



Australian Government

AURPTR002 Test and service electric outdoor power equipment

Release: 1

AURPTR002 Test and service electric outdoor power equipment

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to test and service electric outdoor power equipment according to manufacturer specifications. It involves preparing for the task, testing and servicing the equipment, performing post-service testing, and completing workplace processes and documentation.

It applies to those working in the outdoor power equipment service and repair industry. The electric outdoor power equipment may be 240 volt or cordless battery powered, and includes shears, blowers, shredders, mulchers, chainsaws, line trimmers, or lawn edgers. This unit does not apply to 240 volt portable generators.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.

Competency Field

Outdoor Power Equipment

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 for test	1.1 Job requirements are determined from workplace instructions 1.2 <i>Test and service procedures</i> and information are sourced and interpreted

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.
	1.3 Hazards associated with the work are identified and risks are managed 1.4 <i>Test equipment</i> and tools are selected and checked for serviceability
2. Conduct test and interpret results	2.1 Operational tests are carried out according to manufacturer specifications, workplace procedures, and <i>safety requirements</i> 2.2 Test results are compared with manufacturer specifications 2.3 Authorisation to proceed is obtained according to workplace procedures
3. Prepare to service equipment	3.1 Service options are analysed and those most appropriate to the circumstances are selected 3.2 Tools, equipment and materials are selected and checked for serviceability
4. Service equipment	4.1 Components are serviced, adjusted and replaced according to manufacturer specifications, workplace procedures, and safety and <i>environmental requirements</i>, and without causing damage to components or systems 4.2 Post-service testing is carried out according to workplace procedures
5. Complete work processes	5.1 Final inspection is made to ensure work is to workplace expectations and electrical equipment is presented ready for use, including protective guards, cowlings and safety features 5.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected 5.2 Tools and equipment are checked and stored 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.

Skills	Description
Reading skills to:	interpret information from manufacturer and workshop literature when seeking test and service specifications and procedures relating to electric outdoor power equipment.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting inspection findings, and recording parts and material used.
Oral communication skills to:	clarify instructions.
Numeracy skills to:	- use basic mathematical operations, including addition and subtraction, when testing and servicing electric outdoor power equipment according to manufacturer specifications - interpret gauges and test equipment.
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed within workplace timeframes.
Technology skills to:	operate electrical equipment, such as load test equipment.

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>Test and service procedures</i> must include:	- brush serviceability - resistive load testing - motor speed - circuit breaker - battery condition - battery charger.
<i>Test equipment</i> must include:	- multimeter and electrical testing equipment - circuit tester and load testing device.
<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) - observing warnings in relation to working with 240 volt systems

	• procedures for safely using electrical test equipment.
<i>Environmental requirements</i> must include:	• environmental requirements, including procedures for disposing of battery packs.

Unit Mapping Information

Equivalent to AURPTR2002 Test and service outdoor electric powered equipment

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 AURPTR002 Test and service electric outdoor power equipment

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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:

- test and service:
 - two different 240 volt electric outdoor power equipment
 - two different cordless battery powered outdoor equipment.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to and environmental requirements relating to the test and service of electric outdoor power equipment, including:
 - procedures for selecting and using personal protective equipment (PPE)
 - observing warnings in relation to working with 240 volt systems
 - procedures for safely using electrical test equipment
- environmental requirements, including procedures for disposing of battery packs
- application, purpose and operation of 240 volt and cordless battery powered outdoor electric equipment
- licensing and regulatory requirements for 240 volt components
- test and service procedures for 240 volt electric outdoor power equipment, including:
 - brush assembly
 - resistive load testing
 - circuit breaker
 - stator windings
 - rotor windings

- handle, mountings and frame
- electrical leads
- switch
- protective guards
- test and service procedures for cordless battery powered outdoor electric equipment, including:
 - brush assembly
 - resistive load testing
 - circuit breaker
 - stator windings
 - rotor windings
 - handle, mountings and frame
 - electrical leads
 - switch
 - protective guards
 - battery
 - battery charger
- post-repair testing procedures for electric outdoor power equipment, including operating equipment through its full operating range.

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 electric outdoor power equipment that they have tested and serviced, 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:

- outdoor power equipment repair workplace or simulated workplace
- workplace instructions
- manufacturer electric outdoor power equipment specifications
- area and equipment, including PPE, for safely testing electric outdoor power equipment
- electric powered equipment specified in the performance evidence requiring servicing
- tools, equipment and materials appropriate for testing and servicing electric outdoor power equipment.

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