



Australian Government

MSL934008 Maintain instruments and equipment

Release: 1

MSL934008 Maintain instruments and equipment

Modification History

Release 1. Title changed to reflect content. Minor changes to Performance Criteria. Changes to Performance Evidence to improve clarity. Minor changes to Knowledge Evidence to improve clarity and remove duplication. Supersedes and equivalent to MSL934004 Maintain and calibrate instruments and equipment.

Application

This unit of competency describes the skills and knowledge to check the serviceability and calibration of laboratory or field instruments and equipment and perform routine maintenance, such as cleaning and replacement of consumables and minor components. Personnel are also required to perform basic troubleshooting and repairs consistent with warranty and service agreements.

This unit of competency applies to technical assistants, instrument operators and technical officers working in all industry sectors.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

Competency Field

Quality

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Perform serviceability checks	1.1 Perform pre-use and after-use checks in accordance with appropriate workplace and manufacturer procedures 1.2 Identify faulty or unsafe components and equipment 1.3 Perform basic troubleshooting and repairs and report major service faults for repair in accordance with appropriate workplace and manufacturer procedures 1.4 Complete instrument and equipment logbooks to workplace procedures
2. Conduct routine	2.1 Identify maintenance procedures, schedules, records and safety

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
maintenance safely	requirements 2.2 Identify and replace or repair damaged, worn and/or spent components or items in accordance with appropriate workplace and manufacturer procedures 2.3 Clean instruments and equipment using recommended cleaning agents and techniques in accordance with appropriate workplace and manufacturer procedures 2.4 Store instruments and equipment in accordance with appropriate workplace and manufacturer procedures 2.5 Record maintenance performed and any issues identified in accordance with appropriate workplace procedures 2.6 Arrange any reordering of consumable stocks and equipment components
3. Perform calibration checks	3.1 Operate instruments and equipment in accordance with appropriate workplace and manufacturer procedures 3.2 Check calibration using specified standards and/or procedures 3.3 Record all calibration data accurately and legibly 3.4 Record calibration status and identify out-of-calibration equipment/instruments 3.5 Quarantine out-of-calibration items in accordance with workplace procedures 3.6 Report items unable to be calibrated in accordance with appropriate workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Reading skills to effectively interpret workplace procedures and manufacturer requirements.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Supersedes and is equivalent to MSL934004 Maintain and calibrate instruments and equipment.

Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet – -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL934008 Maintain instruments and equipment

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- conducted the following on at least 3 different laboratory or field instruments or items of equipment:
 - serviceability check
 - routine maintenance
- accurately conducted calibration checks for at least 2 laboratory or field instruments or items of equipment.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- role and importance of regular calibration checks, maintenance of instruments and equipment, and the use of maintenance schedules and procedures
- common laboratory instruments and equipment requiring calibration checks, and the function of key components, including operating principles, details of the pre-use, calibration and safety checks, and operating procedures
- sources of uncertainty in instrument or equipment operation and their control
- equipment manuals and warranties
- common sources of faults in the instruments or equipment used and details of their repair
- typical calibration status checks
- purpose and importance of using certified reference standards or devices
- basic equipment cleaning, maintenance, scheduling and storage procedures for items of equipment used
- service agents or other personnel accredited to calibrate, service and repair equipment used in job role
- process involved in arranging calibration, repair and/or maintenance of equipment including assessment of instrument repair status and determining if local repair or maintenance is possible and economical
- workplace procedures for recording data and reporting results
- environmental sustainability issues as they relate to the work task

- legal, ethical and work health and safety (WHS) requirements specific to the work task.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - standard laboratory equipped with appropriate instruments and equipment, reference standards or devices, consumables; cleaning, decontamination and/or disinfection agents and equipment; and personal protective equipment (PPE)
 - workplace procedures, calibration and maintenance schedules, equipment manuals, manufacturer procedures and information/records management system.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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