



Australian Government

AURETR2042 Remove, refit and test electrical componentry for operation following body repair activities

Release 1

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Modification History

Release	Comment
Release 1	Replaces AURE218764A Remove, refit and test electrical componentry for normal operation following body repair activities Unit code updated to meet policy requirements Minor changes to unit title Reference to OHS legislation replaced with new WHS legislation Licensing statement added to unit descriptor

Unit Descriptor

Unit descriptor	This unit covers the competence to test for normal operation electrical componentry which is incidental to body repair activities, such as rear vision mirrors, telephone and radio antennas, central locking systems, air bag sensors, air bag actuators and deployment systems, rain sensors, light sensors, alarm components, batteries and computer control units. Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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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 and/or the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Gather information on electrical componentry in motor vehicles</p>	<p>1.1. Customer requirements are checked following workplace procedures</p> <p>1.2. Work instructions are used to determine job requirements, including method, material and equipment</p> <p>1.3. WHS requirements, including handling of broken glass, dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work</p> <p>1.4. Tooling and equipment are checked prior to use, for conformity with specifications and safe use</p> <p>1.5. Condition of system is determined by visual, aural and tactile inspections and measurements</p> <p>1.6. Conditions found are compared with electrical componentry in motor vehicles system specifications and customer use requirements</p> <p>1.7. Correct information is accessed and interpreted from manufacturer/component supplier specifications</p>
<p>2. Plan operations where electrical components are incidental to a body repair activity</p>	<p>2.1. Planned operation sequence and availability of tooling and equipment is determined</p> <p>2.2. Planned operation sequence includes post-service testing and checking procedure</p> <p>2.3. Material list is prepared and availability determined</p> <p>2.4. Tooling and equipment are selected to meet job requirements</p> <p>2.5. Tooling and equipment are regularly checked to ensure they are in good working order</p> <p>2.6. Tooling and equipment are handled in accordance with WHS requirements</p> <p>2.7. Daily maintenance of tooling is performed as specified by enterprise</p>
<p>3. Remove electrical/ electronic operated components</p>	<p>3.1. Removal or relocation of electrically operated componentry is completed without causing damage to component or system</p> <p>3.2. Correct information is accessed and interpreted from manufacturer/component supplier specifications</p> <p>3.3. Electrically operated components are removed using approved methods, tooling and equipment</p> <p>3.4. Removal activities are carried out according to industry regulations/guidelines, WHS, legislation and enterprise procedures/policies</p>

ELEMENT	PERFORMANCE CRITERIA
4. Refit and/or test electrically operated componentry involved in body repair activities	4.1. Customer requirements and electrical componentry specifications are checked following incidental body repair activities 4.2. Electrically operated units/components are refitted using approved methods, tooling and equipment 4.3. Electrically operated componentry is operated through its full range after a body repair activity, noting test results, including non-conformity 4.4. Electrically operated componentry and adjustments are checked and prepared for delivery after a body repair activity 4.5. Portable tooling and equipment are stored in approved designated areas 4.6. Workplace documents, customer file and warranty information is updated, as required

Required Skills and Knowledge

EQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- collect, organise and understand information related to working with and testing of electrical componentry following body repair activities
- communicate ideas and information to customers and supervisors related to working with and testing of electrical componentry following body repair activities
- plan and organise activities related to working with and testing of electrical componentry involved in body repair activities
- work with others and in a team by seeing and conveying information related to planning, sequencing and completion of the task
- use mathematical ideas and techniques to count and measure
- establish diagnostic processes which identify methods of solving problems related to working with and testing of electrical componentry following body repair activities
- use workplace technology related to working with and testing of electrical componentry involved in body repair activities

Required knowledge

- purpose and requirements of electrical componentry in motor vehicles
- material used in electrical componentry
- use of tooling and equipment
- application of mechanical principles
- classification of electrical componentry in motor vehicles and identification of systems
- electrical terminology
- circuit types and how to test them
- test functions of a multimeter
- use of a LED test lamp
- types and uses of various automotive fuses

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.

Overview of assessment

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

It is essential that competence is fully observed and there is ability to transfer competence to changing circumstances and to respond to unusual situations in the critical aspect of:

- test of electrical componentry in motor vehicles.

Context of, and specific resources for assessment

Underpinning knowledge and skills may be assessed on or off the job.

Assessment of practical skills must take place after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.

Prescribed outcomes must be able to be achieved without direct supervision.

The following resources should be made available:

- specific service and general workshop equipment and tooling
- enterprise documentation
- vehicles with a range of commonly encountered electrical components
- vehicles fitted with air bags
- job cards
- multimeter.

Method of assessment

Practical assessments:

- gather information on technology related to testing of electrical componentry following body repair activities
- plan working with and testing of electrical componentry following body repair activities
- test electrical componentry following body repair activities
- accurately complete job card, including listing of parts and consumables used and labour hours.

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.

<p>Unit scope</p>	<p>This unit of competence applies to, but is not limited to:</p> <ul style="list-style-type: none"> • rear window and windscreen demisters, electrically operated windows, central locking, rear vision mirror adjustments and/or heating, telephone and radio antennas, air bag sensors, air bag actuators and deployment systems, rain sensors and light sensors
<p>Repair methods</p>	<p>Repair methods include</p> <ul style="list-style-type: none"> • on-and-off site body repair activity • removal, refitting and adjustment of electrical componentry • testing for normal operation of electrical componentry following related body repair • communicating with customers • documenting and reporting on service <p>Specific requirements may include:</p> <ul style="list-style-type: none"> • a range of electrical componentry available for testing • removal and refitting of battery, including use of spike protection and memory retention devices
<p>WHS requirements</p>	<p>WHS practices must abide by:</p> <ul style="list-style-type: none"> • state/territory/industry WHS • award provisions
<p>Information/documents</p>	<p>Sources of information/documents may include:</p> <ul style="list-style-type: none"> • manufacturer/component supplier specifications • enterprise operating procedures • product manufacturer/component supplier specifications • customer requirements • industry/workplace codes of practice

Unit Sector(s)

Unit sector	Electrical
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Co-requisite units

Not applicable.

Competency field

Competency field	Technical - Electrical and Electronic
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