**December 29, 2010**

# COMMONWEALTH OF VIRGINIA
# DEPARTMENT OF GENERAL SERVICES
# DIVISION OF PURCHASING AND SUPPLY
# SPECIFICATIONS FOR
# DATALOGGING DECIBEL SOUND METER

## PURPOSE:

The purpose of this specification is to establish a standard for noise level measuring and recording devices for use by Law Enforcement Authorities, Agencies, and other Public Bodies of the Commonwealth of Virginia for use in enforcement of noise level legislation promulgated by State and local authorities. Equipment meeting the specifications set forth herein will fulfill the requirements of §2.2-1112 C. (Code of Virginia) .

The following specifications are intended to define the minimum level of quality and performance of the requested product, and are meant to be met or exceeded. The specifications are not meant to be restrictive as to brand name or manufacturer. Bidders/Vendors shall submit complete technical data of the product being offered, with an itemized comparison of the product offered with these specifications. The itemized comparison must be organized in the same order as the items in the specification, using the same item numbering and lettering system as it appears in the specification. Bidders/Vendors shall indicate any deviations with appropriate reasons and documentation. The Commonwealth reserves the right to obtain technical data and to request clarification when deemed necessary. **Failure on the part of the bidder/Vendor to provide all requested documentation may be cause to reject the bid/request as non-responsive.**

## SCOPE:

This specification describes a type 2 device for measuring and recording sound pressure in decibels (dB), primarily using the frequency weighting "A", which most closely parallels the human ear. The device must also record on an internal memory the sound events obtained over a measuring period at intervals which can be preset by the device operator. The device must be able to store sound data from several measuring periods, and keep them separate as individual sessions. These events are to be date and time stamped by the device, and the stored information can be downloaded into a computer using Windows software provided with the device. As a minimum, the software must collate the event readings of each individual measuring session into a set, and provide a printable document output for each set. It is preferred, but not required, that the software also provide capability to enter location information or other notation for each set of sound events data, and print the entered information on the output document with the data for each sound event set.

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## BID REQUIREMENTS:

The product offered in answer to this request for bid must be a new and unused current production model of the device required. No prototype or beta test product will be accepted, and offering of such a product will be cause for bid rejection.

Any product bid must have a successful record of noise level law enforcement use, and documentation of such use must be presented with the bid response.

Provide documentation of warranty for the product offered in answer to this request for bid.

**SPECIFICATION FOR DATALOGGING DECIBEL SOUND METER:**

1. Must meet ANSI standard S1.4 type 2, latest revision, and IEC 651, Type 2
2. Unit must self-test at start-up
3. Accuracy to be +/-1.5 dB, minimum sensitivity
4. Frequency weighting A, with A to C switching capability
5. Measuring level range 30 to 130 dB
6. Frequency range 31.5Hz – 8KHz
7. Minimum datalogging sample time rate to be 1 second or less per record
8. Maximum datalogging sample time rate to be 1,800 seconds or greater per record
9. Autoranging capability for full range of measurement
10. Minimum of (4) manually selectable dB ranges
11. Minimum 4 digit LCD display, with 0.1 dB resolution
12. Analog bar graph in display, 50dB range, minimum
13. Date and time display
14. Display backlighting
15. Maximum reading hold function
16. Fast/Slow time response selection capability
17. Internal memory to hold 15,000 event readings, minimum
18. Integral microphone with removable windscreen
19. Threaded socket for tripod mounting of device
20. AC and DC analog outputs
21. Data collection capability and internal memory to store event date/time stamp, dB reading, as minimum data required
22. Data transmission to PC via USB or RS232, for hard copy print-out of individual data set readings
    a. If equipped with RS232 output cable, it must be provided with a USB adapter.
23. Software for analysis and printing of hard copy data results, compatible with Windows XP .
    a. Events must be collected into printable sets for each sound level reading session.
    b. Provide documentation of software output capability and formats.
24. Meter power source to be 'AA' batteries or 9 volt battery
25. Protective carrying case for instrument and accessories:
    c. Case must be either a hard shell type, or soft shell with padded interior such that the instrument is protected from damage due to impact or dropping on a hard surface when contained in the case.
    d. Case must have compartment storage accommodation for accessories and spare battery(s) separated from the instrument.
    e. Case must be waterproof, and provide easy access to the instrument for removal from the case, and return to the case.
26. AC adapter for 120 VAC plug-in
27. Must include a calibrator unit to calibrate and verify sound level meter operation and accuracy, to NIST standards
    a. Calibrator must meet IEC 60942 1997-11 class 2 specification.
28. Complete and clear documentation of instructions for use and care of the sound recording meter and calibrator, and full clear documentation on use of the Windows software must be provided with the meter. Specify the type of instructions and documentation to be provided.
    a. In addition, a summary of instructions for use of the meter is to be included in the carrying case, in an easy to read format, suitable for use by law enforcement personnel in the field.

**NOTE:** Questions regarding this specification should be directed to Laurie Sparkes at 804-371-8354, or via e-mail at laurie.sparkes@dgs.virginia.gov