ZeNO — Water softener

User guide · installation, setup and maintenance

Version 1.1 — October 2026

1. Welcome

Thank you for choosing ZeNO. In this guide you will read how ZeNO is installed, how to set it up and how to enjoy it for years. The guide is made to be read on screen; there is no need to print it.

We recommend having ZeNO installed by an installer, who knows your situation best. Installation is not included in the price.

2. Your ZeNO

ZeNO removes up to 100% of the limescale from all the water in your home, using ion exchange. It is installed where the water enters your home, before the boiler or central heating boiler, and cleans itself (regeneration) with salt from the brine tank.

Size	Height	Footprint (w × d)	Weight
Apartment / small household	55.4 cm	32.2 × 43.2 cm	35 kg
Family / medium household	70.6 cm	40.4 × 48.5 cm	43 kg
Large household / villa	79.5 cm	40.4 × 48.5 cm	48 kg

3. Before you start

In the box

- ZeNO, complete
- Overflow elbow
- Drain hose 16 mm, 2.5 metres
- 2 flexible connection hoses 1" to 3/4", with O-rings
- Power adapter 12 V
- Control panel
- Overflow hose 1/2"

The right location

- Frost-free: water and ambient temperature between 5 and 38 °C, humidity at most 70%.
- Not in direct sunlight, not on underfloor heating and at least 1 metre from heating appliances.
- After the water meter (and after any booster pump or pump), before the boiler or central heating boiler and the other appliances.
- A power socket within 2 metres, without an on/off switch. Not via an uninterruptible power supply (UPS).
- A drain nearby: the drain hose may rise at most 1.5 metres.

Water pressure and connections

Component	Requirement
Water pressure	1.4 to 7 bar; at least 2 bar recommended. If the drain has to run upwards, at least 2.75 bar.
Supply pipe	at least 3/4" internal diameter; connections on ZeNO 1"

Component	Requirement
Drain hose	at least 16 mm internal diameter, do not reduce; extend with at least 3/4"
Overflow hose	at least 12 mm (1/2") internal diameter
Air gap	at least 5 cm between hose and drain, to prevent backflow
Flow during flushing	at least 7.6 litres per minute (measured at the end of the drain hose)
Power	230 V socket; ZeNO itself runs on 12 V via the adapter

Tip: install a bypass so you can bypass ZeNO during maintenance. If the pipe between ZeNO and the boiler is shorter than 3 metres, install a non-return valve. If there is sand or other dirt in your water, install a pre-filter before ZeNO.

4. Installation

1. **Preparation.** Switch off the boiler or central heating boiler and close the main tap. Open a hot and a cold tap to release the pressure.
2. **Connecting to the water supply.** Remove the lid and take the packaging material out of the brine tank. Connect the two flexible hoses, with the spacer rings in the nuts. Check the arrow on the bypass valve for the flow direction: do not connect it the wrong way round. Tighten the nuts, but not too tight. Do not use Teflon tape on the flexible hoses.
3. **Connecting the overflow.** Screw the overflow elbow onto the back of the housing, with the opening facing down. Run the 1/2" hose to a drain at least 8 cm lower than the elbow, with a 5 cm air gap. Do not kink it and do not let it run upwards.
4. **Connecting the drain.** Connect the 16 mm drain hose to the drain connection and run it to a drain, for example the standpipe of the washing machine, with a 5 cm air gap. Do not kink or pinch it. Do not combine the drain and overflow with a T-piece.
5. **Flushing the pipe.** Set the valve to Bypass, open the main tap and let the nearest cold tap run until the water is clean.
6. **Leak check.** Close all taps and check that everything stays dry. Then slowly set the valve to Service (in operation) to prevent water hammer. Open the nearest cold tap until no more air comes out.
7. **Control panel and power.** Click the control panel onto the three clips on top of the valve. Connect the plugs of the flow sensor, the motor and the power supply at the back. Route the cable away from water and plug the adapter into the socket.

5. Setup and first start

Setting your water hardness

ZeNO asks for the hardness in ppm (mg/l $CaCO_3$). Your water company usually gives the hardness in °dH (German hardness). Convert it like this:

Hardness in ppm = hardness in °dH × 17.8

Example: 10 °dH × 17.8 = 178 ppm.

If there is iron or manganese in your water (with your own well or borehole), add (iron + manganese in mg/l) × 85 to this number. With Dutch tap water this is almost never necessary.

You can find your water hardness by entering your postcode on your water company's website.

1. **Hardness.** Hold the button for the basic settings until ZeNO beeps (about 4 seconds). Set the hardness in ppm and confirm.
2. **Clock.** Then set the hour (24-hour clock) and the minutes. The clock determines when ZeNO regenerates.
3. **Flushing.** Pour 8 litres of water into the brine tank. Hold the regeneration button for about 5 seconds until "01" appears. Flushing takes 30 to 40 minutes; after that the brine tank fills automatically.
4. **Salt.** Fill with at most 25 kg of water softener salt (tablets or granules, no coarse salt). Use one type of salt and do not mix. The first salt filling comes with your ZeNO. After filling, wait at least 2 hours before regenerating again.
5. **Finishing.** Check that the valve is set to Service and the main tap is open. Switch the boiler or central heating boiler back on. Let the cold tap run for 20 minutes (about 270 litres) and check whether the drop symbol on the display flashes: this means ZeNO is measuring the flow. Put the lid back on.

Extra settings (only if needed)

Setting	What it does
AU — automatic	ZeNO determines how much salt it uses each time, based on your consumption. Default setting.
HC — high capacity	Fixed setting: regenerates less often, slightly more salt each time.
HE — economical	Fixed setting: as little salt as possible, regenerates somewhat more often.
96-hour mode	Regenerates at least every 3 to 4 days. Switch on if there is iron or manganese in the water.
Regeneration start time	Choose a time when nobody uses water, for example at night.

6. Daily use

- **The display** shows how much water can still pass through until the next regeneration, in hundreds or thousands of litres. A flashing drop means water is flowing.
- **Topping up salt:** always keep the salt above the water level in the brine tank, and the tank at least one third full. You usually top up 2 to 4 times a year; how often depends mainly on the hardness of your water.
- **Out of salt?** Top up, wait 2 hours and start a regeneration (hold the regeneration button for 5 seconds).
- **Dishwasher and washing machine:** do not run them during a regeneration.

7. Maintenance

When	What
Every year: service check	You do this yourself, possibly together with your installer. Check and clean the brine tank and the air vent valve (sooner if you see sediment). Also check that the connections are dry, the valve is set to Service and the clock is still correct.
Every 6 months (only with iron in the water)	Clean the resin with a resin cleaner, following the cleaner's instructions.
Every year (only with iron in the	Let the iron cleaning mode run for at least 2 weeks.

When	What
water)	
After repair or a long period out of use	Flush the pipes via the bypass. You can disinfect with 120 ml of household bleach (5%) in the brine tank, followed by a regeneration.

Protect ZeNO and the drain hose against frost. Clean the outside with a dry cloth, with the plug removed.

8. Troubleshooting

What do you see?	Possible cause	Solution
No soft water	No salt in the brine tank	Top up salt, wait 2 hours, regenerate
	Valve set to Bypass	Set the valve to Service
	Salt crust (bridge) in the brine tank	Carefully break the crust, add some warm water if needed, use tablets or granules
	Drain hose kinked or frozen	Straighten or thaw the hose
	Water hardness has changed	Look up the hardness again and set it
Display stays blank	Adapter not connected or no power	Check the plug and socket
Too much water in the brine tank	Drain blocked or kinked	Clear the drain hose
Salty-tasting water	Water pressure too low (below 1.4 bar) or blocked drain	Have the pressure checked, clear the drain
Message E1 to E5	Control fault	Unplug for 1 minute and plug back in; if the message remains, contact us

Not working? First contact your installer. If something is broken within the warranty, email info@h2ot.nl with your order number and a photo. You will hear from us within 4 working days.

9. Safety

- Only use the adapter supplied. No extension cords or home-made adapters.
- Never immerse ZeNO, the adapter or the cable in water and do not touch them with wet hands.
- Unplug before cleaning. Do not open the housing; repairs only by a professional.
- Transport and store ZeNO upright, frost-free and dry.
- Follow the water, electrical and building regulations that apply where you are.

10. Warranty and disclaimer

Warranty. ZeNO comes with a **2-year warranty** on the main components. The resin, the salt and any filter materials are consumables and are not covered. If ZeNO does not work when connected and you report this within 24 hours of installation, we will replace it free of charge, provided it was installed within 3 months of delivery. The installer's costs are your own. Is

something broken within the warranty? Email info@h2ot.nl with your order number and a photo; you will hear from us within 4 working days.

No medical advice. This guide is a user manual and not medical advice. Our products are not medicines or medical devices and are not intended to diagnose, treat, cure or prevent any disease. If you have questions about your health, please contact your doctor.

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