

High Volume Air Sampler MODEL H-810 DC



- **HIGH ACCURACY**
- **RUGGED**
- **LCD DISPLAYS**
Elapsed Sample Time
Flow Rate
Total Volume
- **MICROPROCESSOR BASED**
- **BATTERY-BACKED**
- **DATA MEMORY**

The RADēCO™ Model H-810DC is a dependable, lightweight high volume air sampler which incorporates the reliability of the Model H-809V with an Air Volume Totalizer. This microprocessor based unit is designed to eliminate the use of rotometers and mechanical time meters, simplifying air sampling procedures, while adding significantly higher accuracy to air sampling data.

The Air Volume Totalizer portion of the sampler is composed of an enclosed air-turbine which rotates at speeds proportional to the air velocity of the sampled air. The turbine's rotation is sensed by a reflective sensor/breaker disk. The microprocessor converts the signal to volume and displays the flow rate, total volume, and elapsed time on the LCD readout.

The Model H-810DC may be operated in the TOTAL VOLUME mode or the TOTAL ELAPSED TIME mode with the mode of operation determined by the user's established procedures. All functions are entered during the calibration mode. The functions/parameters established during calibration may be locked in using the keypad security. When the keypad security is on, all keys on the keypad are disabled, with the exception of the START/STOP and UNITS keys. The UNITS key will toggle the LCD display from CFM to LPM.

The operation of the Model H-810DC is a very simple four-step procedure, and the training required by the user is relatively short. Its operational procedure is:

1. Connect to a DC power source.
2. Install the sample holder with filter media.
3. Turn power switch on.
3. Press the start key.

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The Model H-810DC samples the environment until the desired total volume or total elapsed time has been reached and then turns itself off. The LCD readout indicates the total volume and elapsed sample time. A STOP key is provided to stop the sampling procedure at any point during the sampling period, and the total volume of air sampled up to that point is indicated. Should the power be cut off, the unit will store the total volume and sample period and display it when power is restored.

If the FLOW reading is blinking during regular operation, it is because the unit is running beyond its calibrated range.

The Model H-810DC has been designed using the latest in technology. The unit is microprocessor based with battery backed data memory to store operational parameters for as long as 10 years. All calibrations are performed using the on-board membrane key pad.



A 2" wide, 6' belt for carrying purposes or for hanging the instrument during sampling is provided.

A tripod (shown on front cover) is available as well as different style flow barrels for varying flow rates.

This unit operates on 7 to 30 VDC. Optimum flow rates come from 24VDC available from the RAD1224 Power Unit.

TYPICAL MAXIMUM FLOW RATES FOR VARIOUS COMBINATIONS OF FILTERS AND CARTRIDGES			
CARTRIDGE	HD-206 FILTER 47mm DIAMETER	LB-5211 FILTER 47mm DIAMETER	GELMAN AE FILTER 47mm DIAMETER
	FLOW RATE (CFM)	FLOW RATE (CFM)	FLOW RATE (CFM)
CP-100	1.4 (12V) 2.9 (24V)	1.0 (2.2)	.8 (1.9)
CP-200	2.1 (4.4)	1.3 (3.1)	1.1 (2.5)
BG-300	2.3 (4.9)	1.4 (3.2)	1.1 (2.6)
GY-130	1.0 (2.2)	.8 (1.8)	.7 (1.6)
None	3.0 (7.1)	1.7 (4.0)	1.4 (12V) 2.8 (24V)

