

11. Fire - Detection & Alarm Systems - Detection & Alarm Systems Full Service & Inspection

Category: Fire

Subcategory: Detection & Alarm Systems

Frequency: Yearly
Status: Statutory

Type: Approved Contractor

Priority: Core
Commonality: Common

Note: This document provides guidance to support compliance but is not a substitute for professional advice.

Why This Task Matters

Your commitment to maintaining fully operational fire detection and alarm systems ensures that fires are detected quickly, giving vital time for safe evacuation. By ensuring these critical systems meet British Standards and function reliably in educational settings with large numbers of occupants, you protect the lives of pupils and staff who depend on rapid, effective warning. Your expertise in overseeing this essential safety system demonstrates your crucial role in maintaining life-saving technology.

Task Summary

Statutory: Fire detection and alarm systems must undergo an annual full service and inspection by a competent contractor. This comprehensive maintenance involves testing all system components, verifying correct operation, and ensuring compliance with British Standards. The service includes functional testing of detectors, sounders, call points, and control panels, checking wiring and connections, verifying system reliability, and calibrating sensitivity settings. In schools and colleges, this work is vital to protect large numbers of occupants who may be dispersed across multiple blocks. The inspection includes reviewing system logs, checking battery backup systems, and ensuring integration with other fire safety systems. Evidence produced includes the contractor's inspection

certificate confirming compliance and full functionality, detailed service report documenting all work completed and any recommendations, and system test certificates showing satisfactory performance.

Relevant Legislation & Guidance

- **Regulatory Reform (Fire Safety) Order 2005**: Requires fire detection and alarm systems to be maintained in good working order
- Fire Safety: Approved Document B (Buildings other than dwellinghouses): Provides guidance on fire alarm system requirements
- British Standard BS 5839: Fire detection and fire alarm systems for buildings: Specifies requirements for system design, installation, and maintenance
- British Standard BS 9999: Fire safety in the design, management and use of buildings Code of practice: Includes guidance on fire alarm system maintenance
- The Education (Independent School Standards) Regulations 2014 (for independent schools): Requires adequate fire detection systems

Typical Frequency

The fire detection and alarm system must undergo a full service and inspection annually, with this comprehensive maintenance typically scheduled during school holidays to minimise disruption. In educational settings, this annual service is essential for ensuring system reliability throughout the academic year. The frequency cannot be reduced as it is a statutory requirement, though additional maintenance visits may be needed if issues are identified during weekly testing or if the system includes complex features.

Applicability

This task applies to all educational establishments with fire detection and alarm systems, which is common in virtually all schools and colleges. It is a core statutory task essential for life safety in occupied buildings. The task applies to all premises with automatic fire detection systems, including conventional and addressable systems, and is particularly critical in buildings with sleeping accommodation or large occupant numbers.

Responsible Persons

- Task Type: Approved Contractor
- **Contractor Requirements**: This task should be carried out by a competent fire alarm maintenance company holding appropriate certifications and accreditations. Contractors should be NICEIC approved or equivalent for fire alarm systems. Typical cost range: £500-£1,500 depending on system size and complexity.
- Permit to Work: No permit to work is typically required, though coordination with building

users may be needed.

• **Delivery Model**: Normally contractor-delivered due to the specialist expertise and testing equipment required.

Key Considerations

- **Timing considerations**: Schedule during school holidays to avoid disruption to teaching activities
- Cost implications: Budget £500-£1,500 annually for professional servicing and inspection
- Resource requirements: Allow access to all system components and control equipment
- Potential disruption: May require temporary system isolation during testing
- Risk assessment requirements: Service findings should inform the fire risk assessment

Task Instructions

Prerequisites & Safety

- Ensure the contractor holds appropriate certifications for fire alarm systems
- Provide access to system documentation, panel keys, and control equipment
- Confirm system can be isolated safely during testing if required
- Arrange for staff to be available to reset alarms if needed

Tools & Materials

- System documentation and circuit diagrams
- Specialist testing equipment for detectors and sounders
- Access keys and security codes for control panels
- Temporary warning signs for system testing
- Calibration equipment for detector sensitivity

Method (Step-by-Step)

Phase A: Pre-Service Assessment

- 1. Review system documentation and previous service records
- 2. Identify all system components and test points
- 3. Plan testing sequence to minimise disruption
- 4. Confirm access to all areas and equipment

Phase B: System Inspection and Testing

- 1. Visually inspect all detectors, call points, and sounders for damage
- 2. Test control panel functionality and display accuracy
- 3. Verify wiring integrity and connection quality
- 4. Check battery backup systems and charging circuits
- 5. Calibrate detector sensitivity according to manufacturer specifications
- 6. Test alarm sounder output levels in all areas
- 7. Verify call point operation and identification

Phase C: Functional Testing and Certification

- 1. Perform full system functional test including alarm activation
- 2. Test system integration with other fire safety systems
- 3. Review system logs for any fault history
- 4. Document all test results and system performance
- 5. Prepare detailed service report with recommendations
- 6. Issue inspection certificate confirming compliance

Measurements & Acceptance Criteria

- Detector sensitivity must meet manufacturer specifications and BS 5839 requirements
- Alarm sound levels must achieve minimum 65dB(A) at 3 metres in all areas
- System response time must be within acceptable limits (typically <10 seconds)
- Battery backup must maintain system operation for required duration

If Results Fail

Follow instructions on the Compliance Pod task completion form to record remedial/follow up actions and generate Reactive Task Tickets as required. Immediately isolate faulty components to prevent false alarms. Escalate critical system failures to facilities management and arrange urgent repairs. Implement interim measures such as additional patrols during system downtime.

Reinstatement & Housekeeping

Restore system to normal operation and remove any temporary signage. Ensure all test equipment is removed and areas tidied.

Completion Checks

Verify that the inspection certificate confirms full system compliance. Confirm that the service report is comprehensive and includes all test results. Ensure any recommendations are clearly documented with priorities.

Client Oversight Checklist (Before the Visit)

- Confirm contractor's certifications and experience with similar systems
- Provide all system documentation and access codes
- Arrange access to all building areas and equipment locations
- Schedule during period when testing disruption is minimised

Client Oversight Checklist (During the Visit)

- Observe systematic testing of all system components
- Ensure comprehensive documentation of test results
- Verify that testing covers all zones and device types
- Confirm that any issues are clearly identified and prioritised

Deliverables & Acceptance Criteria (After the Visit)

- Receive inspection certificate confirming system compliance
- Review detailed service report with all test results and findings
- Ensure recommendations are specific and include cost estimates
- Confirm that system documentation has been updated

Defects & Follow-up

Follow instructions on the Compliance Pod task completion form to record remedial/follow up actions and generate Reactive Task Tickets as required. Prioritise critical repairs that affect system reliability. Agree realistic timescales for implementing recommendations. Schedule re-testing after major repairs.

Reinstatement & Sign-off

Confirm system has been returned to full operation. Complete final sign-off once all documentation is received and reviewed.

Record-Keeping & Evidence

- **Upload Process**: Upload any required statutory or supporting evidence to the corresponding task form in Compliance Pod.
- **Statutory Evidence**: Contractor's inspection certificate and service report must be retained for at least 3 years.
- **Supporting/Good Practice Evidence**: System test results and calibration certificates support audit readiness.

Common Pitfalls & Best Practice Tips

- **Common mistakes to avoid**: Scheduling during peak times causing unnecessary disruption, failing to test all system components, or not addressing minor issues that could become major faults
- **Best practices for efficient completion**: Maintain detailed system documentation, coordinate with regular maintenance schedules, and keep records of previous service history
- **Pro tips for educational settings**: Time services to coincide with other building maintenance, inform staff about potential alarm activation, and use service visits to train facilities staff on system operation
- Warning signs that indicate problems: Frequent false alarms, areas with poor sound coverage, or system faults that recur between services

Quick Reference Checklist

- System documentation and previous records reviewed
- All detectors, call points, and sounders tested
- · Control panel functionality verified
- Wiring and connections inspected
- Battery systems and backups checked
- Full functional test completed
- Inspection certificate and service report received
- Evidence uploaded to Compliance Pod

Grouped Tasks

This task is not normally grouped with other tasks.

Related Tasks

- Fire Detection & Alarm Systems Detection & Alarm Systems Quarterly Test & Service
- Fire Detection & Alarm Systems Detection & Alarm Systems Weekly Call Point Testing

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Users must ensure that all tasks are carried out in line with current legislation, manufacturer instructions, site-specific risk assessments, and organisational policies. Where necessary, professional advice should be sought from competent and accredited specialists — for example, fire risk assessors, water hygiene consultants, electrical engineers, gas safety contractors, or health and safety advisors.