



Australian Government

Department of Education, Employment and Workplace Relations

AUR20408 Certificate II in Automotive Electrical Technology

Release: 2

AUR20408 Certificate II in Automotive Electrical Technology

Modification History

Six imported units of competency updated:

TLID1001A replaces TLID107C

TLID2004A replaces TLID407C

TLID2010A replaces TLID1007C

TLID2013A replaces TLID1307C

TLID3011A replaces TLID1107C

TLILIC2001A replaces TLILIC108A

Description

This qualification covers the skills and knowledge required to perform a range of tasks within the automotive electrical industry. It is suitable for entry into the automotive retail, service and repair industry.

Job roles/employment outcomes

The Certificate II in Automotive Electrical Technology is intended to prepare new employees or recognise and develop existing workers who are performing installation, testing and servicing of electrical components/systems, such as automotive sound, communications and security systems.

Employment outcomes targeted by this qualification include:

- automotive accessory fitter
- assistant automotive electrician.

Application

This qualification is suitable for an Australian Apprenticeship pathway.

Pathways Information

Pathways into the qualification

This qualification may be accessed by direct entry. Credit will be granted towards this qualification by those who have completed AUR10105 Certificate I in Automotive in this Training Package or other relevant qualifications.

Pathways from the qualification

Further training pathways from this qualification include AUR30308 Certificate III in Automotive Electrical Technology or other relevant qualifications.

Licensing/Regulatory Information

Licensing considerations

Some jurisdictions require this qualification for licensing purposes. In addition some units in this qualification may have licensing or regulatory requirements, depending on the work context. Local regulations should be checked for details.

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the Employability Skills as identified by the Automotive Electrical sector for this qualification. The Employability Skills facets described here are broad industry requirements that may vary depending on qualification packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> Understanding and carrying out verbal instructions from supervisors and others Reading, understanding and completing workplace documentation, forms and records Sharing work-related information with other team members using industry terminology Communicating with people from a range of social, cultural and ethnic backgrounds
Teamwork	<ul style="list-style-type: none"> Contributing positively to the work team environment Working effectively with others in a socially diverse environment Respecting and understanding the views of others Giving, receiving and acting upon feedback Identifying and describing own role and role of others
Problem solving	<ul style="list-style-type: none"> Recognising a problem or a potential problem within an automotive electrical environment Seeking information and assistance to solve problems outside own area of responsibility Solving problems within own area of responsibility
Initiative and enterprise	<ul style="list-style-type: none"> Suggesting ideas for workplace improvement to supervisors and team members Positively adapting to changes in workplace procedures and making adjustments to improve own performance Taking positive action to report hazards or risk situations to supervisors
Planning and organising	<ul style="list-style-type: none"> Planning daily work tasks to work safely and manage risks according to workplace procedures Prioritising activities to achieve required outcomes Planning and organising appropriate equipment and materials Planning ahead to anticipate problems with availability of equipment, materials and personnel to assist
Self-management	<ul style="list-style-type: none"> Following workplace safety requirements and other policies and procedures Completing known delegated tasks on time Selecting and using appropriate equipment, materials, processes

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	<p>and procedures</p> <ul style="list-style-type: none">• Asking for advice and assistance when appropriate
Learning	<ul style="list-style-type: none">• Identifying personal strengths and weaknesses• Acting upon feedback and accepting opportunities to learn to improve work performance• Asking questions to gain information and identify sources of information to expand knowledge and understanding
Technology	<ul style="list-style-type: none">• Appropriately selecting and using tools and equipment• Recognising and reporting faulty equipment• Using information and communication technology

Packaging Rules

Packaging Rules

To be awarded the Certificate II in Automotive Electrical Technology, competency must be achieved in **thirteen (13)** units of competency.

- **three (3)** core units of competency
- **ten (10)** elective units of competency, as specified below.
 - a minimum of **five (5)** elective units of competency from Group A
 - a maximum of **five (5)** elective units of competency from Group B, drawn from any combination of:
 - units not already chosen from Group A
 - Group B units listed
 - up to **three (3)** relevant units available in this Training Package, other endorsed Training Packages and accredited courses, where those units are aligned to Certificate II and III qualifications
 - a maximum of **two (2)** elective units of competency may be selected from units aligned to Certificate III qualifications.

Note:

Where prerequisite units are identified they must be counted in the total number of units required for completion of the qualification.

The following units of competency must not be chosen together when achieving this qualification:

MEM05003B	Perform soft soldering
AURV223808A	Carry out soft soldering techniques

MEM05004C	Perform routine oxy acetylene welding
AURV223608A	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures

MEM05007C	Perform manual heating and thermal cutting
AURV223608A	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures

MEM05017D	Weld using gas metal arc welding process
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AURV281308A	Carry out gas metal arc (MIG) welding procedures
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Core units of competency

- Complete the following **three (3)** units of competency.

AURC270103A	Apply safe working practices
AURT271781A	Implement and monitor environmental regulations in the automotive mechanical industry
AURE224008A	Carry out soldering of electrical wiring/circuits

Elective units of competency**Group A - Elective units**

- Complete a minimum of **five (5)** units of competency from the following list.

	Prerequisites
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		Prerequisites
AURE218664A	Remove and replace electrical/electronic units/assemblies	
AURE218670A	Service, maintain or replace batteries	
AURE218676A	Test, service and charge batteries	
AURE218708A	Carry out repairs to single electrical circuits	
AURE218764A	Remove, refit and test electrical componentry for normal operation following body repair activities	
AURE219331A	Install, test and repair low voltage wiring/lighting systems	
AURE219431A	Install, test and repair electrical security systems/components	
AURE219531A	Install ancillary electrical components	
AURE220140A	Manufacture and repair wiring harness/looms	
AURE311666A	Repair electric braking systems	
AURE318866A	Repair electrical systems	
AURE318966A	Repair instruments and warning systems	
AURE319145A	Overhaul charging system alternators	
AURE319166B	Repair charging systems	
AURE319245A	Overhaul starting motors	
AURE319266B	Repair starting systems	
AURE319271A	Inspect, service and repair AC electric motor drive systems	
AURE320031B	Install marine electrical systems and components	
AURE320066B	Diagnose and repair marine electrical systems and components	
AURE320666B	Repair ignition systems	
AURE320871A	Service and repair electronically controlled steering	

		Prerequisites
	systems	
AURE320971A	Service and repair electronically controlled suspension systems	
AURE321066A	Repair electronic systems	
AURE321171A	Service and repair electronic spark ignition engine management systems	
AURE321271A	Service and repair electronic drive management systems	
AURE321371A	Service and repair electronic body management systems	
AURE321471A	Service and repair electronically controlled anti-lock braking systems	
AURE321571A	Service and repair electronically operated traction control system	
AURE321671A	Service and repair electronically operated stability control systems	
AURE321771A	Service and repair electronic compression ignition engine management systems	
AURE321831B	Install marine electronic systems and components	
AURE321971A	Inspect, service and repair electronic management, monitoring and tracking systems	

Group B - Other elective units

- The balance of units, to a maximum of **five (5)**, may be drawn from any combination of:
 - units not already chosen from Group A
 - Group B units listed below
 - up to three (3) relevant units available in this Training Package, other endorsed Training Packages and accredited courses, where those units are aligned to Certificate II and III qualifications.

Common	
AURC270688A	Work effectively with others

Common	
AURC270789A	Communicate effectively in the workplace
AURC270889A	Communicate business information
AURC359554A	Provide technical guidance
AURC361101A	Adapt work processes to new technologies
AURC361230A	Inspect technical quality of work
AURC361337A	Maintain quality systems
AURC365722A	Estimate complex jobs
BSBCMN311B	Maintain workplace safety
HLTFA301B	Apply first aid
MSAENV272B	Participate in environmentally sustainable work practices

General mechanical	
AURC252103A	Apply basic automotive troubleshooting processes
AURT200108A	Carry out servicing operations
AURT222631A	Install air conditioning systems
AURT222670A	Service air conditioning systems
AURT223104A	Assemble and install refrigeration systems/components
AURT225156A	Read and interpret engineering drawings
AURT225667A	Use and maintain measuring equipment
AURT226008A	Carry out pre-repair operations (mechanical)
AURT270278A	Use and maintain workplace tools and equipment
AURT322645A	Overhaul air conditioning system components
AURT322666A	Repair/retrofit air conditioning systems
AURT325149A	Prepare engineering drawings

General mechanical	
AURT365130A	Inspect vehicle systems and determine preferred repair action
AURT365508A	Carry out vehicle safety/roadworthy inspection
AURT366108A	Carry out diagnostic procedures
AURT366308A	Carry out advanced diagnostic procedures
MEM09002B	Interpret technical drawing
MEM12023A	Perform engineering measurements
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations

Sales and warehousing	
TLID1001A	Shift materials safely using manual handling methods
TLID2004A	Load and unload goods/cargo
TLID2010A	Operate a forklift
TLID2013A	Move materials mechanically using automated equipment
TLID3011A	Conduct specialised forklift operations
TLILIC2001A	Licence to operate a forklift truck

Welding		Prerequisites
AURV223608A	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures	
AURV223808A	Carry out soft soldering techniques	
AURV281108A	Carry out manual metal arc welding procedures	
AURV281208A	Carry out brazing procedures	
AURV281308A	Carry out gas metal arc (MIG) welding procedures	
AURV281408A	Carry out gas tungsten arc (TIG) welding procedures	

Welding		Prerequisites
MEM05003B	Perform soft soldering	
MEM05004C	Perform routine oxy acetylene welding	
MEM05007C	Perform manual heating and thermal cutting	
MEM05017D	Weld using gas metal arc welding process	MEM05050B MEM05051A MEM05052A MEM12023A MEM18001C MEM18002B MEM09002B
MEM05050B	Perform routine gas metal arc welding	
MEM05051A	Select welding processes	
MEM05052A	Apply safe welding practices	