

*SD card real time data Recorder, USB/RS232*

# SOUND LEVEL METER

Model : SL-4023SD



Your purchase of this SOUND LEVEL METER with SD CARD DATA RECORDER marks a step forward for you into the field of precision measurement. Although this METER is a complex and delicate instrument, its durable structure will allow many years of use if proper operating techniques are developed. Please read the following instructions carefully and always keep this manual within easy reach.



## 2. SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit.
Display	LCD size : 52 mm x 38 mm LCD with green backlight ( ON/OFF ).
Measurement Range	30 - 130 dB.
Resolution	0.1 dB.
Function	dB ( A & C frequency weighting ), Time weighting ( Fast, Slow ), Peak hold, Data hold Record ( Max., Min. ).
Accuracy (23 ± 5 °C)	Characteristics of " A " frequency weighting network meet IEC 61672 class 2.  Under 94 dB input signal, the accuracy are : 31.5 Hz ± 3.5 dB 63 Hz ± 2.5 dB 125 Hz ± 2.0 dB 250 Hz ± 1.9 dB 500 Hz ± 1.9 dB 1 K Hz ± 1.4 dB 2 K Hz ± 2.6 dB 4 K Hz ± 3.6 dB 8 K Hz ± 5.6 dB  <i>Remark :</i> <i>The above spec. are tested under the environment RF Field Strength less than 3 V/M &amp; frequency less than 30 MHz only.</i>

Frequency Weighting Network	Characteristics of A & C.  A weighting : The characteristic is simulated as "Human Ear Listing" response. Typical, if making the environmental sound level measurement, always select to A weighting.  C weighting The characteristic is near the "FLAT" response. Typical, it is suitable for checking the noise of machinery (Q.C. check) & knowing the sound pressure level of the tested equipment.
Time weighting (Fast & Slow)	Fast - t = 200 ms * "Fast" range is simulated the human ear response time weighting. Slow - t = 500 ms * "Slow" range is easy to get the average values of vibration sound level.
Data hold	To freeze the measurement value.
Peak hold	To keep the peak ( max. ) measurement value.
Range selector	<i>Auto range :</i> 30 to 130 dB. <i>Manual range :</i> 3 range, 30 to 80 dB, 50 to 100 dB, 80 to 130 dB, 50 dB on each step, with over & under range indicating.
Frequency	31.5 to 8,000 Hz.
Microphone type	Electric condenser microphone.
Microphone size	Out size, 12.7 mm DIA. ( 1/2 inch).

Calibration VR	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver. * Calibrated via external SOUND CALIBRATOR ( SC-941, optional ).
Calibrator	B & K (Bruel & kjaer), MULTIFUNCTION ACOUSTIC CALIBRATOR 4226.
Datalogger Sampling Time Setting range	Auto 1 second to 3600 seconds <i>@ Sampling time can set to 1 second, but memory data may loss.</i> Manual Push the data logger button once will save data one time. <i>@ Set the sampling time to 0 second.</i> <i>@ Manual mode, can also select the 1 to 99 position ( Location ) no.</i>
Memory Card	SD memory card. 1 GB to 16 GB.
Advanced setting	* Set clock time ( Year/Month/Date, Hour/Minute/ Second ) * Decimal point of SD card setting * Auto power OFF management * Set beep Sound ON/OFF * Set sampling time * SD memory card Format
Over Indication	Show " - - - - ".
Data Hold	Freeze the display reading.
Memory Recall	Maximum & Minimum value.
Sampling Time of Display	Approx. 1 second.
Data Output	RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug. * Connect the optional USB cable USB-01 will get the USB plug.
AC output	AC 0.5 Vrms corresponding to each range step. * Output impedance : 600 ohm.

Power off	Auto shut off saves battery life or manual off by push button.
Operating Temperature	0 to 50 °C .
Operating Humidity	Less than 85% R.H.
Power Supply	* Alkaline or heavy duty DC 1.5 V battery ( UM3, AA ) x 6 PCs, or equivalent. * DC 9V adapter input. ( AC/DC power adapter is optional ).
Power Current	Normal operation ( w/o SD card save data and LCD Backlight is OFF ) : <i>Approx. DC 12 mA.</i> When SD card save the data but and LCD Backlight is OFF ) : <i>Approx. DC 51 mA.</i> * <i>If LCD backlight on, the power consumption will increase approx. 30 mA.</i>
Weight	489 g/1.08 LB.
Dimension	245 x 68 x 45 mm. ( 9.6 x 2.7x 1.9 inch ).
Accessories Included	* Instruction manual.....1 PC
Optional Accessories	* Sound calibrator ( 94 dB ), SC-941. * Sound calibrator ( 94/114 dB ), SC-942. * Sound wind shield ball, SB-01 * SD Card ( 2 GB ) * USB cable, USB-01. * RS232 cable, UPCB-02. * Data Acquisition software, SW-U801-WIN. * AC to DC 9V adapter. * Soft carrying case, CA-05A. * Hard carrying case, CA-06.