

Australian Standard™

**Electrical and electronic ignition devices  
for gas appliances**



This Australian Standard was prepared by Committee AG-011, Components and Industrial Equipment. It was approved on behalf of the Council of Standards Australia on 8 October 2004.

This Standard was published on 24 November 2004.

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Appliance and Component Testing  
Australian Liquefied Petroleum Gas Association  
Gas Appliance Manufacturers Association of Australia  
Gas Appliances and Services Association  
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**STANDARDS AUSTRALIA**

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**RECONFIRMATION**

**OF**

**AS 4622—2004**

**Electrical and electronic ignition devices for gas appliances**

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Technical Committee AG-013 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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## NOTES

Australian Standard™

## Electrical and electronic ignition devices for gas appliances

Originated as AG 206—1975.  
Previous edition 1998.  
Republished and designated AS 4622—2004.

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Published by Standards Australia International Ltd GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 6363 4

## PREFACE

This Standard was reviewed by the Standards Australia Committee, AG-011, Components and Industrial Equipment, to supersede AG 206—1998, *Approval requirements for electrical and electronic ignition devices for gas appliances*. The Standard is republished without technical alterations.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with uniform minimum requirements for the safety, performance and use of electrical and electronic ignition devices for gas appliances.

This Standard should not be regarded as a design specification or as an instruction manual.

In its preparation, consideration has been given to—

- (a) continuity of satisfactory operation;
- (b) the prevention of fire hazards, and explosions;
- (c) the prevention of injury to persons or property;
- (d) gas rules and regulations now in force; and
- (e) relevant International Standards.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

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## STANDARDS AUSTRALIA

## Australian Standard

## Electrical and electronic ignition devices for gas appliances

## SECTION 1 SCOPE, CLASSIFICATION AND DEFINITIONS

## 1.1 SCOPE

These requirements apply to electrical and electronic ignition devices for use on natural gas (NG), simulated natural gas (SNG), town gas (TG), tempered liquefied petroleum gas (TLP) and liquefied petroleum gas (LPG).

NOTE: Ignition devices do not control gas valves. Where an ignition device is incorporated in a flame safeguard or flame safeguard system, it shall meet the appropriate requirements of this Standard in addition to the requirements of AG 210 (to be AS 4625) or AS 4620.

Where an ignition device is designed to combine the functions of two or more control components, it shall comply with the requirements for each function.

Compliance of an ignition device with these requirements does not imply that it is acceptable for use without supplemental tests in its intended application.

Electrical components shall comply with the requirements of the appropriate electrical authority.

## 1.2 CLASSIFICATION

## 1.2.1 Ignition device types

Ignition devices covered by these requirements are:

- (a) Igniters—providing a source of ignition only.
- (b) Reigniters—providing a source of ignition plus flame monitoring and a continuous reignition attempt in the event of flame failure.

## 1.2.2 Classification by electrical power source and type of ignition element

The devices shall be further classified according to electrical power source and type of ignition element.

1.2.2.1 *Electrical power source*

Power sources are—

- (a) mains supply (directly or via a transformer);
- (b) battery; and
- (c) piezo electric.

1.2.2.2 *Ignition element*

Ignition elements are—

- (a) filament; and
- (b) spark.

### 1.3 DEFINITIONS

For the purpose of this Standard, the following definitions apply:

#### 1.3.1 Authority

Means the authority having jurisdiction or such authority as delegated. (Technical Regulator).

#### 1.3.2 Certified

Assessed by a Certifying Body, and having a certificate number to demonstrate compliance with a Standard.

#### 1.3.3 Certifying body

A body acceptable to the Technical Regulator that provides assurance of compliance of appliances and components with nominated standards or other accepted safety criteria.

#### 1.3.4 Combination gas control

An assembly of two or more different control functions in a single body.

#### 1.3.5 Electronic flame safeguard

A flame safeguard utilizing electronic components to perform its function.

#### 1.3.6 Flame detector

A device that is sensitive to flame properties and initiates a signal when flame is detected.

#### 1.3.7 Flame establishment period

The period which begins when the fuel valve is energised and ends when the flame supervision system is first required to supervise that flame.

#### 1.3.8 Flame failure response time

The time taken for the flame safeguard to detect loss of flame and de-energize the shut off valve.

#### 1.3.9 Flame safeguard

A safety device that automatically cuts off the gas supply if the actuating flame is extinguished.

#### 1.3.10 Gas

A combustible fuel gas which may be one of the following:

##### 1.3.10.1 *Natural gas (NG)*

A hydrocarbon gas, consisting mainly of methane.

##### 1.3.10.2 *Simulated natural gas (SNG)*

A gas comprising a mixture of LPG and air, in the approximate proportions of 55% gas and 45% air for commercial propane.

##### 1.3.10.3 *Town gas (TG)*

A gas manufactured from coal or petroleum feedstocks.

##### 1.3.10.4 *Tempered liquefied petroleum gas (TLP)*

A gas comprising a mixture of LPG and air, in the approximate proportions of 27% gas and 73% air for commercial propane.

##### 1.3.10.5 *Liquefied petroleum gas (LPG)*

A gas composed predominantly of any of the following hydrocarbons, or any combination of them in the vapour phase; propane, propene (propylene), butane, butene (butylene)