

BUCK Libra Plus™ LP-5 Pump

Tech Brief T100-805

The *BUCK Libra Plus* LP-5 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 tubesLto 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. The programmable timer counts down the sampling time and automatically turns the pump off.



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

Main Display



Toggles Timer 8:00 4.0L 2000cc/m

Features:

- Runs 20 + hours @ 2.0 LPM (37 mm 0.8µ filter)
- Constant flow, high back pressure capability for 25mm 0.45µ asbestos filters
- Accuracy: ± 5% of compensation range
- Flows up to 5 LPM
- 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
- Memory free rechargeable single pack battery and optional extended run with use of triple packs
- 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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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 10+water back pressure 4000 cc/min up to 20+water back pressure 3000 cc/min up to 40+water back pressure 2000 cc/min up to 50+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 Backpressure (inches of water) rate (cc/min) 15+ 20+ 30+ 40+ 50+ Flow Rate 5+ 10+ 1000 25hr 19hr 15hr 12hr 8hr 20hr 16hr 14hr 11hr 2000 7hr 5hr 3hr 3000 15hr 12hr 9hr 7hr 5hr 3hr 4000 13hr 9hr 7hr 6hr 5000 9hr 6hr Low Flow using Universal Low Flow Holder

5 to 799cc/min 8 hours

<u>Data Storage</u>: Last flow rate, elapsed clock time, and

accumulated volume is saved into memory

until cleared for next sampling.

Display: Backlit LCD with 2 lines of 16 Characters

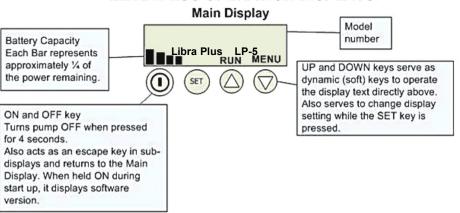
Normal Operation: Battery Level, Flow Rate, Elapsed

Time, Volume Collected, Timer

Flow Fault Displays: Flow Fault, or Filter Off

Operating Instructions

LIBRA PLUS OPERATION DISPLAYS



Specifications

Power Supply:

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

<u>Battery</u>	<i>QuickFive</i> ï	Standard Smart Charger
Single Pack	2-3Hrs	2.5Hrs
Triple Pack	7-8Hrs	7-8Hrs

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

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-906200	*BUCK Líbra Plusï LP-5 Pump Kit	
APB-946200	**BUCK Libra Plusï LP-5, 5-pack Pump Kit	
APB-109030	Adjustable Universal Low Flow Holder	1

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

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^{**} 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* charger 100-240VAC, and a durable hard plastic case that accommodates additional accessories. Universal low flow holder for sorbent tubes sold separately.