



Australian Government

AURETR047 Recharge vehicle batteries

Release: 1

AURETR047 Recharge vehicle batteries

Modification History

Release	Comment
Release 1	New unit of competency

Application

This unit describes the performance outcomes required to recharge a vehicle's battery. It requires the learner to plan and prepare the task; investigate battery types and connections; inspect, test and charge batteries; and maintain a work area, tools and equipment.

It applies to those undertaking a Vocational Education and Training in Schools (VETiS) or pre-vocational qualification as preparation to entering the automotive service and repair or automotive manufacturing industry.

The unit is designed for use in a highly supervised context and is not suitable for use in a vocational qualification.

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

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section
1. Prepare to recharge battery	1.1 <i>Safety and environmental requirements</i> are sourced and interpreted 1.2 Task instruction is interpreted and battery to be worked on is identified 1.3 Manufacturer specifications and workplace procedures for

	recharging vehicle battery are sourced and interpreted 1.4 Potential hazards and risks associated with task are identified and reported to workplace supervisor 1.5 Tools and equipment are identified according to manufacturer specifications
2. Determine battery serviceability	2.1 Battery testing equipment is checked prior to use according to manufacturer specifications and safety requirements 2.2 Battery is cleaned and prepared for inspection and testing according to manufacturer specifications and safety and environmental requirements 2.3 Battery is inspected and tested according to manufacturer specifications and workplace procedures 2.4 Observations of battery condition and serviceability or issues requiring further exploration are recorded
3. Charge battery	3.1 Battery charging equipment is checked prior to use according to manufacturer specifications and safety requirements 3.2 Battery is prepared and charged according to manufacturer specifications and procedures 3.3 Battery post-charging condition and serviceability are checked according to manufacturer specifications and workplace procedures 3.4 Observations of battery condition and serviceability post charging or issues requiring further exploration are recorded
4. Complete work processes	4.1 Final inspection is made to ensure work meets task instruction and workplace standards, and battery is presented ready for use or storage according to workplace procedures 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored according to environmental requirements and workplace procedures 4.3 Tools and equipment are checked and stored according to workplace procedures, or tagged and reported where necessary 4.4 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
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Learning skills to:	locate appropriate sources of vehicle battery information and battery charging procedures.
Reading skills to:	- select and interpret key information from manufacturer specifications, safety requirements and workplace procedures relating to recharging vehicle batteries - select and interpret key information from environmental requirements and workplace procedures to ensure a clean and safe work site.
Writing skills to:	legibly and accurately fill out workplace documentation using correct industry terminology and conventions.
Oral communication skills to:	participate effectively in verbal exchanges using questioning and active listening to request, clarify and clearly convey information.
Numeracy skills to:	- read and interpret numerical information in battery identification codes and ratings - use basic mathematical operations, including addition, subtraction, multiplication and division, to calculate appropriate charge rates - read and interpret electrical test equipment correctly, including voltmeters and hydrometers, and report and record the results correctly using relevant mathematical symbols and conventions (e.g. V for volts).
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes.
Self-management skills to:	recognise own limitations when selecting and using tools and equipment and seek timely advice.
Problem-solving skills to:	refer problems that cannot be readily resolved and seek assistance from workplace supervisor.
Technology skills to:	set up and operate equipment and tools required to recharge batteries.

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 and environmental requirements</i> must include:	- information about key aspects of work health and safety (WHS), occupational health and safety (OHS) and environmental requirements, including: - use of personal protective equipment, including safety
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	- glasses, ear protection and safety footwear • use of hand tools and battery lifting equipment • identifying dangers of working with battery testing and charging equipment • applying procedures for handling, storing and disposing of used automotive batteries and battery fluid.
Battery testing equipment must include:	• hydrometer • high-rate discharge tester.
Battery must include:	• lead-acid battery.

Unit Mapping Information

No equivalent unit.

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 AURETR047 Recharge vehicle batteries

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Performance Evidence

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

- correctly recharge at least two automotive batteries with different cold-cranking amp (CCA) ratings.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- key aspects of work health and safety (WHS), occupational health and safety (OHS) and environmental requirements, including:
 - use of personal protective equipment, including safety glasses, ear protection and safety footwear
 - dangers of working with battery testing and charging equipment
 - safety data sheets (SDS) and procedures for handling, storing and disposing of automotive batteries and battery fluid
- battery inspection and testing methods, including:
 - visual checks
 - hydrometers
 - high-rate discharge testers
 - resting battery voltage
- battery charging procedures, including:
 - methods for determining appropriate charging rate, including reserve capacity (RC) and CCA methods
 - types, application and operating procedures for automotive battery chargers
- work area clean-up and maintenance requirements.

Assessment Conditions

Assessors must satisfy SNR/AQTF assessor requirements.

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

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the vehicles where they have recharged batteries, 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 workplace or simulated workplace
- personal protective equipment appropriate to the workplace
- two lead-acid automotive batteries with different CCA ratings
- battery testing equipment, including hydrometer and high-rate discharge tester
- battery charger
- automotive hand tools.

Links

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