

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 7240-14 — Fire Detection Design Installation Commissioning and Service

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference SSR-AWR-7240-14 • ISO Security Safety & Risk

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

REFERENCE	SSR-AWR-7240-14
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Commissioning Fire Detection Systems

5 chapters · 30 classes65 marks

• 1 Fundamentals of Fire Detection Systems — 6 classes

› 1.1 Define Key Concepts of Fire Detection Systems

› 1.2 Identify Components of Fire Detection Systems

› 1.3 Explain Principles of Fire Detection Technologies

› 1.4 Assess Regulatory Standards for Fire Detection

› 1.5 Describe Commissioning Processes for Fire Systems

› 1.6 Evaluate System Performance and Testing Procedures

• 2 Design Principles for Fire Detection Systems — 6 classes

› 2.1 Identify Key Design Principles of Fire Detection Systems

› 2.2 Evaluate Different Types of Fire Detection Technologies

› 2.3 Analyze the Role of Environmental Factors in System Design

› 2.4 Develop a Fire Detection System Layout Using Best Practices

› 2.5 Assess Compliance with Relevant Regulations and Standards

› 2.6 Create a Commissioning Plan for Fire Detection Systems

• 3 Installation Best Practices for Fire Detection Systems — 6 classes

› 3.1 Identify Key Components of Fire Detection Systems

› 3.2 Understand Site Assessment Procedures for Installation

› 3.3 Implement Wiring Standards and Techniques

› 3.4 Evaluate Mounting and Placement Strategies

› 3.5 Conduct Functional Testing of Installed Systems

› 3.6 Document Installation Processes and Compliance Checks

• 4 Commissioning Procedures for Fire Detection Systems — 6 classes

› 4.1 Understand Commissioning Objectives for Fire Detection Systems

› 4.2 Identify Key Components of Fire Detection Systems

› 4.3 Develop a Commissioning Plan for Fire Detection Systems

› 4.4 Execute Performance Testing Procedures for Fire Detection Systems

› 4.5 Evaluate Test Results to Ensure Compliance with Standards

› 4.6 Document and Communicate Commissioning Outcomes Effectively

• 5 Maintenance and Service Strategies for Fire Detection Systems — 6 classes

› 5.1 Identify Key Components of Fire Detection Systems for Maintenance

› 5.2 Analyze Common Issues in Fire Detection Systems and Their Impact

› 5.3 Develop a Schedule for Routine Maintenance of Fire Detection Systems

› 5.4 Implement Testing Procedures for Fire Detection System Reliability

› 5.5 Evaluate Service Options for Fire Detection System Repairs

› 5.6 Create a Comprehensive Documentation Strategy for Fire Detection Maintenance

• 1 Understanding Fire Detection Fundamentals — 6 classes

- › 1.1 Define Fire Detection: Explore Key Concepts and Terminology
- › 1.2 Identify Types of Fire Detection Systems and Their Applications
- › 1.3 Examine the Principles of Fire Detection Technology
- › 1.4 Assess the Importance of Fire Detection in Building Safety
- › 1.5 Analyze the Design Considerations for Effective Fire Detection
- › 1.6 Apply Best Practices for the Installation and Maintenance of Fire Detection Systems

• 2 Regulatory Standards and Compliance in Fire Detection — 6 classes

- › 2.1 Identify Key Regulatory Standards in Fire Detection
- › 2.2 Analyze the Compliance Requirements for Fire Detection Systems
- › 2.3 Evaluate the Impact of Non-Compliance in Fire Detection
- › 2.4 Explore International Standards for Fire Detection Systems
- › 2.5 Implement Best Practices for Regulatory Compliance in Fire Detection
- › 2.6 Assess Case Studies on Regulatory Failures in Fire Detection Systems

• 3 Design Considerations for Effective Fire Detection Systems — 6 classes

- › 3.1 Identify Key Design Principles for Fire Detection Systems
- › 3.2 Assess Environmental Factors Impacting Fire Detection
- › 3.3 Determine Appropriate Detection Technologies and Components
- › 3.4 Evaluate Installation Requirements for Effective Coverage
- › 3.5 Develop Commissioning Procedures for Fire Detection Systems
- › 3.6 Implement Regular Service and Maintenance Protocols

• 4 Installation Best Practices for Fire Detection Technologies — 6 classes

- › 4.1 Identify Key Fire Detection Technologies and Their Applications
- › 4.2 Analyze Installation Requirements for Various Fire Detection Systems
- › 4.3 Evaluate Site Conditions for Optimal Fire Detector Placement
- › 4.4 Implement Wiring and Connectivity Best Practices for Fire Systems
- › 4.5 Conduct Pre-Installation Checks and Compliance Assessments
- › 4.6 Demonstrate Effective Commissioning Techniques for Fire Detection Systems

• 5 Commissioning and Maintenance of Fire Detection Systems — 6 classes

- › 5.1 Define Key Concepts in Fire Detection System Commissioning
- › 5.2 Outline the Steps Involved in the Commissioning Process
- › 5.3 Identify Common Challenges in Fire Detection System Commissioning
- › 5.4 Demonstrate Best Practices for Maintenance of Fire Detection Systems
- › 5.5 Analyze Case Studies of Successful Fire Detection System Commissioning
- › 5.6 Develop a Maintenance Schedule for Fire Detection Systems

• 1 Fundamentals of Fire Detection Systems — 6 classes

- › 1.1 Define Key Concepts of Fire Detection Systems
- › 1.2 Identify Components of Fire Detection Systems
- › 1.3 Explain Different Types of Fire Detection Technologies
- › 1.4 Discuss Regulatory Standards for Fire Detection Systems
- › 1.5 Analyze the Role of Fire Detection in Fire Safety Strategy
- › 1.6 Apply Best Practices for Fire Detection System Installation and Maintenance

• 2 Regulatory Standards and Compliance in Fire Detection — 6 classes

- › 2.1 Identify Key Regulatory Standards for Fire Detection
- › 2.2 Analyze Compliance Requirements in Fire Detection Systems
- › 2.3 Evaluate the Role of ISO Standards in Fire Safety
- › 2.4 Examine Legal Implications of Non-Compliance
- › 2.5 Assess Risk Management Strategies in Fire Detection
- › 2.6 Implement Best Practices for Regulatory Compliance

• 3 Design Principles for Fire Detection Systems — 6 classes

- › 3.1 Identify Key Components of Fire Detection Systems
- › 3.2 Analyze Design Principles for Effective Fire Detection
- › 3.3 Evaluate Detection Technologies and Their Applications
- › 3.4 Discuss Regulatory Requirements for Fire Detection Systems
- › 3.5 Develop a Basic Fire Detection System Design
- › 3.6 Implement a System for Testing and Commissioning Fire Detection Solutions

• 4 Installation Techniques and Best Practices — 6 classes

- › 4.1 Assess Site Requirements for Fire Detection Systems
- › 4.2 Choose Appropriate Fire Detection Equipment
- › 4.3 Implement Wiring and Connectivity Standards
- › 4.4 Apply Best Practices for Device Placement and Installation
- › 4.5 Conduct Functional Testing and Commissioning of Systems
- › 4.6 Document Installation Procedures and Compliance Checks

• 5 Commissioning, Testing, and Maintenance of Fire Detection Systems — 6 classes

- › 5.1 Understand the Importance of Commissioning Fire Detection Systems
- › 5.2 Identify Key Components and Functions of Fire Detection Systems
- › 5.3 Outline the Steps in the Commissioning Process for Fire Detection Systems
- › 5.4 Demonstrate Testing Methods for Fire Detection System Functionality
- › 5.5 Evaluate Maintenance Practices for Fire Detection Systems
- › 5.6 Apply Knowledge of Standards in Commissioning and Maintenance of Fire Detection Systems

• 1 Understanding Fire Detection Systems — Components and Functionality — 6 classes

- › 1.1 Identify Key Components of Fire Detection Systems
- › 1.2 Explain the Functionality of Smoke Detectors
- › 1.3 Describe the Role of Heat Detectors in Fire Safety
- › 1.4 Analyze Manual Call Points and Their Importance
- › 1.5 Investigate the Integration of Fire Alarm Control Panels
- › 1.6 Apply Best Practices for Installing Fire Detection Hardware

• 2 Site Assessment and Planning for Installation — Best Practices — 6 classes

- › 2.1 Conduct a Comprehensive Site Assessment for Fire Detection
- › 2.2 Identify Environmental Factors Affecting Installation Sites
- › 2.3 Evaluate Building Layouts and Fire Risks
- › 2.4 Assess Electrical and Structural Limitations on Installation
- › 2.5 Develop a Strategic Installation Plan Based on Site Findings
- › 2.6 Implement Best Practices for Effective Installation and Compliance

• 3 Installation Techniques — Tools and Methods for Success — 6 classes

- › 3.1 Identify Essential Tools for Fire Detection Installation
- › 3.2 Demonstrate Proper Use of Hand Tools in Installations
- › 3.3 Explore Techniques for Effective Cable Management
- › 3.4 Apply Best Practices for Mounting Fire Detection Devices
- › 3.5 Analyze Common Installation Challenges and Solutions
- › 3.6 Evaluate Installation Success through Quality Checks

• 4 Testing and Commissioning Fire Detection Systems — Ensuring Compliance and Functionality — 6 classes

- › 4.1 Understand Regulatory Compliance in Fire Detection Systems
- › 4.2 Identify Key Components of Fire Detection Systems
- › 4.3 Demonstrate Testing Procedures for Fire Alarms
- › 4.4 Assess System Functionality Using Simulated Scenarios
- › 4.5 Document Testing Results and Compliance Evidence
- › 4.6 Develop Action Plans for Addressing Non-Compliance Issues

• 5 Maintenance and Troubleshooting — Keeping Systems Operational — 6 classes

- › 5.1 Identify Essential Maintenance Tasks for Fire Detection Systems
- › 5.2 Implement Regular Inspection Protocols for System Components
- › 5.3 Diagnose Common Faults in Fire Detection Installations
- › 5.4 Utilize Troubleshooting Techniques for System Failures
- › 5.5 Perform Corrective Actions to Restore Fire Detection Functions
- › 5.6 Document Maintenance Activities and System Performance

• 1 Understanding Maintenance Management in Fire Detection Systems — 6 classes

- › 1.1 Explain the Importance of Maintenance Management in Fire Detection Systems
- › 1.2 Identify Key Components of Fire Detection Systems and Their Maintenance Needs
- › 1.3 Outline Regulatory Standards Impacting Fire Detection System Maintenance
- › 1.4 Analyze Common Maintenance Strategies for Fire Detection Systems
- › 1.5 Demonstrate Effective Communication Techniques for Maintenance Teams
- › 1.6 Develop a Maintenance Schedule for Fire Detection System Efficiency

• 2 Regulatory Compliance and Industry Standards — 6 classes

- › 2.1 Identify Key Regulatory Compliance Requirements in Fire Detection
- › 2.2 Analyze ISO 7240-14 Standards and Their Implications
- › 2.3 Evaluate the Role of Maintenance in Compliance with Industry Standards
- › 2.4 Implement Best Practices for Fire Detection System Installation
- › 2.5 Develop a Service Management Plan for Regulatory Adherence
- › 2.6 Conduct Compliance Audits and Assess Industry Standard Alignment

• 3 Scheduling and Planning Maintenance Activities — 6 classes

- › 3.1 Analyze Maintenance Needs for Fire Detection Systems
- › 3.2 Develop a Maintenance Schedule Based on Risk Assessment
- › 3.3 Implement Effective Planning Techniques for Scheduled Maintenance
- › 3.4 Utilize Technology for Streamlined Maintenance Management
- › 3.5 Monitor and Adjust Maintenance Activities for Optimal Performance
- › 3.6 Evaluate Maintenance Outcomes and Enhance Future Planning

• 4 Troubleshooting and Problem Resolution Techniques — 6 classes

- › 4.1 Identify Common Fire Detection System Faults
- › 4.2 Analyze Root Causes of Detection System Failures
- › 4.3 Apply Diagnostic Techniques for Fire Detection Systems
- › 4.4 Utilize Tools for Troubleshooting Fire Detection Issues
- › 4.5 Develop Effective Solutions for Common Problems
- › 4.6 Implement Ongoing Maintenance Strategies to Prevent Issues

• 5 Implementing Continuous Improvement in Service Management — 6 classes

- › 5.1 Identify Key Areas for Continuous Improvement in Service Management
- › 5.2 Analyze Data to Evaluate Current Service Performance
- › 5.3 Develop Strategies for Implementing Continuous Improvement
- › 5.4 Create a Continuous Improvement Action Plan for Service Management
- › 5.5 Leverage Feedback Mechanisms to Drive Service Quality Enhancements
- › 5.6 Measure Outcomes and Review Effectiveness of Improvement Initiatives

• 1 Understanding Regulatory Frameworks for Fire Detection Systems — 6 classes

- › 1.1 Identify Key Regulatory Bodies for Fire Detection Compliance
- › 1.2 Explain the Purpose of ISO 7240-14 in Fire Safety Standards
- › 1.3 Analyze the Impact of Regulatory Compliance on Fire Detection Systems
- › 1.4 Compare Best Practices in Fire Detection System Design and Installation
- › 1.5 Evaluate Case Studies of Regulatory Failures and Successes in Fire Safety
- › 1.6 Implement a Framework for Ongoing Compliance Monitoring in Fire Detection

• 2 ISO 7240-14: Key Principles and Requirements — 6 classes

- › 2.1 Understand the Purpose of ISO 7240-14 in Fire Safety Systems
- › 2.2 Identify Key Regulatory Compliance Requirements for Fire Detection
- › 2.3 Analyze the Design Principles for Effective Fire Detection Systems
- › 2.4 Explore Installation Best Practices for Fire Detection Technologies
- › 2.5 Evaluate the Commissioning Process and Its Importance in Fire Safety
- › 2.6 Implement Ongoing Service and Maintenance Strategies for Compliance

• 3 Compliance Strategies for Design and Installation — 6 classes

- › 3.1 Identify Regulatory Frameworks for Fire Detection
- › 3.2 Assess Risks and Challenges in Installation Compliance
- › 3.3 Develop Effective Design Strategies for Fire Detection Systems
- › 3.4 Implement Best Practices in Installation Procedures
- › 3.5 Evaluate Compliance through Effective Testing and Commissioning
- › 3.6 Establish Continuous Improvement Protocols for Compliance Management

• 4 Commissioning Procedures and Best Practices — 6 classes

- › 4.1 Understand Commissioning Objectives and Standards
- › 4.2 Assess Fire Detection Systems for Compliance
- › 4.3 Develop a Comprehensive Commissioning Plan
- › 4.4 Execute On-site Commissioning Procedures
- › 4.5 Evaluate Performance Against Regulatory Compliance
- › 4.6 Document and Report Commissioning Outcomes Effectively

• 5 Ongoing Service and Maintenance Compliance — 6 classes

- › 5.1 Understand Regulatory Requirements for Fire Detection Systems
- › 5.2 Identify Key Components of Ongoing Service and Maintenance
- › 5.3 Develop a Comprehensive Maintenance Schedule
- › 5.4 Implement Best Practices for Fire Detection Testing
- › 5.5 Assess Compliance with ISO 7240-14 Standards
- › 5.6 Evaluate the Effectiveness of Maintenance Procedures