Operation

The *BUCK Bio-Culture™* pump, provides a selectable, continuous, constant sample flowrate and is simple to operate. No tools are required. Its quiet operation allows unobtrusive sampling in IAQ, medical, clean room, public and residential building applications.

The front key pad is organized into three functional key groups: **Power** (ON-OFF), **Timing** (1, 2, 5, 10 minute samples), and **Calibration** (Cal mode, Increase flow, Decrease flow). Positive tactile feedback is provided by the keys. The *BUCK Bio-Culture™* Pump has internal NiCad batteries to provide a full six hours continuous run time at 100LPM. The standard charger provides a battery recharge in 12-16 hours and allows the unit to operate on AC power; the optional *FastOne™* Charger provides a battery recharge in one hour. End of sample notice is provided by the lit LED "Complete" and three short beeps.

Model B30120 30-120 LPM
Programmed Sampling for
Bio-contaminants Sampling

Features:

- **Holds 90 mm agar Petri dish**
- **Flow up to 120 LPM**
- **380 holes - 1 mm diameter**
- **Timing routine of 1,2,5,10 minutes**
- **Continuous operation for 6-8 hours***
- **Tripod mount to allow 90 degree sampling**
- **Sampling head is easily sterilized with gas torch or autoclave**
- **4 X the flow rate of an Anderson sampler**

*Depends on battery maintenance, backpressure, etc.

Calibration Head Attached to Pump

Calibration Head

PRODUCT	DESCRIPTION
002-3433-00	*BUCK Bio-Culture™* Pump, Model B30120 complete with standard 120VAC adapter/ charger, pencil torch, tripod, carrying case and instruction manual.
Special Order	*BUCK Bio-Culture™* Pump, Model B30120 complete with standard 230VAC adapter/ charger, pencil torch, tripod, carrying case and instruction manual.
005-3443-00	Calibration Head For *BUCK Bio-Culture™* Pump

Rev. 01-2006

BUCK BioCulture™
Model B30120

TechBrief
T200-730

The *BUCK Bio-Culture™* Pump operates with an impeller type blower with very little backpressure resistance. This provides high flows and quiet operation. Traditional calibration devices have restricted openings which slow the pump speed. This specially designed Calibration Head fits on the *BUCK Bio-Culture™* Pump replacing the sampling head to allow the flow selection by the user between 30 and 120 LPM. This flow should be calibrated with a blank agar plate installed. This Calibration is provided with a Certificate of Calibration which was performed with a NIST traceable Venturi Calibrator with a 1% accuracy**.**

CALIBRATION:

1. Replace sampling head with the *BUCK Bio-Culture™* Calibrator with attached head and pressure gauge as shown.
2. Push "ON", then press "CAL" for 2 seconds to put pump into calibration mode. Adjust the flowrate using the ▲ and ▼ keys to the desired mm of water pressure to achieve the correct flow per minute. Correlate with the calibration chart on the side of the gauge. Fine adjustments are possible. Allow pump to stablize.
3. When flowrate is achieved, push "CAL" to accept setting, then turn pump off.
4. Verify the flow at anytime with the Calibration Head by selecting a 1, 2, 5 or 10 minute timming route. Press the OFF key to stop. If the verify flow was accurate entering "Cal" is not necessary.

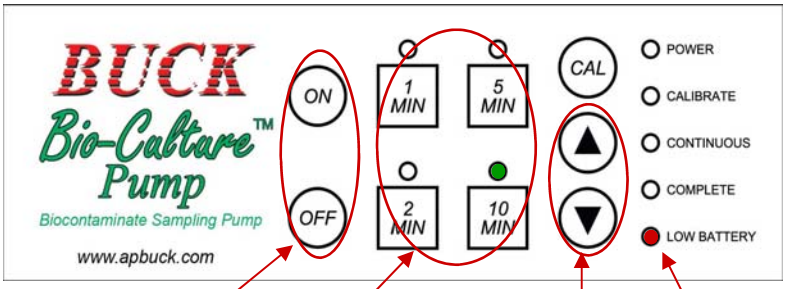
Caution: Entering the "Cal" mode removes the previous setting to allow for a new flow rate.

NIST TRACEABLE	
Calibration and Verification of Bio-Culture Pump	
Flow Rate LPM	mm of Water Pressure
150	5.6
120	3.8
100	2.7
90	2.2
60	1.1
30	0.3

BUCK Bio-Culture™ Sampling Steps

Before sampling, ensure the battery is fully charged and that the "Low Battery" LED is not on. For greatest accuracy, the pump should be calibrated once a day.

1. Place pump in desired location.
2. Immediately before sampling, open a 90mm Agar plate.
3. Unscrew the sample head and position the plate within the mounts. Screw the head back on securely.
4. Push the "ON" button to power up the *BUCK Bio-Culture™* Pump and either: (a) continue to hold the "ON" button for four seconds to put pump in "Continuous" mode, or (b) push one of the programmed time keys (1, 2, 5, or 10 minutes) for an automatic timed sample.
5. At the end of programmed sample period, pump will automatically shut off and "Complete" LED will be lit; under "Continuous" mode, push and hold "OFF" button for 2 seconds to shut off pump.
6. Unscrew the head and remove the Petri dish.
7. Replace the cap on the dish and send to an appropriate laboratory for analysis.



Power On
Hold ON 4 seconds to place pump into "continuous" run.
Hold OFF for 2 seconds to shut pump off.

Push one of the fixed sample time buttons after power on.

Flow adjust (in Cal Mode) up or down.

Status LEDs confirm all pump functions

Specifications:

Flowrate: 30-120LPM constant flow
Accuracy: ± 5% of set point
Run Time: 100 LPM: 8 hrs,
120 LPM: 6 hrs
Size: (4.5 in H x 6 in W x 5.25 in D)
Weight: 42 oz. 2.6 lbs
Compatibility: 90mm Agar plate

CE

Prices and Specifications subject to change without notice.

Rev. 01-2006

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