

## Rectify four-wheel drive (4WD) or all-wheel drive (AWD) system faults on light vehicles

**Level** 4

**Credits** 3

**Purpose** This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to rectify 4WD or AWD system faults on light vehicles.

**Subfield** Motor Industry

**Domain** Automotive Transmission Systems

**Status** Registered

**Status date** 25 February 2008

**Date version published** 25 February 2008

**Planned review date** 31 December 2012

**Entry information** Prerequisite: Class 1 driver licence.

Recommended: Unit 24326, *Diagnose four-wheel drive (4WD) or all-wheel drive (AWD) system faults on light vehicles*, or demonstrate equivalent knowledge and skills.

**Replacement information** This unit standard, unit standard 24325, and unit standard 24326 replaced unit standard 8185.

**Accreditation** Evaluation of documentation and visit by NZQA and industry.

**Standard setting body (SSB)** NZ Motor Industry Training Organisation (Incorporated)

**Accreditation and Moderation Action Plan (AMAP) reference** 0014

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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### Special notes

- 1 Legislation and publications relevant to this unit standard include but are not limited to – Health and Safety in Employment Act 1992; Land Transport Rule: Vehicle Repair 1998, Rule 34001; *The Official New Zealand Road Code*, Land Transport New Zealand.

2 Land Transport Rules are produced for the Minister of Transport by Land Transport New Zealand. These rules are available online at <http://www.landtransport.govt.nz/rules/>. New Zealand Road Code information can be obtained from the following website <http://www.landtransport.govt.nz/roadcode>.

3 Definitions

*Company requirements* refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – company specifications and procedures, work instructions, manufacturer specifications, product quality specifications, and legislative requirements.

*Light vehicle* refers to classes as listed from Land Transport New Zealand website table <http://www.landtransport.govt.nz/publications/infosheets/infosheet-1-10.html#classes>: passenger vehicle MA, MB, MC; omnibus MD, MD1, MD2; and goods vehicle NA.

*Service information* may include but is not limited to – technical information of a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions and specifications; technical terms and descriptions; and detailed illustrations. This can be accessed in hard copy or electronic format and is normally sourced from the manufacturer.

*Suitable tools and equipment* means industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices. Vehicle manufacturers use various terms for 4WD. Many vehicles are offered with a combination of the systems outlined in this unit standard. For the purpose of this unit standard, *4WD* refers to either part time or full time, and *AWD* refers to full time symmetric or automatic asymmetric systems.

4 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

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## Elements and performance criteria

### Element 1

Rectify 4WD or AWD system faults on light vehicles.

### Performance criteria

1.1 Safe working practices are observed throughout the task in accordance with legislative requirements.

Range personal safety, safety of others, vehicle safety, workshop safety, environmental safety, tools and equipment safety.

1.2 Suitable tools and equipment are selected and used that enable faults to be rectified in accordance with service information.

1.3 The vehicle is raised and secured to enable work to be carried out on the system in accordance with company requirements.

- 1.4 The system is disassembled and cleaned in accordance with service information.
- 1.5 The parts are inspected for damage and wear, and their suitability for further service is determined when compared with manufacturer specifications.
- 1.6 The system is assembled in accordance with service information. Any faults are rectified, and adjustments made to meet manufacturer specifications.
- Range new or existing parts.
- 1.7 Vehicle is road tested in accordance with the Road Code and to the driver's handbook instructions to ensure system faults have been rectified.

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### **Please note**

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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### **Comments on this unit standard**

Please contact the NZ Motor Industry Training Organisation (Incorporated) [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.