ECONOAIR PREMIUM L-5PTR

The F&J ECONOAIR Premium L-5PTR 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 L-5PTR can be programmed for timing routine activated sampling.

The purpose of this pump is to draw air contaminants in through a sampling media such as 25 and 37 mm filter cassettes, bubble impingers, long-duration color detector tubes; to gauge personnel exposure to gases, vapors, particualtes, aerosols, etc. The operator can select to report flow rates and volumes to ambient conditions or to a Reference Temperature and Pressure.

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 built in timer counts down the sampling time up to 40 hours and automatically turns the pump off. All data is saved and cleared for next sample under the MENU "Clear All Data" option

Features:
- Runs 20 hours @ 2.0 LPM (37 mm 0.8µ filter)
- Increased back pressure capability, up to 50" of w.c. @ 2 LPM
- Accuracy: ± 5% of compensation range
- High backpressure capable for 25 mm 0.45µ asbestos filters
- Flow compensation for filter plugging and battery voltage
- Dual flow range easily handles Impingers, cyclones and tubes
- "Auto-restart" within one minute of a flow fault
- Two-hour rechargeable single pack batteries 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
- Timing routine activated sampling
- Correction of flow rates and volumes to a Reference Temperature and Pressure
- Premium models are capable of Data Logging. PC Software and for download of
-     data requires optional PC link cable
- The PC link with Windows 10 and Windows 11 operating system using the RS232 port and the PC link cable
- Delayed start time with auto shut off feature is available upon request

Rev.: 20 February 2025

Performance Profile: Model: L-5PTR
Flow Range: 0.8 – 5 LPM (800-5000 cc/min)

5-800 cc/min with Universal Low Flow Holder
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 30" water back pressure
2000 cc/min up to 50" water back pressure
1000 cc/min up to 50" water back pressure
 800 cc/min up to 15" water back pressure
Accuracy: ± 5% of Compensation Range

Run time (hrs) at different back pressure 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					

* Without Data Logging Feature Activated

Low Flow using Universal Low Flow Holder: 5 – 800 cc/min8 hours
Data Storage: 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

Specifications
Power Supply: Single Pack, NiMH Batteries: 4.8V, 2.15 Ah
              Triple Pack, NiMH Batteries: 4.8B, 6.45 Ah
Recharge Time:

Battery	Charger		
	QuickOne	QuickFive	Standardization
Single Pack	2 Hr	2 Hr	16 Hr
Triple Pck	6 Hr	6 Hr	

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   32ºF to 122ºF (0ºC to 50ºC)
        Storage   32ºF to 122ºF (0ºC to 50°C)
        Charging   41ºF to 104ºF (5ºC to 40ºC)
Case: Polycarbonate steel fiber filled, RFI/EMI-shielded
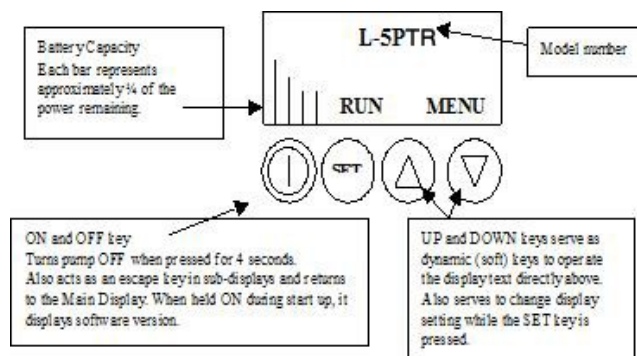**Size:**   4.5"H × 4"W × 2"D
        (11.4 cm H × 10.2 cm W × 5 cm D)
Weight: 19 oz   (539 g)

PRODUCT	DESCRIPTION
906200	L-5PTR Pump Kit
946200	L-5PTR, 5-pack Pump Kit
109030	Adjustable Universal Low Flow Holder
PTRKIT	Data Logging, PC software and cable

L-5PTR OPERATION DISPLAYS
Main Display

* 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. Kit does not include Universal Low Flow Holder for sorbent tubes.

** 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 are two operating manuals, One QuickFive charger 100-240VAC and a durable hard plastic 1500 Pelican case with lifetime warranty that accommodates additional accessories. Kit does not include Universal Low Flow Holder for sorbent tubes.

Instructions to Enable Data Logging And Download Logs

F&J L-XPTR Series is capable of storing seven days of sampling data in the internal memory if data is logged every minute. To enable data logging follow the instructions below.

1. Set flow and calibrate the pump as mentioned in section 1.
2. In the main display, press Menu key (Down arrow) and scroll down to Log Sample Rate screen
3. By default log rate is Disabled. Press and Hold Set Key and Press UP arrow to enable log rate in the format of minutes . 1-255 mins.
4. Press ON key once to escape back to Main display or Down arrow to scroll through the menus and then to main display where sampling could be started by pressing RUN (UP arrow) and accumulate logs.

Requirements for Downloading Logged Data:

1. PC with Windows 10 or Windows 11 operating system and RS 232 port.
2. F&J PC Link Elite software package part no. 109101 (includes the PC link cable part no. 109048).

F&J PC Link Elite software package can be purchased from F&J.

F&J PC link cable 109048 needs to be connected to the RS232 port on the PC and the other end to the pump port . Pump needs to be turned on to make the connection.

If RS232 port is not present in the PC then a USB to RS232 adapter is required to make the connection. Check your lo-cal electronic store for this adapter and download the latest driver file to make this adapter work properly.

Example of Logged Data

PC Link Express Registered Version

File   Help

	Pump Communication		Program Pump		
	Setup Pump		Run Mode		Logs

Serial Number: ELI50000   F&J L-5PTR

Number	R06 Log Type	Date/Time	Battery	Temperature	DP	Elapsed Mins	Flow Rate	Volume
1	Calibration	12/10/10 13:39:50	51 %	79 F	0.50 inH2O	0 mins	2000 cc/min	0.00 L
2	Start Run	12/10/10 13:39:54	51 %	79 F	0.49 inH2O	0 mins	2000 cc/min	0.00 L
3	Run Update	12/10/10 13:40:23	41 %	79 F	6.01 inH2O	0 mins	2000 cc/min	0.93 L
4	Run Update	12/10/10 13:41:23	41 %	79 F	5.88 inH2O	1 mins	2000 cc/min	2.93 L
5	Run Update	12/10/10 13:42:24	41 %	79 F	6.08 inH2O	2 mins	2000 cc/min	4.93 L
6	Run Update	12/10/10 13:43:24	41 %	79 F	6.06 inH2O	3 mins	2000 cc/min	6.93 L
7	Run Update	12/10/10 13:44:25	41 %	79 F	6.01 inH2O	4 mins	2000 cc/min	8.93 L
8	Run Update	12/10/10 13:45:25	41 %	79 F	5.97 inH2O	5 mins	2000 cc/min	10.93 L
9	Run Update	12/10/10 13:46:26	38 %	79 F	5.89 inH2O	6 mins	2000 cc/min	12.93 L
10	Run Update	12/10/10 13:47:25	38 %	79 F	6.01 inH2O	7 mins	2000 cc/min	14.93 L
11	Run Update	12/10/10 13:48:26	38 %	79 F	5.95 inH2O	8 mins	2000 cc/min	16.93 L
12	Run Update	12/10/10 13:49:26	38 %	79 F	6.15 inH2O	9 mins	2000 cc/min	18.93 L
13	Run Update	12/10/10 13:50:27	38 %	79 F	6.05 inH2O	10 mins	2000 cc/min	20.93 L
14	Run Update	12/10/10 13:51:27	38 %	79 F	5.94 inH2O	11 mins	2000 cc/min	22.93 L
15	Run Update	12/10/10 13:52:28	38 %	79 F	5.96 inH2O	12 mins	2000 cc/min	24.93 L
16	User Stop	12/10/10 13:52:52	38 %	79 F	6.06 inH2O	12 mins	2000 cc/min	25.76 L

Read Logs From Pump

Reading logs

Total Logs Saved are: 16

Save Logs   Erase Logs In Pump   Clear PC Screen

All logs are saved in English unit of Measurement