



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MEM20012A Service and repair mechanical automotive locking systems**

**Release: 2**

## MEM20012A Service and repair mechanical automotive locking systems

### Modification History

Single band identifier removed to clarify dual status

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers identifying service and repair requirements for mechanical automotive locking systems; repairing, replacing and servicing such systems; and finalising the servicing process.
------------------------	--

### Application of the Unit

<b>Application of the unit</b>	<p>The unit may be applied to work on commercial and private use vehicles. It applies to mechanical locking systems. It requires an ability to safely remove, repair, service and replace components with special regard to associated equipment, such as supplemental restraint systems (SRS), steering locking and anti-theft devices.</p> <p>Appropriate factors that ensure conformance to specifications, operational performance, quality and safety must be applied. These include locksmithing principles, ethics, techniques, procedures and safe workshop practices.</p> <p><b>Band:</b></p> <p>This unit has dual status and is to be regarded as both a Specialisation band A unit and Specialisation band B unit for progression to C5 (AQF level V).</p> <p><b>Unit Weight: 4</b></p>
--------------------------------	---

### Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

Prerequisite units		
Path 1	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations
	MEM20001A	Produce keys
	MEM20002A	Assemble and test lock mechanisms

## Employability Skills Information

Employability skills	This unit contains employability skills.
----------------------	--

## 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.
---	--

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify service and repair requirements	<p>1.1. Ownership is established and verified in accordance with organisational and industry procedures.</p> <p>1.2. System and component specifications and other relevant information is obtained from appropriate sources and in accordance with organisational and customer requirements.</p> <p>1.3. Nature of damage is established in accordance with organisational procedures, established inspection/diagnostic techniques and original specifications.</p> <p>1.4. Service and repair requirements and other information relevant to task are established in accordance with customer needs, organisational and manufacturer specifications and legislation, codes, regulations and standards.</p>
2. Repair, replace and service automotive locking system	<p>2.1. Risks and hazards are identified and area is made secure.</p> <p>2.2. Specific isolation and/or safety measures are applied with special regard to associated equipment.</p> <p>2.3. OHS policies procedures and practices are applied according to organisational and legislative requirements.</p> <p>2.4. Lock assemblies and components are inspected and repaired/replaced and serviced as appropriate and practicable, in accordance with organisational requirements, industry practices and factors impacting on feasibility of repair.</p> <p>2.5. Tools, equipment, materials and consumables are selected, checked for serviceability and used in accordance with manufacturers' specifications and organisational procedures.</p> <p>2.6. Sub-assemblies and assemblies are inspected, tested and adjusted as necessary for compliance to original factory assembly and functioning.</p>
3. Finalise servicing process	<p>3.1. Function of entire locking system is checked for compliance with operational specifications and is adjusted as necessary.</p> <p>3.2. Documentation is completed and processed in accordance with legislative, assignment and organisational requirements.</p> <p>3.3. Work area, tools and equipment are cleaned and</p>

ELEMENT	PERFORMANCE CRITERIA
	stored in accordance with OHS and organisational requirements. 3.4. Vehicle is cleaned and returned to serviceable condition according to customer and organisational requirements.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

Look for evidence that confirms skills in:

- interpreting specifications, charts, manuals, diagrams and related information specific to service and repair of mechanical automotive locking systems
- confirming and clarifying information
- identifying mechanical automotive locking components and associated equipment
- checking functioning of locking systems
- tracing faults
- selecting and using appropriate tools and equipment, materials and consumables
- applying safe work practices
- identifying and acting on actual and potential hazards
- identifying alternative servicing and repair options
- disassembling and assembling components
- documenting information
- housekeeping

#### Required knowledge

Look for evidence that confirms knowledge of:

- attachment methods for window winders, internal handles, snibs, trims, cylinders, locks and external handles
- system and component specifications
- sources of specifications and other relevant information for mechanical automotive locking systems
- components of locking system
- principles of system and component function
- technical terminology

**REQUIRED SKILLS AND KNOWLEDGE**

- operation of specific locks
- common design problems
- faults arising from vandalism, misuse, wear etc.
- checks and tests to confirm service requirements
- organisational procedures for establishing service requirements
- procedures to establish and verify vehicle ownership
- reasons for verifying ownership
- operating principles, release positions and isolation techniques for air bags
- personal liability for safety and duty of care
- applicable legislation, codes, regulations and standards
- OHS policies, procedures and practices
- personal protective clothing, equipment
- safe working practices
- environmental, physical and behavioural hazards in relation to vehicle and surrounds
- factors impacting on feasibility of repair or replacement
- dismantling procedures for a range of automotive locks
- documentation and recording procedures
- procedures for replacing worn and damaged parts, removing foreign objects and lubricating, packing and sealing components
- organisational requirements for cleaning and storage
- reasons for care and precision

## 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

A person who demonstrates competency in this unit must be able to dismantle, inspect, repair, replace, service and assemble and test mechanical automotive locking components and systems. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

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

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

#### Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with servicing and repair of mechanical automotive locking systems, or other units requiring the exercise of the skills and knowledge covered by this unit.

#### Method of assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

**EVIDENCE GUIDE****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.

**Appropriate sources of information**

Catalogues, manufacturer manuals, drawings, detailed/technical sketches and associated data sheets

**Organisational requirements**

Quality assurance standards and procedures, service standards, safety and OHS practices and obligations, resource storage and use, organisational processes and procedures, documentation processes, product and process training

**Customer requirements**

Function and capabilities, access issues, service and maintenance requirements, product operation and warranty information, costings

**Repair/service requirements**

Removal, repair, service and replacement of automotive lock components

**Other information**

Schedules, timeframes, access and site information, products, installation and upgrade requirements, specific client requests, materials, costings, warranties and service information, legislation, codes and regulatory requirements, OHS requirements

**Legislation, codes, regulations and standards**

Industry licensing, industry codes of practice, privacy laws, Australian standards, quality assurance, organisational standards and practices, awards and enterprise agreements, competition,

<b>RANGE STATEMENT</b>	
	trade and consumer protection laws
<b>Risks and hazards</b>	Supplemental restraint systems (SRS) systems (air bags) are disabled to prevent accidental triggering. Unique dangers arising from working on the roadside. Non-compliance with manufacturer recommendations, materials handling, chemical, environmental and physical hazards
<b>Associated equipment</b>	SRS, steering locking and anti-theft devices
<b>OHS policies, procedures and practices</b>	<ul style="list-style-type: none"> <li>Assessment of actual and potential risk, identification of hazards, safety practices and regulations, safe use of tools and equipment, individual responsibilities and obligations, safety training and procedures, emergency and first aid procedures, working in confined spaces, industry standards and codes of practice</li> <li>Use of personal protective equipment such as safety glasses, earmuffs/plugs, safety vests, hard hats, gloves, knee pads, safety boots, warning signs and tapes, fire extinguisher, first aid kit</li> </ul>
<b>Lock assemblies and components</b>	Inline, single and double sided, 2 and 4 track, tibbe (rotating disc), dimple, sidebar, split wafer, new and other mechanisms
<b>Tools and equipment</b>	Tools, power tools and accessories, specialist equipment, fixing tools, special-purpose equipment, vacuum cleaner
<b>Materials and consumables</b>	Lubricants, adhesives and sealants, cleaning materials, wire and cable
<b>Documentation</b>	Historical records, procedures and measurements for opening specific vehicles, job sheets, invoices, warranties

## Unit Sector(s)

<b>Unit sector</b>	
--------------------	--

## Co-requisite units

Co-requisite units		

## Competency field

Competency field	Locksmithing
------------------	--------------