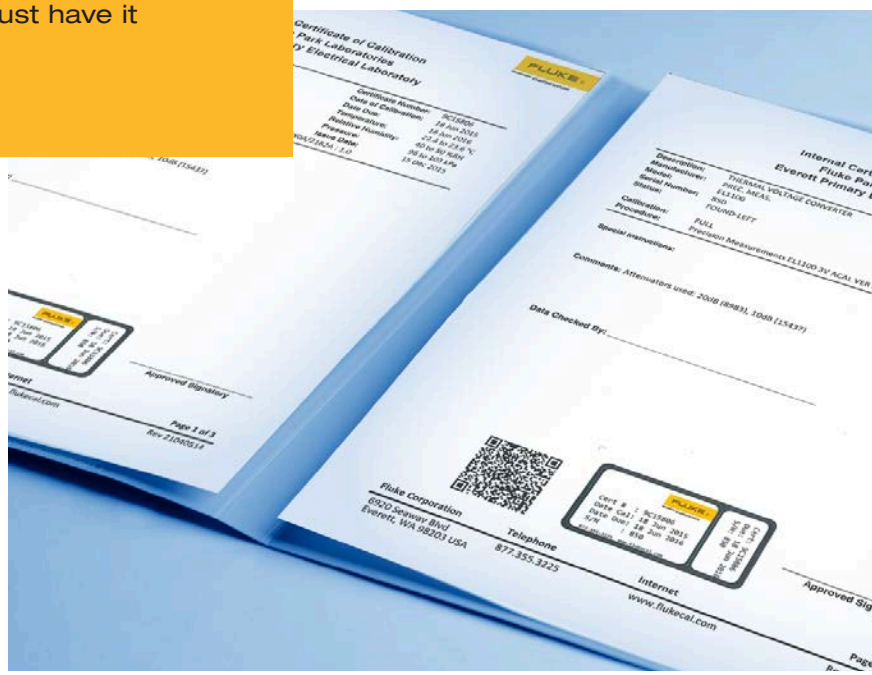
APPLICATION NOTE

Establishing calibration intervals for Fluke products

Fluke endeavors to build the world's most accurate, rugged and reliable test equipment. Our products are calibrated to be traceable to the International System of Units (SI)[1] through intrinsic standards or National Metrology Institutes. However, all electronic components and mechanical devices exhibit drift over time. To ensure that your Fluke product always operates to published specifications, you must have it recalibrated regularly.



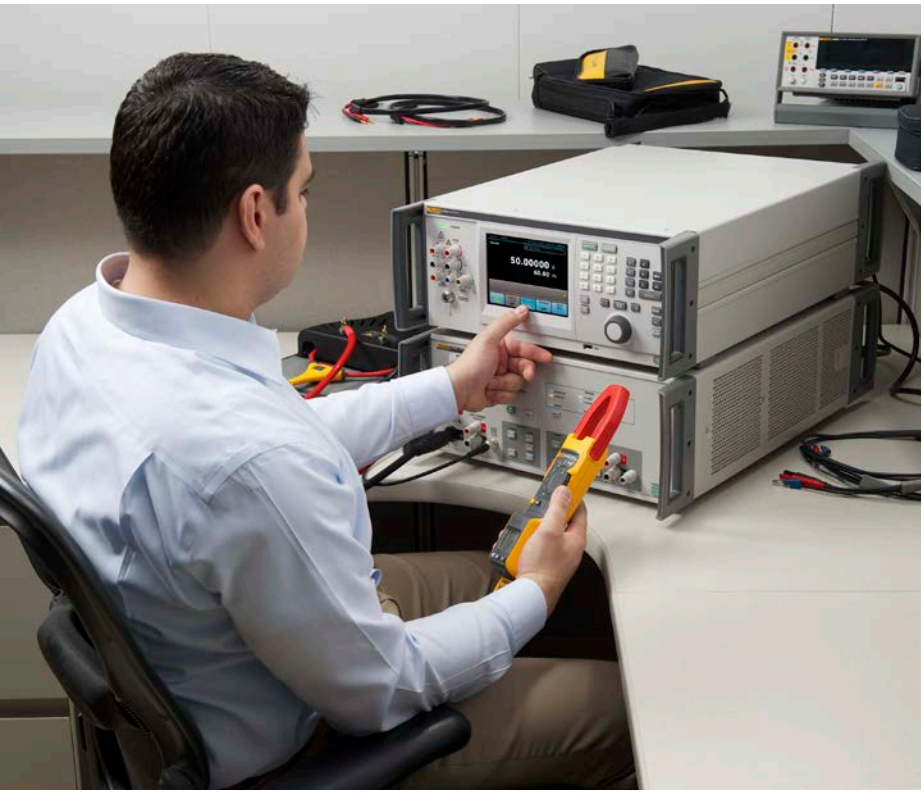
When Fluke develops product specifications, the design engineers take into account a variety of uncertainty influences: for example, traceability to the SI; short term stability; stability due to environmental variation; long term stability; and other sources of uncertainty based on the product design. The uncertainty due to long term stability must be defined by a time interval. Fluke defines one or more time intervals in the published specifications for each product. The most common time interval is one year.

Fluke product specifications are designed so that more than 95 percent of the population for a given model will meet all specifications at the end of its published interval. This is assured through product design and is tested by methods such as statistical analysis of reliability and accelerated life cycle testing.

When customers purchase test equipment, they need to select an appropriate interval for recalibration. The recalibration interval may be shorter or longer than the time interval published in the manufacturer's specifications because of factors such as frequency of use or harshness of operating environment. This is why the calibration quality standard ISO/IEC 17025 states that the calibration laboratory may not recommend any calibration interval except where it has been agreed with the customer.

Fluke's products often perform within their published specifications for significantly longer than the stated time interval. Whether end customers select a recalibration interval based on the published specification or by any other means, they should evaluate the recalibration data for their test instruments to ensure that the selected intervals meet their requirements for quality and reliability. The publications "NCSL International RP-1, Establishment and Adjustment of Calibration intervals" and "ILAC G24:2007 Guidelines for the determination of calibration intervals of measuring instruments" are excellent documents for customers to establish and adjust calibration intervals based on their usage and quality requirements.

[1]It is not possible for some Fluke Biomedical products to be traceable to the SI and in those cases the calibrations are traceable to industry consensus standards.



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