

# The Portable DataLab

## *the* *Portable DataLab* Advantage...



*A simple yet powerful data acquisition tool* that harnesses the computational power of Hewlett-Packard's HP 49G, HP 48G series, and HP 38G calculators to create a complete data collection and analysis package for the classroom, the field and other research environments.

The *DataLab's* versatile hardware design and software also work fluidly with the PC and Macintosh platforms.

With communication speeds up to 56K baud, the *DataLab* is the cost-effective choice for many microcomputer-based data logging applications.

Heating, cooling, motion, friction, magnetic fields, light, sound, pH, humidity... we are surrounded by education opportunities in applied math, science and engineering. The *Portable DataLab* brings these opportunities and more

## ...all within your grasp.

- *DataLab Companion* software for the HP 38G, HP 48G series and HP 49G optimize each calculator's features, such as commonly used keys, analysis functions and memory.
- *DataLab's* ample memory saves up to 32,000 data points internally.
- *DataLab's* high resolution triggering means more accuracy when readings of one channel influence the data collection on others.
- *DataLab* users have many exciting real-time display and graphing opportunities with transfer rates of up to 9.6K for calculators and 56K for computers.
- *DataLab's* CMOS-compatible digital ports allow application in a variety of control, monitoring and lab test situations.



## Here are a few sample screens from the HP 48GX DataLab Companion software.

Under the guidance of a team of science and math teachers, menus were designed to be easy to use in a classroom setting.



Stored experiment setups can be easily retrieved, then executed or edited.



An experiment setup shows which probes are being used on which ports, what the sample quantities are and the collection rates.



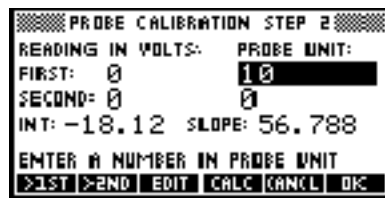
Data can be displayed in columns or graphs, both real time and in batch mode.

N	TIME	TEMP.	
1	17.53	72.523	
2	17.73	72.647	
3	17.93	72.647	
4	18.13	72.523	
5	18.331	72.523	
6	18.531	73.022	
7	18.731	72.772	

START MOVE COL -COL 2VAR GRAP



Probe calibration is no mystery. You can add a new probe or simply recalibrate one that is already on the list.



Let the DataLab Companion be your guide through the adventures and rewards of experimentation.

## For more information...



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## Portable DataLab Specifications

- External ports: 3 analog, 1 digital input, 1 digital output, 1 ultra sonic motion detector port (Digital I/O contain 4 lines & clock)
- COM port with standard 9 pin serial connector and transfer speeds of up to 56K baud
- Data collection rates of up to 20,000 data points per second
- Internal combined channel collection of up to 32,000 data points
- Microphone and light sensor built in
- External temperature probe included
- Compatible with many commonly used probes
- Simultaneous sampling on all channels
- Analog channels can be triggered at any level
- CMOS compatible digital I/O ports
- Analog input: 12 bit A/D converter
- Powered internally by 4 AA batteries
- External power source options are AC adapter or 12-volt DC
- Probe auto identification capability
- Operating temperature range is 0 to 45°C, maximum humidity 90% at 40°C
- Durable plastic case: 21.0 cm L, 9.0 cm W, 3.5 cm D
- Total weight with batteries is 326 g
- Classroom activity source book for math, physics and chemistry included
- DataLab Companion experiment set up and analysis software for HP 38G, HP 48G series, HP 49G, PC and Macintosh\* included
- One year limited warranty

\* Macintosh is a trademark of Apple Computer Inc.