

# Hardware Highlights



## ANSI/BHMA A156.39 American National Standard for Residential Locksets and Latches

BHMA has created this series of *Hardware Highlights* to provide useful, accessible information about builders hardware for architects, specifiers, builders, building code officials and anyone with an interest in the devices that hang, control, secure and trim doors. For more information, consult the full standard: ANSI/BHMA A156.39 for Residential Locks and Latches.

BHMA is a North American Trade Association that represents almost all of the North American manufacturers of Builders Hardware. Since 1983, its main activities have been developing and maintaining ANSI approved standards for 35 separate product categories.

**Product Performance:** Purchasers of Residential Locks certified to A156.39 (<http://www.buildershardware.com/cpd>) can be confident that these products will perform to their expectations.

Below is an explanation and some examples of the evaluations conducted for certification:

OPERATION	DURABILITY	SECURITY/STRENGTH	APPEARANCE
Attributes, such as the force to retract the latch and force to close the door, are measured to ensure ease of egress and smooth closing. The forces to open the door vary by the type of trim; for example, <i>lever</i> operated locks must open with a <i>maximum torque of 28 in.-lbf.</i>	Obviously, building products are expected to last a long time, and builders hardware is no exception. Grade A locks, for example, must pass a rigorous test that requires <i>400,000 cycles</i> of opening and closing with a 5 pound axial load applied.	Locksets are counted on to allow carefree operation for those who are authorized, and to ensure a high degree of security from the outside. Eleven aggressive tests are specified, including one in which the latch must withstand 800 pounds of force. In order for it to be considered grade A, it must also pass a locked lever test at 500 in.-lbf.	Builders hardware must also be aesthetically pleasing, and stay that way. Resistance to corrosion, chemicals, abrasion and sunlight are all considered during a variety of finish tests in order to provide confidence in the hardware's architectural metals/coatings.

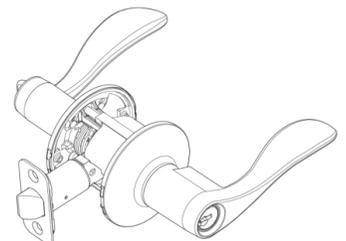
**Building Codes** Builders hardware provides several attributes that are essential to building safety and performance, including egress and fire protection. BHMA locksets are designed to comply with all applicable requirements.

**Accessibility** There are various types of trim that meet the ADA and A117.1 requirements for operable parts to be “operable with one hand and not require tight grasping, pinching or twisting of the wrist.” Lever or paddle-type trim meet these stipulations, yet knob trim should be avoided for accessible routes. In addition, BHMA certified hardware must comply with the operational forces within their respective standards, which have shown to be suitable for accessible applications.

**Sustainability** Locksets contribute to building sustainability through their verified durability, as well as material characteristics, such as recycled content and recyclability. The reliable closing and sealing of openings can also contribute to energy conservation. BHMA has developed Product Category Rules, which will further define sustainability requirements and guide life cycle assessments and environmental performance declarations.

**Function Numbers** – When it comes to product specification, standards also provide a numbering system for lock function. Please consult A156.39 for the full list. An example is provided here:

**F77A Grades A, B, C. Patio or Privacy Lock.** Dead locking latch bolt operated by lever from either side: Outside lever is locked by a push button or other locking device inside, and unlocked by operating the inside lever or closing the door. Do not use on doors in rooms that do not have another entrance.



To purchase a copy of any BHMA Standard, go to [www.buildershardware.com](http://www.buildershardware.com) or call 800-699-9277.  
This document is not a substitute for the full standard. Refer to the entire standard for full information.