



**Australian Government**

# **AUR40626 Certificate IV in Automotive Electrical Technology**

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## Modification History

Release	Comments
1	This qualification was first released in AUR Automotive Retail, Service and Repair Training Package Release 8.0.

## Qualification Description

This qualification reflects the role of individuals who work as master diagnostic technicians the automotive service and repair industry; servicing, diagnosing and repairing vehicle electrical systems and components. A range of advanced electrical diagnostic skills and knowledge is necessary, and leadership and supervision of others would be expected.

## Licensing/Regulatory Information

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

## Entry Requirements

Those undertaking Certificate IV in Automotive Electrical Technology must have completed AUR30320 Certificate III in Automotive Electrical Technology or be able to demonstrate equivalent competency.

## Packaging Rules

Total number of units = 10

Candidates must complete one of the following:

### **General Qualification** - *AUR40625 Certificate IV in Automotive Electrical Technology*

- **1 core unit**, plus
- **9 elective units**, comprising of:
  - A minimum of 6 units from the electives list below, plus
  - Up to 3 units may be selected from a Certificate III qualification or above in this Training Package or another endorsed Training Package or accredited course

### **Specialisation** - *Certificate IV in Automotive Electrical Technology (Battery Electric Vehicle)*

- **1 core unit**, plus

- 9 elective units comprising of:
  - A minimum of 6 units from Group A: Battery electric vehicles, plus
  - 3 units from the elective list below or selected from a Certificate III qualification from this or any other endorsed Training Package or accredited course

### **Specialisation** - *Certificate IV in Automotive Electrical Technology (Hybrid Electric Vehicle)*

- 1 core unit, plus
- 9 elective units comprising of:
  - All 3 units from Group B: Hybrid electric vehicles, plus
  - 6 units from the elective list below or selected from a Certificate III qualification from this or any other endorsed Training Package or accredited course

Elective units chosen 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 vocational outcome.

### **Core Units**

- AURTTA121 Diagnose complex system faults

### **Specialist Elective Units**

#### *Group A: 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\*
- 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\*

#### *Group B: Hybrid electric vehicles*

- AURETH011 Depower and reinitialise hybrid electric vehicles
- AURETH012 Service and maintain electrical components in hybrid electric vehicles\*

- AURETH110 Diagnose and repair high voltage rechargeable energy storage systems in hybrid electric vehicles\*

### **General Elective Units**

- AURAEA003 Monitor environmental and sustainability best practice in an automotive workplace
- AURAF007 Develop and document specifications and procedures
- AURAF106 Conduct research and present technical reports
- AURAKA002 Adapt work processes to new technologies in an automotive workplace
- AURANN011 Estimate and quote automotive body repairs
- AURAQA002 Inspect technical quality of work in an automotive workplace
- AURAQA003 Maintain quality processes in an automotive workplace
- AURATA004 Provide technical guidance
- AURATA005 Estimate and quote automotive mechanical and electrical repairs
- AURETB101 Diagnose and repair electric braking systems
- AURETH015 Diagnose, remove and replace heavy electric vehicle rechargeable energy storage systems
- AURETH016 Diagnose and repair complex faults in battery electric vehicle powertrains
- AURETH114 Diagnose complex faults in hybrid and battery electric vehicle network management systems
- AURETR033 Develop and apply network electronic control system modifications
- AURETR034 Develop and apply electrical system modifications
- AURETR104 Diagnose complex faults in convenience and entertainment systems
- AURETR125 Test, charge and replace batteries and jump-start vehicles
- AURETR137 Diagnose complex faults in light vehicle safety systems
- AURETR138 Diagnose complex faults in motorcycle electrical and electronic systems
- AURETR139 Diagnose complex faults in light vehicle theft-deterrent systems
- AURETR140 Diagnose complex faults in vehicle monitoring and protection systems
- AURETU007 Overhaul air conditioning and HVAC system compressors
- AURETU104 Diagnose and repair air conditioning and HVAC components
- AURETU105 Retrofit automotive air conditioning and HVAC systems
- AURETU106 Diagnose complex faults in air conditioning and HVAC systems
- AURTNA001 Estimate and quote automotive vehicle or machinery modifications
- AURTTA017 Carry out vehicle safety inspections

- AURTTA126 Diagnose complex faults in electronic over hydraulic systems
- AURTTE001 Apply knowledge of engine science
- BSBHRM413 Support the learning and development of teams and individuals
- BSBPEF301 Organise personal work priorities
- BSBSTR401 Promote innovation in team environments
- BSBWHS411 Implement and monitor WHS policies, procedures and programs
- TAEDDEL311 Provide work skill instruction
- TAEDDEL414 Mentor in the workplace

## Pre-requisite Requirements

Unit of competency	Prerequisite requirement
AURETH012 Service and maintain electrical components in hybrid electric vehicles	AURETH011 Depower and reinitialise hybrid electric vehicles
AURETH016 Diagnose and repair complex faults in battery electric vehicle powertrains	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
AURETH110 Diagnose and repair high voltage rechargeable energy storage systems in hybrid 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
AUR40626 Certificate IV in Automotive Electrical Technology	AUR40620 Certificate IV in Automotive Electrical Technology	Superseded core and elective units updated	Equivalent

## 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>.