

# Chapter 3: Sound Measurement: Instrumentation and Noise Metrics

# 3

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## Contents

Introduction .....	29
<b>Microphone Selection and Calibration .....</b>	<b>31</b>
Microphone Construction .....	31
Microphone Types .....	32
Microphone Dynamic Range .....	34
Calibration, Maintenance, and Environmental Factors .....	35
Factory Calibration of Microphones and Instruments .....	35
Traceability of Records .....	36
<b>Sound Measurement Metrics .....</b>	<b>37</b>
Root-Mean-Square Level .....	37
Peak Level .....	37
Weighting Filters .....	37
Time Constants .....	43
Time-Averaged Sound Level .....	42
Sound Exposure .....	43
Sound Exposure Level .....	44
Equivalent Sound Exposure Level .....	44
Time-Weighted Sound Level .....	44
Maximum Time-Weighted Sound Level .....	44
Octave-Band Analysis .....	44
Time-Waveform and Spectral Analysis .....	45
<b>Noise Measurement Instruments for</b>	
<b>Industrial Hygiene .....</b>	<b>46</b>
Instrument Standards .....	46
Class 1 and Class 2 Sound Level Meters .....	47
Noise Dosimeters .....	50
Spectrum Analyzers .....	53
Community Noise Analyzers .....	53
Recording Systems .....	53
Mobile Applications .....	53
<b>Instrument Calibration .....</b>	<b>54</b>
Sound Level Meter Calibrations .....	55
Dosimeter Calibration .....	55
Calibration of Other Instrumentation .....	55
Field Calibration .....	55

<b>Potential Sources of Measurement Error .....</b>	<b>56</b>
Barometric Correction .....	56
Corrections for Background Noise .....	56
Reflections .....	56
Quantization Errors .....	57
Humidity .....	58
Temperature .....	58
Radio Frequency and Electromagnetic Interference (EMI) .....	58
Mechanical Vibration .....	58
Summary of Potential Sources of Errors .....	59
<b>Conclusions .....</b>	<b>60</b>
<b>Appendix: Specialty Instrumentation for</b>	
<b>Impulsive Noise .....</b>	<b>61</b>
Resolution and Dynamic Range .....	62
Anti-Aliasing Filters .....	63
Impulse and Impact Noise .....	63
<b>References .....</b>	<b>64</b>

## Introduction

In industrial hygiene practice, noise exposure is measured to assess its potential detrimental effects on humans. Although hearing damage is the primary concern, other effects such as speech interference and annoyance are also of interest. Two categories of measurement are necessary. One provides data for predicting the potential effect of noise exposure on humans; the other provides data for engineering purposes directed toward mitigating hazardous noise exposures.

Mikroprocessors, computers, inexpensive mass storage, and mobile devices have led to a revolution in noise-measuring instruments, data processing, and data retention. Connections between health factors and potential stressors in the environment permit a deeper level of understanding of their relationship with health outcomes. Because of the miniaturization of equipment and

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## **Table of Contents Noise Sources Manual**

1. Understanding the eBook Noise Sources Manual
  - The Rise of Digital Reading Noise Sources Manual
  - Advantages of eBooks Over Traditional Books
2. Identifying Noise Sources Manual
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Noise Sources Manual
  - User-Friendly Interface
4. Exploring eBook Recommendations from Noise Sources Manual
  - Personalized Recommendations

- Noise Sources Manual User Reviews and Ratings
- Noise Sources Manual and Bestseller Lists
- 5. Accessing Noise Sources Manual Free and Paid eBooks
  - Noise Sources Manual Public Domain eBooks
  - Noise Sources Manual eBook Subscription Services
  - Noise Sources Manual Budget-Friendly Options
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  - ePub, PDF, MOBI, and More
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  - Noise Sources Manual Enhanced eBook Features
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  - Adjustable Fonts and Text Sizes of Noise Sources Manual
  - Highlighting and Note-Taking Noise Sources Manual
  - Interactive Elements Noise Sources Manual
- 8. Staying Engaged with Noise Sources Manual
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Noise Sources Manual
- 9. Balancing eBooks and Physical Books Noise Sources Manual
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Noise Sources Manual
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Noise Sources Manual
  - Setting Reading Goals Noise Sources Manual
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Noise Sources Manual
  - Fact-Checking eBook Content of Noise Sources Manual

- Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks
- 14. Embracing eBook Trends
  - Integration of Multimedia Elements
  - Interactive and Gamified eBooks

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