




AKREDITACIONO TIJELO CRNE GORE
ACCREDITATION BODY OF MONTENEGRO

Reference/Date:
UP.10 / 03.02.2025.

INSTRUCTION FOR IN-HOUSE CALIBRATIONS

	Name and Surname	Position	Date	Signature
Reviewed by:	Tanja Radović	Head of the Accreditation Service/QM	03.02.2025.	
Approved by:	Anita Krulanović	Director	03.02.2025.	

	ACCREDITATION BODY OF MONTENEGRO	Reference/Date: UP.10 / 03.02.2025.
	INSTRUCTION FOR IN-HOUSE CALIBRATIONS	Page / Total: 2 4

1. SUBJECT AND SCOPE

This document provides instructions for the CAB conducting in-house calibrations and highlights the aspects that will be evaluated by the ATCG to confirm the CAB's competence in performing these activities. It is essential that in-house calibration activities, as support for accredited measurement activities, are carried out competently and that appropriate measurement traceability is ensured.

2. ABBREVIATIONS AND DEFINITIONS

2.1 Abbreviations

MEST – Montenegrin standard

EN – European standard

ISO/IEC – International organizations for standardization

ATCG – Accreditation body of Montenegro

ILAC – International Laboratory Accreditation Cooperation

2.2 Definitions

Calibration - operation that, under specified conditions, in a first step, establishes a relation between the quantity values with measurement uncertainties provided by measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication

In-house calibration: Calibration of CAB reference standards or measuring and testing equipment performed by the CAB personnel.

The CAB performing internal calibration must ensure that the traceability of their calibrations is in accordance with the relevant requirements of ISO/IEC 17025. In all cases, the organization must ensure that the equipment used provides the necessary measurement traceability.

Conformity assessment body (CAB)- A body that performs conformity assessment activities and that may be subject to accreditation.


3. REFERENCES

MEST EN ISO/IEC 17025:2018, General requirements for the competence of testing and calibration laboratories

PA.05-1 - Rules for achieving acceptable measurement traceability (issue 01, 18.04.2022.)

PA.06-1 - Rules for estimation of measurement uncertainty (Issue 01 od 18.04.2022.)

ILAC P10:07/2020 - ILAC Policy on Traceability of Measurement Results

	ACCREDITATION BODY OF MONTENEGRO	Reference/Date: UP.10 / 03.02.2025.
	INSTRUCTION FOR IN-HOUSE CALIBRATIONS	Page / Total: 3 4

4. APPLICATION


4.1. General

ATCG policy on measurement traceability is provided in document PA.05-1 - Rules for achieving acceptable measurement traceability (consistent with ILAC P10:07/2020 - ILAC Policy on Traceability of Measurement Results). Article 4.2, section 8 of PA.05-1 relates to in-house calibrations.

CABs performing internal calibration are required to provide the ATCG with a list of instruments calibrated in-house, which must include at least the ranges and their calibration and measurement capabilities (CMC).

For all instruments calibrated in-house the following must be in place:

- a) An appropriate environment for carrying out the calibration;
- b) Appropriately trained and authorized personnel to both carry out and check the calibrations;
- c) Reference standards, certified reference materials or reference measuring instruments that are traceable with appropriate measurement uncertainties;
Note: It is emphasized that calibration certificates issued by equipment manufacturers or agents are not acceptable evidence of external metrological traceability, unless they are clearly identified as having been issued by an accredited calibration laboratory.
- d) A documented and appropriate procedure for each type of calibration;
- e) An appropriate means of recording and reporting the data and results of any calculations;
- f) Measurement uncertainty:
 - The laboratory shall have and apply a procedure for evaluating measurement uncertainty.
 - Measurement uncertainty shall be evaluated in accordance with document PA.06-1 Rules for estimation of measurement uncertainty. The data from which the origin of the uncertainty was determined shall be documented and the assumptions made for the determination of the uncertainty shall be specified and documented.
 - Measurement uncertainty shall be taken into account when statements of compliance with specifications are made;
 - At least, uncertainty estimation evaluation shall take into consideration the following contributors:
 1. Repeatability;
 2. Resolution;
 3. Reference standard uncertainty;
 4. Reference standard stability;
 5. Environmental factors conditions (if possible).

	ACCREDITATION BODY OF MONTENEGRO	Reference/Date: UP.10 / 03.02.2025.
	INSTRUCTION FOR IN-HOUSE CALIBRATIONS	Page / Total: 4 4

- g) The Calibration records shall be retained minimally for the length of accreditation cycle.
- h) Reference standards shall be recalibrated at appropriate intervals to ensure that the reference value is reliable.
- i) Training Records: The laboratory shall maintain personnel training records for calibration, and these records shall demonstrate the technical competence of the personnel performing the calibrations; and
- j) Calibration Interval: CAB shall have a policy or procedure for establishing and changing calibration intervals.

4.2 Obligations of CAB and ATCG

CAB, which conducts in-house calibrations to support its accredited activities, must maintain records and data related to these calibrations. CAB is required to:

- a) Include all internal calibrations in its internal audits program.
- b) Regularly provide ATCG with updated list of instruments calibrated in CAB.

Beside other information provided by CAB (requested within the application form for initial accreditation/reassessment), ATCG will also use this information to ensure that the appropriate expertise is included in the team for assessing these activities.

Whenever possible, in-house calibrations will be covered within the assessment of measurement traceability and calibration within the regular assessment/surveillance ATCG activities. Assessment of in-house calibration activities will be performed on-site at least during the initial accreditation assessment and re-assessment.

ATCG shall mandate assessor/expert within the assessment team who is competent for accreditation scheme for calibration laboratories according to the ISO/IEC 17025 standard and in the technical field that is the subject of the internal calibration.

The capability of CAB to perform internal calibrations will not be stated in the published scope of accreditation.

The CAB is expected to confirm the quality of internal calibration results through participation in proficiency testing programs and/or interlaboratory comparisons, as prescribed by document PA.04-2 – Rules on participation in Proficiency Testing and/or Interlaboratory Comparisons other than Proficiency Testing.

5. FORMS

This document does not have accompanying forms.