



BUCK BioSlide™
Model B1020

Tech Brief
T200-710

Programmed Sampling for Screening Airborne Aerosols

- Small, lightweight, compact
- Easy to use
- Accepts *BUCK* Impaction-Gel Slides or generic greased slides
- Battery powered, recharge or operate with Included standard smart charger
- Five hour* run time at 15 LPM
- End-of-cycle and Battery Level audible & visual
- Tripod mount for area sampling

*Depends on battery maintenance, backpressure, etc.



Controlled Flow Sampling Pump for Gel-Impaction Slides

The *BUCK BioSlide™* Model B1020 Sampling Pump is a compact, lightweight 10-20 LPM controlled flow sampling pump for bioaerosol sampling with Impaction-Gel (also accommodates generic grease slides). The easy, full-control keypad lets you perform unattended time programmed (1, 2, 5, or 10 minute) samples, perform easy calibrations without tools, or perform manual timed sampling at the touch of a button. A group of status LEDs show the *BUCK BioSlide™* Model B1020 operation at a glance. Both an LED and audible alarm provide confirmation of end-of-sample or depleted battery. The *BUCK BioSlide™* Model B1020 Pump provides a full five hours of continuous operation (at 15 LPM) from its rechargeable NiCad batteries. It comes with a Calibrated Rotameter for quick flow check or calibration and a standard smart charger.

PRODUCT	DESCRIPTION
APB-707000	<i>BUCK BioSlide™</i> Pump Model B1020, complete with standard smart 120 VAC charger, instruction manual, and APB-706220 Calibration Rotameter Assembly.
APB-707020	<i>BUCK BioSlide™</i> Pump Model B1020, complete with standard smart 230 VAC charger, instruction manual, and APB-706100 Calibration Rotameter Assembly.
APB-604000	Standard Smart Charger, 120VAC
APB-604020	Standard Smart Charger, 230 VAC
APB-706220	Calibration Rotameter Assembly, fits onto top of gel-impaction slide case
SAM-500910	Gel-Impaction Slide, pack of 25

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BUCK BioSlide™ Model B1020 Operation

The BUCK BioSlide™ pump, Model B1020, 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 BioSlide™ Pump has internal NiCad batteries to provide a full five hours continuous run time at 15 LPM. The standard smart charger provides a battery recharge in 2.5 - 3 hours and allows the unit to operate on AC power.

End of sample notice is provided by the lit LED "Complete" and three short beeps.

BUCK BioSlide™ Model B1020 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 Buck BioSlide and log the serial number on a work sheet.
3. Open the pump slide door and place the microscope slide (with impact gel up) down into the recessed slot in the bottom of the pump. Close the top and check to assure the top is closed tightly.
4. Push the "ON" button to power up the BUCK BioSlide™ 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. Open and remove the slide by grasping at end where the serialized number are located.
7. Replace in its original box and send to an appropriate laboratory for analysis.

Specifications: Model B1020

Flowrate: 10—20 LPM constant flow

Accuracy: ± 5% of set point

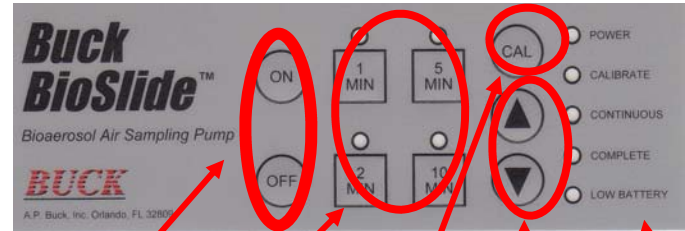
Run Time: 10 LPM: 9 hrs, 15 LPM: 5 hrs,
20 LPM: 3.5 hrs

Size: 4" H x 6" W x 5 1/4" D
(10.2 cm H x 15.2 cm W x 13.3 cm D)

Weight: 29 oz. (826 g)

Compatibility: Gel-Impaction Slide *

Prices and Specifications subject to change without notice.



Power on.
Hold ON 4 sec to
put BioSlide™ into
"Continuous"
Mode. Hold OFF
for 2 seconds to
shut pump down

Push one of fixed
sample time but-
tons after Power
"ON"
Calibration
Mode

Flow Adjust (in
Cal Mode) up or
down

Status LEDs
confirm all pump
functions

BioSlide™ Model B1020 Calibration

For greatest accuracy, the BioSlide™ Model B1020 Pump should be calibrated once per day. Calibration is performed with an actual Gel-Impaction Slide installed. The BUCK BioSlide™ Model B1020 Pump is a controlled flow device specially designed to accommodate the natural backpressure inherent in Gel-Impaction Slide. It is for use only with microscope slides 1X3 inches in size.

1. Place the flowmeter over the inlet of the BioSlide pump. The built in o-ring seal of the rotometer will give a tight connection.
2. Push "ON", then press the "CAL" for 2 seconds to put pump into calibration mode. Adjust the flowrate using the ▲ and ▼ keys to set center of rotometer ball to the desired flow rate mark on rotometer. Fine adjustments are possible. Allow pump to stabilize.
3. When flowrate is achieved, push "CAL" to accept setting, then turn pump off.
4. Verify the flow at anytime with the rotometer by selecting a 1,2,5 or 10 minute timing routing. Press the OFF key to stop. If the verify flow was accurate entering Cal is not necessary. Entering the Cal mode removes the previous setting for a new flow rate.



BUCK BioSlide™ Model B1020 Pump is shown with Gel-Impaction Slide and APB-706220 Calibration Rotometer Assembly

Calibration of the BUCK BioSlide™ Model B1020 Pump is fast and easy. The supplied calibration Rotometer assembly fits securely on top of the Gel-Impaction Slide with no leakage, so all your sample airflow goes through the Gel-Impaction Slide. Flow calibration with an actual slide in-line ensures an accurate and repeatable calibration, without substitute restrictors, bubble tubes, or other fittings.

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