



# AIR CONDITIONING INSPECTIONS

**Air conditioning in a building can amount to as much as a third of the buildings annual energy costs.\***  
**By 4<sup>th</sup> January 2011 compulsory inspections must have been carried out on all air conditioning systems with a rated cooling output greater than 12kW.**

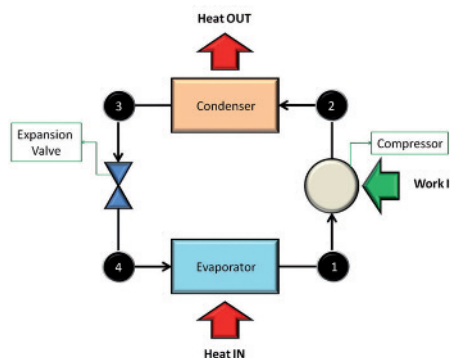
## Legislation

Air conditioning inspections were introduced by the Government as part of the implementation of the EU Energy Performance of Buildings Directive (EPBD). The EPBD is enacted in different parts of the UK by the Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations, the Building (Scotland) Regulations 2004 and the Energy Performance of Buildings (Certificates and Inspections) (Northern Ireland) Regulations. The aim is to provide building owners and operators with essential information about the energy performance of their air conditioning systems. The information and advice will highlight possible improvements to energy efficiency, electricity consumption, operating costs and carbon emissions.

Mandatory inspections are required for all air conditioning systems with a rated cooling output of greater than 12kW. This limit applies to the total output of one or more individual air conditioning units managed by a single body and applies to all building types, including domestic. The legislation is enforced by trading standards or building control, depending on location in UK, and there are fines for non-compliance which are repeated every 6 weeks until an inspection has been carried out.



The inspection requirements were phased in such that cooling outputs of greater than 250kW had to be tested by 4<sup>th</sup> January 2009 (4<sup>th</sup> January 2011 in Scotland) and systems with an output greater than 12kW but less than 250kW by 4<sup>th</sup> January 2011 (4<sup>th</sup> January 2013 in Scotland). Thereafter inspections must be carried out at least every 5 years. Systems installed after January 2008 must be tested within 5 years of installation.



Legionella Control

Asbestos Management

Indoor Air Quality

Outdoor Air Quality

Water Hygiene

Water Management

Fire Risk Assessment

Health & Safety

Access

Workplace Noise Assessments

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Training

\* The energy cost figure above relates to new and efficient air conditioning systems. For older, less efficient systems this cost can rise to as much as 60 percent as a result of poor control and maintenance 'A guide for business - Reducing energy usage and carbon emissions from your conditioning system'. Department for Communities and Local Government.



(continued)



### Assessing Cooling Output

The need for an inspection can be determined by collating plant details from data plates (also needed to comply with F-Gas Regulations) or by applying rules of thumb. A typical office will require 12kW cooling for each 150-200m<sup>2</sup> and this falls to 100m<sup>2</sup> where there are high levels of IT equipment. Retail premises with typical display lighting may have 12kW cooling for every 250m<sup>2</sup> but this falls to 200m<sup>2</sup> where there are high levels of display lighting.

### Inspector Qualifications

All surveys must be carried out by an accredited air conditioning inspector. The inspector must be a member of an accredited scheme, which acts as a safeguard by ensuring appropriate expertise and consistency. HBI inspectors are accredited through CIBSE.

### The Inspection

The inspection of an air conditioning system involves a visual assessment of the installation. This will include an examination of the equipment, ventilation and the controls. Following the inspection the assessor will provide you with a report containing:

- The current efficiency of the equipment plus suggested improvements.
- A list of any faults and suggested actions
- The adequacy of equipment maintenance and suggested improvements.
- The adequacy of installed controls and control settings plus suggested improvements.
- The current size of the installed system in relation to the cooling load and suggestions for improving energy efficiency. Or where appropriate minimizing or avoiding the need for air conditioning.

A copy of the report must also be lodged with the accreditation body



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