UL 140

STANDARD FOR SAFETY

Relocking Devices for Safes and Vaults

UL Standard for Safety for Relocking Devices for Safes and Vaults, UL 140

Eleventh Edition, Dated October 27, 2006

Summary of Topics

This revision to ANSI/UL 140 is being issued to update the title page to reflect the reaffirmation of ANSI approval. No changes in requirements are involved.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

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Standard for Relocking Devices for Safes and Vaults

The First, Second and Third Editions were originally combined with the Standard for Burglary-Resisting Safes, UL 687. The Fourth – Sixth Editions were titled the Standard for Relocking Devices.

Fourth Edition – January, 1953
Fifth Edition – May, 1972
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Eleventh Edition

October 27, 2006

This ANSI/UL Standard for Safety consists of the Eleventh Edition including revisions through July 6, 2018.

The most recent designation of ANSI/UL 140 as a Reaffirmed American National Standard (ANS) occurred on July 6, 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 cover relocking devices for the following:

a) Light vault doors,

b) Heavy vault doors, and

c) Safes or chests.

1.2 Relocking devices are intended to relock the bolt mechanism or door of a vault, safe, or chest in the event that the combination lock is subjected to attack.

1.3 A product that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard, and that involve a risk of fire, electric shock, or injury to persons shall be evaluated using the appropriate additional component and end-product requirements as determined necessary to maintain the acceptable level of safety as originally anticipated by the intent of this standard. A product whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this standard cannot be judged to comply with this standard. Where considered appropriate, revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this standard.

2 General

2.1 Components

2.1.1 Except as indicated in 2.1.2, a component of a product covered by this standard shall comply with the requirements for that component.

2.1.2 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.

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

2.1.4 Specific components are recognized as being 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 for which they have been recognized.

2.2 Units of measurement

2.2.1 If a value for measurement is followed by a value in other units in parentheses, the first stated value is the requirement.

2.3 Undated references

2.3.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

3 Glossary

3.1 For the purposes of this standard, the following definitions apply.

3.2 COMMON HAND TOOLS – Common hand tools include: chisels, punches, wrenches, screwdrivers, pliers, hammers, and sledges not exceeding the 8-pound (3.82-kg) size, and pry bars and ripping tools not exceeding 5 feet (1.52 m) in length.

3.3 CUTTING TORCH – A heavy duty commercially available oxy-fuel cutting torch.

3.4 HEAVY VAULT DOOR – A vault door having a minimum net thickness of 1-1/2 inches (38.1 mm) of steel or attack-resistant material, or both, in front of the lock and bolt mechanism.

3.5 LIGHT VAULT DOOR – A vault door having a net thickness of less than 1-1/2 inches (38.1 mm) of steel or attack-resistant material, or both, in front of the lock and bolt mechanism.

3.6 PICKING TOOLS – Picking tools include common or standard patterns, but not tools that are designed for use against a particular make of relocking device.

3.7 PORTABLE ELECTRIC TOOLS – Electric hand drills not exceeding 1/2-inch (12.7-mm) drill capacity.

CONSTRUCTION

4 General

4.1 A relocking device intended for use on a safe equipped with more than one combination lock shall protect each lock that is capable of being operated singly to release the main locking mechanism.

4.2 An auxiliary bolt-type relocking member as used in a chest, safe, or light vault door, shall be equal in strength to the bolt(s) used to hold the door in the locked position. When the bolts used to hold the door in the locked position are more than 5/8-inch (16-mm) in diameter, the relocking members shall be at least equal in strength to two cold-rolled steel bolts of 5/8-inch diameter.

4.3 A relocking device shall not be used on a heavy vault door unless the door is of an offset-spindle construction.

Exception: A relocking device may be used on a heavy vault door of a double-combination lock construction when the punching of either lock joins the lever connections in the locked position so as to secure against subsequent attacks.

5 Protection Against Corrosion

5.1 Iron and steel parts shall be protected against corrosion by enameling, galvanizing, sherardizing, plating, or other equivalent means.

Exception No. 1: This requirement does not apply to minor parts, such as washers, screws, bolts, and similar hardware if the corrosion of such unprotected parts does not adversely affect the operation of the product.

Exception No. 2: Parts made of stainless steel, polished or treated, when required, do not require additional protection against corrosion.

Exception No. 3: This requirement does not apply to bearings and similar parts where such protection is impractical.

5.2 The requirement of 5.1 applies to all enclosures of sheet steel or cast iron and to all springs and other parts upon which intended mechanical operation depends.

5.3 Bearing surfaces shall be of such materials and design as to resist binding due to corrosion.

PERFORMANCE

6 General

6.1 A single sample of the relocking device is to be attached, as intended by the manufacturer, on a safe, chest, or vault door and submitted for tests. A sectional sample of the door may be tested when it is fully representative of the full door.

6.2 For heavy vault door application, a section of the door containing an offset combination lock spindle connection or the equivalent may be tested.

7 Test Equipment

7.1 The test equipment may include any common hand tools, picking tools, or portable electric tools.

7.2 The test equipment used on a light or heavy vault door may include any of the tools specified in 7.1 and may also include an oxy-fuel gas cutting or welding torch.

7.3 The quantity of gas consumed in any one test is not to exceed 1000 cubic feet (28.3 m^3), combined total oxygen and fuel gas.