



# UL 307A

## **STANDARD FOR SAFETY**

Liquid Fuel-Burning Heating Appliances for  
Manufactured Homes and Recreational Vehicles



UL Standard for Safety for Liquid Fuel-Burning Heating Appliances for Manufactured Homes and Recreational Vehicles, UL 307A

Ninth Edition, Dated July 24, 2018

### **Summary of Topics**

***This revision of ANSI/UL 307A is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.***

The requirements are substantially in accordance with Proposal(s) on this subject dated August 10, 2018.

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## **UL 307A**

### **Standard for Liquid Fuel-Burning Heating Appliances for Manufactured Homes and Recreational Vehicles**

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**July 24, 2018**

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The most recent designation of ANSI/UL 307A as a Reaffirmed American National Standard (ANS) occurred on October 8, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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## INTRODUCTION

### 1 Scope

1.1 These requirements apply to the following types of liquid fuel-burning appliances intended for installation in manufactured homes and recreational vehicles, including travel trailers, camping trailers, truck campers, motor homes, and park trailers.

a) Direct vent system type heating appliances that provide for complete separation between the indoor atmosphere and combustion system, including the air supplied for combustion by inherent design of the furnace and its venting system.

b) Vented heating appliances other than of the direct vent system type that provide for separation between the indoor atmosphere and combustion system, including the air supplied for combustion by an installation method. Such appliances can be used only in manufactured homes, not in recreational vehicles.

1.2 Requirements for the installation and use of these appliances are included in the following standards:

a) For Manufactured Homes – The Department of Housing and Urban Development Manufactured Home Construction and Safety Standards, Title 24 CFR, Part 3280, 1994.

b) For Recreational Vehicles – The National Fire Protection Association Standard for Fire Safety Criteria for Recreational Vehicles, NFPA 501C-1993.

1.3 An appliance constructed to burn liquid fuel or gas and a liquid fuel burning appliance constructed and designed so that it may be converted to burn gas by installation of a specific gas burner shall also comply with the applicable requirements in the Standard for Gas-Burning Heating Appliances For Manufactured Homes and Recreational Vehicles, UL 307B.

1.4 The term “appliance” as used in this standard refers to any heating appliance covered by this standard, such as a warm air central furnace, a wall furnace, a heating boiler, and a water heater.

### 2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this standard.

2.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or

b) Is superseded by a requirement in this standard.

2.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

### 3 Units of Measurement

3.1 Unless otherwise indicated, all voltage and current values mentioned in this standard are rms values.

3.2 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

### 4 Glossary

4.1 For the purpose of this standard, the following definitions apply.

4.2 ANTIFLOODING DEVICE – A primary safety control that causes fuel flow to be shut off upon a rise in fuel level. It is intended to operate to shut off the fuel flow before excessive fuel can be discharged into the appliance.

4.3 APPLIANCE FLUE – The flue passages within the appliance.

4.4 AUTOMATICALLY LIGHTED APPLIANCE – An appliance in which fuel to the main burner is turned on and ignited automatically.

4.5 BURNER:

a) Automatically Lighted – One where fuel to the main burner is turned on and ignited by operation of an automatic control.

b) Manually Lighted – One where fuel to the main burner is turned on only by hand and ignited under supervision.

c) Mechanical-Atomizing Type – A power-operated burner that prepares and delivers the fuel and all or part of the air by mechanical process in controllable quantities for combustion. Some examples are air-atomizing, high- and low-pressure atomizing, horizontal-rotary atomizing, vertical-rotary atomizing, and vertical-rotary wall-flame burners.

d) Mechanical-Draft Type – A burner that includes a power driven fan, blower or other mechanism as the principal means for supplying air for combustion.

e) Natural-Draft Type – A burner that depends principally upon the natural draft created in the chimney to induce into the burner the air required for combustion.

f) Vaporizing Type – A burner consisting of a fuel vaporizing bowl or other receptacle to which liquid fuel may be fed in controllable quantities; the heat of combustion being used to vaporize the fuel, with provision for admitting air and mixing it with the fuel vapor in combustible proportions.