

Standard Operating Procedure (SOP)

Equipment Setup, Calibration, and Maintenance Routines

This SOP details **equipment setup, calibration, and maintenance routines**, covering the proper procedures for installing and configuring equipment, performing regular calibration to ensure accuracy and reliability, and conducting routine maintenance to extend equipment lifespan and prevent failures. It aims to guarantee optimal performance, safety, and compliance with operational standards through standardized and systematic practices.

1. Purpose

To ensure equipment is set up, calibrated, and maintained in accordance with manufacturer guidelines and operational standards, maximizing reliability, safety, and compliance.

2. Scope

This SOP applies to all personnel involved in the installation, calibration, and maintenance of equipment within [Department/Facility Name].

3. Responsibilities

- **Operators:** Execute setup, calibration, and basic maintenance following this SOP.
- **Maintenance Staff:** Perform scheduled and corrective maintenance.
- **Supervisors:** Verify adherence to procedures and documentation.

4. Procedure

4.1 Equipment Setup

1. Check that all required tools, manuals, and safety equipment are available.
2. Unpack and visually inspect equipment for any damage or missing components.
3. Install equipment according to the manufacturer's specifications.
4. Connect power, data, and ancillary systems as required.
5. Document installation details (date, personnel, equipment serial number).

4.2 Equipment Calibration

1. Review equipment manual for calibration intervals and methods.
2. Ensure calibration standards and reference materials are within certification.
3. Initiate calibration procedure following manufacturer or regulatory guidance.
4. Record calibration data and results in the Calibration Log.
5. Label equipment with calibration status and next due date.

4.3 Equipment Maintenance

1. Perform maintenance as per schedule (daily, weekly, monthly, or as specified).
2. Inspect and clean external and internal parts as needed.
3. Replace consumables or worn parts (filters, seals, etc.).
4. Test equipment to verify functionality after maintenance.
5. Record all actions and observations in the Maintenance Log.

5. Documentation

Log Type	Required Information	Retention Period
Setup Log	Date, equipment ID, personnel, location, initial status	2 years
Calibration Log	Date, equipment ID, standard used, results, personnel	3 years
Maintenance Log	Date, type of maintenance, actions taken, observations, personnel	3 years

6. Safety

- Always comply with personal protective equipment (PPE) requirements.
- Switch off and isolate equipment before maintenance, unless manufacturer guidelines specify otherwise.
- Report hazards or malfunctions immediately to supervisors.

7. References

- Manufacturer Equipment Manuals
- Regulatory Standards (ISO 17025, GMP, etc.)
- Internal Quality Procedures

8. Revision History

Version	Date	Description	Author
1.0	[Date]	Initial release	[Name]