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Calibration Service

Calibration Responsibility Tree

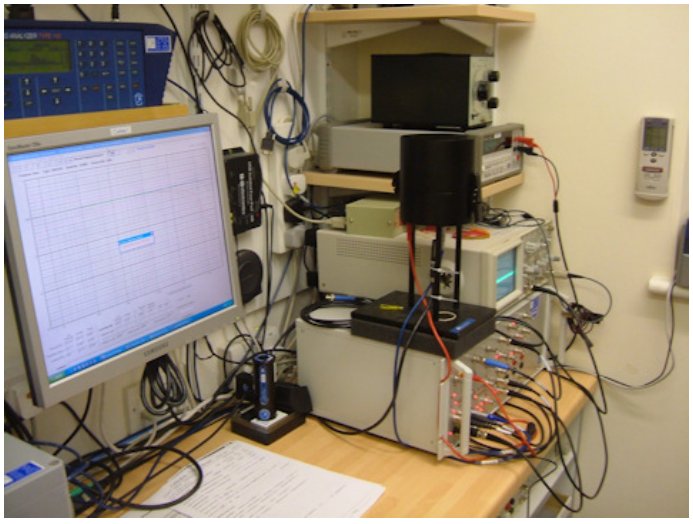
The Legal Metrology process sets out a structured system to ensure that instrumentation performs as specified. The British and International Standards reflect this philosophy and are arranged in three parts.

The first part covers the specifications that the instrument has to meet. The second part sets out a very comprehensive set of tests carried out on a representative sample of production units that the manufacturer has to have undertaken by an independent laboratory to prove that they do, under all environmental and power supply conditions.

Instruments that pass are then known as pattern evaluated instruments and are suitable for Legal Metrology Applications[1]. You can view pattern evaluation certificates on most reputable manufacturer's websites.

The third part of the standards deals with periodic verification of instruments and these are the responsibility of the owner of the kit. These are a shortened set of tests that are designed to verify that the instrument still complies with the requirements of the standards.

The many thousands of tests required for pattern evaluation are reduced to a hundred or so tests on key parts of the instrument that are deemed to be typical of functions that are likely to show up any drift or malfunction.



Most instruments require periodic verification, traditionally called "calibration" every 12 to 24 months depending on type and application to maintain their Legal Metrology status.

The final part is "field calibration" of sound level meters. This is part of the check procedure used before and after each deployment of the instrument and comprises application of the sound calibrator to the instrument to check the calibration is correct at one level and frequency

1. Within the European Union if an instrument is pattern evaluated in one member country then it is deemed to be so approved in all other member states. As the National Metrology Laboratories of each member state have their own areas of expertise the approval work for acoustics tends to centre on just a few Laboratories, with PTB in Germany taking the lead.