ANSI Z21.84-2017

CSA Group

Manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning appliances

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Revision History

ANSI Z21.84-2017, Manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning appliances

Revision from previous edition	Revision symbol (in margin)
Clauses 1.2, 1.5, 3, 4.14, 4.15.6, 4.15.7, and 4.15.8 Tables 8 and 9	Δ

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25 West 43rd Street, Fourth floor
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ANSI Z21.84-2017

Manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning appliances

American National Standards Institute, Inc.

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Preface

This is the fourth edition of ANSI Z21.84, *Manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning appliances*. It supersedes the previous editions published in 2012, 2002, and 1999.

This Standard was prepared by the Z21/CSA Joint Technical Subcommittee on Standards for Decorative Gas Appliances under the jurisdiction of the Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances, and had been formally approved by the Technical Committee and the American National Standards Institute.

Interpretations: The Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances and Accessories has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA Group's procedures for interpretation shall be followed to determine the intended safety principle."

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *This Standard contains SI (Metric) units corresponding to the yard/pound quantities, the purpose being to allow the standard to be used in SI (Metric) units. (IEEE/ASTM SI 10,* American National Standard for Metric Practice*, or ISO 80000-1:2009,* Quantities and units – Part 1: General*, is used as a guide in making metric conversion from yard/pound quantities.) If a value for a measurement and a corresponding value in other units are stated, the first stated value is to be regarded as the requirement. The given corresponding value may be approximate. If a value for a measurement and a corresponding value in other units are both specified as a quoted marking requirement, the first stated unit, or both, are to be provided.*
3) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
4) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization – Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity." It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
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   a) *Standard designation (number);*
   b) *relevant clause, table, and/or figure number;*
   c) *wording of the proposed change; and*
   d) *rationale for the change.*
6) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*
   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with the CSA Directives and guidelines governing Standardization *and are available on the Current Standards Activities page at standardsactivities.csa.ca.*

History of the development of the Standard for Manually Lighted, Natural Gas, Decorative Gas Appliances for Installation in Solid-Fuel Burning Appliances

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

With the onset of the Free Trade Agreement between the United States and Canada on January 2, 1988, significant attention was given to the harmonization of the United States and Canadian safety standards addressing gas-fired equipment of residential, commercial, and industrial applications. It was believed that the elimination of the differences between the standards would remove potential trade barriers and provide an atmosphere in which North American manufacturers could market more freely in the United States and Canada. The harmonization of these standards was also seen as a step toward harmonization with international standards. Joint subcommittees were established to facilitate the standards harmonization process between the United States and Canada.

At its October 20-21, 1994 meeting, the Z21/CGA Joint Subcommittee on Standards for Decorative Gas Appliances considered the development of a new standard for manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning fireplaces, and approved to distribute it for public review and comment, July 4, 1995.

The first draft manually lighted, natural gas, decorative gas appliance standard was based on current coverage from the IAS Requirement 7-94, Requirements for Manually Lighted Natural Gas, Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces.

Following reconsideration and modification of the proposed draft standard, in light of comments received, the joint decorative appliance subcommittee at its May 22, 1998 meeting, recommended the proposed draft standard to Accredited Standards Committee Z21/83.

The proposed daft standard for manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning fireplaces, as modified by the joint subcommittee, was approved by the Z21/83 Committee by letter ballot dated August 18, 1998.

The first edition of the American National Standard for Manually Lighted, Natural Gas, Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces was approved by the American National Standards Institute, Inc., on February 23, 1999.

Further revisions to the standard were developed in line with industry development. The second edition of manually lighted, natural gas decorative gas appliances for installation in solid-fuel burning appliances standard, which includes revisions deemed necessary in line with industry developments, was approved as an American National Standard by the American National Standards Institute, Inc., on June 26, 2002.

The third edition of the Standard for Manually Lighted, Natural Gas, Decorative Gas Appliances for Installation in Solid-Fuel Burning Appliances was distributed for industry review dated June 2010, and approved by the Z21/83 Technical Committee on Standards for Performance and Installation of Gas Burning Appliances and Accessories on January 4, 2012, and formally approved by ANSI on February 17, 2012.

This, the fourth edition of the Standard for Manually Lighted, Natural Gas, Decorative Gas Appliances for Installation in Solid-Fuel Burning Appliances was distributed for industry review dated August 2012, and approved by the Z21/83 Technical Committee on Standards for Performance and Installation of Gas Burning Appliances and Accessories on October 10, 2016, and formally approved by ANSI on January 6, 2017.

The previous editions of the manually lighted decorative gas appliances standard, and addenda there to, approved by the American National Standards Institute, Inc. are as follows:

ANSI Z21.84-1999	ANSI Z21.84a-2000	ANSI Z21.84b-2001
ANSI Z21.84-2002	ANSI Z21.84a-2003	ANSI Z21.84b-2004
ANSI Z21.84-2012		

The following identifies the designation and year of this Standard:

ANSI Z21.84-2017

Note: *This edition of ANSI Z21.84 incorporates changes to the 2012 edition. Changes, other than editorial, are denoted by a delta symbol in the margin.*

ANSI Z21.84-2017
Manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning appliances

1 Scope

1.1
These requirements apply to manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning fireplaces, (see Clause 3, Definitions), hereinafter referred to as appliances, for use with natural gas only, at a maximum input rating of 90,000 Btu/hr (26 376 W) (except as noted in Clause 4.6, Piezo-electric ignitors), which are constructed entirely of new, unused parts and materials.

These appliances do not incorporate a pilot burner or an automatic gas ignition system. The main burner(s) is intended to be lighted by hand each time the appliance is used.

The construction of manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning fireplaces is covered under Clause 4.

The performance of manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning fireplaces is covered under Clause 5.

Δ **1.2**
Manually lighted, natural gas, decorative gas, appliances for installation in solid-fuel burning fireplaces are not to be thermostatically controlled.

1.3
This Standard does not cover unvented room heaters.

1.4
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.

Δ **1.5**
All references to “psi” throughout this Standard are to be considered gauge pressures unless otherwise specified.

1.6
Clause 2 contains a list of standards specifically referenced in this Standard and sources from which they may be obtained. It is the responsibility of the user of this Standard to determine which referenced standard applies based on the requirements of the Authority Having Jurisdiction at the location of the installation.

1.7

In this Standard, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; "should" is used to express a recommendation or that which is advised but not required; and "may" is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

CSA Group

ANSI Z21.15-2009 • CSA 9.1-2009 (R2014)
Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves

ANSI Z21.18-2007 • CSA 6.3-2007 (R2012)
Gas Appliance Pressure Regulators

ANSI Z21.18-2007 • CSA 6.3-2007 (R2012)
Connectors for Gas Appliances

ANSI Z21.77-2005 • CSA 6.23-2005 (R2015)
Manually-Operated Piezo-Electric Spark Gas Ignition Systems and Components

ANSI Z21.78-2010 • CSA 6.20-2010 (R2015)
Combination Gas Controls for Gas Appliances

American Gas Association

ANSI Z223.1-2015/NFPA 54-2015
National Fuel Gas Code

American National Standards Institute

ANSI C101.1-1992
Leakage Current for Appliances

ANSI Y14.15-1975 (R1994), and Supplements Y14.15a-1986
Electrical and Electronics Diagrams

American Society of Mechanical Engineers

ANSI/ASME B1.20.1-2013
Pipe Threads, General Purpose (Inch)