

date:

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Operating Instructions

Millipore Milli-Q Biocel



Rules of Behaviour

Installation:

Feedwater for the Milli-Q is **A. dest.** (20 ℓ reservoir). Use a black 8 mm OD tubing connected to "Feed 1" Connect a tubing from "Drain 3" to a sink to eliminate pyrogens from the UF (30 s each 3 h => 4 ℓ/d)

- Short circuit drain tube to feedwater prevents short run of water - but will increase content of pyrogens -
- Screw **end filter** (BioPak) into the dispenser. Dispense water and open air vent valve to let escape air from the end filter. Afterwards close the valve

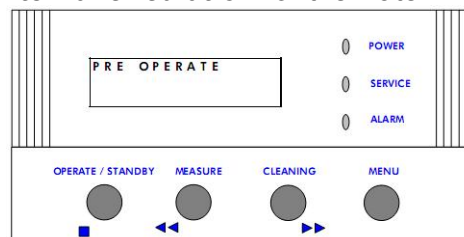


Operation:

The Milli-Q system has to **stay in "PRE-OPERATE"** modus for having **internal circulation** for the water

- Take off filling bell from dispenser
- Open the water valve at the dispenser
- Discharge water until quality of > 16.0 MΩ/cm is reached
=> green Power-LED is shining (flashing LED = low water quality)
- Take needed water (max. for 30 min)

Afterwards system falls back to "PRE-OPERATE" modus



Cleaning & Maintenance

Air purge:

- Circuit dispenser outlet to reservoir
- Press MENU until "AIR PURGE" & press OPERATE
- Open water valve at the dispenser for 5 min
- Close valve, go back to "PRE-OPERATE" modus

hand air purge:

insert a screw driver
press softly
=> opens valve: expel
air until water flow



Sanitation (monthly):

Before: 40 ℓ feedwater + 3 g NaOH are needed. Place drain tubing into drain (if short circuited)

Switch to "STANDBY" modus. Move **dispenser forward** (opens valve) & let drop off all water

Open sanitation port and place into it **3 g NaOH** (pellets). Close port again

Remove BioPak from dispenser and fix a tubing instead (ending to a drain). **Press CLEANING**

System switch to sanitation for 420 min. Open dispenser (after 10 s). Water flows for 20 min (20 ℓ)

Close valve again and move dispenser back. System continues for 400 min in sanitation mode

Afterwards system falls back to "PRE-OPERATE" modus

Changing Cartridges:

Check age: Press 2x MENU (Cartridge), press OPERATE/STANDBY (UV-Lamp)

Changing: Set system into "STAND-BY" modus. Refer to the user manual for details

- QGard 1 (QGARD00R1): Used when feeding water is A. dest. or similar (e.g. RO) 180 d
- UV lamp (ZMQUVLP01): At 185 nm (TOC reduction) + 254 nm (germicide) 365 d
- Quantum Ex (QTUM000EX): Used to reduce ions and organic species 180 d
- Pyrograd 5000 UF: Eliminates pyrogens by ultrafiltration (PES). Sanitation is required monthly
- BioPak-End filter (CDUFBI001): Ultra filtration for remove endotoxins (pyrogen), RNase, DNase 90 d



Change