



Australian Government

Department of Education, Employment and Workplace Relations

CPPSEC3049A Modify and repair security equipment and system

Release: 1

CPPSEC3049A Modify and repair security equipment and system

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to conduct minor modifications and repairs on a range of security equipment and systems. It requires the ability to diagnose and rectify common basic faults and refer more complex faults for specialist attention. This work applies to extra-low voltage environments.

This unit may form part of the licensing requirements for persons responsible for maintaining security equipment and systems in those states and territories where these are regulated activities.

Application of the Unit

Application of the unit This unit of competency has application in those work roles involving the maintenance of security equipment and systems. Competency requires legal and operational knowledge applicable to relevant sectors of the security industry. The knowledge and skills described in this unit are to be applied within relevant legislative and organisational guidelines.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge section and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for maintenance.	<p>1.1 Applicable provisions of <i>legislative</i> and <i>organisational requirements</i> relevant to <i>assignment instructions</i> are identified and complied with.</p> <p>1.2 Assignment instructions are obtained, reviewed and confirmed as required with <i>relevant persons</i>.</p> <p>1.3 <i>Maintenance</i> requirements of <i>security equipment and system</i> are confirmed.</p> <p>1.4 Security equipment and system to be <i>modified</i> or <i>repaired</i> is identified and confirmed.</p> <p>1.5 <i>Tools, equipment and materials</i> needed to carry out the work are selected and checked for correct operation and safety.</p> <p>1.6 Potential and existing <i>risks and hazards</i> in the work area are identified and controlled in accordance with <i>Occupational Health and Safety (OHS)</i> requirements and own role, competence and authority.</p>
2 Carry out maintenance.	<p>2.1 <i>Personal protection equipment</i> is selected and used in accordance with OHS requirements.</p> <p>2.2 Security equipment and system identified for maintenance is <i>accessed</i> with minimal <i>disruption</i> to services and others in the work area.</p> <p>2.3 Security equipment and system is inspected and assessed for operational effectiveness against normal operating criteria.</p> <p>2.4 Common faults in security equipment and system are diagnosed and appropriate repairs or modifications are carried out in accordance with manufacturer's instructions.</p> <p>2.5 Complex faults and repair requirements are identified and reported for specialist attention.</p> <p>2.6 Routine servicing of security equipment and system is carried out in accordance with manufacturer's instructions.</p> <p>2.7 Safe workplace practices are applied throughout maintenance and repair procedures in accordance with OHS requirements.</p>
3 Complete and document maintenance activities.	<p>3.1 Security equipment and system components are reassembled and tested for correct operation in accordance with approved procedures.</p> <p>3.2 Work area is restored and tools and equipment are cleaned, maintained and stored in accordance with organisational procedures.</p> <p>3.3 Waste from service and repair activities is collected,</p>

ELEMENT**PERFORMANCE CRITERIA**

treated and disposed of or recycled in accordance with organisational procedures.

- 3.4 Malfunctions, faults, wear or damage to tools or equipment is documented and reported for repair or replacement in accordance with organisational procedures.
- 3.5 Notification of work completion is made to relevant persons in accordance with organisational procedures.
- 3.6 Relevant *documentation* is completed and securely maintained in accordance with organisational procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge and their level required for this unit.

Required skills

- apply safe and environmentally aware work practices
- carry out maintenance, modifications and repairs on a range of security equipment and systems
- commission security equipment and systems
- communicate in a clear and concise manner
- complete documentation
- conduct basic carpentry and fitting, soldering, welding, and drilling
- estimate and organise materials, tools and equipment requirements
- identify and comply with applicable legislative requirements including licensing
- identify and control workplace hazards
- identify and diagnose faults and malfunctions
- identify and follow routine workplace safety procedures
- maintain an inventory of equipment and consumables associated with maintenance activities
- measure and calculate volumes, consumption and servicing requirements
- read and interpret a multimeter
- read and interpret plans and specifications
- recognise routine and complex faults and malfunctions of a range of security equipment and systems
- solve routine problems
- test and confirm operational effectiveness of security equipment and systems
- use suitable tools and equipment, including hand and power tools
- work in confined spaces.

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- applicable legislative requirements including licensing and client confidentiality
- cable identification, termination and connection procedures
- earthing systems arrangements and requirements
- electrical concepts
- emergency procedures
- fault-finding techniques
- maintenance procedures relevant to security equipment and systems
- procedures for accessing and storing tools, equipment and materials
- procedures for reporting malfunctioning or faulty tools and equipment
- reporting and documentation requirements
- requirements for commissioning of security equipment and systems
- requirements for compliance with Australian building codes and regulations and Australian Communications Authority cabling standards
- requirements for working in a confined space
- risks and hazards associated with maintenance procedures
- safe workplace procedures
- security equipment and system configurations and methods of programming
- security equipment and system repair techniques
- technical terminology
- types of faults associated with security equipment and systems
- types, functions and features of security equipment and systems
- waste disposal procedures
- welding, grinding and oxy-acetylene cutting principles and procedures.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- interpreting and complying with all applicable legislative and licensing requirements for repair work
- accessing security equipment and system with minimal disruption to others in the work area and normal services

- applying appropriate methods and using suitable tools and equipment to carry out maintenance, repairs and modifications on a range of security equipment and systems
- cleaning and storing tools and equipment and reinstating work site to a clean and safe condition
- organising own work tasks within specified repair timeframes and completing documentation related to modification or repair
- inspecting and testing security equipment and system for correct operation and accurately identifying faults and malfunctions
- safely following maintenance and repair procedures and carrying out checks to ensure integrity and security of security equipment and system.

Context of and specific resources for assessment

Context of assessment includes:

- a setting in the workplace or environment that simulates the conditions of performance described in the elements, performance criteria and range statement.

Resource implications for assessment include:

- access to plain English version of relevant statutes and procedures
- access to a registered provider of assessment services
- access to a suitable venue and equipment
- assessment instruments including personal planner and assessment record book
- work schedules, organisational policies and duty statements.

Reasonable adjustments must be made to assessment processes where required for people with disabilities. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

This unit of competency could be assessed using the following methods of assessment:

- observation of processes and procedures
- questioning of underpinning knowledge and skills.

Guidance information for assessment

Assessment processes and techniques must be culturally appropriate and suitable to the language, literacy and numeracy capacity of the candidate and the competency being assessed. In all cases where practical assessment is used, it should be combined with targeted questioning to assess the underpinning knowledge.

Oral questioning or written assessment may be used to assess underpinning knowledge. In assessment situations where the candidate is offered a choice between oral questioning and written assessment, questions are to be identical.

Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Legislative requirements may relate to:

- applicable commonwealth, state and territory legislation which affects work such as:
 - workplace safety
 - environmental issues
 - equal employment opportunity
 - industrial relations
 - anti-discrimination and diversity
- Australian Communications Authority cabling standards
- Australian building codes and regulations
- Australian standards and quality assurance requirements
- award and enterprise agreements
- evidence collection
- freedom of information
- licensing arrangements and certification requirements
- privacy requirements
- relevant industry codes of practice
- telecommunications
- trade practices.

Organisational requirements may relate to:

- access and equity policies, principles and practices
- business and performance plans
- client service standards
- code of conduct, code of ethics
- communication and reporting procedures
- complaint and dispute resolution procedures
- emergency and evacuation procedures
- employer and employee rights and responsibilities

- OHS policies, procedures and programs
- own role, responsibility and authority
- personal and professional development
- privacy and confidentiality of information
- quality assurance and continuous improvement processes and standards
- resource parameters and procedures
- roles, functions and responsibilities of security personnel
- storage and disposal of information.

Maintenance may include:

- cleaning
- minor modifications and adjustments
- routine repairs
- servicing.

Assignment instructions may include:

- access to site and specific site requirements
- equipment, tools and material requirements
- personal protection clothing and equipment requirements
- reporting requirements
- security equipment and system information:
 - features, functions and capabilities
 - manufacturer's instructions
 - service and maintenance requirements
 - warranties and guarantees
- security equipment and system location information
- specific client requirements
- timeframes
- work schedules
- work tasks and procedures.

Relevant persons may include:

- clients
- colleagues
- engineers and technicians
- equipment and systems manufacturers
- security consultants
- security personnel
- site managers or project managers
- supervisor.

Maintenance may include:

- minor modifications
- repairs
- servicing.

Security equipment and systems may include:

- access control systems
- audible and visual warning devices
- cameras and monitors

- commercial and residential alarm systems
 - detection devices
 - electric and mechanical fire safety and fire locking systems
 - electronic locks and locking systems
 - electronic readers
 - electronic screen equipment
 - intercoms and control panels
 - security doors and door controls
 - specialised access control systems eg biometrics.
- Modifications may relate to:***
- change in system capabilities and functions
 - locations, placement and positions
 - monitoring requirements.

Repairs may be made:

- on-site
- remotely.

Tools, equipment and materials may include:

- cable testing equipment
- communications equipment
- computer and software
- fixing tools
- hand tools
- ladder
- materials:
 - cable
 - fixings
 - grease
 - patch materials
 - screws
 - sealants
 - wiring
 - solder
- multimeter
- personal protection equipment
- power tools.

Risks and hazards may relate to:

- chemical hazards eg battery corrosion
- exposed electrical wiring
- exposure to:
 - asbestos
 - building debris
 - dust
 - glass fibre
 - live power

Occupational Health and Safety (OHS) requirements may relate to:

- natural and other gas build-up
- noise
- vermin
- water
- manual handling
- non-compliance with building codes and regulations.
- emergency procedures
- following confined spaces procedures
- implementation of safety policies and procedures:
 - chemicals, gas and vapour
 - isolation procedures
 - monitoring and testing procedures
 - use of personal protection equipment and clothing
 - work clearance procedures
- risk and hazard recognition
- safety training
- working with electrical wiring and cables
- working with tools and equipment.

Personal protection equipment may include:

- breathing apparatus
- fire extinguisher
- first aid kit
- gloves
- head protection
- hearing protection
- knee pads
- masks
- safety boots
- safety glasses.
- warning signs and tapes
- witches hats.

Access may relate to:

- disablement of system
- modem access
- phone line access
- removal of housing
- use of access code
- use of access token
- use of keys.

Disruptions may affect:

- access
- business operations
- noise
- security

Documentation may include:

- time
- use of equipment.
- faulty or malfunctioning tools and equipment
- materials used, parts and components replaced
- operational checks conducted
- recommended repairs or disposal of equipment
- repairs, adjustments or servicing undertaken
- security equipment and system faults and diagnosis
- testing and inspection results
- written and electronic reports.

Unit Sector(s)

Unit sector Security

Competency field

Competency field Technical security