

ANSI/BHMA A156.40-2015



AMERICAN NATIONAL STANDARD

FOR

RESIDENTIAL DEADBOLTS



SPONSOR

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.

AMERICAN NATIONAL STANDARDS INSTITUTE

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AMERICAN NATIONAL STANDARD

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The Builders Hardware Manufacturers Association, Inc first published the basic material in this standard February 1971. It was entitled Standard 501 BHMA Product Standards Section E, Auxiliary Locks. ANSI approval was secured under the Canvass Method, leading to the publication of ANSI/BHMA A156.5, which included both cylinders and auxiliary locks. BHMA was accredited on 21 March 1983 by ANSI as a sponsor using the Canvass Method. In 2010, BHMA published updates of A156.5 being dedicated to cylinders, and a new A156.36 for auxiliary locks.

FOREWORD (This Foreword is not a part of ANSI/BHMA A156.40)

The general classification of builders hardware includes a wide variety of items which are divided into several categories. To recognize this diversity, a sectional classification system has been established. Residential deadbolts and dead latches is one such Standard is the result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacture this product. The total Product Standards effort is, therefore, a collection of sections, each covering a specific category of items.

Performance tests, and, where necessary, dimensional requirements, have been established to ensure safety, security and stability to which the public is entitled. There are no restrictions on design, except for those dimensional requirements imposed for the reasons given above. It is also required that locks fit certain cutout dimensions.

This Standard is not intended to obstruct, but rather to encourage, the development of improved products, methods, and materials. The BHMA recognizes that errors will be found, items will become obsolete, and new products, methods, and materials will be developed. With this in mind, the Association plans to update, correct, and revise these Standards on a regular basis. It shall also be the responsibility of manufacturers to request such appropriate revisions.

In most cases, products have been described in grade levels related to performance and security. Choice of grade and specific product is made on the basis of utility, aesthetics, security objectives and end use desired.

The BHMA numbers, which indicate types of hardware do not identify grade, finish, or design and are not intended to be used without necessary supplementary information. Individual manufacturers' catalogs are consulted.

Users of this Standard consult applicable local building codes as to requirements affecting the functions of locks used on fire doors and doors within a means of egress. Some communities require the use of exterior door locks having a dead bolt with a 1 in. (25.4 mm) projection for the purpose of providing greater security. Only functions compatible with the requirements of the applicable building codes are used.

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1. SCOPE

1.1 ANSI/BHMA A156.40 establishes requirements for residential deadbolts and deadlatches, and includes durability, security, finish tests. Residential deadbolt and deadlatches are generally used for single family homes and multifamily dwellings.

1.2 Tests described in this Standard are performed under laboratory conditions. In actual usage, results vary because of installation, door and frame construction, maintenance and environmental conditions.

1.3 When locks and latches are used in fire door assemblies, they shall have been tested and listed for use in fire doors by a Nationally Recognized Testing Laboratory (NRTL) and shall be under an in-plant follow-up inspection service.

1.4 **Residential Grade Qualifications** Manufacturers shall indicate the Grade level of their locks for each of the three categories listed (Durability, Strength and Security, and Finish). Locks shall meet all tests for their grade listing for each of the categories independently. A Grade A lock for a specific category shall meet all Grade A criteria for that category, and a Grade B lock for a specific category shall meet all Grade B criteria for that category, and a Grade C lock for a specific category shall meet all Grade C criteria for that category.

2. DEFINITIONS

2.1 **Residential Deadlock** A lock having a latchbolt or deadbolt operated by a key and/or turn, and usually used in addition to a primary latching device.

2.2 **Backset** The distance from the edge of the door measured at the centerline of the door thickness to the centerline of the function holes or cross bore.

2.3 Bolts

2.3.1 **Auxiliary Dead Latch** A plunger which, when actuated, automatically locks a projected latch bolt against return by end pressure.

2.3.2 **Dead Bolt** A lock component having an end, which protrudes from, or is withdrawn into, the lock front by action of the lock mechanism. When the door is closed and the dead bolt thrown, it extends into a hole provided in the strike, locks the door, and does not retract with end pressure.

2.3.3 **Latch Bolt** A lock component having a beveled end which projects from the lock front in an extended position, but is forced back into the lock case by end pressure or drawn back by action of the lock mechanism. When the door is closed, the latch bolt projects into a hole provided in the strike, and holds the door in a closed position.

2.3.4 **Deadlocking Latch Bolt** A spring actuated latch bolt with a beveled end and incorporating a plunger which, when depressed, automatically locks the projected latch bolt against return by end pressure. Also called dead latch.

2.3.5 **Expanding or Interlocking Type Dead Bolt** A bolt which interlocks with its strike when fully engaged.

2.4 **Bored Dead Latch** A lock fitting round bored openings in the face and edge of a door and having a deadlocking latch bolt operated by a key or turn or both.

2.5 **Bored Dead Lock** A lock fitting round bored openings in the face and edge of a door and having a dead bolt operated by a key or turn or both.

2.6 **Case** The housing of a lock.