



Australian Government

AURVTN043 Install external vehicle equipment

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with the Automotive Retail, Service and Repair Training Package Version 7.0. Newly created unit.

Application

This unit describes the skills and knowledge required to assess the external safety features of a vehicle and install equipment to protect the vehicle body. This unit involves preparing for the task, assessing external safety features, selecting and installing external vehicle equipment and completing workplace procedures and documentation.

It applies to those who work in the automotive service and repair industry in mechanical roles, operating with a small degree of autonomy in structured and stable contexts.

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

Unit Sector

Vehicle Body - Technical

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 install external vehicle equipment	1.1 Determine job requirements and interpret vehicle specifications from original equipment manufacturer (OEM) guides or authorised agency and workplace inspection procedures 1.2 Confirm external vehicle equipment according to regulatory requirements, standards and safety data sheets (SDS) 1.3 Select installation option according to the identified job requirements 1.4 Identify hazards and environmental issues associated with work tasks, assess potential risks and implement control

	measures according to workplace policies and procedures 1.5 Prepare tools and equipment according to workplace procedures
2. Assess external vehicle safety features	2.1 Conduct safety inspection of vehicle body according to workplace policies and procedures 2.2 Report on vehicle safety features according to SDS 2.3 Select and source external vehicle equipment according to job requirements 2.4 Check external vehicle equipment for serviceability
3. Complete installation and test external vehicle equipment	3.1 Install external vehicle equipment according to manufacturer specifications, workplace procedures and safety requirements, without interfering with existing systems 3.2 Conduct post-installation testing of external vehicle equipment and rectify faults where required according to workplace policies and procedures 3.3 Conduct final inspection and confirm vehicle is ready for use according to road safety standards
4. Complete work processes	4.1 Clean work area, collect recyclable material and dispose of waste and non-recyclable materials 4.2 Store tools and equipment according to workplace procedures 4.3 Document vehicle safety inspection and installation process 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
Numeracy	- interprets repair and vehicle specifications using metric and imperial systems of measurement - measures system components and uses basic mathematical operations - calculates deviations and tolerances from manufacturer specifications
Reading	interprets component specifications, work sheets and inspection forms
Writing	legibly fills out workplace documentation, including vehicle safety inspection report

Planning and organising	• plans work requirements • prioritises actions to achieve required outcomes • completes tasks within workplace timeframes • develops a sequenced plan for a specific task
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Unit Mapping Information

Newly created unit.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for AURVTN043 Install external vehicle equipment

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- install three different types of external vehicle equipment in at least one vehicle which includes the following:
 - bull bars
 - tow bars
 - snorkels
- install one of the following external vehicle equipment:
 - side bars
 - rear bars
 - side steps
 - under bodyguards

Knowledge Evidence

The candidate must be able to demonstrate ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- key workplace policies and procedures, and regulatory, work health and safety (WHS) requirements relating to installing external vehicle equipment, including those relating to:
 - using specialised technology, tools and equipment
 - selecting and using personal protective equipment (PPE)
 - cleaning work area
 - collecting recycling material
 - disposing non-recyclable material
 - documenting vehicle safety inspection and installation process
 - identifying hazards and controlling risks

- key safety features in vehicles, including:
 - fibre-optic communication systems
 - safety restraint systems
 - telematics systems
- key vehicle testing procedures and tools, including:
 - electrical equipment
 - system operations
 - wiring diagrams
 - interpreting vehicle safety data sheet (SDS)
- quality standards and specifications for installing external vehicle components, including:
 - manufacturer specifications
 - road safety standards
 - requirements of Vehicle Standards and modifications
- key techniques for installing external vehicle equipment without damaging vehicle systems
- active motor vehicle safety features, and their impact on external vehicle equipment installation, including:
 - advanced driver assistance systems (ADAS)
 - anti-lock braking system (ABS)
 - electronic brake assist (EBA)
 - electronic brake force distribution (EBD)
 - electronic stability control (ESC)
 - safety assist technologies (SAT)
 - seat belt pre-tensioners
 - structural integrity
- key features, components and operating principles of Advanced Driver Assistance systems (ADAS) and their impact on external vehicle equipment installation, including:
 - sonar sensors
 - radar, lighting detection and ranging (LIDAR) cameras)
- types of ADAS and their impact on external vehicle equipment installation, including:
 - adaptive cruise control
 - collision avoidance
 - blindspot detection
- passive motor vehicle safety features, and their impact on external vehicle equipment installation, including:
 - mirrors
 - airbags (front, side and curtain)
 - frontal impact protection and head restraints
 - seats and seat belts

Assessment Conditions

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 installation of protective vehicle equipment, e.g. work 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:

- work sheets, workplace instructions and manufacturing documentation to install external vehicle equipment
- workplace policies and procedures
- tools for assessing external safety features and installing external vehicle equipment
- PPE required to install external vehicle equipment

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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