

Title	Demonstrate knowledge of, and use, portable computer diagnostic equipment to test vehicle systems		
Level	5	Credits	4

Purpose	People credited with this unit standard are able to: demonstrate knowledge of the use of portable computer diagnostic equipment; and use portable computer diagnostic equipment to test vehicle systems.
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Classification	Motor Industry > Automotive Electrical and Electronics
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Performance of the outcomes of this unit standard must comply with the following:
Consumer Guarantees Act 1993;
Fair Trading Act 1986;
Health and Safety at Work Act 2015.
- 3 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 4 Definitions
Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.
Portable computer diagnostic equipment means diagnostic equipment that is portable, computer-based, and a diagnostic tool used for testing vehicle systems.
Service information refers to technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.
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.

- 5 The practical skills of this unit standard can be assessed in the workplace or in simulated workplace conditions off-job. For the purpose of off-job assessment, the term customer means the training provider.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the use of portable computer diagnostic equipment.

Performance criteria

- 1.1 The information that portable computer diagnostic equipment can provide as a diagnostic guide are described.
- Range current specifications for model selected, procedures for tests, live data capture and/or on-demand self-tests, save function, freeze-frame function, fault code and/or fault description database, repair instructions and/or step-by-step procedures, on-line technical support.
- 1.2 The types of portable computer diagnostic equipment used by manufacturers are identified.
- 1.3 The types of vehicle connections to portable computer diagnostic equipment are described.
- Range plug-in central diagnostic port, Bluetooth wireless communications kit, vehicle interface and software with serial port and cables.
- 1.4 The information provided by computer aided problem-solving equipment is described.
- Range scope waveforms, wiring diagrams, ECM (electronic control module) pin tables, adjustments, test routines, fault finding procedures, measurement data, fault codes, common faults, system technical description.

Outcome 2

Use portable computer diagnostic equipment to test vehicle systems.

Performance criteria

- 2.1 The portable computer diagnostic equipment is linked to the vehicle.
- 2.2 All test functions and routines are completed on the vehicle.
- 2.3 Vehicle system data as a result of completing all test functions and routines is stored and printed.

- 2.4 Operation of the vehicle's systems is analysed, and a diagnostic report is produced, and a comprehensible report is given to the customer.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 December 2004	31 December 2022
Review	2	25 March 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.