



<b>ATF-LS-FT14</b> <b>Maintenance and Calibration of Microscopes and other Measuring Devices</b>	Published Online: <b>March 2018</b>
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## I. Scope

Regular performance checks/verifications of certain measuring devices will be performed as part of the quality program. The regularity and specific procedures of these performance checks and maintenance will be determined by each laboratory where the equipment is in place in accordance with manufacturer recommendations and good laboratory practice. Measurement traceability is a requirement for ISO/IEC 17025 accreditation, so an external calibration laboratory that can supply an ISO/IEC 17025 compliant certificate is preferred, but not required, for all performance certifications of reference materials.

## II. References

Instrument/equipment specific manufacturer manuals

## III. Safety Precautions

None

## IV. Apparatus/Reagents

None

## V. Procedures

Laboratory equipment utilized for casework by the Firearms section in each laboratory will be subjected to routine maintenance, performance checks, and/or calibration, as outlined below. Each laboratory shall maintain appropriate documentation (e.g. logbooks) of all maintenance, checks, and/or calibrations. Work instructions for conducting performance checks or verifications shall be maintained at each laboratory, as the available equipment and standards vary between each site. Where applicable, work instructions and/or logbooks will include information on acceptable tolerances.

- **Microscopes** – All microscopes will be subjected to routine maintenance and performance checks at least once annually.
- **Calipers, micrometers, and other measuring devices having moving parts** – Calipers, micrometers, and other measuring devices having moving parts will be performance checked at least once annually.
- **Measuring devices having no moving parts** – Measuring devices having no moving parts will be checked/verified prior to being put into service and typically do not require performance verification unless damage is observed. Any exceptions will be noted in the work instructions.

- ***Balances and/or scales*** – Balances and/or scales will be subjected to routine maintenance and performance checks at least once annually.

## **VI. Quality Control**

Logbooks will be reviewed during the annual internal quality reviews.