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 HXB-V1 · ELECTROLYTE LOG

Electrolyte log

Replace the electrolyte on condition, not on a calendar. Measure conductivity monthly and compare with the baseline.

Serial number	Location	Conductivity meter model	Electrolyte concentration (M)
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How to measure

Measure once right after a fresh fill as the baseline, then monthly, always at the same point (just after a make-up). Stop, cool down, wear PPE, take a small sample from DRAIN and read the 25 °C value on a temperature-compensated meter.

Below half the baseline

Replace the electrolyte. KOH is not used up in normal operation, so it is escaping somewhere. Before replacing, check the base of the unit and around the stack for wetness or white crystals. If the cause stays, fresh electrolyte will escape the same way.

At or above half

Keep running and measure again next month at the same point. If it keeps falling a little every month it may be leaking slowly: check around the stack and the tubing joints before it reaches half.

Make-up more frequent than usual

Electrolyte may be crossing the membrane to the hydrogen side; this shows before the conductivity drops. Touch pH paper to the droplets from H2 OUT. If it turns blue (alkaline), stop and contact us.

Between make-ups the electrolyte concentrates and readings swing, so always measure at the same point.

Baseline (25 °C)	Measured on	Replace at (baseline × 0.5)	Sampling point
mS/cm		mS/cm	

1. Monthly conductivity

Date	Run hours	Conductivity 25 °C (mS/cm)	vs baseline (%)	Decision			By
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	
				☐ Keep	☐ Replace	☐ Check	

Change record

2. Change record

Date	Run hours	Reason	Vol. (L)	Conc. (M)	New baseline (mS/cm)	By

3. Reasons to replace when you cannot measure conductivity

- ☐ Voltage creeps up at the same point
- ☐ Make-up interval or level changes
- ☐ H2 OUT condensate alkaline on pH paper
- ☐ Restart after a long idle period
- ☐ Heavy foaming
- ☐ Discolouration or solids
- ☐ After a leak repair or part change

PPE

Chemical burn and corrosion risk. Sealed goggles and alkali-resistant gloves; dispose of drained electrolyte in a compatible container as regulations require.