AQUANO™
WATER FILTERS

Aquano SoftFlow Water Softener Series

User Manual

www.aquano.co.nz

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User Manual

Need to know more or ready to install?
Give us a call.

0800 225 700
sales@aquano.co.nz
aquano.co.nz

Aquano Water Filters,
87 Hautapu Road,
Unit 4, Hautapu 3493,
Cambridge.

Because Hard Water's a Tough Problem.

At Aquano, we know plumbers don't need complicated jargon or fluff. The SoftFlow Series is the reliable water softener that makes hard water a thing of the past.

With cutting-edge performance and the features you need (and none you don't), the SoftFlow Series protects plumbing, appliances, and your customers' homes – without the hard work.

Let's get into it!

Your Aquano SoftFlow Water Softener arrives pre-assembled and ready to go!

Inside the box, you'll also find:

Softflow Volumetric Water Softener

Bypass Valve

⅝" Drainage Tube

SALT NOT INCLUDED:
Use coarse water softener salt or pool salt

SEE FULL UNIT SPECIFICATIONS ON THE NEXT PAGE >

Technical Specifications

Product Code	CWS30L	CWS30LIMP	CWS40L	CWS14L
Product Name	Softflow Volumetric Water Softener, 30L	Softflow Volumetric Water Softener with Impression Valve, 30L	Softflow Volumetric Water Softener, 40L	Softflow Volumetric Water Softener, 14L
What size home each unit suits	Medium-sized home	Medium-sized home	Large-sized home	Apartments, granny flats, and small-homes
Service Flow Rate	30LPM	30LPM	40LPM	14LPM
Maximum Flow Rate	70LPM	70LPM	100LPM	60LPM
Operating Pressure	138–862 kPa*	138–862 kPa*	138–862 kPa*	138–862 kPa*
Operating Temperature	0–48°C	0–48°C	0–48°C	0–48°C
Salt Capacity	30 litres	30 litres	40 litres	15 litres
Salt Efficiency - Complete up-flow regeneration	· 4.37KG of salt per full regen. (125gr of salt per L of resin) · 206.5 m³ of treated water per 1 French degree hardness	· 4.37KG of salt per full regen (125gr of salt per L of resin) · 206.5 m³ of treated water per 1 French degree hardness	· 6.8 KG of salt per full regen (125gr of salt per L of resin) · 324.5 m³ of treated water per 1 French degree hardness	· 1.75 KG of salt per full regen (125gr of salt per L of resin) · 78 m³ of treated water per 1 French degree hardness
Salt Efficiency - Proportional up-flow regeneration	Intelligent software calculating reserve capacity and by this saving salt from 5% up to 76% depending on water consumption between the two regens.			
Power Requirements	240V Power	240V Power	240V Power	240V Power
Warranty	8 Years	8 Years	8 Years	8 Years
Inlet / Outlet	1"	1"	1"	1"
Clack Reliability Valve	Yes	Yes	Yes	Yes
Volumetric/Metered (Regenerates only when req.)	Yes	Yes	Yes	No
Bypass Valve included	Yes	Yes	Yes	Yes
Drainage Tube Included	Yes (5/8")	Yes (5/8")	Yes (5/8")	Yes (5/8")
NSF/ANSI 44 components used	Yes	Yes	Yes	Yes
Tank Material	High Grade Polyethylene	High Grade Polyethylene	High Grade Polyethylene	High Grade Polyethylene
Size (L x W x H)	351mm x 528mm x 1130mm	351mm x 528mm x 1130mm	351mm x 528mm x 1130mm	351mm x 528mm x 460mm
Dry Weight (kg)	41 kg	41 kg	52 kg	21kg
Pallet Quantity	5 Units	5 Units	5 Units	5 Units

*Fit PLV at >500 kPa per AS/NZS 3500.1:2021, Cl. 3.3.4

Safety

TO GET THE BEST OUT OF YOUR SOFTFLOW WATER SOFTENER (AND KEEP THAT WARRANTY SAFE), STICK TO THESE SIMPLE BUT ESSENTIAL INSTALL TIPS:

- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- Water Supply: Potable cold water supply only, (0–48°C). Protect from freezing.
- Power Supply: AC 240V | 50Hz.
- Water Pressure: 138–862 kPa.
  - If line pressure exceeds 500 kPa, an approved pressure limiting valve is required (AS/NZS 3500.1:2021, Clause 3.3.4).
- Where water hammer exists, fit a hammer arrester.
- Children should not operate the unit unsupervised.
- If the property will be unattended for an extended period, turn off the upstream water supply and/or use a leak detector or tray.
- Fit a vacuum breaker if negative pressure/siphoning is possible.
- Use unions and support pipework; do not let the valve carry pipe load or this could result in a broken valve.
- **DO NOT USE PETROLEUM JELLY, OILS, OR SPRAY SILICONE ON O-RINGS; USE FOOD-GRADE SILICONE GREASE ONLY IF NEEDED.**
- Use PTFE tape on threads; avoid sealants on plastic threads.
- Complete any soldering before connection; keep heat at least 150 mm (6″) away from plastic parts.
- For chlorinated supply (>1 ppm), install a carbon pre-filter to protect resin.

Before You Start

Make sure you know the hardness of your water, if this is council supply you should be able to find out from them, also find out the iron and manganese levels while you are at it, Check your area online, or if this is bore water you must get a water test done, we recommend using a IANZ Accredited Lab, such as Hills Laboratory. Call them on **0508 44 555 22** or email them on **mail@hill-labs.co.nz**.

- Choose a location: before the hot water cylinder, close to rain, frost-free, shaded or weather-protected if outdoors.
- Base must be 100% level and support the full wet weight of the cabinet.
- Keep the transformer dry and protected.

Important

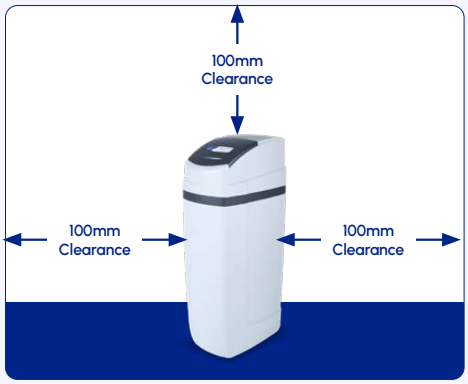
- **Install an approved backflow prevention device at point-of-entry where required by code.**
- **Fit a pressure limiting device where static pressure exceeds 500 kPa (AS/NZS 3500.1:2021, Cl. 3.3.4).**
- **Provide an air gap on the drain line (≥ 25 mm or 2× pipe OD). Overflow must run separately to a suitable drain.**
- **Use a drain pan or leak detector where leaks could cause damage to property.**
- **Turn off upstream water if the property is unattended for extended periods.**

INSTALLATION MUST BE CARRIED OUT BY A LICENSED PLUMBER AND COMPLY WITH LOCAL PLUMBING REGULATIONS!

Positioning, Installation & Hardness Conversion

Positioning

- Install on a firm, level surface that supports the full cabinet base.
- Allow clearances: 100 mm at sides and top minimum; ensure lid can open for salt refilling.
- Place near a suitable drain for the regeneration drain and overflow lines.



Installation

Tools: Adjustable spanner, pipe cutter, PTFE tape, approved fittings.

1. Shut off main water; open a downstream tap to relieve pressure.
2. Position the unit, 100 mm at sides and top minimum; ensure lid can open for salt refilling.
3. Connect inlet (right when facing control) and outlet (left) through the integrated bypass valve.
4. Wrap PTFE tape on threaded fittings; hand-tighten only — **DO NOT OVERTIGHTEN**.
5. Connect drain line to the valve drain port. Provide an air gap ≥25 mm or ≥2× pipe OD (whichever is larger).
   - Keep drain runs short: max vertical rise 2.4m; max run 6m. If longer is unavoidable, upsize the drain line.
6. Run the overflow to a separate drain, not teed into the regeneration drain.
   - Keep the line lower than the overflow outlet so it cannot back-flood.
7. Plug in the transformer to a dry, un-switched 240 V outlet.
8. Turn on water slowly; check all joints and the cabinet for leaks.

Hardness Conversion & Compensation Guide

If you have your hardness levels in GPG (grains per gallon) that's ideal. If your results are in PPM (parts per million), divide by 17 to convert to GPG. Aquano softeners also reduce iron and manganese, so you need to allow for these when setting hardness.

Multiply iron (ppm) ×4	Multiply manganese (ppm) ×6	Add 2 GPG as a safety margin

The table below shows an example of how to calculate your true water hardness:

Measurement	Test Result	Multiplier	Compensated Value
Hardness	200 PPM	÷17	12 GPG
Iron	1.5 PPM	×4	6 GPG
Manganese	0.5 PPM	×6	3 GPG
Safety Margin	–	+2	2 GPG
Total Hardness	12 + 6 + 3 + 2 = **23 GPG** (Use this number for programming the water softener)		

Programming

Set Time

1. Press **SET CLOCK**.
2. Use △ or ▽ to set hours and minutes.
   Check AM/PM on screen.
3. Press **NEXT** to set time.

Set Hardness into Valve

4. To enter hardness setup:
   Hold the **NEXT** + △ for 5 seconds.
5. Use △ or ▽ to set
   your desired hardness level.
   (See previous page for the hardness conversion guide)
6. Press **NEXT** once to continue to Day
   Override, or press **NEXT** 4× to exit if
   you only want to set hardness.

Day Override

Sets the maximum days between regenerations.

- **Range = 1–28 days**
- **Default = 28 days**
- **OFF = Based on gallons used**

7. Use △ or ▽ to select days.
8. Press **NEXT** to continue.
9. Press **REGEN** to go back.

Regeneration Time

10. Use △ or ▽ to set hours and minutes.
    Default 2:00 AM. Check AM/PM on screen.
11. Press **NEXT** to confirm both hours and minutes.

Manual Regeneration

12. Press **REGEN** once to schedule for tonight.
13. Hold **REGEN** for 3 seconds to start immediately.

Manual regeneration takes 2hrs to complete.
If regeneration is already scheduled for that night,
the display will flash "REGEN TODAY".

Start-Up, Operation & Maintenance

Start-Up

1. Fill brine tank to about half with softener salt (coarse water softener salt or pool salt).
2. Add ~15 L water to the brine tank (initial start-up only) and not required again.
3. Open the nearest downstream tap and slowly fill the system to purge air.
4. Flush 5–10 minutes until water runs clear; close tap and check for leaks.
5. Run a full manual regeneration.
6. If unit has not been used for more than 2 weeks, flush for 10 minutes before service.

NOTE: AFTER THE FIRST REGENERATION, THE WATER LEVEL MAY DROP BELOW THE VISIBLE SALT LINE. THIS IS NORMAL; NO EXTRA WATER IS REQUIRED.

Salt management

- Salt management: Keep salt level between ½ and ⅔ full. Do not add water when topping up.
- Type of salt: Use coarse softener salt or pool salt. Avoid blocks/pellets that bridge in narrow cabinets.

Replace the Backup Battery (CR2032)

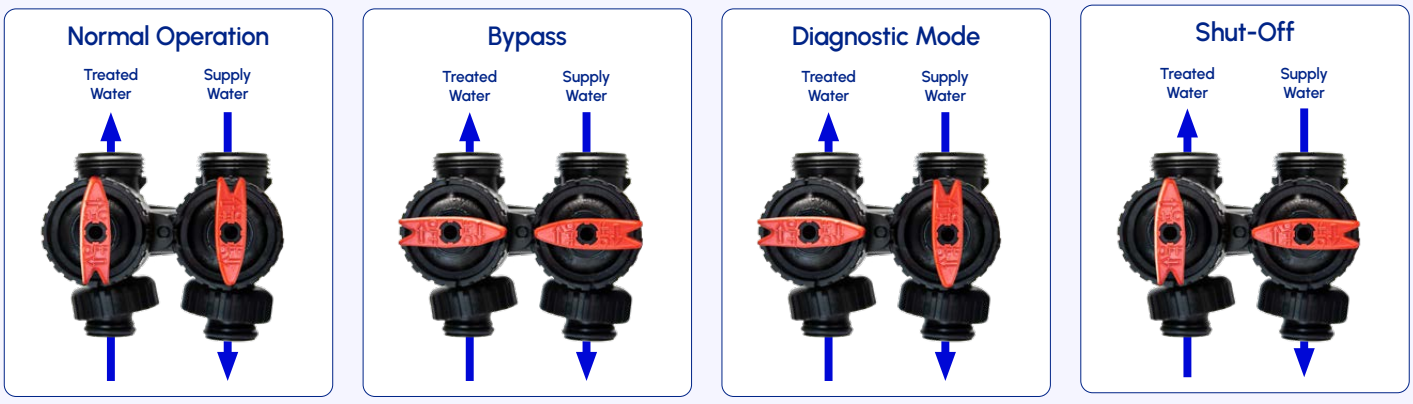
Battery backup: The control keeps time for ~8 hours on a CR2032 coin battery. Replace annually or after extended outages. Note once you have your settings set into the valve it holds this info for a lifetime.

1. Turn off power; remove the valve cover.
2. Locate the CR2032 coin cell on the PCB.
3. Use a non-conductive tool to push the battery out from under the holder.
4. Insert a new CR2032, observing polarity; ensure it is fully seated.
5. Refit cover; restore power. If the time flashes, reset via SET CLOCK.

Bypass Valve Operation

- **Normal Operation:** Supply enters valve inlet, exits to house through outlet — softened water to service.
- **Bypass:** Supply bypasses the valve, feeding the house with un-softened water.
- **Diagnostic Mode:** Isolates one side for testing while maintaining flow.
- **Shut-Off:** Closes both sides — no water to house or valve.

TURN HANDLES SLOWLY TO AVOID PRESSURE SHOCK.



Troubleshooting & Error Code Resets

Troubleshooting

Symptom	Check	Solution
Unit does not regenerate	Has the softener been unused for a while?	Run a manual regeneration and flush for 10 minutes
Water feels hard	Salt tank empty	Refill with approved salt and restart unit.
	Bypass valve in wrong position	Ensure bypass is in Service position.
	Hardness not set correctly	Re-check programming and hardness conversion.
Unit continuously regenerates	Control valve programmed incorrectly	Reset programming to factory defaults, then reprogram.
	Faulty control valve	Contact service technician.
Water in salt tank too high	Drain line blocked or restricted	Check drain line for kinks, blockages, or freezing.
	Float stuck in brine tank	Free the float and clean if necessary.
Low water pressure	Clogged pre-filter or resin bed fouled	Replace pre-filter; if problem persists, service resin tank.
Display flashes "REGEN TODAY"	Regeneration scheduled for tonight	Normal operation – no action required.

Error Code Resets

Symptom	Check	Solution
E1 – Control unable to sense motor movement	Motor not seated correctly, wiring issue, or PCB fault	Check motor seating and wiring. Ensure PCB is properly installed. Clean middle reduction gear foil. Replace gears/PCB if needed.
E2 – Motor ran too short and stalled before next cycle position	Mechanical binding, debris in valve, incorrect programming, or supply voltage issue	Clear debris. Check mechanical movement of drive gears. Verify program settings and power supply. Perform a Dry Reset.
E3 – Motor ran too long and couldn't find next cycle position	Motor connection fault or mechanical obstruction	Check motor wiring. Clear debris from valve. Ensure drive bracket is seated. Perform a Dry Reset.
E4 – Timed out trying to reach home position	Drive bracket incorrectly installed, gears jammed, or PCB issue	Verify drive bracket installation. Perform a Dry Reset. If issue persists, replace gears or PCB.

Dry Reset Procedure

If errors E2, E3 or E4 persist after checks, perform a Dry Reset

1. Switch off power.
2. Unplug the 12 V AC connector from the PCB for 5 seconds.
3. Reconnect power – the valve will cycle and return to the home screen.
4. If the error persists, run a manual regeneration and recheck troubleshooting steps.

Here for a good time & a long time

At Aquano, we are committed to the longevity of our products. That's why we stock a full suite of replacement parts for service items like our Clack Valves. So when a part reaches the end of its life, you only replace that part – not the whole unit!

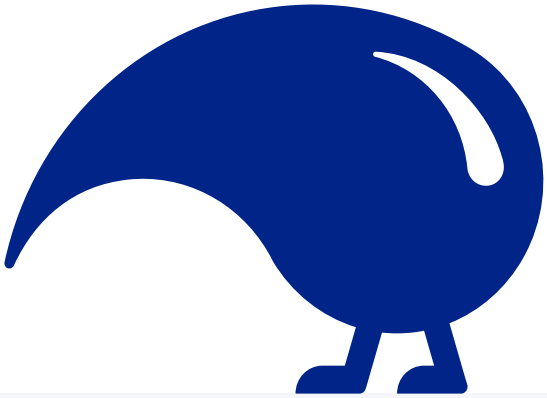
Aquano's 100% customer satisfaction guarantee:

We stand behind the quality and durability of our products. That's why our warranty and service is designed to give you peace of mind and confidence when choosing Aquano.

That means you are covered for up to 8 years of stress-free warranty, and in the unlikely event something goes wrong, our NZ-based team will respond to claims within 2 working hours. How's that for peace of mind!

Warranty registration

Scan QR code for more details



Installation Record

Installation Record	
Model Number	
Distributor	
Installer	
Phone	
Date Installed	

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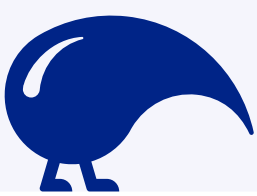
Designed in Cambridge



Warranty registration

Scan here
for more details