To most occupants, all of the locks throughout a building seem to look alike. Some may have key cylinders and others none, but to the naked eye, they are virtually identical. How locks behave when touched, turned, keyed and pushed is referred to as the **Function**.

According to the **Lock Industry Standards and Training Council’s Lock Dictionary**, function is defined as “a set of operating features for a particular type of lock or exit device which make it suitable for a specific application.”

The function is designated by a classification name or standards reference number.

ANSI/BHMA A156.2 *Standard for Bored and Pre-Assembled Locks and Latches* includes function definitions and numbers for cylindrical and tubular locksets as well as pre-assembled (unit) locks. Mortise lock functions are covered in ANSI/BHMA A156.13 *Standard for Mortise Locks and Latches*. These standards list every function by function numbers accompanied by a verbal description of the locks operation. A diagram showing both sides of the door helps visualize how each function works. The standards show 35 different mortise lock functions and 26 different functions for bored locksets. The five most frequently used are shown in the chart below.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F01</td>
<td>Passage Latch (F75 for bored locks) is simple enough to understand with just the written description. Diagrams are most helpful for more complex functions. For example, ANSI/BHMA A156.13 Standard for Mortise Locks and Latches verbally describes F04 Entry Lock as follows:</td>
</tr>
<tr>
<td>F02</td>
<td>Privacy</td>
</tr>
<tr>
<td>F04</td>
<td>Entrance or Office</td>
</tr>
<tr>
<td>F05</td>
<td>Classroom</td>
</tr>
<tr>
<td>F07</td>
<td>Storeroom</td>
</tr>
</tbody>
</table>

Bored locks and mortise locks share some of the same functions, but have subtle operational differences that merit unique numbers for each lock type.

The ANSI/BHMA Certified Products Directory lists certified products by manufacturer and function number. All listings must be supported by test reports provided to the selected test lab. This directory can be found at www.buildershardware.com.

The Hardware Consultant, Architect and Owner must discuss the intended use of each opening before deciding which lock function to specify. Locks earn their “nicknames” based on the door location or purpose, such as storeroom or classroom function. The written description is the most comprehensive method to define how a lock actually works. Most functions are described by the action required to retract the latchbolt. Operation descriptions must be precise and cover operation from the outside, inside and the use of a key. Some examples from ANSI/BHMA A156.13 are shown below.

**F01 Passage or Closet Latch**
- Latchbolt retracted by knob/lever either side,

**F05 Classroom Lock**
- Latchbolt retracted by knob/lever either side, except when outside knob/lever is locked by key from outside.
- Inside knob/lever always active.
- Deadlocking latchbolt

**F07 Storeroom or Closet Lock**
- Latchbolt retracted by key outside, knob/lever inside.
- Outside knob/lever rigid at all times.
- Inside knob/lever always active.
- Deadlocking latchbolt.
Latch bolt operated by lever or knob from either side except when outside lever or knob is made inoperative by a stop or mechanical means other than key. When outside lever or knob is locked, latch bolt is retracted by key from outside or by operating inside lever or knob. Auxiliary dead latch.

A diagram would certainly make this function more understandable.

**To acquire CEP points, answer the following questions:**

1. List two publications that use ANSI/BHMA function numbers

   ____________________________________________________
   ____________________________________________________

2. For each of the following function numbers, name the corresponding function and the type of lock:

   F05 ______________________
   F109 ______________________
   F84 ______________________
   F14 ______________________
   F42 ______________________

3. Among the five most frequently used lock functions, which one cannot be set to act as a passage set?

   ____________________________________________________
   ____________________________________________________

4. Why are there so many more functions for mortise locks compared to cylindrical?

   ____________________________________________________
   ____________________________________________________

You will earn 3 CEP points by reading the article and working the problems. Then copy or detach this page, fill in the answers above and the form below, and submit your answers by mailing or faxing the page to DHI.

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**Answers**

**Tech Tip do you know?**

The combination of the function number, description and written operation description is a recognized and acceptable method of communication. The diagram serves to further enhance this information. Most manufacturers' catalogs have detailed descriptions and helpful diagrams for their products.

You will need to look in a lock catalog section and ANSI/BHMA 2008 Certified Products Directory for assistance with the questions.
You will earn 3 CEP points by reading the article and working the problems. Then copy or detach this page, fill in the answers above and the form below, and submit your answers by mailing or faxing the page to DHI.

**LOCK FUNCTIONS**

To acquire CEP points, answer the following questions:

1. List two publications that use ANSI/BHMA function numbers
   - ANSI/BHMA Certified Products Directory, A156.2, A156.13, Manufacturers catalogs (all acceptable)

2. For each of the following function numbers, name the corresponding function and the type of lock:
   - F05 Classroom, Mortise
   - F109 Office or Entrance, Bored
   - F84 Classroom, Bored
   - F14 Store Door Lock, Mortise
   - F42 Classroom Lock, Pre-Assembled

3. Among the five most frequently used lock functions, which one cannot be set to act as a passage set?
   - Storeroom F07 or F86

4. Why are there so many more functions for mortise locks compared to cylindrical?
   - Deadbolt introduces more functions

Retain a copy of this exercise for your Continuing Education renewal application. Answers to these problems will be posted on our Web site (www.dhi.org) on the first day of the next month following the issue month of the magazine.