



BUCK Elite™ - 12 Pump

Tech Brief
T100-912

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).

Main Display



Other features include elapsed time, flow rate, and accumulated volume. Programmable timer for delayed start/stop run. The PC link capability lets you download the sampling data into a PC using the RS232COM port and the Buck PC link cable. The built in duration timer counts down the sampling time up to 40 hours and automatically turns the pump off.



Flow Range 3 to 12 LPM
Low Flows 0.05 - 0.8 LPM with
Low Flow Holder



Features:

- Capable for Data logging and programmable for Start/Stop and Duration Sampling.
- High back pressure compensation, up to 40" of water @4LPM
- Accuracy: $\pm 5\%$ of compensation range
- Flow range 3 to 12LPM. Low flow of 0.05-0.8 LPM with Universal low flow adapter.
- Flow compensation for filter plugging and battery voltage
- "Auto-restart" within one minute of a flow fault
- Battery pack rechargeable while attached or separately
- Stainless steel belt clip with built-in tripod connector
- Key pad lock system
- One year warranty



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Performance Profile

Model: Buck Elite - 12
Flow Range: 3-12 LPM (3000-12000 cc/min)
0.05-0.8 LPM With Universal Low Flow Holder
P.N. APB-109030
Compensation Range:
12.0LPM from 3" up to 5" water back pressure
10.0LPM from 3" up to 12" water back pressure
8.0LPM from 3" up to 12" water back pressure
6.0LPM from 3" up to 30" water back pressure
5.0LPM from 3" up to 36" water back pressure
4.0LPM from 3" up to 40" water back pressure
3.0LPM from 3" up to 40" water back pressure

| | | | | | | | | |
|-----------------|----|-----------------------------------|-----|-----|-----|-----|-----|-----|
| Accuracy: | | ± 5% of Compensation Range | | | | | | |
| Run Time (hrs.) | | at different Water Back pressure. | | | | | | |
| Flow Rate | | Water Back Pressure | | | | | | |
| LPM | 5" | 10" | 15" | 20" | 25" | 30" | 35" | 40" |
| 3 | 50 | 36 | 26 | 20 | 17 | 15 | 12 | 10 |
| 4 | 41 | 29 | 23 | 17 | 13 | 11 | 9 | 8 |
| 5 | 31 | 23 | 18 | 14 | 11 | 9 | 8 | |
| 6 | 24 | 17 | 14 | 11 | 9 | 8 | | |
| 8 | 14 | 11 | | | | | | |
| 10 | 7 | 4 | | | | | | |
| 12 | 4 | | | | | | | |

Pressure mode: 0.05-0.8LPM : 8 hrs.

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

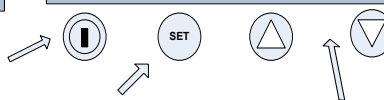
Operating Instructions

Buck Elite-12

Battery Capacity. Each bar represents approximately ¼ of power remaining.



ON and OFF key turns pump off when pressed for 4 seconds. Also acts as an escape key in sub-displays 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:

Triple Pack, NiMH Batteries 4.8V, 6.45 Ah

Recharge Time: Charger:

Quick-Chargers: Input Voltage 100 to 240 VAC

| Battery | QuickFive™ | Standard Smart Charger |
|-------------|------------|------------------------|
| Triple Pack | 6Hrs | 6-7Hrs |

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: 5.75"H x 4"W x 2"D
(11.4 cm H x 10.2 cm W x 5 cm D)

Weight: 31 oz (912g)

| PRODUCT | DESCRIPTION |
|------------|--|
| APB-908300 | Buck Elite™ -12 Single Pack Pump kit with standard smart 120V wall charger |
| APB-908320 | Buck Elite™ -12 Single Pack Pump kit with standard smart 230V wall charger |
| APB-948000 | Buck Elite™ -12 5 pk Pump kit with Quick Five charger and case |

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* Pump kit includes pump with a Triple pack NiMH battery, standard smart battery charger, Luer hose adapter, shirt/hose clip, 3 feet of vinyl hose and operating manual.

** Pump 5-pack kit includes 5 each: pumps with Triple pack NiMH batteries, Luer hose adapter, shirt/hose clip, and 3 feet of vinyl hose. Also included is two operating manuals, one QuickFive™ charger 100-240VAC, and a durable hard plastic case that accommodates additional accessories.