

Title	Test electronic fuel management systems and replace components		
Level	4	Credits	4

Purpose	<p>This unit standard is intended for people in the automotive repair industry.</p> <p>People credited with this unit standard are able to identify test procedures and test electronic fuel management systems and replace fuel management system components.</p>
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Classification	Motor Industry > Automotive Fuel Systems and Exhaust
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Available grade	Achieved
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Guidance Information

- 1 It is recommended that people hold credit for Unit 31058, *Demonstrate knowledge of a diesel engine management system* before being assessed against this unit standard.
- 2 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.
- 3 Performance of the outcomes of this unit standard must comply with the following: Health and Safety at Work Act 2015.
- 4 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.
- 5 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.

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 refer to 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.

Outcomes and performance criteria

Outcome 1

Identify test procedures and test electronic fuel management systems.

Performance criteria

- 1.1 Test procedures relating to electronic fuel management systems are identified and interpreted.
- Range system components may include sensors, actuators, electronic control unit (ECU) wiring, connectors.
- 1.2 Suitable test equipment is selected and used to enable testing to be carried out.
- Range may include but is not limited to – multi-meter, logic probe, computer, scan tool.
- 1.3 Diagnostic codes are activated, read and interpreted, and any faulty circuit is identified, with reference to service information.
- 1.4 Cause(s) of identified faults in fuel engine management system circuits are located on the vehicle or machine by following service information.
- 1.5 Measurements are taken with no damage caused to circuit components and test instrument.

Outcome 2

Replace fuel management system components.

Performance criteria

- 2.1 Fuel management components are replaced.
- Range may include but is not limited to – crankshaft position sensor, engine speed sensor, relays, wiring sub-harness, connectors, ECU, air inlet temperature sensor, boost pressure sensor, engine coolant temperature sensor, vehicle speed sensor, cranking signal sensor, fuel temperature sensor, throttle position sensor, timing control sensor, exhaust gas recirculation unit, air flow sensor, accelerator potentiometer.

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	19 April 2002	31 December 2022
Review	2	25 January 2008	31 December 2022
Review	3	29 April 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.