Note: Due to the new ATEX Directive in Europe, all references in this document to "Ex" or "EEx" for intrinsic safety approvals should be disregarded effective 7/1/03 within the member countries of the European Union (EU). At this time, this product is not approved in accordance with the new ATEX Directive and is not sold for use in hazardous atmospheres or explosive zones by customers within the EU. Outside of the EU, all references to intrinsic safety continue without change.

comm-co

QUEST TECHNOLOGIES

Sound Level Meters & Vibration Monitors

"The ONE & ONLY System Solution"

Quest Technologies is one of the most widely recognized and respected manufacturers worldwide for safety and industrial hygiene instrumentation and software. It is through our lifelong commitment to continuous quality improvement, product innovation and a mission to delight our customers that we have achieved this status. Our expertise is the measurement, analysis and reporting of exposures to noise, vibration, heat stress, indoor air quality and toxic/combustible gases. We are unique in providing safety and industrial hygiene professionals with "The ONE & ONLY System Solution" to occupational and environmental exposure monitoring and information management – ***QuestSuite® for Windows®***. QuestSuite is a powerful, integrated software solution that brings information from all datalogging Quest instruments together in one place.

Quest Technologies is an ISO 9001 Registered Company and A2LA ISO/IEC Guide 25 Accredited Calibration Laboratory, which ensures that every Quest brand instrument is designed, built and serviced with quality and a sincere commitment to customer satisfaction. Our full line of instrumentation includes:

- Sound Level Meters
- Personal Noise Dosimeters
- Heat Stress Monitors
- Audiometer Analyzers
- Bio-Acoustic Simulators
- Octave Band Analyzers
- Indoor Air Quality Monitors
- Gas Detection Monitors
- Vibration Monitors
- Outdoor Noise Monitoring Systems

We invite you to review the information contained in this brochure. You may review our entire line of products by visiting us at www.quest-technologies.com. For additional assistance, please contact our customer service representatives at; (800) 245-0779 within the U.S., Canada & Puerto Rico, (262) 567-9157 elsewhere, fax us at (262) 567-4047 or e-mail us at sales@quest-technologies.com.

QUICK REFERENCE

FEATURES CHART

Choose the SLM that best suits your needs	BASIC SERIES METERS					ADVANCED SERIES METERS					
	210	2100	2200	1100	1200	2700	2800	2900	1700	1800	1900
Accuracy:											
Precision Type 1				●	●				●	●	●
General Purpose Type 2	●	●	●			●	●	●			
Range Without Filters:											
40 to 130 dBA	●										
30 to 140 dBA		●	●	●	●	●	●	●	●	●	●
40 to 140 dBC		●	●	●	●	●	●	●	●	●	●
Measurement Data:											
Sound Pressure Level (SPL)	●	●	●	●	●	●	●	●	●	●	●
Maximum SPL (Lmax)	●	●	●	●	●	●	●	●	●	●	●
Minimum SPL (Lmin)			●		●		●	●		●	●
Peak SPL (Lpk)			●		●	●	●	●	●	●	●
Integrated SPL (Leq/Lavg)			●		●		●	●		●	●
Sound Exposure Level (SEL)							●	●		●	●
Elapsed Time			●		●		●	●		●	●
Exceedance Levels (Ln's)							●	●		●	●
Level Day/Night (Ldn)								●			●
Noise Exposure Level (CNEL)								●			●
Time-Weighted Average (TWA)								●			●
Real Time & Date								●			●
User-Selectable Parameters:											
Frequency Weighting:											
A	●	●	●	●	●	●	●	●	●	●	●
B						●	●		●	●	
C		●	●	●	●	●	●	●	●	●	●
Linear ("Z")			●		●	●	●	●	●	●	●
Response Factors:											
Fast & Slow	●	●	●	●	●	●	●	●	●	●	●
Impulse & Peak			●		●	●	●	●	●	●	●
Exchange Rates:											
3 dB			●		●		●	●		●	●
4 dB								●			●
5 dB			●		●		●	●		●	●
6 dB								●			●
Datalogging:											
Time History								●			●
Statistical Distribution								●			●
Data Collection Modes:											
Manual Start/Stop			●		●		●	●		●	●
Scheduled Start/Stop								●			●
Threshold-Triggered Start/Stop								●			●
Data Output Formats:											
Liquid Crystal Display	●	●	●	●	●	●	●	●	●	●	●
AC/DC	●	●	●	●	●	●	●	●	●	●	●
RS-232 Serial Printer							●	●		●	●
Parallel Printer								●			●
Computer Interface							●	●		●	●
Options:											
Remote Microphone		●	●	●	●	●	●	●	●	●	●
Octave Band Filters						●	●	●	●	●	●
Vibration Integrator						●	●	●	●	●	●
Outdoor Measurement System							●	●		●	●
QuestSuite® Software								●			●

● For 5 dB exchange rate instead of 3 dB, order 1805 or 2805

Applications:

- Occupational Noise Measurements
- Noise Ordinance Enforcement
- Community Noise Assessment
- Environmental Impact Studies
- Toy Safety Testing
- Noise Control Device Evaluations
- Machine Performance Analysis
- Product Testing
- Research & Development
- Quality Control
- Maintenance Inspections & Trouble-Shooting

Quest Basic Series Sound Level Meters provide you with extremely simple-to-use tools for obtaining the most commonly required noise measurements. The Basic Series delivers the kind of red, rugged and reliable performance that has become the hallmark of Quest Technologies. Many of the features & benefits of these meters are common to all the models and include:

- **Ease-of-Use**
  Operator controls allow for fast and simple operation
- **Large Liquid Crystal Display (LCD)**
  Makes viewing readings easy even under the extremes of direct sun light or in low light areas
- **Simple One-Button Field Calibration**
  Apply the calibrator and press a simple push-button to automatically re-calibrate in the field
- **On-Screen Overload Annunciator**
  Aids in preventing false assumptions from incomplete measurement data
- **Integral AC and DC Signal Outputs**
  Allows for enhanced documentation and presentation of readings using chart recorders or other recording devices
- **Resistance to Magnetic & Electrostatic Fields**
  Superior circuit and packaging design result in meters that are highly resistant to interferences and false readings caused by EMI or RFI fields such as those produced by two-way RF communications devices
- **Integral Tripod Mount**
  Readily attaches to commercially available tripods facilitating unattended long duration sampling
- **Attractive Size & Weight**
  Meter housings measure no more than 2.8" x 9.2" x 1.3" (7.1 x 23.4 x 3.3 cm) and weighs less than 11 ounces (306 g) making them lightweight and convenient to carry
- **Convenient Power Source**
  One (1) commercial-off-the-shelf 9-volt alkaline battery (NEDA 1604A) is all that is required to power these meters and ensures that you will have ready access to a fresh supply wherever and whenever required. Slide-in design eliminates the potential for battery connection failures

210 SOUND LEVEL METER

The Quest Model 210 Sound Level Meter offers the most basic sound measurements – Sound Pressure Level (SPL) & maximum SPL - in Type 2 accuracies at an incredible value. It is the perfect choice for occupational and community noise audits and inspections.

The large liquid crystal display (LCD) provides readings in 0.1 dB increments. The convenient slide switches make the meter extremely easy-to-operate, even while wearing gloves.

Key Features:

- 40 to 130 dBA measurement range
- Fast and Slow response modes
- Displays SPL & Maximum SPL
- Low battery indicator
- Simple one-button field calibration
- Tough, RFI-shielded construction
- AC/DC output jack for recorders
- Certified intrinsically safe

1100 & 2100 SOUND LEVEL METERS

The Quest Models 1100 and 2100 Sound Level Meters provide you a choice of Precision Type 1 (1100) and General Purpose Type 2 (2100) accuracy, a broader measurement range and optional detachable microphones. Specify the Model 1100R or 2100R to receive the detachable microphone version allowing measurements up to 50 ft. (15 m) away with optional extension cables.

Key Features:

- 30 to 140 dBA measurement range
- Fast and Slow response modes
- "A" and "C" Weighting Modes
- Displays SPL & Maximum SPL
- Low battery indicator
- Simple one-button field calibration
- Optional detachable microphone
- Optional 2, 10 & 50 ft. (0.6, 3 & 15 m) microphone extension cables
- Tough, RFI-shielded construction
- AC/DC output jack for recorders
- Certified intrinsically safe

1200 & 2200 IMPULSE INTEGRATING SLM's

The Quest Models 1200 & 2200 offer superior noise measurement and analysis at a competitive price. The 1200 provides Type 1 accuracy while the 2200 offers Type 2 accuracy. With five operating modes, the 1200 and 2200 provide the most flexible monitoring options among our Basic Series Sound Level Meters. Specify the Model 1100R or 2100R to receive the detachable microphone version allowing measurements up to 50 feet (15 m) away with optional extension cables.

Key Features:

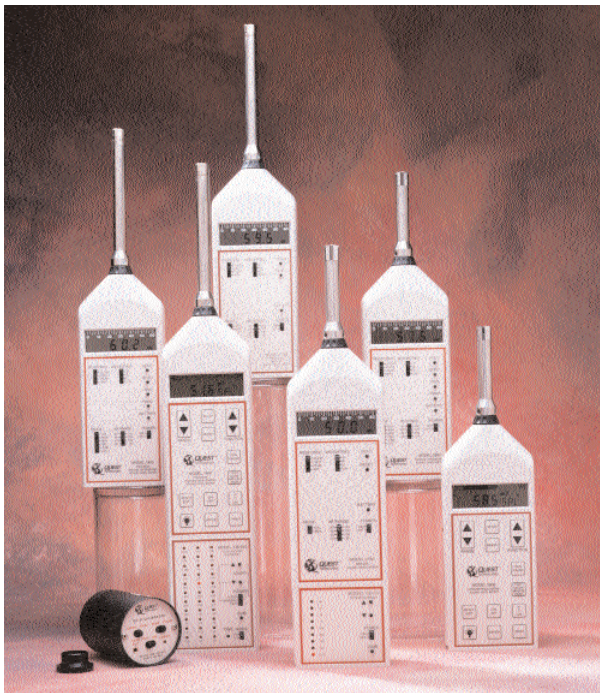
- 30 to 140 dBA measurement range
- Fast, Slow, Peak and Impulse response modes
- "A", "C" and "Z" (linear) weighting modes
- Selectable 3 and 5 dB exchange rates
- Displays SPL, Leq, Run Time, Maximum SPL, Minimum SPL & % Overload
- Low battery indicator
- Simple one-button field calibration
- Optional detachable microphone
- Optional 2, 10 & 50 ft. (0.6, 3 & 15 m) microphone extension cables
- Tough, RFI-shielded construction
- AC/DC output jack for recorders
- Certified intrinsically safe

BASIC SERIES SLM SPECIFICATIONS

	210	2100	2200	1100	1200
Measurement Range	40 to 130 dBA	30 to 140 dBA 40 to 140 dBC	30 to 140 dBA 40 to 140 dBC 43 to 143 dBPk	30 to 140 dBA 40 to 140 dBC	30 to 140 dBA 40 to 140 dBC 43 to 143 dBPk
Microphone					
Size	0.5" 13.5 mm	0.5" 13.5 mm	0.5" 13.5 mm	0.5" 13.5 mm	0.5" 13.5 mm
Type	Electret	Electret	Electret	Electret	Electret
Preamp					
Detachable	N/A	Optional	Optional	Optional	Optional
Maximum Cable Length	N/A	50 Ft. (15 m)	50 Ft. (15 m)	50 Ft. (15 m)	50 Ft. (15 m)
Internal Filters	A	A,C	A,C,Z	A,C	A,C,Z
Response Time Constants	F, S	F, S	F, S,I,P	F, S	F, S,I,P
Exchange Rates	N/A	N/A	3 or 5	N/A	3,5
Outputs	AC/DC	AC/DC	AC/DC	AC/DC	AC/DC
Temperature Range					
Operating	32°F to 122°F 0°C to 50°C	14°F to 122°F -10°C to 50°C	14°F to 122°F -10°C to 50°C	14°F to 122°F -10°C to 50°C	14°F to 122°F -10°C to 50°C
Storage	-4°F to 140°F -20°C to 60°C	-4°F to 140°F -20°C to 60°C	4°F to 140°F -20°C to 60°C	-4°F to 140°F -20°C to 60°C	-4°F to 140°F -20°C to 60°C
Batteries	9V Alkaline	9V Alkaline	9V Alkaline	9V Alkaline	9V Alkaline
Battery Life	25 to 30 hrs.	25 to 30 hrs.	25 hrs.	25 to 30 hrs.	25 hrs.
Size (add 0.5" for microphone)	2.8"x7.6"x1.3" 7x19 x3.3cm	2.8"x7.0"x1.3" 7x18x3.3cm	2.8"x7.0"x1.3" 7x18x3.3cm	2.8"x9.2"x1.3" 7x23x3.3cm	2.8"x9.2"x1.3" 7x23x3.3cm
Weight	8.4 oz. 238 g	10.3 oz. 293 g	10.3 oz. 293 g	10.8 oz. 306 g	10.8 oz. 306 g
Standards	Type 2, ANSI S1.4-1983 (R1997), IEC60651-1979 EN60651, CE Mark, ETL, CSA, EEx, SABS, Pending: MSHA 2G,	Type 2, ANSI S1.4-1983 (R1997), IEC60651-1979 EN60651, CE Mark, UL, CSA, EEx. Pending: MSHA 2G	Type 2, ANSI S1.43-1997 (R1997), IEC60651-1979 EN60651, IEC 60804-1985, CE Mark, UL, CSA, EEx. Pending: MSHA 2G	Type 1, ANSI S1.4-1983 (R1997), IEC60651-1979 EN60651, CE Mark, UL, CSA, EEx. Pending: MSHA 2G	Type 1, ANSI S1.43-1997 (R1997), IEC60651-1979 EN60651, IEC 60804-1985, CE Mark, UL, CSA, EEx, SABS Pending: MSHA 2G
	IEC/EN - 61672 - I - 1999 Committee Draft (for all models)				

Applications:

- Occupational Noise Measurements & Compliance
- Environmental Noise Measurements & Compliance
- Frequency Analysis of Sound Sources
- Hearing Protection & Noise Control Device Evaluations
- Vibration Measurement
- Audiometer Analysis & Calibration
- Engineering Control Studies
- Machine Performance Analysis
- Product Testing
- Research & Development
- Quality Control
- Maintenance Inspections & Trouble-Shooting
- Toy Safety Testing



All of our Advanced Series Sound Level Meters are designed to provide you with maximum versatility. Many of the features & benefits of these meters are common to all the models and include:

- **Ease-of-Use**
  Operator controls allow for fast and simple operation
- **Large Liquid Crystal Display (LCD)**
  Makes viewing readings easy even under the extremes of direct sun light or in low light areas
- **Digital Bar Graph**
  Compliments numeric readings and aids in the interpretation of rapidly changing display values
- **Detachable Microphone & Preamp**
  Permits measurements to be taken remotely using optional extension cables
- **Modular Design**
  Enables the expansion of the meter's functionality to include octave band analysis and vibration measurement
- **User-Selectable Measurement Parameters**
  Frequency weighting and response time constants are easily changed by the user allowing the use of these meters in a broad array of applications
- **On-screen Overload Annunciator**
  Aids in preventing false conclusions from incomplete measurement data
- **Integral AC and DC Signal Outputs**
  Allows for enhanced documentation and presentation of readings using chart recorders or other recording devices
- **Resistance to Magnetic & Electrostatic Fields**
  Superior circuit and packaging design results in meters that are highly resistant to interferences and false readings caused by EMI or RMI fields such as those produced by two-way RF communications devices
- **Integral Tripod Mount**
  Readily attaches to commercially available tripods facilitating unattended long duration sampling
- **Attractive Size & Weight**
  All meter housings measure only 3.3" x 8.2" x 1.8" (8.5 x 21 x 4.7 cm) and weigh only 24 ounces (680 g) making them lightweight and easy-to-hold
- **Convenient Power Source**
  Two (2) commercial-off-the-shelf 9-volt alkaline batteries (NEDA 1604A) are all that is required to power these meters and ensures that you will have ready access to a fresh supply wherever and whenever required

1700 & 2700 IMPULSE SLM's

The Quest Models 1700 & 2700 Impulse Sound Level Meters are the base models within our Advanced Series of meters. The 1700 provides Precision Type 1 accuracy while the 2700 provides General Purpose Type 2 accuracy. These meters are designed to provide you with a measurement of Sound Pressure Level (SPL) and maximum SPL for a variety of combinations of user-selected response time constants, frequency weightings, measurement ranges and optional octave band filter settings.

Key Features:

- As much as a 20 to 140 dB measurement range
- Fast, Slow, Peak and Impulse response modes
- A, B, C and Linear weighting modes
- Displays SPL, Max SPL and battery status
- Tough, modular construction
- Choice of (3) Optional Detachable Octave Band Filter sets
- Detachable microphone
- Optional 2, 10 & 50 ft. (0.6, 3 & 15 m) microphone extension cables
- AC/DC output jack for recorders

1800 & 2800 IMPULSE INTEGRATING SLM'S

The 1800 & 2800 provide all the functionality of the 1700 and 2700, plus much more. The Quest 1800 is Precision Type 1 accuracy while the 2800 is General Purpose Type 2 accuracy. The 1800 & 2800 adds the ability to integrate sound over time and determine average noise levels in accordance with several protocols. The 1800 & 2800 will also provide formatted outputs of accumulated measurements via RS-232-compatible devices such as a serial printer or your computer. Common Windows utilities such as HyperTerminal® can be used to capture output from these meters for storage and printing by your computer. Output content includes all displayed measurements plus a complete chart of exceedance levels from L1 to L99. When used with the optional octave band filter sets, these meters also print each full octave or 1/3 octave band reading from memory.

Key Features:

- As much as a 0 to 140 dB measurement range
- Fast, Slow, Peak and Impulse response modes
- A, B, C and Linear weighting modes
- Displays SPL, Max SPL, Min SPL, Leq, SEL, Elapsed Time and battery status
- Tough, modular construction
- Choice of (3) Optional Detachable Octave Band Filter sets

- Detachable microphone
- Optional 2, 10 & 50 ft. (0.6, 3 & 15 m) microphone extension cables
- AC/DC output jack for recorders
- Computer/Serial Printer interface

HyperTerminal® "Developed by Hilgraeve, Inc. for Microsoft

1900 & 2900 INTEGRATING / DATALOGGING SLM's

The Quest Models 1900 and 2900 are the premier products within our Advanced Series of Sound Level Meters. The 1900 provides Precision Type 1 accuracy while the 2900 provides General Purpose Type 2 accuracy. Each of these meters incorporate an internal datalogger allowing you to store one or multiples of sound studies in the field for later printing or download to a computer. Optionally, a second RMS circuit simultaneously measures both "C" and "A" weighted SPL, calculates the difference and provides the result for display or printout.

Key Features:

- As much as a 0 to 140 dB measurement range
- Fast, Slow, Peak and Impulse response modes
- A, C and Linear weighting modes
- Displays SPL, Lmax, Lmin, Leq, Lavg, TWA, LDN, CNEL Pa^2Hrs, SEL, Real Time, Elapsed Time and battery voltage
- Membrane Keypad
- Backlit Display
- Tough, modular construction
- Choice of (3) Optional Detachable Octave Band Filter sets
- Detachable microphone
- Optional 2, 10 & 50 ft. (0.6, 3 & 15 m) microphone extension cables
- AC/DC output jack for recorders
- Computer/Printer interface
- Manual-, Automatic-, or Threshold-triggered Integration & Data Logging
- User Control of What is Logged, Displayed and Printed
- Internal Battery Backup
- Parallel Printer Interface (cable optional)
- Optional Intrinsically Safe Model 2900UL
  - UL Class I, Groups C & D
  - MSHA 2G
- Stores Multiple Studies
- Stores Time History and Statistical Distribution Data
- Expandable Memory Capacity
- "C" minus "A" Option
- Supported by *QuestSuite for Windows* Software

ADVANCED SERIES SLM SPECIFICATIONS

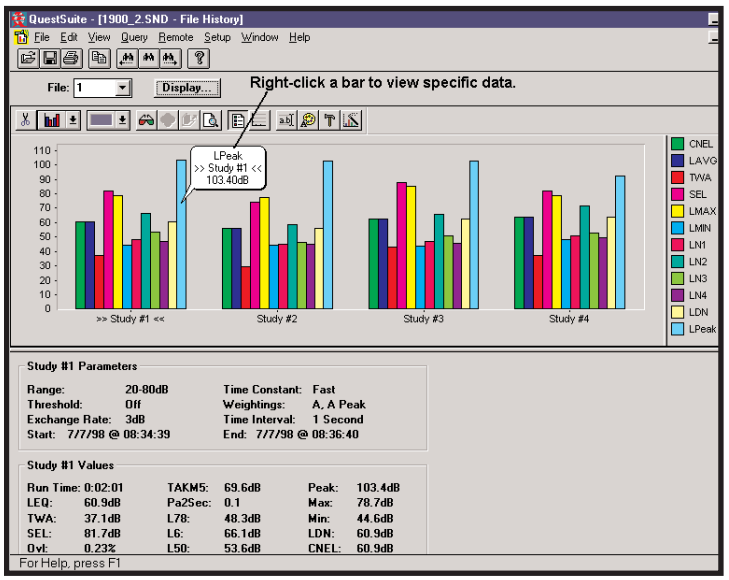
	2700	2800	2900	1700	1800	1900
Integrating	N/A	Yes	Yes	N/A	Yes	Yes
Datalogging	N/A	N/A	Yes	N/A	N/A	Yes
Measurement Range						
Meter Only	35 to 140 dBA	35 to 140 dBA	30 to 140 dBA	30 to 140 dBA	30 to 140 dBA	30 to 140 dBA
With External Filters	20 to 140 dBA	20 to 140 dBA	0 to 140 dBA	0 to 140 dBA	0 to 140 dBA	0 to 140 dBA
Microphone						
Size	0.5″ (1 cm)	0.5″ (1 cm)	0.5″ (1 cm)	0.5″ (1 cm)	0.5″ (1 cm)	0.5″ (1 cm)
Preamp						
Detachable	Standard	Standard	Standard	Standard	Standard	Standard
Maximum Cable Length	50 Ft. (15 m)	50 Ft. (15 m)	50 Ft. (15 m)	50 Ft. (15 m)	50 Ft. (15 m)	50 Ft. (15 m)
Internal Filters	A,B,C,Lin	A,B,C,Lin	A,C,Lin	A,B,C,Lin	A,B,C,Lin	A,C,Lin
External Filters	Optional	Optional	Optional	Optional	Optional	Optional
Response Time Constants	F,S,I,P	F,S,I,P	F,S,I,P	F,S,I,P	F,S,I,P	F,S,I,P
Outputs	AC/DC	AC/DC, RS-232	AC/DC, RS-232, Parallel Printer	AC/DC	AC/DC, RS-232	AC/DC, RS-232, Parallel Printer
Temperature Range						
Operating	14 to 122°F -10 to 50°C	14 to 122°F -10 to 50°C	14 to 122°F -10 to 50°C	14 to 122°F -10 to 50°C	14 to 122°F -10 to 50°C	14 to 122°F -10 to 50°C
Storage (battery removed)	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C	-4 to 140°F -20 to 60°C
Batteries	(2) 9V Alkaline	(2) 9V Alkaline	(2) 9V Alkaline	(2) 9V Alkaline	(2) 9V Alkaline	(2) 9V Alkaline
Battery Life	20 hrs (10 hrs with Filter)	16 hrs (8 hrs with Filter)	29 hrs (11 hrs with Filter)	20 hrs (10 hrs with Filter)	20 hrs (8 hrs with Filter)	16 hrs (8 hrs with Filter)
Size (add 0.5″ for microphone)	3.3″x8.2″x1.8″ 8.5x21x4.7 cm	3.3″x8.2″x1.8″ 8.5x21x4.7 cm	3.3″x8.2″x1.8″ 8.5x21x4.7 cm	3.3″x8.2″x1.8″ 8.5x21x4.7 cm	3.3″x8.2″x1.8″ 8.5x21x4.7 cm	3.3″x8.2″x1.8″ 8.5x21x4.7 cm
Weight	24 oz. 680 g	24 oz. 680 g	24 oz. 680 g	24 oz. 680 g	24 oz. 680 g	24 oz. 680 g
Standards	Type 2, ANSI S1.4-1983, IEC60651-1979, CE Mark	Type 2, ANSI S1.43-1997, IEC60651-1979, IEC60804-1985 CE Mark	Type 2, ANSI S1.43-1997, IEC60651-1979, IEC60804-1985, PTB, CE Mark See Note*	Type 1, ANSI S1.4-1983, IEC60651-1979, CE Mark	Type 1, ANSI S1.43-1997, IEC60651-1979, IEC60804-1985 PTB, CE Mark	Type 1, ANSI S1.43-1997, IEC60651-1979, IEC60804-1985, PTB, CE Mark

*Model 2900UL Carries UL Class I, Groups C & D and MSHA 2G approvals

Data Management & Analysis Software

The Heart of "The ONE & ONLY System Solution"

If your monitoring applications include requirements to retain, retrieve, analyze or report data acquired by your Quest instrumentation, then *QuestSuite for Windows* is what you need. *QuestSuite* is comprised of multiple "applets" individually addressing specific safety & industrial hygiene disciplines and bringing them together into one user interface. Current applets include noise dosimetry, sound level meter analysis, heat stress monitoring, indoor air quality assessment, toxic/combustible gas monitoring & audiometric testing. Regardless of which applet you are using, *QuestSuite* has everything you need to capture, retrieve, analyze, chart, report, archive & export logged monitoring data. All *QuestSuite* applets allow you to:



- Download data from the instrument
- Get instant access to all your important monitoring information
- Generate automated charts & reports fast & easy
- Chart data with the graph style you select, choosing the information that you want to display
- Configure test setups & program instruments with "point and click" ease
- Store instrument setup files for quick and easy reuse
- Append comments to monitoring results
- View and print text reports and graphical charts
- Annotate charts with free-form comments
- Add comments to specific data points for future reference
- Export data to other programs
- Obtain version updates via the Internet

QuestSuite for Windows – Sound Applet

The *QuestSuite* Sound Applet supports the Quest 1900 and 2900 Integrating Datalogging Sound Level Meters. The Sound Applet additionally allows you to:

- Quickly retrieve those records where measured noise values match user-specified criteria
- Specify which measured noise values are displayed on the meter
- Specify which measured noise values are included in charts & reports
- Perform "what-if" recalculations simply, without corrupting original data
- Configure your meter for changing applications, whether it be community noise, industrial hygiene surveys or various regional standards
- View calibration history, individual data points, statistics tables, exceedance charts and instrument setup parameters

OPTIONAL ACCESSORIES & SPECIALITY PRODUCTS

Quest Sound Level Meters are complimented by a host of optional accessories to enhance the use of these meters. Optional accessories include:

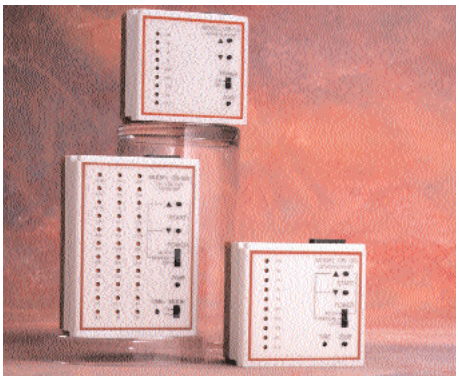
Sound Level Calibrators

APPLICATIONS

- Field Calibration of Quest Sound Measurement Instruments
- Field Verification of Quest VI-90 Vibration Integrator

The Quest model QC-10 and QC-20 calibrators provide quick, precise field calibration. The calibrator generates a stable acoustic signal at a controlled frequency and amplitude to verify the accuracy of your meter in the field. The model QC-10 is a general purpose calibrator that generates a constant sound pressure level of 114 dB at a fixed frequency of 1,000 Hz. The model QC-20 is recommended for use with precision ANSI and IEC Type 1 meters. User-selectable 94 or 114 dB and 250 or 1,000 Hz frequencies generate four different outputs. Both models have a standard one-inch coupler opening that may be reduced by inserting available snap-in adapters. The calibrators also provide a precise 1-volt RMS output signal via a 1/8 inch phone jack to check devices such as the Quest VI-90 Vibration Integrator. Calibrators comply with IEC 942: 1988, Class 1 and ANSI S1.40-1984.

Octave Band Filters



APPLICATIONS

- Engineering Control Studies
- Hearing Protection Evaluation
- Audiometric Test Booth Background Noise Evaluation
- Machine Performance Analysis
- Product Testing
- Research & Development
- Maintenance Inspections

Quest offers three octave band filter sets. All of these lightweight filters adapt easily to the modular design of the entire Advanced Series of meters. The OB-300 combination 1/3 & 1/1 Octave Band Filter Set gives you a choice of measuring 33 one-third-octave bands or 11 standard full octave bands. The OB-300 will manually or automatically sequence through each octave or third octave band and display the measured level on the sound level meter. The OB-100 is identical to the OB-300 except that measurements are made in full octave bands only. The OB-50 provides nine octave bands from 31.5 Hz to 8 Khz and will manually sequence through each frequency. Octave band filters comply with ANSI S1.11 Order 3 and IEC R225.

VA-508C Vibration Option Kit

APPLICATIONS

- Machine Performance Analysis
- Product Testing
- Research & Development
- Quality Control
- Maintenance Inspections & Trouble-shooting

The VA-508C Vibration Option Kit includes all the accessories needed to obtain vibration measurements from any Advanced Series Sound Level Meter. The included VI-90 Vibration Integrator buffers and converts the signal of the accelerometer in order to measure the three components of vibration – displacement, velocity and acceleration. A slide switch on the VI-90 determines which component of vibration is being measured and displayed. The conversion chart allows you to convert readings in dB on the sound level meter to displacement (meters RMS), velocity (meters/second RMS) or acceleration (g's RMS). For even more in depth studies, vibration measurements can be taken with full or 1/3 octave band filters if the meter is so equipped.

VI-100 Vibration Meter

APPLICATIONS

- Evaluation of Hand Tool Vibration and Isolation Effectiveness
- Machine Performance Analysis
- Research & Development
- Quality Control
- Maintenance Inspections & Trouble-shooting

Providing measurements in displacement, velocity or acceleration, the VI-100 is designed to be used in industrial or environmental applications for general purpose investigations such as shock or pulsation checks, basic machinery condition monitoring and comparative studies, quality specification checks or general engineering work.

Industrial hygienists can use the VI-100 to evaluate tool vibrations and isolation effectiveness when workers are exposed to potentially hazardous conditions. The simple four-button control provides for easy operation and the large LCD readout makes for easy viewing of data. The handheld meter, housed in a metal case, is extremely lightweight weighing only 14.6 ounces.

VI-90 and VI-100 Vibration Meter Specifications

	VI-90	VI-100	
Range		**Low**	**High**
Displacement:	$1x10^{-7}$ to $3x10^{-3}$ m	0.01 to 19.99 m x 10^{-5}	0.1 to 199.9 m x 10^{-5}
Velocity:	$1x10^{-4}$ to 3 m/sec	0.01 to 19.99 cm/sec	0.1 to 199.9 cm/sec
Acceleration:	0.1 to 150 g's	0.01 to 19.99 g's	0.1 to 199.9 g's
Operating Range			
Temperature:	-10 to +50°C (14°F to 122°F)	0 to 60°C (32°F to 140°F)	
Humidity:	0 to 95% RH, non-condensing	0 to 95% RH, non-condensing	
Power:	9V Alkaline, 100 hrs.	(2) 9V Alkaline, 40 hrs.	
Size:	Unit: 4.7" x 2.5" x 1.2" (12 x 6 x 3 cm)	Unit: 2.75" x 8.5" x 1.0" (7 x 22 x 2.5 cm)	
Weight w/batteries:	Unit: 8 oz. (227 g)	Unit: 14.6 oz. (415 g)	

Outdoor Measurement System Kit

APPLICATIONS

- Residential/Community Noise Measurement
- Vehicular Traffic Noise Measurement
- Aircraft Noise Measurement
- Fence Line Noise Measurement
- Environmental Impact Studies

The Outdoor Measure System Kit includes all the accessories needed to provide environmental protection to 1900/2900, 1800/2800 Advanced Series Sound Level Meters and the Q-500 Noise Dosimeter. The weather resistant case protects the meter and battery pack and stores kit components while not in use. The case provides a stable base when in the field or an optional tripod may be used to mount the microphone 10 ft. (3 m) away from the case. The microphone is protected by a windscreen/weather shield and bird spikes. The system's battery pack increases the standard battery life of each Advanced Series Sound Level Meter by a factor of twelve.

261 Sound Detector/Controller

APPLICATIONS

- Neonatal Intensive Care Units
- School Lunchrooms, Gymnasiums, Auditoriums and Classrooms
- Industrial Work Areas
- Environmental Work Sites
- Nightclubs and other Entertainment Establishments

The Quest 261 Sound Detector/Controller provides continuous measurement of noise levels in a specified area and activates (or deactivates) an electrical signaling device when a specified noise level has been exceeded. Signal devices typically used include buzzers, lights, sirens or indictors such as the Quest Model LB-26 Light Box. However, any electrical device that uses up to 10 amps and 300 V DC or AC can be used. The Model 261, along with the LB-26 Light Box, is especially useful in monitoring the exceedance of maximum exposure limits defined by regulatory agencies, corporate standards or community ordinances.

The 261 accepts up to three microphones to monitor a specific area. The standard microphone cable is 30 ft. (9.14 m) long, however it can be extended to 80 ft. (24.4 m) with an optional cable. The threshold noise level is easily adjustable from 55 to 110 dB in 0.5 dB increments on the panel of the Detector/Controller. The reaction time – the interval between the time when the threshold is exceeded and the time when the warning circuit is activated – is also adjustable.

261 Sound Detector/Controller Specifications

Threshold Activation Range:	55dB to 110dB in 0.5dB steps
Microphone:	Electret, built-in FET preamp,30-foot cable
Area Coverage:	Will monitor an area with up to three microphones
Frequency Weighting:	"A" and "C"
Reaction Time:	4 Rise and 4 Fall Times, easily selectable on the front panel.
Relay Contact Rating:	10 Amp Fused, 300 Volts Max, DPDT
Accuracy:	+/-1dB at 20°C (68°F)
Operating Temperature Range:	-10°C to +50°C (14°F to 122°F)
Power Requirements:	120/240V, 50/60 Hz
Size:	10" x 7" x 3" (26 x 18 x 8 cm)
Weight:	3 lbs. (1.4 Kg)

Technical Services from Quest

Quest Service Department

At Quest Technologies our commitment to seeing our customers delighted is further demonstrated by the quality technical services we offer in support of our many valued customers. Quest educational seminar information and schedules along with our web-based re-certification, repair and rental services can be reviewed at www.quest-technologies.com.

Re-Certification and Repair Services

Annual re-certification of your Quest instruments ensures that your instrument continues to perform for you in accordance with original specifications. From time to time, performance may even improve as a result of product updates incorporated automatically as a part of the re-certification process. All re-certifications include calibration certificates that document traceability to appropriate standards. In the unlikely event that your instrument requires repair, Quest features guaranteed-not-to-exceed pricing for repairs. And in the event both repair and re-certification are needed, specially discounted and guaranteed-not-to-exceed pricing exists.

- Place service orders and obtain return authorizations from our website at www.quest-technologies.com
- Receive automatic 1-year renewal of the original factory warranty with your recertification
- Enjoy the highest quality recertification services available with our A2LA ISO/IEC Guide 25 Accredited Calibration Laboratory
- Maintain the integrity and defensibility of your monitoring program with documented traceability to appropriate standards

Rental Services

Who other than the original equipment manufacturer is better qualified to provide you with reliable, high quality instrumentation with the latest updates on a rental basis and backed by strong technical support? Quest is pleased to now to support our U.S. customers' short-term instrumentation requirements with our rental services. Available products include heat stress monitors, noise dosimeters, sound level meters, vibration monitors, octave band analyzers, indoor air quality monitors and toxic/combustible gas monitors. Weekly, monthly and rent-to-own plans are available. With nationwide overnight delivery, our equipment is available when you need it. Check availability, pricing and place rental orders directly from our website at www.quest-technologies.com.

Educational Seminars

Quest Technologies conducts educational seminars throughout the world. Many of our seminars provide Continuing Education Units (CEU's) or Certification Maintenance Points for maintaining your Certified Industrial Hygienist (CIH) accreditation. Experienced professionals within the respective disciplines teach our seminars. Seminar topics include:

Quest Training Facility

- Heat Stress
- Noise Measurement & Hearing Conservation
- Noise Control Measurements & Techniques
- Community Noise Measurements
- Confined Space Entry & Atmospheric Testing
- Indoor Air Quality Inspections & Testing