

QUICK START GUIDE: Bladder Pump with Drop Tube

This guide is meant to serve as a quick reference for operating the Portable Bladder Pump & Controller. It is for your convenience and is not intended to replace the information found in the Operations Manual provided.



1. Make sure Controller is in OFF position. Connect with the power cable based on power source being used (Portable battery or Car Battery).
2. Cut drop tube to required length & fix to base of Bladder Pump (BP) with other end fixed to screen drop intake - ensure these are both securely fastened.
3. Cut transport (sample) & air tubes to correct length. Connect tubes with BP as in Fig.1 Make sure both PE tubes are completely fitted into barbed hose connectors, as in Fig.2

WARNING: Incorrectly fitted hoses may result in loss of Bladder Pump or screened intake

4. Connect air line tubing to air line connection on Controller
5. Carefully lower BP into well to desired height for sampling & secure. It is important to reverse the natural bend of coiled tubing so that it will straighten out as it is lowered.
6. Turn on Controller to pump water. Adjust Controller's "Fill" & "Discharge" timer knobs to desired cycle times. Fill time is time given for pump to fill with water & Discharge is time that Controller supplies pump with air to retrieve a sample. Start with Fill at 5 seconds & Discharge at 15 seconds & adjust until you have a steady flow of discharge (equal to maximum output per cycle for pump*).



Figure 1

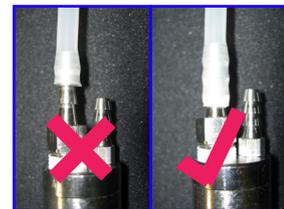


Figure 2

Changing the Bladder

To open the pump:

1. Unscrew top cap (upper cap) & bottom cap (lower cap) of BP (please note 42mm BPs top & bottom screw into each other & 22mm BPs screw into pump cylinder).
2. Pull centre tube out of BP housing (attached to top cap).



Removal of the old bladder:

1. Remove lower Teflon™ compression ring (white) by pulling it off end of internal centre tube.
2. Release upper Teflon™ compression ring & slide off end of centre tube
3. Slide bladder off the centre tube.



WARNING:

Make sure both upper & lower caps are securely tightened. Failure to do so could result in loss of pump inside bore hole. This can be done by holding lower cap tightly & screwing upper cap by holding two hose barbs or the other way round. Check there is no gap between both caps & housing.

Install a new bladder:

1. Slide a new bladder onto centre tube & over upper end of centre tube. Be careful not to roll O-ring when sliding bladder over each end.
2. Slide a Teflon™ compression ring over bladder & upper end of centre tube.
3. With upper end of bladder secured by Teflon™ compression ring slide second Teflon™ compression ring over bottom end securing both ends of bladder.
4. Put centre tube back into bladder housing & screw it tight.
5. Screw lower cap at other side of housing.

*Maximum flow rates for 42mm pumps are 124ml per cycle & for 22mm are 50ml approx.