QRDC .com

Sound Solutions that Resonate

INSTRUCTION SHEET FOR NOISE MEASUREMENT

Carefully read all instructions and warnings before recording noise data.
Call QRDC at 952-556-5205 between 9:00 am and 5:00 pm CST if further clarification is needed.

Customer Information

Name: _____ Phone: _____

Address: _____ Email: _____

City: _____ State: ____ Zip: _____

PACKAGE CONTENT

Note: Inspect the package as soon as it is received. If you find any damage, notify the delivering carrier immediately and contact QRDC. Carriers have the right to refuse claims for damage if it's not promptly identified.

1. Noise Measurement Unit
2. Instruction Sheet (this document)
3. Data Logging Form
4. Packaging Material
5. Return Label
6. Cover Letter

This packet contains instructions for using the QRDC Noise Monitoring Kit. When you ordered the kit, you selected specific services that are offered with the unit. For each service ordered, utilize the corresponding instruction sheet included here.

Also included in this package are data logging forms. All information that you record should be on these forms. Please fill out a separate form for each noise issue that you have, and write legibly. Additional forms have been included so that you can re-write a logging form if necessary.

Please see the attached example forms to get a clear understanding of what is expected of you, the customer, in order for your data to be properly analyzed.

WARNING AN INHERENT DANGER EXISTS WITH HIGH SOUND LEVEL and may require hearing protective aid. If any such conditions exist that may jeopardize the safety of yourself or others or if you are unsure about proper equipment use, DO NOT USE THE EQUIPMENT and call QRDC at 952-556-5205. FAILURE TO COMPLY WITH THESE SAFETY INSTRUCTIONS OR THOSE OF OSHA AND YOUR FEDERAL, STATE OR LOCAL GOVERNMENTS, MAY RESULT IN HEARING LOSS. QRDC accepts no liability for failure to comply.

DISCLAIMER: QRDC, Inc. assumes no liability, either expressed or implied, through recommended actions. All events subsequent to recommendations are the responsibility of the client, and not QRDC, Inc.

The results obtained by use of QRDC's Noise Monitoring Kit are subject to the quality of collected data. Due to uncontrolled environmental conditions, QRDC offers no guarantee that conclusive results will be achieved. QRDC will provide the customer with analysis of the collected data and corresponding conclusions and results based on the collected data and requested services. In the event that the analysis does not yield conclusive results, the customer will NOT be refunded any payments for services.

Advanced Services

□ **RT60 (Service Code 207)**

The Sound Reverberation Time (RT60) of a room is the time it takes for sound to decay by 60 dB once the source of sound has stopped. Reverberation time is inversely related to sound absorption and is a way to measure the amount of absorption in a room.

Long RT60 times tend to make it more difficult to understand speech in a room, but may be pleasing for some forms of music. Additionally, in most rooms RT60 times will be longer at the lower frequencies.

Because RT60 is a measurement of the sound as it decays, it is essential to have sufficient signal to noise. Especially in the 120Hz Octave band, it is common to have excessive levels of noise from the HVAC system. Accordingly, HVAC should be turned off whenever feasible while making the measurements. The quieter it is in the room, the easier it will be to measure the decay, and to get good data.

For each location that you would like to collect data, please follow the below procedure:

1. Locate and inflate the three (3) balloons provided in the noise measurement kit.
2. Locate the pin provided in the noise measurement kit.
3. Locate the ear plugs provided in the noise measurement kit.
4. Insert the ear plugs as directed on the packaging.
5. Turn on the recording device by pressing and holding the "PWR" button on the side of the data collector for 3-5 seconds. The display should light up orange.
6. Place the data collector at the center of the room, on a flat, stable surface.
7. Press the SPL button and record the reading on the log sheet. Note that this reading may vary somewhat … just record what you observe to be an average value. Note also that there is a "MAX" feature on the unit, which (if enabled) you should disable by pressing the button once to toggle it off.
8. Record the date, time, and location on the log sheet.
9. Press the "REC" button once and write the name of the current record file on the log sheet.
10. Press the "REC" button once more and allow the data collector to record for about one (1) minute, and then press the "STOP" button.
11. Record the date, time, and location on the log sheet.
12. Press the "REC" button twice again, and write down the record file name on the log sheet.
13. Locate yourself in the room to be tested as far as possible from the recording device.
14. Facing the recording device, hold the balloon at arm's length in front of you, and pop the balloon with the pin. (Feel free to close your eyes.)
15. Continue to record for one (1) minute after pop.
16. Press the "STOP" button.
17. Repeat steps 10-16 two (2) times for a total of three (3) measurements.
18. To shut down the sound level display (right), hold down the "SPL" button until the screen reads "OFF". To shut down the sound recorder (left), hold down the "PWR" button until the screen turns off.
19. Dispose of popped balloons and pin.