Model 831 - Any Data Displays (PDF)

The Instrument Software: supports the organization and display of the measurement data such that the interpretation of measurement data is a logical and simple task for the end-user. The software provides multiple display choices by the use of simultaneous measurement parameters for frequency weightings and detector selection.
The data shown on the Live Page are always active, real-time measurements enabling current Sound Level Meter data to always be available as Leq, Instantaneous RMS and Peak level data. When the optional Octave Band Analysis firmware option is installed 1/1 and 1/3 octave band data can also be displayed as Live Data.

Live Page

Sound Level Meter Live Displays

The SLM Live Display shows the following "Real-Time" measurements:

(1) Bar Graph display showing 1second Leq data over the last 120seconds

(2) Leq Numeric Value for selected frequency weighting (A/C/Z) and selected RMS detector (Slow/Fast/Impulse)

(3) User Selected SLM Parameter

(4) Measurement Elapsed Time

			Live SPL		
	Leq	Lpeak	Slow	Fast	Impulse
A	√	√	√	√	√
C	√	√	√	√	√
Z	√	√	√	√	√
User Selected SLM Parameter ***(Select one parameter for display)***					

Overall Page

The basic difference between the Live page and the Overall page is that the Overall page displays data that is averaged beginning from the time the measurement was started by pressing the Run key to the elapsed time indicated at the top of the display. The time of the measurement will be stopped by pressing the Pause or the Stop key. Pressing the Run key will cause the measurement to continue. The basic Sound Level Meter data displayed in the Overall Page is the same as the Live Page data. Other displays available in the Overall Page section are associated with the Optional functions via the embedded firmware. In addition to the displays shown in the Live Page section Maximum, Minimum and Peak Sound levels are also measured as indicated in the following display. In addition to the 1/1 & 1/3 Octave Band spectra measurements a Spectrum Normalization function can be viewed where a user-selected reference spectrum can be subtracted from the measured spectrum.

The SLM Overall Display shows the following measurements over the "Measurement Period":

(1) Bar Graph display showing 1second Leq data over the last 120seconds

(2) Leq Numeric Value for selected frequency weighting (A/C/Z) and selected RMS detector (Slow/Fast/Impulse)

(3) User Selected SLM Parameter

(4) Measurement Elapsed Time

			Lmax			Lmin		
	Leq	Lpeak	Slow	Fast	Impulse	Slow	Fast	Impulse
A	√	√	√	√	√	√	√	√
C	√	√	√	√	√	√	√	√
Z	√	√	√	√	√	√	√	√
User Selected SLM Parameter (Select one parameter for display)								

Any Level

Sound Level Meter Any Level Displays

The displays in the Live and Overall Pages show 'user selected' parameters of frequency weighting, detector selection and peak weighting. However, the Model 831 SLM is simultaneously calculating values for all possible selections of frequency weighting (A/C/Z), detector selection (Slow/Fast/Impulse) and Peak weighting (A/C/Z). The Any Level display can be accessed from the Live and Overall screens plus displays of History Data.

When initiated from the Live Screen Page the following Any Level Display is shown:

(1) Any Level Live Display:

Detector	Frequency		
	A	C	Z
Leq	√	√	√
SPL (Slow)	√	√	√
SPL (Fast)	√	√	√
SPL (Impulse)	√	√	√
Peak	√	√	√
(All parameters displayed)			

When initiated from the Overall Screen Page the following Any Level Display is shown:

(2) Any Level Overall Display

Measurement	Frequency		
	A	C	Z
Leq	√	√	√
Max (Slow)	√	√	√
Max (Fast)	√	√	√
Max (Impulse)	√	√	√
Min (Slow)	√	√	√
Min (Fast)	√	√	√
Min (Impulse)	√	√	√
Peak	√	√	√
(All parameters displayed)			