply hose to the quick-release fastener opening of the **ECAIA nitrate cartridge** and fasten the safety pin.



- Open the water supply and check whether all connections are tight. Position the **ECAIA nitrate cartridge** in the desired location. The **ECAIA ionizer S** can then be used again.

Important: The permitted water pressure is 0.7 - 6 bar.

Note: Make a note of the flow rate display on the **ECAIA ionizer S** (or other model). By doing so, you can use the table under Point 5 Filter Performance to calculate when you need to change the **ECAIA nitrate cartridge** or the filter granulate (**ECAIA nitrate resin**).

3.2 Cartridge Change

- Turn off the water supply to the **ECAIA ionizer S** (or other model). The drinking water supply hose, which supplies the unit with water, must no longer be pressurized.
 - Remove the safety pins on both quick-release fasteners on the new **ECAIA nitrate cartridge**. Then pull the drinking water supply hose out of the quick-release fastener openings.
- Note:** Please note that residual water could still leak from the drinking water supply hose and the **ECAIA nitrate cartridge**.
- Remove the safety pins on both quick-release fasteners on the new **ECAIA nitrate cartridge**. Then pull the protective caps out of the quick-release fastener openings.
 - Take one end of the drinking water supply hose connected to the T-piece or the reversible aerator. Connect the water supply hose to the quick-release fastener opening of the **ECAIA nitrate cartridge** and fasten the safety pin.

Note: Pay attention to the flow direction when connecting the **ECAIA nitrate cartridge**. The water must flow into the **ECAIA nitrate cartridge** at the quick-release fastener of the screw-off cap.

- Turn on the water supply so that water flows into the **ECAIA nitrate cartridge**. By doing so, any residue from the filter granulate is flushed out. As soon as all the filter granulate has been flushed out, turn off the water supply.
- Take the other end of the drinking water supply hose connected to the **ECAIA ionizer S**. Connect the water supply hose to the quick-release fastener opening of the **ECAIA nitrate cartridge** and fasten the safety pin.
- Open the water supply and check whether all connections are tight. Position the **ECAIA nitrate cartridge** in the desired location. The **ECAIA ionizer S** can then be used again.

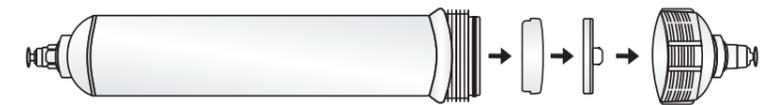
Important: The permitted water pressure is 0.7 - 6 bar.

Note: Make a note of the flow rate display on the **ECAIA ionizer S**. By doing so, you can use the table under Point 5 Filter Performance to calculate when you need to change the **ECAIA nitrate cartridge** or the filter granulate (**ECAIA nitrate resin**).

3.3 Replacing Filter Granulate (ECAIA nitrate resin)

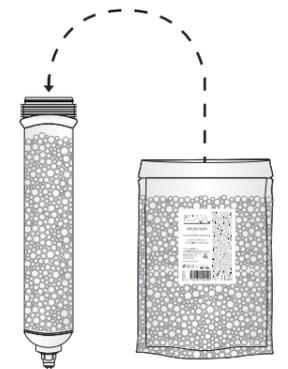
When the filter capacity is exhausted, it is not necessary to replace the entire **ECAIA nitrate cartridge**. You can simply change the filter granulate. You can use the **ECAIA nitrate resin** refill pack for this. Read the section below on how to change the filter granulate.

- Unscrew the sealing cap from the **ECAIA nitrate cartridge**.
- Using pliers, carefully remove the screen and then the foam pad behind it.

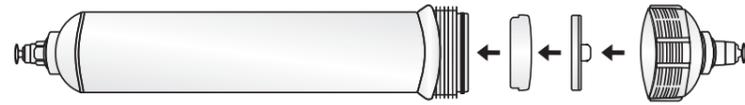


- Remove the used filter granulate from the cartridge. Make sure that the retention sieve inside the cartridge does not come loose or slip.
- Fill new filter granulate from the **ECAIA nitrate resin** refill pack into the empty cartridge. Additional tapping on the filter casing compresses the filter granulate so that no cavities are created. The filter granulate can also be lightly pressed on. Please do not compress the filter granulate too tightly, as this can negatively influence the flow.

Note: After use, reseal the **ECAIA nitrate resin** so that it is airtight.



5. Fasten the foam pad and the sieve, then screw the sealing cap back onto the cartridge. Make sure that the seal and the thread are not contaminated with particles of the filter granulate. This could cause the cartridge to leak.



Note: If there is visible damage to the seals or casing of the **ECAIA nitrate cartridge**, it should not be reused.

4 Positioning

Make sure that there are no uninsulated heat sources in the immediate vicinity. The cartridge can be mounted horizontally, diagonally or even vertically.

5 Filter Performance

The filter's lifespan depends on the amount of nitrate present in the water that is being filtered. You can obtain this information from your water supplier, or you can have a water analysis carried out. If the filter is not changed after the filter capacity has been reached, no more nitrate will be filtered out and the water quality may be negatively affected.

Total filter performance: 7.500mg nitrate

Example: At a drinking water load of 5 mg nitrate/liter, the filter capacity of the **ECAIA nitrate cartridge** theoretically corresponds to 1,500 liters (7,500 mg/5 mg=1,500 liters).

Using the table below, you can see how many liters of water can be filtered at different nitrate loads.

A Nitrate in drinking water	B Filter performance	C Flow rate display ECAIA ionizer S filter no. 1 (right)	D Flow rate display ECAIA ionizer S filter no. 2 (left)
1 mg	7.500 Liters	999 (x 4)	999 (x 2)
5 mg	1.500 Liters	832	416
10 mg	750 Liters	416	208
15 mg	500 Liters	277	138
20 mg	375 Liters	208	104
25 mg	300 Liters	166	83
30 mg	250 Liters	125	69

Example 1: For your drinking water, the nitrate content is 1 mg. In this case, you can filter 7,500 liters of water with one cartridge filling (7,500 mg/1 mg=7,500 liters). This corresponds to a flow rate indication on the **ECAIA ionizer S** for filter no. 1 (right side) 4 times from 0 to 999 (1 counting unit corresponds to 1.8 liters of water; $7,500 \text{ L} / 1.8 \text{ L} = 4,166$; $4,166 / 999 = 4$) and for filter no. 2 (left side) 2 times from 0 to 999 (1 counting unit corresponds to 3.6 liters of water; $7,500 \text{ L} / 3.6 \text{ L} = 2,083$; $2,083 / 999 = 2$).

Example 2: For your drinking water, the nitrate content is 8 mg. In this case, you can clean 937 liters of water with one cartridge filling (7,500 mg/8 mg = 937 liters). This corresponds to a flow rate indication on the **ECAIA ionizer S** for filter no. 1 (right side) from 0 to 520 (1 counting unit corresponds to 1.8 liters of water; $937 / 1.8 = 520$) and for filter no. 2 (left side) from 0 to 260 (1 counting unit corresponds to 3.6 liters of water; $937 / 3.6 = 260$).

Example 2-A, flow rate display: Reinsert the **ECAIA nitrate cartridge** and the flow rate display on the **ECAIA ionizer S** (or other model) will be 325 on filter no. 1 (right side). There are 8 mg of nitrate in the drinking water, as described in Example 2. Then you can use the **ECAIA nitrate cartridge** until the flow rate display on filter no. 1 is at 845 ($325 + 520 = 845$).

Example 2-B, flow rate display: Reinsert the **ECAIA nitrate cartridge** and the flow rate display on the **ECAIA ionizer S** (or other model) will be 786 on filter no. 1 (right side). There are 8 mg of nitrate in the drinking water, as described in Example 2. Then you can use the **ECAIA nitrate cartridge** until the flow rate display on filter no. 1 (right side) is at 307; note: at 999 you have changed filter no. 1, from this point, the display will start at 000 again ($786 + 520 = 1,306$; $1,306 - 999 = 307$).

6 Recycling

The filter resin can be disposed of in household waste. The cartridge is made of Polypropylene (PP) and can be recycled.

Dimensions and weight of the cartridge: 32x6 cm, 360 g



If you have any further questions, please do not hesitate to contact the **SANUSLIFE** INTERNATIONAL support team. You will find the contact details at www.sanuslife.com



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