

Title	Diagnose and rectify faults in a car or light commercial vehicle anti-lock braking system		
Level	5	Credits	4

Purpose	People credited with this unit standard are able to: demonstrate knowledge of anti-lock braking system (ABS) fitted to cars and light commercial vehicles; test a vehicle's ABS for faults; and rectify ABS faults.
----------------	---

Classification	Motor Industry > Vehicle Braking Systems
-----------------------	--

Available grade	Achieved
------------------------	----------

Prerequisites	Class 1 driver licence.
----------------------	-------------------------

Guidance Information

- 1 It is recommended that people hold credit for Unit 31054, *Diagnose and repair hydraulic braking system faults* 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;
Traffic Regulations 1976;
The Official New Zealand Road Code.
- 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 information such as 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

Demonstrate knowledge of ABS fitted to cars and light commercial vehicles.

Performance criteria

- 1.1 The function and operation of a car and light commercial vehicle ABS are described.
- Range may include – one, two, three, and four channel systems.
- 1.2 The major components are identified, and their function is described.
- Range may include – speed sensors, electronic control module (ECM), hydraulic unit, gravity (G) sensor, proportioning valve, stop lamp switch, master cylinder.

Outcome 2

Test a vehicle's ABS for faults.

Performance criteria

- 2.1 The total braking system is checked visually, and any obvious faults are identified and rectified.
- Range may include – fluid leaks, broken and loose components, blown fuse, disconnected wires.
- 2.2 The self-test codes are activated, read, and interpreted, to identify any circuit that has a fault.
- 2.3 The vehicle is road tested for brake operation.
- 2.4 The vehicle is operated to reproduce the fault symptoms, and the symptoms and the conditions when they occur are noted.
- 2.5 The circuit indicated by the self-test codes and its components is tested, and the fault is located and identified.

Outcome 3

Rectify ABS faults.

Performance criteria

- 3.1 Any faulty ABS components are replaced.
- 3.2 Wiring faults are repaired.
- 3.3 Fluid leaks are rectified.
- 3.4 The system is bled of air.
- 3.5 The self-test memory is cleared of faults.
- 3.6 The road test is repeated to ensure that the braking fault has been rectified.
- 3.7 Self-test system is rechecked after a road test to ensure that the braking fault has been rectified.

Planned review date	31 December 2025
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	9 November 1993	31 December 2022
Review	2	4 October 1996	31 December 2022
Review	3	26 February 1999	31 December 2022
Review	4	16 December 2004	31 December 2022
Review	5	29 July 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014
--	------

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.