

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

<b>Purpose</b>	<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"> <li>– the identification and testing of control and safety devices in gas appliances;</li> <li>– the maintenance of control and safety devices in gas appliances;</li> <li>– regulatory requirements and underpinning principles, as applied to the testing and maintenance of control and safety devices in gas appliances.</li> </ul>
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<b>Classification</b>	Plumbing, Gasfitting and Drainlaying > Gasfitting
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<b>Available grade</b>	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,

vitation 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.

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## 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.

<b>Replacement information</b>	This unit standard and unit standard 30706 replaced unit standard 21899.
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<b>Planned review date</b>	31 December 2022
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	23 November 2017	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
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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 The Skills Organisation [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.