

Title	Demonstrate knowledge of the identification, testing, and maintenance of control and safety devices in gas appliances		
Level	4	Credits	5

Purpose	<p>This unit standard is for people who work in the gasfitting industry.</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> – the identification and testing of control and safety devices in gas appliances; – the maintenance of control and safety devices in gas appliances; – regulatory requirements and underpinning principles, as applied to the testing and maintenance of control and safety devices in gas appliances.
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Classification	Plumbing, Gasfitting and Drainlaying > Gasfitting
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Available grade	Achieved
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Guidance Information

- 1 References
 - Building Act 2004;
 - Electricity Act 1992;
 - Gas Act 1992;
 - Gas (Safety and Measurement) Regulations 2010;
 - Health and Safety at Work Act 2015;
 - Plumbers, Gasfitters, and Drainlayers Act 2006;
 - Plumbers, Gasfitters, and Drainlayers Regulations 2010;
 - The following standard, which is available at:
AS/NZS5601.1:2013 *Gas installation*;
 - The following clause, and any related compliance documents, which are available at <https://www.building.govt.nz/>:
New Zealand Building Code Clause G11 Gas as an Energy Source;
and all subsequent amendments and replacements.

- 2 Range
Ignition devices – piezo, manual spark, automatic spark, hot surface, flash tube; pressure regulators, pressure protection devices;
Flame failure devices – thermoelectric, flame rectification, photocell detection; temperature control devices – snap acting thermostats, liquid expansion thermostats, electronic temperature control using thermistors;
other control devices including but not limited to – combination control valves, vitiation cutoffs, tip-over switches, pressure switches, solenoids, overheat protection devices, printed circuit boards (PCB), remote controllers.
- 3 Definition
Maintain may refer to all or any of – repair, upgrade, alter, remove, replace.
- 4 Credit for this unit standard does not entitle the candidate to legally perform certain electrical aspects of this work unless registered or supervised by a registered person under the provisions of the Electricity Act 1992.
- 5 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the identification and testing of control and safety devices in gas appliances.

Performance criteria

- 1.1 Describe how control and safety devices are identified in terms of their type and functions.
- 1.2 Explain how control and safety devices are tested to determine their serviceability in accordance with the type of device.

Outcome 2

Demonstrate knowledge of the maintenance of control and safety devices in gas appliances.

Performance criteria

- 2.1 Describe process for assessing correct operation of control and safety devices in accordance with maintenance requirements.
- 2.2 Explain how to identify faults in terms of the nature of the fault and possible means of rectification.
- 2.3 Explain how faults are rectified in accordance with maintenance requirements.

- 2.4 Describe the recommissioning and retesting of control and safety devices in accordance with maintenance requirements and relevant standard and codes.
- 2.5 Describe skills and licensing requirements for those performing electrical elements of the maintenance of gas appliance control and safety devices.

Outcome 3

Demonstrate knowledge of regulatory requirements and underpinning principles, as applied to the testing and maintenance of control and safety devices in gas appliances.

Performance criteria

- 3.1 Describe applicable sections of legislation, standards, and codes in terms of their application to the testing and maintenance of control and safety devices in gas appliances.
- 3.2 Explain working principles of control and safety devices including the operation and function of its components where applicable.

Replacement information	This unit standard and unit standard 30706 replaced unit standard 21899.
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 November 2017	31 December 2028
Review	2	25 July 2024	31 December 2028

Consent and Moderation Requirements (CMR) reference	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.