



Australian Government

AURETR125 Test, charge and replace batteries and jump-start vehicles

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Application

This unit describes the skills and knowledge required to test, charge, replace, retest and secure a range of automotive batteries, including vehicle or machinery jump-starting procedures. It involves preparing for the task, inspecting and testing the battery to determine serviceability, charging, jump-starting, removing and replacing, and undertaking the final retesting of batteries, and completing workplace processes and documentation.

The unit applies to those who work in the automotive service and repair industry. The batteries include those in agricultural machinery, heavy commercial vehicles, light vehicles, vessels, motorcycles, mobile plant machinery or outdoor power equipment.

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

Unit Sector

Electrical Technical – Electrical and Electronics

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to test, charge and replace batteries and jump-start vehicle	1.1 Identify job requirements from workplace instructions 1.2 Obtain and interpret technical information and safe operating procedures for testing batteries and equipment 1.3 Identify hazards and environmental issues, assess potential risks and implement control measures in line with workplace policies and procedures 1.4 Identify tools and equipment required for the work and establish serviceability according to workplace procedures

ELEMENT	PERFORMANCE CRITERIA
2. Test battery	2.1 Inspect and test battery according to manufacturer or other required specifications, workplace procedures, and workplace health and safety and environmental requirements 2.2 Identify faults and damage on battery cables, terminals and case through visual inspection 2.3 Check and top-up electrolyte levels when required according to manufacturer or other required specifications, workplace procedures, and workplace health and safety and environmental requirements 2.4 Clean battery and terminals according to manufacturer or other required specifications, workplace procedures, and workplace health and safety and environmental requirements 2.5 Check battery voltage and load and confirm if battery requires charging, jump-starting or replacement according to workplace procedures
3. Charge battery	3.1 Obtain and interpret battery charging information 3.2 Prepare tools and equipment for charging battery according to manufacturer specifications and workplace procedures, and workplace health and safety and environmental requirements 3.3 Check and top-up electrolyte levels when required according to manufacturer specifications, workplace procedures, and workplace health and safety and environmental requirements 3.4 Identify battery charge rate and connect battery charger to battery according to manufacturer or other required specifications, workplace procedures and workplace health and safety and environmental requirements 3.5 Charge battery according to manufacturer or other required specifications, workplace procedures and workplace health and safety and environmental requirements 3.6 Turn off and disconnect battery charger according to manufacturer or other required specifications, workplace procedures and workplace health and safety and environmental requirements and confirm electrolyte levels are in line with manufacturer or other required specifications
4. Carry out jump-start procedures	4.1 Identify and confirm battery voltage is in line with manufacturer specifications, workplace procedures and workplace health and safety and environmental requirements to begin jump-start procedures 4.2 Connect jumper leads in sequence and polarity according to manufacturer specifications, workplace procedures and workplace health and safety and environmental requirement 4.3 Jump-start vehicle according to manufacturer specifications,

ELEMENT	PERFORMANCE CRITERIA
	workplace procedures and workplace health and safety and environmental requirements 4.4 Disconnect leads in sequence and polarity according to manufacturer specifications, workplace procedures and workplace health and safety and environmental requirement
5. Remove and replace battery	5.1 Connect power source memory back-up device according to workplace procedures 5.2 Disconnect battery terminals according to manufacturer specifications, workplace procedures and workplace health and safety and environmental requirements 5.3 Remove battery from vehicle according to manufacturer specifications, workplace procedures and workplace health and safety and environmental requirements 5.4 Choose replacement battery according to electrical and physical specifications and measurements of vehicle or machinery 5.5 Replace and secure battery according to manufacturer specifications, workplace procedures and workplace health and safety and environmental requirements 5.6 Re-connect and tighten battery terminals according to manufacturer specifications, workplace procedures and workplace health and safety and environmental requirements 5.7 Carry out post-replacement testing of battery charging system according to manufacturer specifications, workplace procedures and workplace health and safety and environmental
6. Complete work processes	6.1 Conduct final inspection according to workplace procedures and confirm vehicle is ready for use 6.2 Clear work area and dispose of or recycle materials according to workplace procedures 6.3 Complete documentation according to workplace procedures

Foundation Skills

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

SKILL	DESCRIPTION
Learning	Locates required sources of information efficiently

SKILL	DESCRIPTION
Reading	• Interprets safety data sheets (SDS), and safe operating procedures in manufacturer specifications and workplace procedures • Interprets text, symbols and wiring diagrams in manufacturer specifications, and workplace instructions and procedures
Oral communication	• Clarifies instructions • Reports inspection findings and makes recommendations
Numeracy	• Identifies, interprets and matches components and requirements to manufacturer specifications, including: • battery types • battery identification numbers and specifications • Calculates charge rate from cold cranking amp (CCA) and reserve capacity (RC) battery rating requirements
Planning and organising	• Plans own work requirements • Prioritises actions to achieve required outcomes • Ensures tasks are completed within workplace timeframes
Technology	• Uses specialised tools and equipment.

Unit Mapping Information

Supersedes and is equivalent to AURETR025 Test, charge and replace batteries and jump-start vehicles.

Links

Companion Volume Implementation Guide is found on VETNet -

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