



Australian Government

MSMRV386 Repair recreational vehicle extra-low-voltage electrical systems

Release: 1

MSMRV386 Repair recreational vehicle extra-low-voltage electrical systems

Modification History

Release 1. Supersedes and is not equivalent to MSMRV362 Install and repair battery systems in a recreational vehicle. Changes to application, elements, performance criteria and assessment requirements. Range of conditions removed. Workplace outcome has changed.

Application

This unit describes the skills and knowledge required to repair extra-low-voltage electrical systems in a recreational vehicle. Such systems include wires and cables, power supply and storage equipment (such as one or more batteries and solar panels), system equipment (such as main boards, regulators, inverters, surge protectors, Wi-Fi/Bluetooth control systems, light switches, USB sockets and power inlets/outlets) and accessories (such as electronic stability control systems, internal and external lights, pumps, radios, hot water systems, fans, rangehoods, air-conditioners, heaters, gas detectors, fans, rangehoods, speakers and antennae).

‘Repair’ includes making good in situ or removing one or more items that are damaged or no longer function according to specifications and arranging for their repair or replacement; removing and replacing existing items with modernised or upgraded items for better appearance, convenience or performance and installing new items for the same reasons; removing and reinstalling items for service and maintenance if required; resealing penetrations and installing new moulding as required, and identifying any other out-of-scope work required.

The unit applies to a person working in a recreational vehicle service and repair facility who undertakes routine tasks according to work instructions, plans/specifications and procedures and uses discretion and judgement in selecting equipment, services or contingency measures. They work with a high degree of self-direction and limited supervision. They apply known solutions to routine problems and report non-routine problems according to procedures. They are responsible for their output and have limited responsibility for the output of others.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

None

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

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1. Prepare to repair items	1.1 Identify the authorised scope of repair works from job instructions and insurance requirements 1.2 Select and check all required tools and equipment are ready to use 1.3 Identify hazards and hazard controls and check the hazard controls are in place and operating 1.4 Check the recreational vehicle and work area are ready to assess and confirm the scope of work
2. Assess and confirm the scope of work	2.1 Inspect the item and area to be repaired to assess the damage and determine the repair work required 2.2 Identify any additional repair work beyond the scope of the job instructions 2.3 Determine and communicate to a supervisor the extent of labour, materials and suppliers' services required for out-of-scope repairs 2.4 Provide further information and advice to support negotiation with external parties about the out-of-scope repairs 2.5 Confirm the job instructions and seek approval for the final scope of works
3. Remove and repair items	3.1 Repair the item in situ or disconnect and remove it according to job instructions 3.2 Clean the area around the item's location according to workplace procedures 3.3 Arrange for removed items to be repaired by an authorised facility or within the workplace according to manufacturer's instructions and workplace procedures 3.4 Arrange for the supply of replacement items according to job instructions 3.5 Check removed and repaired or replaced items are ready for installation according to job specifications and quality requirements 3.6 Check any related repair work to the area around the item is completed 3.7 Correctly position the item, fasten it and complete the installation according to manufacturer's instructions 3.8 Check the item is functioning correctly according to job instructions and quality requirements

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
4. Install items	4.1 Check the repaired or replacement items are ready for installation according to job specifications and quality requirements 4.2 Check any related repair work to the area around the item is completed 4.3 Correctly position the item, fasten it and complete the installation according to manufacturer's instructions 4.4 Check the item is installed and functioning correctly according to job instructions and quality requirements and rectify any deficiencies
5. Complete the repairs according to workplace procedures	5.1 Clean up the recreational vehicle in readiness for the next task 5.2 Clean up the work area, identify items for recycling and dispose of waste 5.3 Identify, tag and report any damage to equipment and tools 5.4 Check, clean and do routine maintenance on equipment and tools and store them and unused materials 5.5 Complete task outcome documentation

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No equivalent unit.

Links

Companion volume implementation guides are found in VETNet – -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

Assessment Requirements for MSMRV386 Repair recreational vehicle extra-low-voltage electrical systems

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Performance Evidence

There must be evidence that the candidate has completed the tasks set out in the elements and performance criteria and has demonstrated the ability to repair an extra-low-voltage electrical system in a recreational vehicle on at least three occasions.

On at least one of the above occasions, the initial assessment must identify the need for out-of-scope repairs.

Knowledge Evidence

There must be evidence the candidate knows:

- requirements relevant to the performance criteria of:
 - *AS/NZS 5601.2 Gas installations LP Gas installations in caravans and boats for non-propulsive purposes*
 - *AS/NZS 3001 Electrical installations - Transportable structures and vehicles including their site supplies*
 - the *Road Vehicle Standards Act 2018*
 - Australian design rules
- types of recreational vehicle extra-low-voltage electrical systems and manufacturer's instructions for them, including for installation, use, service, troubleshooting and repair
- which hand and power tools and equipment to use when repairing recreational vehicle extra-low-voltage electrical systems
- workplace policies and procedures relevant to their job role and responsibilities including for:
 - repairing recreational vehicle extra-low-voltage electrical systems
 - communication and reporting
 - environmental protection and sustainability, including adhesives, dust, noise and waste
 - quality assurance
 - work health and safety, including personal protective equipment
 - work planning
- hazards that might arise in the work environment and their controls
- the most common issues that can arise when repairing recreational vehicle extra-low-voltage electrical systems and how to avoid and respond to them

- how to identify if recreational vehicle extra-low-voltage electrical systems have been repaired correctly.
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Assessment Conditions

Skills must have been demonstrated in the workplace or a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources required to repair recreational vehicle extra-low-voltage electrical systems including:
 - recreational vehicles with extra-low-voltage electrical systems in need of repair
 - materials and items required for the tasks
 - hand and power tools and lifting, safety and other equipment
 - job instructions and workplace procedures.

Assessors of this unit must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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