

— HXB-V1 · FIRST START-UP

First start-up checklist

Tick each line in order. The baseline on the back is what later performance is compared against.

Serial number	Location	Commissioning date	Done by
App version	Firmware version	Electrolyte made up	Pressure mode (0 / 10 barg)

Do not start

Do not start without ventilation and safe discharge routing. Read the safety chapter first.

1. Before you start

- ☐ Ventilation and safe discharge in place, no ignition source nearby
- ☐ Five lines connected, each to a safe outlet
H2O IN · DRAIN · H2 OUT · H2 VENT · O2 OUT
- ☐ Power and Ethernet connected, unit found by the app
- ☐ First-fill 0.1 M KOH ready (about 5 L) _____ L
- ☐ Make-up DI water ready _____ $\mu\text{S}/\text{cm}$
 $\leq 1.0 \mu\text{S}/\text{cm}$ at 25 °C recommended, $\leq 30 \mu\text{S}/\text{cm}$ allowed
- ☐ Eye protection and alkali-resistant gloves on

2. Fill and prime (P&ID screen)

- ☐ H2O IN line end fully submerged in electrolyte (held down)
- ☐ Room temp, flow 0 → Apply → Electrolyte Control ON, make-up pump running
- ☐ Tank at 2/3 → flow 4 L/min → Apply _____ L/min
- ☐ Tank full → H2O IN line moved to the water reservoir

3. Warm up and start electrolysis

- ☐ Temperature 50 °C → Apply, cartridge heater on
- ☐ Electrolyte level in range, flow stable _____ L/min
- ☐ Power Control 46 V · 50 A → Apply → ON
First start at 0 barg. No need to wait for 50 °C.

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Acceptance and baseline

4. Acceptance

Leaks	No electrolyte leak at fittings or ports	☐ Pass	☐ Fail
Flow and level	Stable at setpoint, level in range	☐ Pass	☐ Fail
Voltage and current	Respond to setpoints. Cold: 46 V limit, under 50 A → warm: 50 A, under 46 V	☐ Pass	☐ Fail

If any line fails

Do not move on. Power control OFF, keep electrolyte control ON briefly to cool, then follow the troubleshooting chapter.

5. Baseline record (once settled)

Stack voltage

V

Stack current

A

Electrolyte temperature

°C

Electrolyte flow

L/min

Hydrogen pressure

barg

Total run hours

h

Initial conductivity baseline (25 °C)

mS/cm

Electrolyte concentration

M

6. Remarks (alarms during commissioning, differences from the factory test report)

Done by	Checked by