

Quick Start Guide

QED Bladder Pump

This is a quick reference for operating the SamplePro Bladder Pump & MP50 Controller. For convenience only - Not a substitute for the full operations manual provided.



Step 1

Connect Air Hose - Attach the light blue coiled pump hose to the fitting labelled "Air Out" on the MP50.

Step 2

Set Deployment Depth - Use a dip meter to measure water level and select depth (typically midway in the well's filtered section).

Step 3

Attach Tubing to Pump:

- Fit LDPE 4×6 mm tubing to the smaller barb marked A (air intake).
- Fit LDPE 6×8 mm tubing to the larger barb marked D (discharge). Ensure barbs are fully covered with tubing.

Step 4

Add Suspension Cord (if used) - Secure to the pump eyebolt.

Step 5

Lower Pump - Gently lower pump, tubing, and suspension cord to depth. Secure cord (or tubing if no cord is used) to the well head.

Step 6

Trim & Connect Tubing:

- Cut LDPE tubes to length allowing for at least 150cm slack
- Connect the blue air hose to the "Air In" LDPE tubing using the push connector.
- Connect the other end of the air hose to the 4×6 mm LDPE tube.
- Connect discharge tube to the flow cell (a short length of silicone tube between LDPE tubing and flow cell makes this easier)

Step 7

Power & Activation - Connect the battery to the controller, use the white dots to align the connectors. Pump activates automatically. Confirm controller fan rotates.

Step 8

Default Settings

- System starts in Micro Purge (MP) mode, 4 cycles/minute (CPM).
- Adjust throttle using the provided chart (depth vs. setting). Use the Feet scale on the throttle.
- Fine-tune with the up/down arrow keys to achieve a steady continuous flow.

Step 9

Begin Sampling - Begin parameter measurement and sampling per standards.



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Notes & Tips

- Automatic Operation: Compressor runs as needed; internal air tank manages air distribution.
- Tubing Fit: Warm LDPE tubing in cold weather for easier fitting; use a safety blade for removal if needed.
- Controller Power: Uses 4xAA batteries (spares inside case, remove 4 fasteners).
- Decontamination: Use approved solution (e.g. Deconex). Reduce throttle to ≤ 30 psi to protect bladder.



Please note that Van Walt has only experience with Deconex.
Other decontaminants may be suitable, but some may degrade parts of the pump!

- Venting: Press vent every ~3 minutes.
- PPE: Wear gloves with good grip.



Opening Bladder Pump & Replacing Bladder

Step 1

Remove Body - Unscrew and slide off the pump body.

Step 2

Check O-Rings - Inspect for wear/damage; replace if needed (spares included).

Step 3

Remove Old Bladder - Twist cover one way, bladder the other, and push upward to release

Step 4

Install New Bladder.

- Compress bladder onto white moulding, twist into place, and refit cover.
- Ensure the two scribed lines are aligned. Failure to do this could result in the loss of the pump

MP50 Throttle Setting Chart					
Pump Depth (in)	Throttle Gauge (in)	Pump Depth (in)	Throttle Gauge (in)	Pump Depth (in)	Throttle Gauge (in)
1	15	25	95	49	370
2	20	26	95	50	375
3	25	27	100	51	375
4	30	28	100	52	380
5	30	29	105	53	385
6	30	30	110	54	385
7	35	31	110	55	390
8	35	32	110	56	390
9	40	33	120	57	395
10	45	34	120	58	200
11	50	36	125	59	205
12	50	36	130	60	205
13	56	37	130	61	210
14	60	38	135	62	215
15	60	39	140	61	220
16	65	40	140	62	220
17	70	41	145	63	215
18	70	42	150	64	220
19	75	43	150	65	220
20	75	44	150	66	220
21	80	45	160	67	230
22	85	46	160	68	230
23	85	47	160	69	235
24	90	48	160	70	240

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Charging the battery



Safety Checklist (Read Before Charging)

- Charge in a well-ventilated area on a flat, non-flammable surface.
- Avoid extreme temperatures (ideal: 10–30 °C / 50–86 °F).
- Do not cover the battery or charger while in use. Ensure that there is always sufficient free space around the product for ventilation
- Never leave the battery charging unattended for long periods.
- Stop charging immediately if the battery or charger becomes hot, swollen, or damaged.
- Do not allow the battery to fully discharge before every charge (best to recharge between ~20–80%).



⚠ Warning: Mishandling lithium-ion batteries can cause overheating, fire, or explosion. Always follow these instructions carefully.



Battery Charging Instructions



Step 1

Remove the battery from its case.



Step 2

Connect the supplied power cable to the charger. Only use the supplied charger to charge the battery.



Step 3

Attach the charger to the battery. See diagram above, the red circle highlights the adapter port on the battery's side.



Step 4

Plug the charger's power cable into a wall outlet and switch it on. Charging will begin immediately. The slow flashing blue LED indicates this.



Step 5

When the blue LED is lighting continuously, the battery is fully charged. Unplug the charger promptly.