



ANSI Z21.57-2010
(reaffirmed 2021)

American National Standard For Recreational Vehicle Cooking Gas Appliances



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AMERICAN NATIONAL STANDARD
ANSI Z21.57-2010

Tenth Edition - 2010
This Standard is based on the Standard for
Recreational Vehicle Cooking Gas Appliances

ANSI Z21.57-2005
Addenda Z21.57a-2007, and
Z21.57b-2008



APPROVED
November 11, 2010
American National Standards Institute, Inc.

Secretary
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Cleveland, Ohio 44131

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Preface

This publication represents a standard for safe operation, substantial and durable construction, and acceptable performance of recreational vehicle cooking gas appliances. It is the result of years of experience in the manufacture, testing, installation, maintenance, inspection and research on appliances designed for the utilization of gas. There are risks of injury to persons inherent in some appliances that, if completely eliminated, would defeat the utility of the appliance. The provisions in this Standard are intended to reduce such risks while retaining the normal function of the appliance.

Nothing in this standard is to be considered in any way as indicating a measure of quality beyond compliance with the provisions it contains. It is designed to allow compliance of recreational vehicle cooking gas appliances, the construction and performance of which may exceed the various provisions specified herein. In its preparation, full recognition has been given to possibilities of improvement through ingenuity of design. As progress takes place, revisions may become necessary. When they are believed desirable, recommendations should be forwarded to CSA America, Inc., 8501 East Pleasant Valley Road, Cleveland, Ohio 44131.

Safe and satisfactory operation of a recreational vehicle cooking gas appliance depends to a great extent upon its proper installation and it should be installed in accordance with the *Standard for Recreational Vehicles, ANSI A119.2*, or the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, the manufacturers' installation instructions, and local municipal codes.

Users of this American National Standard are advised that the device(s)/products/activities within its scope may be subject to regulation at the Federal, state or local level. Users are strongly urged to investigate this possibility through appropriate channels. In the event of a conflict with this standard, the Federal, state or local regulation should be followed.

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History Of The Development Of Standard For Recreational Vehicle Cooking Gas Appliances

(This History is informative and is not part of the standard.)

Although the preparation and promulgation of standards for domestic gas ranges had been in progress for almost thirty years, the first American Standard for gas ranges approved by the American Standards Association was in 1932. This latest and most comprehensive standard was the result of a general revision and enlargement of the previous standards by the domestic gas range subcommittee of ASA Sectional Committee Z21 under the sponsorship of the American Gas Association.

Following this edition of the domestic gas range standard (Z21.1), a number of subsequent editions were issued which included revisions deemed necessary in line with industry developments. In each case, draft revisions were distributed for review and comment and reviewed by the subcommittee prior to finalization of the revised standard.

Following the thirteenth edition of the standard, which was approved as American Standard in 1955, the domestic gas range standard was divided into two volumes. These became the fourteenth edition, Volume I, Free Standing Units (Z21.1.1), and the first edition, Volume II, Built-In Domestic Cooking Units (Z21.1.2), which were approved as American Standards by the American Standards Association in 1956.

As a result of the use of domestic gas ranges by the recreational vehicle and manufactured (mobile) home industry, the standards were modified to cover the special construction and performance features deemed necessary for ranges for installation in such vehicles. These revisions were included in the first addenda to the standards approved as American Standards in 1960. Subsequent editions of both standards were approved in 1961 and 1964.

On August 24, 1966 the American Standards Association was reconstituted as the United States of America Standards Institute. On October 6, 1969, the United States of America Standards Institute was renamed the American National Standards Institute, Inc.

With the increasing popularity of recreational vehicles, the subcommittee concluded that provisions to recognize special appliance designs and use conditions were needed in the domestic gas range standards. Rather than attempting to add this coverage to the existing standards, the subcommittee prepared a draft standard to cover recreational vehicle cooking gas appliances for use with liquefied petroleum gases. This draft standard, which was comprised of the related coverage from the eighteenth edition of Z21.1.1 and the fifth edition of Z21.1.2, plus additional coverage for vibration, compactness of design, etc., was adopted by the Z21 Committee in March 1971. The first edition of the recreational vehicle cooking gas appliance standard was approved as American National Standard by the American National Standards Institute, Inc., in 1972.

Further revisions in line with developments in gas utilization, including the transfer of the remaining coverage for appliances for recreational vehicle installation from American National Standard for Household Cooking Gas Appliances (Z21.1) were incorporated in the second edition of the recreational vehicle cooking gas appliance standard which was approved as American National Standard by the American National Standards Institute, Inc., in 1974. The third, fourth, fifth, sixth, seventh, eighth and ninth editions of the recreational vehicle cooking gas appliance standard were approved as American National Standards by the American National Standards Institute, Inc., in 1978, 1982, 1987, 1990, 1993, 2001, and 2005 respectively.

This, the tenth edition of the recreational vehicle cooking gas appliance standard was approved by the American National Standards Institute on November 29, 2010

Previous editions of the recreational vehicle cooking gas appliances standard, and addenda thereto, approved by the American National Standards Institute are as follows:

Z21.57-1972		
Z21.57-1974	Z21.57a-1974	Z21.57b-1976
Z21.57-1978	Z21.57a-1979	Z21.57b-1981
Z21.57-1982	Z21.57a-1982	Z21.57b-1984
Z21.57-1987	Z21.57a-1989	Z21.57b-1989
Z21.57-1990	Z21.57a-1991	Z21.57b-1993
Z21.57-1993	Z21.57a-1997	Z21.57b-1998
Z21.57-2001	Z21.57a-2003	Z21.57b-2004
Z21.57-2005	Z21.57a-2007	Z21.57b-2008

NOTE: This edition of Z21.57 incorporates changes to the 2005 edition of Z21.57 and addenda thereto. Changes, other than editorial, are denoted by a vertical line in the margin.

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NOTE

This standard contains SI (Metric) equivalents to the yard/pound quantities, the purpose being to allow the standard to be used in SI (Metric) units. (Standard for use of the International System of Units (SI): The Modern Metric System, IEEE/ASTM SI 10, is used as a guide in making metric conversion from yard/pound quantities.) If a value for a measurement and an equivalent value in other units, the first stated is to be regarded as the requirement. The given equivalent value may be approximate. If a value for a measurement and an equivalent value in other units, are both specified as a quoted marking requirement, the first stated unit, or both shall be provided.

American National Standard For Recreational Vehicle Cooking Gas Appliances

Part I: Construction

1.1 Scope

1.1.1

This standard applies to newly produced compact cooking gas appliances (see Part IV, Definitions) hereinafter referred to as units or appliances, constructed of entirely new, unused parts and materials, intended for installation in recreational vehicles, including recreational park trailers:

- a. For use with propane gases only; or
- b. For use with natural gas convertible for use with propane gas (see 1.1.3-e).

The construction of units is covered under Part I.

The performance of units is covered under Part II.

1.1.2

Larger cooking gas appliances intended for recreational park trailers are covered by the *Standard for Household Cooking Gas Appliances, ANSI Z21.1*.

1.1.3

This standard applies to cooking appliances designed to be recessed into, placed upon and attached to the construction of a recreational vehicle. Built in units are further classified as:

- a. Top or surface unit. A unit for installation in or on a counter top.
- b. Oven unit. A unit for installation in a cabinet, wall or partition, or for installation on a counter. It may be a separate oven, may be equipped with a broiler that uses the oven burner, or the oven may serve as a broiler with a burner in the upper portion of the oven.
- c. Broiler unit. May have an open top or be enclosed, may be a separate broiler, or may be combined with a rotisserie.
- d. Combinations of "-a," "-b" or "-c" above, or any other cooking device that may be for similar installation.
- e. Convertible unit. A unit for use with natural gas and propane gases with provisions for the simple conversion from one gas to the other, equipped with double coaxial main burner orifices and a convertible gas appliance pressure regulator. (Also see Part IV, Definitions.)

1.1.4

For the purposes of this standard, units are also classified as:

- a. Full-Sized Unit. Any unit which does not qualify as a compact unit.
- b. Compact Unit. A unit whose outer casing encloses a volume not in excess of 6 ft³ (0.17 m³) and whose weight is not in excess of 80 lb (36.3 kg). For the determination of volume, back-guards, vent extensions, handles, etc., may be removed. For the determination of weight, other easily removable parts such as conventional top burners, oven racks, etc., may also be removed.
- c. Convertible Unit. A unit for use with natural gas and liquefied petroleum gases with provisions for the simple conversion from one gas to the other, equipped with double coaxial main burner orifices and a convertible gas appliance pressure regulator. (Also see Part IV, Definitions.)

1.1.5

This standard covers all electrical equipment, wiring and accessories built in or supplied for use with an appliance for use with low-voltage direct current or alternating current. Appliances for use with alternating current shall have a current limitation of 20 amperes and have its electrical equipment, wiring and accessories installed in accordance with the *National Electrical Code, ANSI/NFPA 70*.

This standard covers (a) appliances which use only gas for cooking and which are designed for connection to either a low-voltage direct current supply or nominal 120 volt alternating current supplies; or (b) appliances which also use electrical energy for cooking and which are designed for connection to either nominal 120 volt or 240 volt alternating current supplies.

1.1.6

Appliances having sections which use electrical energy for cooking shall comply with the applicable provisions of the *Safety Standard for Household Electric Ranges, ANSI/UL 858*.

1.1.7

A microwave cooking appliance incorporated in a recreational vehicle cooking appliance shall comply with the applicable provisions of the *Safety Standard for Microwave Cooking Appliances, UL 923*.

1.1.8

An exhaust hood incorporated in an appliance shall comply with the applicable provisions of the *Safety Standard for Electric Fans, ANSI/UL 507*.

1.1.9

If a value for measurement as given in this standard is followed by an equivalent value in other units, the first stated value is to be regarded as the specification.

1.1.10

All references to psi throughout this standard are to be considered gauge pressure unless otherwise specified.

1.1.11

Exhibit A, List of Reference Standards, contains a list of standards specifically referenced in this standard, and sources from which these reference standards may be obtained.

1.2 General Construction And Assembly

1.2.1

In submitting an appliance for test, the manufacturer may furnish a list of manufacturing tolerances applicable thereto and may have the appliance tested for compliance with this standard in both extremes of tolerances specified.