

# BUCK Elite™ - 5 Pump

TechBrief T100-905

The *BUCK Elite* is a data logging, programmable personal air sampler consists of a pump contained in a high impact steel fiber filled Lexan, antistatic, and RFI/EMI-shielded case, exclusive electronic circuit board for constant flow control (patent pending), an LCD display with 2 lines of 16 characters, a single diaphragm pump mechanism, and a rechargeable NiMH battery pack.

The purpose of this pump is to draw air contaminants in through a sampling media such as 25 and 37mm filter cassettes, bubble impingers, long-duration color detector tubes; to gauge personnel exposure to gases, vapors, particulates, aerosols, etc.

No tools are required to operate this pump and a password protected keypad locking system provides uninterrupted operation. The main display allows quick selection to RUN (for sampling) or MENU (to reset pumps data).

Other features include elapsed time, flow rate, and accumulated volume. Easy programming software allows the pump for unattended Start/Stop operation with the capability for up to ten different ON/OFF durations with repeat options. The PC link capability lets you download the sampling data into a PC with Windows XP operating system using the RS232 COM port and the Buck PC link cable.



#### Main Display



Sampling Display

ELAPSED 0:02
Timer 8:00
4.0L 2000cc/m

Flow Range 0.8 to 5 LPM Low Flows 5-799 cc/min with Low Flow Holder



### **Features:**

- Capable for Data logging and Programmable for multiple Start/ Stop and Duration Sampling.
- Runs 19 hours @ 2.0 LPM (37 mm 0.8µ filter)
- High back pressure compensation, up to 60+of w.c.@2LPM
- Accuracy: ± 5% of compensation range
- High backpressure capability for 25mm 0.45µ asbestos filters
- Flow compensation for filter plugging and battery voltage
- Dual flow range easily handles Impingers, cyclones, and tubes
- %uto-restart+within one minute of a flow fault
- Includes single pack battery and run time could be extended with the use of optional triple pack.
- Battery pack rechargeable while attached or separately
- Compact, rugged, and quiet
- Stainless steel belt clip with built-in tripod connector
- Key pad lock system



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# BUCK Elite - 5

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### Performance Profile

Model: LP-5

Flow Range: 0.8-5 LPM (800-5000 cc/min)

5. 799 cc/min

With Universal Low Flow Holder

P.N. APB-109030

Compensation Range:

5000 cc/min up to 15+water back pressure 4000 cc/min up to 30+water back pressure 3000 cc/min up to 40+water back pressure 2000 cc/min up to 60+water back pressure

1000 cc/min up to 30+water back pressure 800 cc/min up to 15+water back pressure

Accuracy: ± 5% of Compensation Range

Run Time (hrs) at different backpressure and flow rate (cc/min) Backpressure (inches of water)

Flow Rate 5+ 10+ 15+ 20+ 30+ 40+ 50+ 60+

1000 27hr 21hr 17hr 14hr 10hr

2000 19hr 17hr 15hr 13hr 9hr 7hr 5hr 3hr

3000 17hr 14hr 11hr 9hr 7hr 5hr

4000 15hr 11hr 9hr 8hr 5hr

5000 11hr 8hr 6hr

Low Flow using Universal Low Flow Holder

5 to 799cc/min 8 hours

Times:

Data Storage: Flow rate, elapsed clock time, accumulated

volume, temperature, DP and any Flow Faults

are logged in the memory for download to PC

Display: Backlit LCD with 2 lines of 16 Characters

Normal Operation: Battery Level, Flow Rate, Elapsed

Time, Volume Collected, Timer, DP & Temp.

Flow Fault Displays: Flow Fault, or Filter Off

## **Operating Instructions**

#### **Buck Elite-5**

Battery Capacity. Each bar represents approximately 1/4 of power remaining.

ON and OFF key turns pump off when pressed for 4 seconds. Also acts as an escape key in subdisplays and return to the Main display.



Press and Hold Set key and use the arrow key to change display values

UP and DOWN key serve as dynamic key to operate and display text directly above. Also serves to change display settings while SET key is pressed.

## **Specifications**

**Power Supply:** 

Single Pack, NiMH Batteries: 4.8V, 2.15 Ah Triple Pack, NiMH Batteries 4.8V, 6.45 Ah **Recharge Time:** Charger:

<u>Battery</u> *QuickOne*ï *QuickFive*ï Standard Single Pack 2Hr 2Hr 16Hr Triple Pack 6Hr 6Hr

Quick-Chargers: Input Voltage 100 to 240 VAC Standard-Chargers: Input Voltage 120 VAC or 230 VAC Approvals: CE EMC Directive (EMCD) 89/336/EEC

UL and cUL (pending), ATEX (pending)

Temperature:

Operating 32°F to 113°F (0°C to 45°C) Storage 32°F to 113°F (0°C to 45°C) Charging 41°F to 104°F (5°C to 40°C)

Case: Polycarbonate steel fiber filled, RFI/EMI-shielded

**Size:** 4.5+H x 4+W x 2+D

(11.4 cm H x 10.2 cm W x 5 cm D)

Weight: 19 oz (539g)

PRODUCT	DESCRIPTION	
APB-908000	Buck Elite <sup>™</sup> -5 Single Pack Pump kit with 120V wall charger.	
APB-908020	Buck Elite <sup>™</sup> -5 Single Pack Pump kit with 230V wall charger.	
APB-947200	Buck Elite <sup>™</sup> -5 5 pk Pump kit with Quick Five charger and Pelican case.	

\* Pump kit includes pump with a single pack NiMH battery, standard 120VAC battery charger, Luer hose adapter, shirt/hose clip, 3 feet of vinyl hose and operating manual. Universal low flow holder for sorbent tubes & PC link cable sold seperately.

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<sup>\*\*</sup> Pump 5-pack kit includes 5 each: pumps with single pack NiMH batteries, Luer hose adapter, shirt/hose clip, and 3 feet of vinyl hose. Also included is two operating manuals, one *QuickFive*i charger 100-240VAC, and a durable hard plastic 1500 Pelican case with lifetime warranty that accommodates additional accessories. Universal low flow holder for sorbent tubes sold seperately