



Australian Government

Department of Education, Employment and Workplace Relations

AURE219531A Install ancillary electrical components

Release: 1

AURE219531A Install ancillary electrical components

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the competence to carry out the installation of vehicle ancillary electrical equipment, such as audio systems, mobile telephones, cruise control, speed alert and navigation systems, and gauges and instruments.
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Application of the Unit

Application of the unit	The unit includes identification and confirmation of work requirement, preparation for work, installation and testing of ancillary electrical components and completion of work finalisation processes, including clean-up and documentation. Work requires individuals to demonstrate some judgement and problem-solving skills in managing own work activities and contributing to a productive team environment. Work is carried out in accordance with award provisions.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	1.1. Work instructions are used to determine job requirements, including method, processes and equipment 1.2. Job specifications are read and interpreted 1.3. OHS requirements, including personal safety needs, are observed throughout the work 1.4. Components, tooling and equipment are identified, selected, and prepared in accordance with site manufacturer/component supplier instructions and site procedures 1.5. Information is accessed from manufacturer/component supplier specifications and correctly interpreted 1.6. Procedures are determined to minimise task time
2. Install ancillary electrical components	2.1. Legislation, industry guidelines and enterprise policies/procedures are followed 2.2. Ancillary electrical equipment is installed in accordance with manufacturer/component supplier specifications and tolerances 2.3. All tests are carried out in accordance with manufacturer/component supplier specifications and tolerances 2.4. Undue damage to equipment or machinery is avoided 2.5. Workplace documents are completed in accordance with site requirements
3. Clean up work area and maintain equipment	3.1. Material that can be reused is collected and stored 3.2. Waste and scrap is removed following workplace procedures 3.3. Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures 3.4. Unserviceable equipment is tagged and faults identified in accordance with workplace requirements 3.5. Operator maintenance is completed in accordance with manufacturer/component supplier specifications and site procedures 3.6. Tooling and equipment is maintained in accordance with workplace procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand information related to work orders, plans and safety procedures for installation of ancillary equipment
- plan and organise activities, including preparation and layout of worksite and obtaining of equipment and material to avoid backtracking or workflow interruptions
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete installation and tests and measurements to ensure correct installation
- use pre-checking and inspection techniques to anticipate planning and scheduling problems to avoid wastage of time and material
- manipulative and dexterity skills to perform ancillary electrical equipment installation
- problem-solving skills for a limited range of procedural issues
- use workplace technology related to the installation of ancillary electrical components, including the use of specialist tooling, measuring equipment, computerised technology and communication devices and the reporting/documenting of results

Required knowledge

A working knowledge of:

- OHS regulations/requirements, equipment, material and personal safety requirements
- common automotive terminology and vehicle safety requirements
- electrical principles and their application to ancillary electrical equipment
- type and content of installation specifications
- ancillary electrical equipment installation and test procedures
- work organisation and planning processes
- enterprise quality processes

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence in this unit signifies ability to transfer competence to changing circumstances and to respond to unusual circumstances in the critical aspects of:

- observing safety procedures and requirements
- communicating effectively with others involved in or affected by the work
- selecting methods and techniques appropriate to the circumstances
- completing preparatory activity in a systematic manner
- installing ancillary electrical equipment to workplace and manufacturer/component supplier requirements
- testing ancillary electrical equipment to workplace and manufacturer/component supplier requirements
- completing workplace/equipment documentation.

Context of, and specific resources for assessment

Application of competence is to be assessed in the workplace or simulated worksite.

Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.

Assessment is to comply with regulatory requirements, including Australian Standards.

The following resources should be made available:

- workplace location or simulated workplace
- material relevant to the installation of ancillary electrical components
- equipment, hand and power tooling appropriate to the installation of ancillary electrical components
- activities covering mandatory task requirements
- specifications and work instructions.

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of AUR05 Automotive Industry Retail, Service and Repair Training Package

EVIDENCE GUIDE

	• Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge • Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies • Assessment may be applied under project related conditions and require evidence of process • Assessment must confirm a reasonable inference that competence is able to be under the particular circumstance, and is able to be transferred to other circumstances • It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements • Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role
Guidance information for assessment	

Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Ancillary electrical components

Ancillary electrical components may include:

- audio systems, mobile telephones, cruise control, speed alert systems, gauges and instruments and navigation systems

RANGE STATEMENT	
Ancillary electrical equipment	Ancillary electrical equipment may be fitted to light vehicles, plant and equipment, and heavy commercial vehicles
Installations	Installations are to include: gauges and instruments, reading/interpreting wiring diagrams, soldering, crimping, installing components and wiring
Critical precautions	Critical precautions include: manufacturer/component supplier procedures which must be applied as poor working practices are likely to damage electronic system ECUs and/or other components
Installation methods	Installation methods and systems/components selected must be approved and within manufacturer/component supplier specifications to avoid damage and possible liability
OHS requirements	OHS requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures, and may include: protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices
Safe operating procedures	Safe operating procedures are to include, but are not limited to: the conduct of operational risk assessment and treatments associated with vehicular movement, toxic substances, electrical safety, machinery movement and operation, manual and mechanical lifting and shifting, working in proximity to others and site visitors
Emergency procedures	Emergency procedures related to this unit are to

RANGE STATEMENT	
	include but may not be limited to: • emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation
Environmental requirements	Environmental requirements are to include but are not limited to: • waste management, noise, dust and clean-up management
Quality requirements	Quality requirements are to include, but are not limited to: • regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures
Statutory/regulatory authorities	Statutory/regulatory authorities may include: • federal, state/territory and local authorities administering acts, regulations and codes of practice
Tooling and equipment	Tooling and equipment may include: • hand tooling, power tooling, air tooling, specialist tooling for removal and testing of equipment, including multimeters and test lamp
Materials	Materials may include: • spare parts, installation kits and cleaning material
Communications	Communications are to include, but are not limited to: • verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task and telephones and pagers
Information/documents	Sources of information/documents may include: • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets and diagrams or sketches • safe work procedures related to the

RANGE STATEMENT

	- installation of ancillary electrical components • regulatory/legislative requirements pertaining to the automotive industry, including Australian Design Rules • engineer's design specifications and instructions • organisation work specifications and requirements • instructions issued by authorised enterprise or external persons • Australian Standards
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Unit Sector(s)

Unit sector	Electrical
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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