Australian Government

Department of Education, Employment and Workplace Relations

PRSTS319A Modify and repair security equipment/system

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This competency standard covers the skills and knowledge 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 and would be carried out under limited supervision within organisational guidelines.
Functional Area: Elective, Technical Security
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Functional Area: Elective, Technical Security

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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Element	Performance Criteria
1 Prepare for maintenance	1.1 Maintenance requirements of security equipment and systems are checked and confirmed against work order
	1.2 Tools, equipment and materials are selected appropriate to job requirements and checked to ensure safe and efficient operation
	1.3 Potential and existing risks and hazards in the workplace are risk assessed and controlled in accordance with legislative and OHS requirements
	1.4 Suitable personal protective equipment is selected, used and maintained according to OHS and organisational requirements
2 Carry out maintenance	2.1 Security equipment / system to be modified or repaired is accessed in accordance with manufacturer's specifications and organisational requirements with minimal disruption to client or property
	2.2 Common faults in security equipment / system are diagnosed and appropriate repairs or modifications are carried out in accordance with manufacturer's specifications
	2.3 Complex faults and repair requirements are identified and reported for specialist attention in accordance with organisational requirements
	2.4 All work is conducted using safe operating practices in accordance with OHS, legislative and organisational requirements
	2.5 Maintenance work is completed in accordance with designated timeframes and work order instructions
3 Complete and document maintenance activities	3.1 Equipment / system components are reassembled and tested for correct operation according to manufacturer's specifications and accepted practice
	3.2 Work area, tools and equipment are cleaned, maintained and stored in accordance with

organisational requirements

3.3 Malfunctions, faults, wear or damage to tools and equipment are reported to facilitate repair or replacement in accordance with organisational policy and procedures

3.4 Waste from service and repair activities is collected, treated and disposed or recycled in accordance with organisational and environmental requirements

3.5 Relevant information is accurately documented, processed and maintained in accordance with industry, legislative and organisational requirements

Required Skills and Knowledge

Not applicable.

Evidence Guide

The Evidence Guide identifies the requirements to be demonstrated to confirm competence for this unit. Assessment must confirm sufficient ability to use appropriate skills and knowledge to modify and repair security equipment/systems. Assessment of performance should be over a period of time covering all categories within the Range of Variables statements that are applicable in the learning environment.

What critical aspects are required for evidence of competency?

Effectively prepare for maintenance to security equipment/system including selecting tools and equipment appropriate to job requirements and identifying possible risks and hazards in the work area.

Access security equipment/system with minimal disruption to client, conduct tests and confirm status and repair requirements.

Accurately repair or modify security equipment/system using safe operating practices and complete within designated timeframes.

Clean work area, store tools and equipment and complete all relevant documentation.

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

types, functions and specifications of security equipment/systems and principles of operation
security equipment/system repair techniques
fault finding techniques
welding, grinding and oxy-acetylene cutting principles and procedures
types, characteristics and functions of tools and equipment
electrical concepts (voltages, current, resistance, impedance)
cable 'identification and handling requirements
security equipment/system configurations and methods of programming
requirements for installation and modification of security equipment/systems
requirements for commissioning of security equipment/systems
relevant licensing, legislative and OHS requirements
safe work practices and their importance.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, some specific skills are required. These include the ability to:

provide efficient and effective customer service (liaise, consult, provide and gain feedback)
read and interpret specifications, charts and diagrams
read and interpret a multimeter
prioritise and methodically organise work
trouble shoot, solve routine problems
identify and diagnose faults and malfunctions
identify and refer complex faults
use appropriate testing equipment
repair and/or modify security equipment/systems
program and configure security equipment/systems
commission security equipment/systems
safely handle cable voltage, current, resistance and impedance
apply basic carpentry and fitting, soldering, welding, and drilling

apply safe and efficient work practices
obtain appropriate licensing.

What resources may be required for assessment?

Access to a suitable venue and equipment.
Access to plain English version of relevant statutes and procedures.
Assignment instructions, work plans and schedules, policy documents and duty statements.
Assessment instruments, including personal planner and assessment record book.
Access to a registered provider of assessment services.

What is required to achieve consistency of performance?

For valid and reliable assessment of this unit, the competency should be demonstrated over a period of time and observed by the assessor. The competency is to be demonstrated in a range of situations, which may include involvement in related activities normally experienced in the workplace.
Evidence of underpinning knowledge understanding of processes and principles can be gained through thorough questioning and by observation of previous work.

Assessment against this unit may involve the following:

Continuous assessment in a setting that simulates the conditions of performance described in the elements, performance criteria and range of variables statement that make up the unit.
Continuous assessment in the workplace, taking into account the range of variables affecting performance.
Self-assessment on the same terms as those described above.
Simulated assessment or critical incident assessment, provided that the critical incident involves assessment against performance criteria and an evaluation of underpinning knowledge and skill required to achieve the required performance outcomes.

Key competency levels

There are a number of processes that are learnt throughout work and life which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the key competencies, although others may be added. Information below highlights how these processes are applied in this competency standard.

1 - perform the process
2 - perform and administer the process
3 - perform, administer and design the process

How can **communication of ideas and information** be applied? (**1**)

Work order instructions and methods to repair or modify security equipment/systems may be verified with the supervisor or work team.

How can **information be collected**, **analysed and organised**? (**1**)

Test results, diagnosis, repair recommendations, and repairs or modifications undertaken may be documented for reference and organised by records and reports.

How are **activities planned and organised**? (**1**)

Tests and maintenance activities may be planned and co-ordinated around client and work schedules or sequenced as required.

How can **team work** be applied? (**1**)

Additional information and advice may be sought from colleagues/supervisor to assist the accurate diagnosis of common faults and appropriate repair procedures to be undertaken.

How can the use of **mathematical ideas and techniques** be applied? (**1**

Mathematical techniques may be used to plan and schedule work tasks and estimate resource requirements.

How can **problem solving skills** be applied? (**1**)

Complex faults may be accurately identified and promptly referred for specialist advice.
How can the **use of technology** be applied? (**1**)
Technology may be used to communicate, organise schedules, maintain records, and troubleshoot performance problems.
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Range Statement

The Range of Variables provides information about the context in which the unit of competency is carried out. It allows for different work practices and work and knowledge requirements as well as for differences between organisations and workplaces. The following variables may be present for this particular unit:

Maintenance may include:
minor modifications
repairs
servicing.

Security equipment may include:
detection devices
audible and visual warning devices
cameras, monitors and control equipment
control panels, intercoms
wireless equipment, car alarms
electronic readers, electronic recognition controls
locks and locking systems
grills, lighting, boom gates, turnstiles
bank pop-up screens
biometrics
electric and mechanical fire safety and fire locking systems
power supplies, batteries
security doors and door controls.

Security systems may be:
electronic
mechanical
computerised.

Work order instructions may relate to:
work schedules
completion dates
job requirements and tasks
specific client requirements
access to site and specific site requirements
resource requirements
OHS requirements, compliance with relevant legislation
organisational policies and procedures
budget allocations.

Tools and equipment may include:
computer, software
test equipment (multimeter)
hand and power tools, fixing tools
wire strippers
file, drill, lockpick, pick gun
glass break tester
soldering iron, welder, crimp tools, IDC tools
ladder, hoist
batteries

personal protective equipment
communications equipment.
Materials may include:
parts and components
security equipment/systems
wire and cable
fixings, solder, insulation tape
springs, pins, graphite powder
oil, silicon, grease, glass cleaner/lens cleaner
glue, paint, patch materials
electronic components, sealing compounds
cleaning compounds.
Workplace risks and hazards may include:
non-compliance with maintenance and repair codes and regulations
exposed electrical wiring
live power
other identified OHS risks (asbestos, dust, noise) .
Applicable legislation, **codes and national standards may relate to**:
relevant Commonwealth/State/Territory legislation which affect organisational operation:
Occupational Health and Safety
environmental issues
equal employment opportunity
industrial relations
anti-discrimination and diversity

licensing requirements
Australian Standards, quality assurance and certification requirements
relevant industry Codes of Practice
award and enterprise agreements
trade practices
privacy requirements
freedom of information.
Personal protective equipment and clothing may include:
masks
safety boots
head protection
safety glasses
knee pads
gloves
witches hats, flashing lights, warning signs and tapes
fire extinguisher, first aid kit.
Organisational requirements may relate to:
legal and organisational policy and procedures including personnel practices and guidelines
organisational goals, objectives, plans, systems and processes
legislation relevant to the operation, incident and/or response
employer and employee rights and responsibilities
business and performance plans
policies and procedures relating to own role, responsibility and delegation

quality and continuous improvement processes and standards
client service standards
defined resource parameters
Occupational Health and Safety policies, procedures and programs
emergency and evacuation procedures
duty of care, code of conduct, code of ethics
access and equity policy, principles and practice
records and information systems and processes
communication channels and reporting procedures.

Modifications may include:
change in system capabilities and functions
locations and positions
monitoring.

Repairs may be made:
remotely
on site.

Access to security equipment/systems may involve:
use of access code
disablement of system
removal of housing
access token
keys
phone line access
modem.

Manufacturers specifications may be found in:
printed instruction leaflets
operators manuals
equipment specifications
attached to the equipment
plans and diagrams
warranty documents.

Clients may include:
owner
property agent
tenant
building supervisor
manager
project manager
agent
government and legal instruments/agencies.

Faults may be:
electronic
software
mechanical
procedural
result of operational misuse
environmental
result of previous mis-installation.

Safe operating practices may include:
working safely around electrical wiring, cables and overhead power lines
working safely around tools and equipment
hazard recognition
emergency procedures
awareness of electrical hazards
follow confined spaces procedures
first aid.
Relevant information may relate to:
completion of work log
equipment/system fault diagnosis
repairs and modifications undertaken
recommended repairs
warranty conditions and allowances
testing and commissioning results
materials used, parts and components replaced
recommendations for future operation and maintenance
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Unit Sector(s)

Not applicable.