

Model 831 Measurement and Display Functions	Model 831 - Live Page					
	SLM	1/1 OBA	1/3 OBA	Triggering	Any Level Display	GPS Data Display
Sound Level Measurements:						
- Graph Display of Leq (1s) over last 120s profile	√					
- Most recent Leq (1s) value for A/C/Z frequency weighting	√					
- User-selected SLM parameters (1 from 15)	√					
- Peak Value for A/C/Z frequency weighting	√					
Octave Band Frequency Analysis:						
- Graph Display of SPL for user-selected (Slow/Fast/Impulse) detector versus frequency band cursor		√	√			
- Frequency Band SPL at cursor position		√	√			
- SPL for user-selected A/C/Z frequency weighting and Slow/Fast/Impulse detector		√	√			
- Normalized Spectrum		√	√			
Exceedance Triggered Events (Detection & Measurement):						
- Sound Pressure Level (with user-selected A/C/Z frequency weighting and Slow/Fast/Impulse detector)				√		
- Peak Level (with user-select A/C/Z frequency weighting)				√		
Simultaneous SLM Measurements (15):						
- SPL measurement values for all combination values of A/C/Z frequency weighting and Slow/Fast/Impulse detectors					√	
- Peak measurement values for all values of A/C/Z frequency weighting					√	
Environmental Noise Monitoring:						
- Radiated Sound Levels; Frequency Analysis for Classification; Exceedance Event Detection; GPS Support	√	√	√	√	√	√
Dynamic Range:						
- > 120dBA	√				√	

Model 831 Measurement and Display Functions	Model 831 – Overall Page							
	SLM	1/1 OBA	1/3 OBA	Ln %	Events	Community Noise	Industrial Hygiene	Any Level Display
Sound Level Measurements:								
- Graph of Leq profile for user-selected A/C/Z weighting and Slow/Fast/Impulse detector over the run time ... updated every 1s	√							
- Equivalent Sound Level based on the measurement run time for user-selected A/C/Z weighting and Slow/Fast/Impulse detector	√							
- User-selected SLM parameters (1 from 24)								
Maximum, Minimum and Peak Sound Levels:								
- Leq; Instantaneous RMS value (L); Lmax; Lmin for user-selected A/C/Z RMS detector frequency weighting	√							
- Slow/Fast/Impulse RMS detector and Lpeak; Lpeak(max) for user-selected A/C/Z Peak detector frequency weighting	√							
Octave Band Frequency Analysis:								
- Graph Display of Leq; Lmax and Lmin versus frequency band cursor		√	√					
- Leq values for user-selected A/C/Z frequency weighting versus frequency band cursor		√	√					
- Lmax and Lmin for user selected A/C/Z weighting and Slow/Fast/Impulse detector		√	√					
- Normalized Spectrum		√	√					
Ln Statistics:								
- Values of Ln (dB) exceeded n% of the time for 6 n percentage values ... over the run time Note: User can chose 'n' values to read Ln for other values of 'n'				√				

Model 831 – Overall Page Continued

Exceedance Triggered Events:								
- Number of exceedances that have occurred during the run time for two RMS (L) values for user-selected A/C/Z frequency weighting and Slow/Fast/Impulse detector					√			
- Number of exceedances that have occurred during the run time for three Peak (Lpeak) user-selected A/C/Z frequency weighting					√			
Simultaneous SLM Measurements (24):								
- SPL measurement values for all combination values of A/C/Z frequency weighting and Slow/Fast/Impulse detectors								√
- Peak measurement values for all values of A/C/Z frequency weighting								√
Environmental Noise Monitoring:								
- Radiated Sound Levels; Frequency Analysis for Classification; Exceedance Event Detection; GPS Support	√	√	√			√		√
- Sound Exposure Levels						√	√	
- Noise Dose (2 Independent Noise Dosimeters)							√	
- SEA (Quebec Canada)							√	

Model 831 – Data Logging – Run Mode Functions

Run Mode Functions	Without Measurement History					With Measurement History				
	Start		Stop		Time Interval Available	Start		Stop		Time Interval Available
	Man	Auto	Man	Auto		Man	Auto	Man	Auto	
Manual Stop	√		√		No	√		√		No
Timed Stop*	√			√	No	√			√	No
Stop when Stable	√			√	No	√			√	No
Continuous**		√		√	No		√		√	Yes
Single Block Timer	√		√		No	√		√		Yes
Daily Timer	√		√		No	√		√		Yes

*Measurement Counter available with Measurement History (number of measurements to be made with each manual initiation)

**Single 24 hour Timed Block available

1. Time History Period User-Selected Setting
(100ms to 24 hrs for all Options/20ms/50ms for limited Options)
2. Time History Data Logging Options

Model 831 – Data Logging – Time History Options

			Lmax			Lmin			SPL (L)		
	Leq	Lpeak	Slow	Fast	Impulse	Slow	Fast	Impulse	Slow	Fast	Impulse
A	√	√	√	√	√	√	√	√	√	√	√
C	√	√	√	√	√	√	√	√	√	√	√
Z	√	√	√	√	√	√	√	√	√	√	√

Model 831 – Data Logging – Time History Options (continued)

			OBA 1/1 Lmax			OBA 1/1 Lmin			OBA 1/3 Lmax			OBA 1/3 Lmin		
	OBA 1/1 Leq	OBA 1/3 Leq	Slow	Fast	Impulse	Slow	Fast	Impulse	Slow	Fast	Impulse	Slow	Fast	Impulse
A	√	√	√	√	√	√	√	√	√	√	√	√	√	√
C	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Z	√	√	√	√	√	√	√	√	√	√	√	√	√	√

Model 831 – Data Logging – Time History Options (continued)*

	OBA 1/1 SPL			OBA 1/3 SPL			Ltwa1			Ltwa2		
	Slow	Fast	Impulse	Slow	Fast	Impulse	Slow	Fast	Impulse	Slow	Fast	Impulse
A	√	√	√	√	√	√	√	√	√	√	√	√
C	√	√	√	√	√	√	√	√	√	√	√	√
Z	√	√	√	√	√	√	√	√	√	√	√	√

*Plus Non-Acoustic Data

Model 831 – Data Logging – Event History

Model 831 Event History Data & Display Functions	Level Display	1/1 Octave Spectrum Display	1/3 Octave Spectrum Display	Event Time History Display	Event Spectra Time History
Sound Level Events History:					
- Event Record Number/Number of Records	√				
- Date/Time of displayed Event & Duration	√				
- Leq of displayed event for user-selected A/C/Z frequency weighting	√				
- Lpeak of displayed event for user-selected A/C/Z frequency weighting	√				
- Lmax of displayed event for user-selected A/C/Z frequency weighting and Slow/fast/Impulse for detector selection	√				
- Sound Exposure Level (LE) of displayed event for user-selected A/C/Z frequency weighting	√				
- Sound Exposure (E) of displayed event for user-selected A/C/Z frequency weighting	√				
Sound Level versus Frequency for 1/1 Octave Band Data:					
- Graph display of 1/1 Octave Spectra Leq data		√			
- Frequency at cursor position		√			
- Leq value for selected event record for user-selected A/C/Z frequency weighting at 1/1 band frequency cursor position		√			
- SPL value for selected event record for user-selected A/C/Z frequency weighting and Slow/Fast/Impulse detector selection at 1/1 band frequency cursor position		√			

Model 831 – Event History Data and Display Functions (continued)

Sound Level versus Frequency for 1/3 OBA:					
- Graph display of 1/3 Octave Spectra Leq data			√		
- Frequency at cursor position			√		
- Leq value for selected event record for user-selected A/C/Z frequency weighting at 1/3 band frequency cursor position			√		
- SPL value for selected event record for user-selected A/C/Z frequency weighting and S/F/I detector selection at 1/3 band frequency cursor p			√		
Display of Time History Record:					
- Graph display of Leq for user-selected A/C/Z frequency weighting				√	
- Leq value for user selected A/C/Z frequency weighting and Event Time History period for event at cursor position				√	
- Time History record being displayed				√	
- Number of Time History records measured				√	
- Number of Events Measured				√	
- Event being displayed				√	
Time History Record of Displayed Spectra:					
- Graph of Leq value for selected Record and Event for user-selected A/C/Z frequency weighting versus frequency bands					√
- Leq value for selected Record and Event for user-selected A/C/Z frequency weighting at Octave band frequency cursor position					√
- Selected Octave Band Spectra					√
- Frequency at cursor position					√
- Time History record of Spectrum being displayed					√
- Number of Time History records measured					√
- Number of Events Measured					√
- Event being displayed					√