**AURETR049 Install in-vehicle entertainment and convenience systems – FOR PUBLIC REVIEW (Friday 30th April – Monday 31st May 2021)**

# Application

This unit describes the skills and knowledge required to examine, select and safely install in-vehicle entertainment and convenience systems. It involves preparing for the task, selecting and installing entertainment and convenience systems, testing system functionality and completing workplace documentation.

This unit applies to those who work in the automotive sector and repair industry, who operate 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

Technical – Electrical and Electronic

# Elements and Performance Criteria

|  |  |
| --- | --- |
| **ELEMENT** | **PERFORMANCE CRITERIA** |
| *Elements describe the essential outcomes.* | *Performance criteria describe the performance needed to demonstrate achievement of the element.* |
| 1. Prepare to install, in-vehicle entertainment and convenience systems | 1.1 Determine job requirements according to workplace instructions  1.2 Access and interpret original equipment manufacturer (OEM) specifications and product installation instructions  1.3 Evaluate and 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 in line with workplace policies and procedures  1.5 Select and source components of in-vehicle entertainment and convenience systems according to job requirements  1.6 Check tools and equipment for serviceability |
| 2. Install and test system | 2.1 Install in-vehicle entertainment and convenience systems according to manufacturer specifications, workplace procedures and safety requirements, without interfering with existing systems  2.2 Conduct post-installation testing of system functionality and rectify faults where required according to workplace procedures  2.3 Conduct final inspection and confirm vehicle is ready for use according to road safety standards |
| 3. Complete work processes | 3.1 Clean work area, collect recyclable material and dispose of waste and non-recyclable materials  3.2 Store tools and equipment according to workplace procedures  3.3 Document installation and testing 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 | * matches materials and component part numbers to work instructions and component part lists * measures voltage using basic arithmetic operations |
| Oral communication | * clarifies instructions, determine work requirements, report findings, and seek feedback |
| Reading | * interprets information from manufacturer and workshop policies when seeking specifications and procedures * interprets legislative, and organisational workplace policies and procedures * interprets text, symbols and diagrams of in-vehicle entertainment and convenience systems in manufacturer specifications, fitting instructions and workplace procedures |
| Writing | * legibly and accurately fills out workplace documentation when reporting work performed and recording parts and material used |
| Planning and organising | * plans own work requirements and prioritises actions to achieve required outcomes and ensure tasks are completed within workplace timeframes |
| Technology | * uses specialised workplace technology, equipment and tools |

# Unit Mapping Information

Newly created unit. No equivalent 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 AURETR049 Install in-vehicle entertainment and convenience systems – FOR PUBLIC REVIEW (Friday 30th April – Monday 31st May 2021)**

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 at least one in-vehicle entertainment and convenience system into a vehicle with a controller area network databus (CAN-bus) system
* install at least one in-vehicle entertainment or convenience system into a vehicle with a non CAN-bus system.

In the course of the above, the candidate must:

* adhere to legislative requirements.

# 

# Knowledge Evidence

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

* work health and safety (WHS) requirements relating to installing in-vehicle entertainment and convenience systems, including those relating to:
* using specialised tools and equipment
* selecting and using personal protective equipment (PPE)
* identifying hazards and controlling risks including those associated with wearing jewellery while working around high current wiring systems
* key specialised technologies, tools and equipment including:
* amplifiers and speakers
* crimpers
* digital multimeters
* soldering irons
* wire strippers
* system functionality testing procedures and tools, including:
* digital multimeter and scan tool
* electrical equipment testing
* system operations
* wiring diagrams
* vehicle continuous and non-continuous monitored systems
* workplace procedures required to install in-vehicle convenience and entertainment systems, including:
* serviceability of tools and equipment
* techniques to operate, examine and store specialised technologies, tools and equipment
* documentation processes including tagging of faulty equipment
* safe disposal and recycling procedures for materials
* key features of in-vehicle convenience, entertainment and safety systems, including:
* advanced driver-assistance systems
* connectivity systems
* electronic control units (ECUs)
* fibre-optic communication systems
* infotainment systems
* intelligent transport systems
* multi-plex systems
* passenger comfort systems
* safety restraint systems
* telematics systems
* vehicle tracking systems
* key theories and principles of system installation procedures including:
* CAN-bus
* electrical
* LIN bus
* OHM’s law
* vehicle body operations.

# 

# 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 in-vehicle entertainment and convenience systems, 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:

* workplace instructions, policies and procedures
* manufacturer specifications and installation fitting instructions
* two different vehicles requiring the installation of in-vehicle convenience and entertainment systems
* tools, equipment and materials appropriate for installing in-vehicle convenience and entertainment systems.

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

# Links

Companion Volume Implementation Guide is found on VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1