



**Australian Government**

# **AUR32721 Certificate III in Automotive Electric Vehicle Technology**

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## Modification History

Release	Comments
3	Superseded elective units updated and new elective units added
2	This version first released with the Automotive Retail, Services and Repair Training Package Version 7.1.  Correction to Packaging Rules total number of units required.
1	This qualification was first released in AUR Automotive Retail, Service and Repair Training Package Release 7.0.

## Qualification Description

This qualification reflects the role of individuals who service, diagnose and repair battery electric vehicles and components in the automotive, service and repair industry who carry out work according to Australian Standards (AS) 5732 Electric vehicle operations - Maintenance and repair.

## Licensing/Regulatory Information

Licensing, legislative and certification requirements may apply to this qualification but vary between states, territories and industry sectors.

Licensing requirements relating to handling refrigerants are governed by the Australian Refrigeration Council.

Users are advised to check with the relevant state/territory jurisdiction or industry body for current requirements.

## Entry Requirements

Nil.

## Packaging Rules

**Total number of units = 29**

**16 core units plus**

## 13 elective units

### *Specialisations*

Specialisation in this qualification is mandatory. Candidates must complete one of the following:

#### ***Specialisation - Certificate III in Automotive Electric Vehicle Technology (Light Vehicle)***

- **16 core units**, plus
- **13 elective units**, of which:
  - all 8 units from Group A – Light Vehicle, plus
  - Of the remaining 5 units required to make up the elective unit total:
    - all may be from the General Elective Group C units listed below
    - up to 3 may be from elsewhere in this or any other currently endorsed Certificate III or above training package qualification or accredited course.

#### ***Specialisation - Certificate III in Automotive Electric Vehicle Technology (Heavy Vehicle)***

- **16 core units**, plus
- **13 elective units**, of which:
  - all 7 units from Group B – Heavy Vehicle, plus
  - Of the remaining 6 units required to make up the elective unit total:
    - all may be from the General Elective Group C units listed below
    - up to 3 may be from elsewhere in this or any other currently endorsed Certificate III or above training package qualification or accredited course.

Elective units must be relevant to the work environment and the qualification, maintain the overall integrity of the AQF alignment, not duplicate the outcome of another unit chosen for the qualification, and contribute to a valid industry-supported vocational outcome.

### **Core units**

- AURAEA002 Follow environmental and sustainability best practice in an automotive workplace
- AURASA102 Follow safe working practices in an automotive workplace
- AURETH101 Depower and reinitialise battery electric vehicles
- AURETH102 Inspect and maintain battery electric vehicles\*
- AURETH104 Diagnose and repair traction motor speed control systems in battery electric vehicles
- AURETH105 Diagnose and repair high voltage traction motors in battery electric vehicles

- AURETH106 Diagnose and repair auxiliary motors and associated components in battery electric vehicles\*
- AURETH107 Diagnose and repair system instrumentation and safety interlocks in battery electric vehicles\*
- AURETH108 Diagnose and repair HVAC and rechargeable energy storage cooling systems in battery electric vehicle\*
- AURETH109 Diagnose and repair DC to DC converters in battery electric vehicles\*
- AURETK002 Use and maintain electrical test equipment in an automotive workplace
- AURETR112 Test and repair basic electrical circuits
- AURETR125 Test, charge and replace batteries and jump-start vehicles
- AURETU103 Service air conditioning and HVAC systems
- AURTTA118 Develop and carry out diagnostic test strategies
- AURTTK102 Use and maintain tools and equipment in an automotive workplace

### **Elective Units**

#### *Group A - Light Vehicle*

- AURETH103 Diagnose and repair high voltage rechargeable energy storage systems in battery electric vehicles
- AURETR132 Diagnose and repair automotive electrical systems
- AURLTB103 Diagnose and repair light vehicle hydraulic braking systems
- AURLTD104 Diagnose and repair light vehicle steering systems
- AURLTD105 Diagnose and repair light vehicle suspension systems
- AURLTJ102 Remove, inspect, repair and refit light vehicle tyres and tubes
- AURTTB101 Inspect and service braking systems
- AURTTJ011 Balance wheels and tyres

#### *Group B - Heavy Vehicle*

- AURETH015 Diagnose, remove and replace heavy electric vehicle rechargeable energy storage systems
- AURHTB101 Diagnose and repair heavy vehicle air braking systems
- AURHTD102 Diagnose and repair heavy vehicle steering systems
- AURHTD103 Diagnose and repair heavy vehicle suspension systems
- AURHTQ103 Diagnose and repair heavy vehicle drive shafts
- AURTTA006 Inspect and service hydraulic systems
- AURTTQ001 Inspect and service final drive assemblies

#### *Group C - General Electives*

- AURACA101 Respond to customer needs and enquiries in an automotive workplace
- AURAF002 Read and respond to automotive workplace information
- AURAF003 Communicate effectively in an automotive workplace
- AURAKA001 Use information technology systems
- AURATA005 Estimate and quote automotive mechanical and electrical repairs
- AURETD101 Diagnose and repair electronically controlled steering systems
- AURETH017 Work safely with hydrogen in the automotive industry
- AURETH018 Inspect and maintain hydrogen fuel cell system\*
- AURETR006 Solder electrical wiring and circuits
- AURETR010 Repair wiring harnesses and looms
- AURETR011 Install basic ancillary electrical systems and components
- AURETR026 Remove, replace and program electrical and electronic units and assemblies
- AURETR128 Diagnose and repair instruments and warning systems
- AURETR120 Diagnose and repair network electronic control systems
- AURETR122 Diagnose and repair vehicle dynamic control systems
- AURETR143 Diagnose and repair electronic body management systems
- AURETR149 Apply knowledge of ADAS technology in vehicle pre-repair scans
- AURETR236 Diagnose and repair electronically controlled suspension systems
- AURETU104 Diagnose and repair air conditioning and HVAC components
- AURLTD002 Service and repair light vehicle lift assisted suspension systems
- AURLTD101 Select and install performance enhanced suspension system products
- AURLTD106 Carry out light vehicle wheel alignment operations
- AURLTQ102 Diagnose and repair light vehicle drive shafts
- AURTTD002 Inspect and service steering systems
- AURTTD004 Inspect and service suspension systems
- AURTTA104 Carry out servicing operations
- AURTTK001 Use and maintain measuring equipment in an automotive workplace
- AURVTN104 Remove, replace and align bolt-on vehicle body panels and components
- AURVTT003 Remove and replace automotive and marine interior trim components

## Pre-requisite Requirements

Unit of competency	Prerequisite requirement
AURETH018 Inspect and maintain hydrogen fuel cell system	AURETH017 Work safely with hydrogen in the automotive industry  AURETH101 Depower and reinitialise battery electric vehicles
AURETH102 Inspect and maintain battery electric vehicles	AURETH101 Depower and reinitialise battery electric vehicles
AURETH103 Diagnose and repair high voltage rechargeable energy storage systems in battery electric vehicles	AURETH101 Depower and reinitialise battery electric vehicles
AURETH106 Diagnose and repair auxiliary motors and associated components in battery electric vehicles	AURETH101 Depower and reinitialise battery electric vehicles
AURETH107 Diagnose and repair system instrumentation and safety interlocks in battery electric vehicles	AURETH101 Depower and reinitialise battery electric vehicles
AURETH108 Diagnose and repair HVAC and rechargeable energy storage cooling systems in battery electric vehicle	AURETH101 Depower and reinitialise battery electric vehicles
AURETH109 Diagnose and repair DC to DC converters in battery electric vehicles	AURETH101 Depower and reinitialise battery electric vehicles  AURETR125 Test, charge and replace batteries and jump-start vehicles

## Qualification Mapping Information

Current Code and Title	Previous Code and Title	Comments	Equivalence
AUR32721 Certificate III in		This qualification has been created to	Newly created

Automotive Electric Vehicle Technology		address a requirement by industry that is not covered by an existing qualification.	
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## Links

Companion volumes, including implementation guides, are found on the national training register - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>.