



Australian Government

AURETR042 Remove, refit and operate electrical components following body repair activities

Release: 1

AURETR042 Remove, refit and operate electrical components following body repair activities

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to remove, refit and test the operation of electrical components following body repair activities. Electrical components include headlights, tail-lights, mirrors, antennas, sensors, actuators, and vehicle, vessel or machinery control modules. These components are not an integral part of vehicle controller area network databus (CAN-bus) typography and do not require programming procedures following fitting activities.

It applies to those working in the automotive service and repair industry. The electrical components include those fitted in agricultural machinery, heavy commercial vehicles, light vehicles, vessels, mobile plant machinery, motorcycles or outdoor power equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Competency Field

Electrical

Unit Sector

Technical - Electrical and Electronic

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Prepare to remove, refit	1.1 Job requirements are determined from workplace instructions

Elements Elements describe the essential outcomes.	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
and operate electrical components following body repair activities	1.2 Removal and refitting procedures and information are accessed and interpreted 1.3 Hazards are recognised and precautions are taken according to safety requirements 1.4 Tools and equipment are selected and checked for serviceability
2. Remove electrical components	2.1 Electrical components are removed using approved methods, tools and equipment and according to workplace procedures and safety requirements 2.2 Components are inspected for damage according to workplace procedures 2.3 Components are handled and stored according to manufacturer and component supplier requirements
3. Refit electrical components	3.1 Electrical components are replaced using approved methods, tools and equipment 3.2 Electrical components are refitted according to workplace procedures and safety requirements
4. Test operation of electrical components	4.1 Options for testing components are identified 4.2 Electrical components are tested according to workplace procedures and without causing damage to components or systems 4.3 Faults are identified from operational test results and potential causes of faults are analysed 4.4 Findings are reported according to workplace procedures, including recommendations for repair or component replacement
5. Complete work processes	5.1 Final inspection is made to ensure work is to workplace expectations and vehicle, vessel or machinery is presented ready for use 5.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected 5.3 Tools and equipment are checked, stored and any faulty electrical equipment is identified, tagged and isolated according to workplace procedures 5.4 Workplace documentation is processed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.

Skills	Description
Learning skills to:	locate appropriate sources of information efficiently.
Reading skills to:	interpret text, symbols and diagrams in manufacturer specifications, safe operating procedures and workplace information.
Writing skills to:	legibly and accurately fill out workplace documentation.
Oral communication skills to:	clarify instructions.
Numeracy skills to:	- match materials and component part numbers to workplace instructions, manufacturer specifications, and vehicle and component part lists - interpret measurements of voltage, current and resistance relating to electrical components - measure materials and components to determine compliance with specifications.
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed within workplace timeframes.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Safety requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - selecting and using personal protective equipment (PPE) - identifying hazards and controlling risks associated with wearing jewellery while working around high current wiring systems.
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Unit Mapping Information

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

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURETR042 Remove, refit and operate electrical components following body repair activities

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Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standard defined in the unit's elements, performance criteria, range of conditions and foundation skills:

- remove, refit and operationally test four of the following systems on non controller area network databus (CAN-bus) circuits on different vehicles, vessels or machinery:
 - headlight or tail-light assembly
 - windscreen washer and wiper motor assembly
 - external electric mirror assembly
 - antenna, mobile phone or radio
 - actuators, central door locking or window closure.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to removing, refitting and operating electrical components following body repair activities, including procedures for:
 - selecting and using personal protective equipment (PPE)
 - identifying hazards and controlling risks associated with wearing jewellery while working around high current wiring systems
- identification and function of electrical components, including:
 - headlight assemblies
 - tail-light assemblies
 - side and rear vision mirrors
 - windscreen washer and wiper motor assemblies
 - door and window motor assemblies

- procedures for removing and replacing electrical components, including:
 - identifying component position using wiring schematics and drawings
 - identifying component model and configuration
 - identifying visual indications of control unit damage, including:
 - physical damage and wear
 - water and moisture ingress
 - removing and replacing trim and covers
 - handling precautions of electrical components, including halogen globes
 - disconnecting and reconnecting electrical connectors
 - fitting electrical components to vehicle, vessel or machinery body
- post-fitting testing procedures **of electrical components**, including checking electrical system operation.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the electrical components that they have removed, refitted and tested following body repair activities, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive body repair workshop or simulated workplace
- workplace instructions
- vehicles, vessels or machinery with the electrical components specified in the performance evidence requiring removal and refitting following body repair
- tools and equipment appropriate for removing and refitting electrical components following body repair activities.

Links

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