



Australian Government

DEFEO508D Conduct electrical/electronic circuitry tests

Release: 2

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Modification History

Release	TP version	Comments
2	DEF12 V2	Layout adjusted.
1	DEF12 V1	First release.

Unit Descriptor

This unit covers the competency required to set up and conduct simple electrical/electronic circuitry tests on explosive ordnance or component parts.

Application of the Unit

This competency normally applies to the individual who is required to set up and conduct simple *electrical/electronic circuitry tests* on explosive ordnance or component parts. These tests are required to be conducted on a wide range of explosive ordnance during maintenance procedures.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

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 Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare electrical/electronic circuitry for testing	<ul style="list-style-type: none">1.1 Testing requirements are identified from work requests/instructions and confirmed1.2 Work health and safety (WHS) requirements, including those contained in <i>organisational</i> procedures, are applied throughout the operation1.3 <i>Technical references</i>, tools and equipment required for the tests are identified, acquired and prepared in accordance with organisation procedures1.4 Explosive ordnance or <i>component parts</i> are identified, acquired, prepared, moved and positioned in preparation for the task1.5 <i>Net explosive quantities</i> and <i>compatibility</i> are identified, calculated and assessed and applied throughout the operation1.6 <i>Environmental conditions</i> are monitored and maintained in accordance with organisation policy
2. Conduct electrical/electronic circuitry tests	<ul style="list-style-type: none">2.1 Required tests are conducted in accordance with organisation procedures2.2 Test results are recorded or maintained in accordance with organisation policy and procedures2.3 Emergency and contingency procedures are applied in accordance with organisation policy
3. Finalise post test procedures	<ul style="list-style-type: none">3.1 Explosive ordnance or component parts are <i>processed</i> in accordance with the requirements specified in the work request3.2 Equipment/tools are maintained in accordance with organisation policy and procedures3.3 <i>Documentation and records</i> are maintained in accordance with statutory, organisation and workshop requirements

Required Skills and Knowledge

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

Required Skills

- apply compatibility constraints
- apply environmental constraints
- apply safety policies and structures
- calculate net explosive quantity
- communicate orally and in writing
- conduct housekeeping
- maintain documentation
- operate testing equipment
- read, access, interpret and apply technical instructions and drawings related to electrical/electronic circuitry tests

Required Knowledge

- assessment of compatibility
- basic electrical theory relevant to the tests
- calculation of net explosive quantity
- characteristics and limitations of testing equipment
- effects of environmental conditions
- operability of test equipment
- operations, characteristics and limitations of other tools and equipment relevant to the testing
- organisational documentation requirements
- organisational safety information sources
- organisational safety policies and structures
- testing procedures

Evidence Guide

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

Assessment must confirm the ability to comply with:

- organisational safety requirements
- appropriate legislative and regulatory requirements.

Assessment must also confirm the ability to work safely within an explosive ordnance environment and to:

- conduct electrical/electronic circuitry tests
- calculate and apply net explosive quantity
- assess and apply compatibility
- maintain documentation

Consistency in performance

Competency should be demonstrated in a range of actual or simulated explosive ordnance contexts.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated work environment, in accordance with all relevant legislation and organisation requirements.

Specific resources for assessment

Access is required to:

- facilities and resources used in the storage, distribution or maintenance of explosive ordnance, including a licensed explosive site

Method of assessment

This unit may be assessed with the following unit:

- DEFEO101D Work safely with explosive ordnance.

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation

- third party reports from supervisors
- written or oral questions

Range Statement

<p>The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. <i>Bold italicised</i> wording in the Performance Criteria is detailed below.</p>	
<p><i>Electrical/electronic circuitry tests</i> may include:</p>	<ul style="list-style-type: none"> • Continuity • Depasivation (lithium batteries) • Discontinuity • Fuze role setting • Insulation • No voltage • Paralysation • Resistance • Screen
<p><i>Organisation</i> may include:</p>	<ul style="list-style-type: none"> • Defence organisation • Enterprises that work with explosive ordnance • Other government departments or instrumentalities that work with explosive ordnance
<p><i>Technical references</i> may include:</p>	<ul style="list-style-type: none"> • Technical drawings • Technical reference pamphlets • Orders and instructions • Other publications
<p><i>Component parts</i> may include:</p>	<ul style="list-style-type: none"> • Chamber and valve assemblies • Detonators • Fuzes • Primers
<p><i>Net explosive quantities</i> include:</p>	<ul style="list-style-type: none"> • The explosive capacity calculated in a wide range of activities related to the storage, distribution and maintenance of explosive ordnance
<p><i>Compatibility</i> is:</p>	<ul style="list-style-type: none"> • Assessed in a wide range of activities related to the storage, distribution and maintenance of explosive ordnance and other hazardous materials
<p><i>Environmental conditions</i> may include:</p>	<ul style="list-style-type: none"> • Air quality • Heat • Humidity • Pressure
<p><i>Processing</i> may include:</p>	<ul style="list-style-type: none"> • Forwarding explosive ordnance or component parts for inspection, testing, maintenance, storage or issue, and may include some additional preparation such as packaging
<p><i>Documentation and records</i></p>	<ul style="list-style-type: none"> • Receipt and issue records • Test results

may include:	<ul style="list-style-type: none">• Timesheets• Work records
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Unit Sector(s)

Not applicable.