

BHMA

# **Specifications**

#### ADA-Americans With Disabilities Act:

**45H Series** – The design and operation of the BEST<sup>®</sup> mortise lock meets the intent of the standard for ANSI A117.1 section 404.2.6.

#### **Builders Hardware Manufacturers Association:**

**45H Series** – ANSI A156.13, Series 1000, Grade 1 Operation and Strength, Grade 2 Security. To meet Grade 1 Security, a drill resistant core (1CD, 1CDP, 1CDF, or 1CDX) must be used with escutcheon trims, and 1E7K4 high security cylinder must be used with sectional trims.

47H Series – ANSI A156.13, Series 1000, Grade 1 Operational, Strength, and Security.

**Underwriters Laboratories**<sup>®</sup> – The 40H series is listed by Underwriters Laboratories for use on a 3 hour A label doors. These locks also carry the C-UL mark which is officially accepted in all of Canada, indicating compliance with appropriate Canadian standards and codes. The 47H series locks conform to UL437 standard for key locks, referencing door locks. The 1E7J4 cylinder used in the 47H series also conforms to UL437 standard for key locks, referencing high security cylinders, and is listed for Canada as well as the United States.

Florida Building Code (FBC) Listed and Miami-Dade County Code Compliance Office – See certification listing for all 40H series lock functions that are certified for use in applications requiring a design pressure rating as specified.

Description	Model	Single Door	Double Door
PSF w/o DeadBolt	45H and 47H	+-60	+-35
PSF w/ DeadBolt	45H and 47H	+-100	+-50
PSF w/ DeadBolt	48H and 49H	+-50	+-50

The 40H series lock has received a notice of acceptance from Miami-Dade County and is considered Miami-Dade County product. "WS" option must be ordered for the lock to include a "Miami-Dade County Product Control Approved" label for inspection purposes.

Auxiliary bolt - Stainless steel, non-handed.

#### Backset - 2 3/4"

Case – 0.095" cold rolled steel, 5 7/8" H x 7/8" D x 4 1/16" W. Steel is zinc dichromate plated for corrosion protection.

Deadbolt - Stainless steel, 1" throw.

Latchbolt – Solid stainless steel, 3/4" throw. Latch is oil-impregnated for anti-friction operation. Reversible without opening case.

Strike – For complete strike package spec's see page 5.

**Door Thickness** – Standard lock configuration designed for doors 1 3/4" thick. Thick door configuration available for doors up to 5" thick (specify thickness when ordering).

Faceplate – Stainless steel, brass or bronze material, 8" H x 1 1/4" W x 1/16" T. Lock face automatically adjusts to proper bevel during installation.

#### Products protected by one or more of the following patents:

4,873,853 5,590,555 5,794,472

### Finishes –

- 605 bright brass, clear coated
- 606 satin brass, clear coated
- 611 bright bronze, clear coated
- 612 satin bronze, clear coated
- 613\* oxidized satin bronze, oil rubbed
- 618 bright nickel plated, clear coated (brass base material)

• 619 – satin nickel plated, clear coated (brass base material)

ANSI

- 622 flat black coated (brass base material)
- 625 bright chromium plated (brass base material)
- 626 satin chromium plated (brass base material)
- 629 bright stainless steel
- 630 satin stainless steel
- 690\* dark bronze coated (brass base material)

\*613 finish is designed to wear over time, providing an "antique" appearance. \*690 finish will continue as a dark brown appearance over time.

#### Antimicrobial Finish -

- 626AM satin chrome plated with UltraShield™ antimicrobial protected coating
- 630AM satin stainless steel with UltraShield<sup>™</sup> antimicrobial protected coating
- The BEST UltraShield finish inhibits the growth of bacteria and other microbes on the surface of the hardware.

**NOTE:** BEST UltraShield<sup>TM</sup> option is recommended for use on any hardware application where product cleanliness is a high priority. i.e;. Hospital/Healthcare, Elderly Care, Education, Transportation, Food-Service, Hospitality.



## **Specifications**

#4 Knob – Diameter – 2 1/8"; Projection on door – 2 7/8" Material machined from solid brass or bronze.

Decorative and Special Order Lever Handles – Stainless steel base material with applied finish.

**Standard Lever Handles** – Brass, bronze, or stainless steel base material for standard lever designs. Lever styles #3, #14, and #15 return to a minimum of 1/2" of door surface. Lever styles #3 and #14 conform to California Titles 19 and 24. Lever styles 12, 16 and 17 do not return. Levers project 2 15/16" from door surface with H, J, R and S trim. Levers project 3 1/64" with M and N trim.

Roses – Wrought brass, bronze, or stainless steel base material.

- H Flat w/ round edge, 2 3/4" diameter.
- R Contoured w/ round edge, 2 3/4" diameter.
- S Flat w/ beveled edge, 3 1/2" diameter.

**Escutcheons** – J – Wrought brass, bronze, or stainless steel base material, 7 1/2" H x 2 9/32" W x 17/32" T. M & N – Forged brass or bronze, 8" H x 2 1/8" W x 37/64" T, through bolt mounted (no exposed screws outside). M – Standard cylinder; N – Concealed cylinder.

**Vandal Trim** – VT–Vandal trim is available in standard finish for H, J, M, N, R, and S trims in either #14 or #15 levers.

NOTE: Not available in single or dummy trim functions. If compliance to California Building Code Title 19 & 24 is required, the #14 lever design must be specified.

**Visual Indicators** – VIN–Visual indication uses an unlocked padlock or locked padlock image with red background to indicate lock state. VIT–Visual indication uses a thumb-turn with color coded locked and unlocked icons – red indicates door is secure and green indicates door is unsecure.

### **Universal Lock Design Concept**

Strength, Durability...and now Flexibility. Sure, a mortise lock is one of the strongest and longest lasting locks available. But who says it has to be the most complex to order and install? When designing the 40H mortise lock, BEST<sup>®</sup> decided to focus on things that would make the lock easier to use, while at the same time maintaining the strength, durability, and dependability you would expect in a BEST<sup>®</sup> mortise lock.



In addition to the ability to quickly change the lock handing, the universal case design of the 40H provides the ability to reconfigure

a lock into many different functions easily and quickly, often by rearranging existing parts without disassembling the lock case. The efficiency of the design enables over 12 of the most commonly used lock functions to be included in just 3 case configurations.

The 40H provides the ability to postpone decisions on how the lock will be configured all the way up to the point of installation, making it one of the most flexible and user-friendly mortise locks available. This translates into value for anyone involved in the process, whether they're an architect, specification writer, distributor, or end-user.

## **Flexibility in Ordering**

BEST offers three ways in which to order the 40H mortise lock. YOU get to choose which method meets your needs.

**Function Specific Lock** - If you know exactly what you need in a mortise lock, and are confident that your needs won't change, then order your 40H locks in the traditional way by specifying the exact function, trim, finish, and handing. BEST<sup>®</sup> will build the locks to work exactly as specified, so they may or may not have the ability to be converted to another function in the future.

**Universal Lock** - If you want to keep your options open, this method of ordering the 40H is for you. BEST® has developed three "universal" functions that can be configured to a variety of common functions, all without opening the lock case. When any of the universal functions are ordered as a complete lock, all the necessary parts (including trim) are provided to configure any of the functions in that group.

UNR	ANSI	UNT	ANSI	UNAB	ANSI
A – office	F04	L – privacy	F19	AB – office	F20
AT – office	F04	T – dormitory	F13	TA – dormitory	F12
D – storeroom	F07			TD – dormitory	
N – passage	FO1				
NX – exit	F31				
R – classroom	F05				



### How to order: 40H Trim Kits

40HTK	OS2	14	н	626	
Series Backset	Function Code	Lever/Knob Style	Trim Style	Finishes	Options
40HTK– trim kit	IS1 inside lever only IS2 inside lever x thumb turn IS3 inside lever x cylinder IS4*- inside cylinder only IS5 inside thumb turn only IS6 inside lever x cylinder x VIN OS1 outside lever only OS2 outside lever x cylinder OS3 outside cylinder only OS5 outside cylinder only OS5 outside lever x VIN OS6 inside lever x cylinder x VIN NOTE: VIN visual indicator pages 15-18	Standard Levers: 5.3– solid tube/return 5.12– solid tube no return 5.14– curved return 5.15– contour/angle return 5.16– curve/no return 5.17RH– gull wing right hand 5.17LH– gull wing left hand Knobs: 4– round	H– 2 3/4" dia. R– 2 3/4" dia. S– 3 1/2" dia. J– wrought M– forged N– forged (concealed cyl.)	605 606 611 612 613 618 619 622 625 626 629 630 690	D– double cylinder Thick Door– (specify thickness if other than 1 3/4″ ) SH– security head screws TAC– tactile lever/knob

How to order: 40H Strike Packages

40HST	S1	626	
Series	Kit Number	Finishes	Options
40HST– strike package	S1– standard strike S5– latchbolt-only strike S6– latchbolt/deadbolt strike 4– strike box only	605 606 611 612 613 618 619 622 625 626 629 630 690	Thick Door– (specify thickness if other than 1 3/4" ) 7/8LTC– 7/8" lip-to-center strike SH– security head screws
	page 5	page 3	

How to order: 40H lever sets

67	6

40HLS	14	626	
Series	Kit Number	Finishes	Options
40HLS– lever set	Levers: & 3- solid tube/return & 12- solid tube/no return & 14- curved return & 15- contour/angle return & 16- curve/no return & 17RH- gull wing-right hand & 17RH- gull wing-left hand Knobs: 4- round Decorative & special order levers: pages 12-14	605 606 611 612 613 618 619 622 625 626 629 630 690	Thick Door— (specify thickness if other than 1 3/4" ) SH– security head screws VT– vandal trim
	page 5	page 3	

How to order: 40H Faceplate Kits

40HFP	3		626	
Series	Kit Number		Finishes	Options
40HFP– faceplate kit	0– AB 1– BW, TD, H, HJ 2– A 3– AT, D, C, INL, NX, R, W 4– N, LT 5– AD, RD, YD, WD	6– blank 7– BA, S, TA 8– B, G, IND, L, LB, T 9– CHB, RHB 10– blank (without logo)	605 606 611 612 613 618 619 622 625 626 629 630 690	Thick Door– (specify thickness if other than 1 3/4" ) 7/8LTC– 7/8" lip-to-center strike SH– security head screws
	p	age 5	page 3	



## **Functions**

	Description	Outside Leve	er or Knob		Inside Kı	nob/Lever
Function & Diag. (ANSI No.)	Latch operated by	Deadbolt operated by	Locked by	Unlocked by	Locked by	Unlocked by
Single Keyed						
Office (A) F04	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever- only when locking toggle is in unlocked position,</li> <li>Turning key in outside cylinder.</li> </ul>	N/A	Placing locking toggle in locked position	Placing locking toggle in unlocked position	Cannot be locked	Always unlocked
	The latchbolt is deadlocked	d with an auxiliary deadlatch				
Office (AB) F20	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever– only when locking toggle is in unlocked position,</li> <li>Turning key in outside cylinder.</li> </ul>	<ul> <li>Turning key in outside cylinder,</li> <li>Inside turn lever,</li> <li>Inside lever retracts deadbolt and latch simultaneously.</li> </ul>	<ul> <li>Placing locking toggle in locked position,</li> <li>Projecting dead-bolt by key or turn lever.</li> </ul>	Turning key in outside cylinder and placing locking toggle in unlocked position	Cannot be locked	Always unlocked
1 1	The latchbolt is deadlocked	d with an auxiliary deadlatch		1		1
Office (AT) F04	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever only when unlocked by key or turn lever,</li> <li>Turning key in outside cylinder.</li> </ul>	N/A	<ul> <li>Turning inside lever,</li> <li>Turn key in outside cylinder.</li> </ul>	<ul> <li>Turning inside turn lever,</li> <li>Turning key in outside cylinder.</li> </ul>	Cannot be locked	Always unlocked
	The lateboot is decided to					
Storeroom (D) F07	Rotating inside lever,	d with an auxiliary deadlatch	Always locked	Cannot be unlocked	Cannot be locked	Always unlocked
	<ul> <li>Turning key in outside cylinder.</li> </ul>					,
	The latchbolt is deadlocke	d with an auxiliary deadlatch	1			
Hotel (H) F15	Rotating inside lever,     Turning key in outside cylinder.	<ul> <li>Turning inside turn lever,</li> <li>Turning emergency key in O/S cylinder. (Rotating inside lever retracts deadbolt and latch simultaneously.)</li> </ul>	Always locked	Cannot be unlocked	Cannot be locked	Always unlocked
	The latchbolt is deadlocke	d with an auxiliary deadlatch.	Throwing deadbolt block	s out all keys except "ER	" key.	
Hotel (HJ) F15	<ul> <li>Rotating inside lever,</li> <li>Turning key in outside cylinder.</li> </ul>	<ul> <li>Turning inside turn lever,</li> <li>Turning emergency key in O/S cylinder. (Rotating inside lever retracts deadbolt and latch simultaneously.)</li> </ul>	Always locked	Cannot be unlocked	Cannot be locked	Always unlocked
	The latchbolt is deadlocked	d with an auxiliary deadlatch.	Throwing deadbolt block	s out all keys except "ER	" key.	
Classroom (R) F05	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever only when unlocked by key,</li> <li>Turning key in outside cylinder.</li> </ul>	N/A	Turning key in outside cylinder	Turning key in outside cylinder	Cannot be locked	Always unlocked
e [	The latchbolt is deadlocke	d with an auxiliary deadlatch				

	Description	Outside Le	ver or Knob		Inside Ki	nob/Lever
Function & Diag. (ANSI No.)	Latch operated by	Deadbolt operated by	Locked by	Unlocked by	Locked by	Unlocked by
ingle Keyed (d	ontinued)					
Classroom Holdback (RHB) F06	<ul> <li>Rotating inside lever,</li> <li>Turning key in outside cylinder,</li> <li>O/S lever except when locked by outside key,</li> <li>Latchbolt held retracted by turning O/S key while holding up I/S lever.</li> </ul>	NA	Turning key in outside cylinder	Turning key in outside cylinder	Cannot be locked	Always unlocked
	The latchbolt is deadloo	ked with an auxiliary de	adlatch			
Dormitory (T) F13	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever—only when deadbolt is retracted</li> <li>Turning key in out side cylinder.</li> </ul>	<ul> <li>Turning key in outside cylinder,</li> <li>Inside turn lever,</li> <li>Inside lever retracts deadbolt and latch simultaneously.</li> </ul>	<ul> <li>Turning key in outside cylinder,</li> <li>Turning inside turn lever.</li> </ul>	<ul> <li>Turning key in outside cylinder,</li> <li>Turning inside turn lever.</li> <li>Rotating inside lever.</li> </ul>	Cannot be unlocked	Always unlocked
Dormitory (TA) F12	<ul> <li>Rotating inside lever,</li> <li>Rotating O/S lever only when locking toggle is in unlocked position and deadbolt is retracted,</li> <li>Turning key in outside cylinder.</li> </ul>	<ul> <li>Turning key in outside cylinder,</li> <li>Turning inside turn lever. (Rotating inside lever retracts deadbolt and latch simultaneously.)</li> </ul>	<ul> <li>Placing locking toggle in locked position,</li> <li>Projecting deadbolt by key or turn lever.</li> </ul>	Turning key in outside cylinder and placing locking toggle in unlocked position	Cannot be locked	Always unlocked
	Rotating inside lever,     Turning key in     outside cylinder.	<ul> <li>Turning inside turn lever,</li> <li>Rotating inside lever retracts deadbolt and latch simultaneously.),</li> <li>Turning key in out- side cylinder.</li> </ul>	Always locked	Cannot be unlocked	Cannot be unlocked	Always unlocked
	The latchbolt is deadloo	ked with an auxiliary de	adlatch		1	
Non-Keyed						
-Privacy (F19)	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever only when deadbolt is retracted.</li> </ul>	<ul> <li>Turning the emergency key,</li> <li>Turning inside turn lever. (Rotating inside knob/ lever retracts deadbolt and latch simultaneously.)</li> </ul>	<ul> <li>Turning inside turn lever,</li> <li>Turning the emergency key.</li> </ul>	<ul> <li>Turning inside turn lever,</li> <li>Rotating inside lever retracts latch and dead-bolt simul- taneously,</li> <li>Turning the emergency key.</li> </ul>	Cannot be locked	Always unlocked
I-Privacy	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever only when turn knob is unlocked.</li> </ul>	N/A	<ul> <li>Turning inside turn lever,</li> <li>Turning the emergency key.</li> </ul>	<ul> <li>Turning inside turn lever,</li> <li>Rotating inside lever,</li> <li>Turning the emergency key.</li> </ul>	Cannot be locked	Always unlocked
V-Passage (F01)	Rotating inside or outside lever	N/A	Cannot be locked	Cannot be locked	Cannot be locked	Cannot be locked
IX-Exit (F31)	Rotating inside lever	N/A	Always locked	Cannot be locked	Cannot be locked	Always unlocked



	Description	Outside Le	ever or Knob		Inside Kr	ob/Lever
Function & Diag. (ANSI No.)	Latch operated by	Deadbolt operated by	Locked by	Unlocked by	Locked by	Unlocked by
Double Keyed						
Entrance (*C-Public) F09	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever only when unlocked by key in inside cylinder,</li> <li>Turning key in outside cylinder only.</li> </ul>	N/A	Turning key in inside cylinder	Turning key in inside cylinder	Cannot be locked	Always unlocked
	The latchbolt is deadlocked wit	h an auxiliary deadlate	ch. When required, insid	le cylinder may be comb	inated to operate by ma	aster key only.
Holdback (CHB)	<ul> <li>Turning outside key,</li> <li>Rotating outside lever only when unlocked by key in inside cylinder,</li> <li>Inside lever,</li> <li>Latchbolt held retracted by turning inside key while holding up on inside lever.</li> </ul>	N/A	Turning key in inside cylinder	Turning key in inside cylinder	Cannot be locked	Always unlocked
	The latchbolt is deadlocked wit	h an auxiliary deadlate	ch.			
Communicating (G) F14)	• Latch operated from either side only when the deadbolt is retracted.	Turning key in outside or inside cylinder	Turning key in inside or outside cylinder	Turning key in inside or outside cylinder	Turning key in inside or outside cylinder	Turning key in inside or outside cylinder
Intruder (IND) F33	<ul> <li>Turning key in inside or outside cylinder,</li> <li>Rotating outside lever when deadbolt is retracted,</li> <li>Rotating inside lever.</li> </ul>	<ul> <li>Turning key in outside or inside cylinder,</li> <li>Rotating inside lever (Retracts the deadbolt and latch simultaneously).</li> </ul>	Extending the deadbolt by turning key in inside or outside cylinder	<ul> <li>Retracting the deadbolt by turning key in inside or outside cylinder,</li> <li>Rotating inside lever (Retracts the deadbolt and latch simultaneously).</li> </ul>	Cannot be locked	Always unlocked
Intruder (INL) F32	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever only when unlocked by inside or outside key</li> <li>Turning key in inside or outside cylinder.</li> </ul>	N/A	Turning key in inside or outside cylinder	Turning key in inside or outside cylinder	Cannot be locked	Always unlocked
	The latchbolt is deadlocked wit	h an auxiliary deadlate	ch. When required, insid	le cylinder may be comb	inated to operate by ma	aster key only.
Intruder (INA) F34	<ul> <li>Turning key in inside or outside cylinder,</li> <li>Rotating outside lever when deadbolt is retracted,</li> <li>Rotating inside lever.</li> </ul>	<ul> <li>Turning key in outside or inside cylinder,</li> <li>Rotating inside lever (Retracts the deadbolt and latch simultaneously).</li> </ul>	Extending the deadbolt by turning key in inside or outside cylinder	Retracting the deadbolt by turning key in inside or outside cylinder,     Rotating inside lever (Retracts the deadbolt and latch simultaneously).	Cannot be locked	Always unlocked
	The latchbolt is deadlocked wit	h an auxiliary deadlate	ch. When required, insid	le cylinder may be comb	inated to operate by ma	aster key only.
Storeroom (*S) F35	<ul> <li>Rotating inside lever,</li> <li>Rotating outside lever only when locking toggle is in unlocked position and deadbolt is retracted,</li> <li>Turning key in inside or outside cylinder.</li> </ul>	Turning key in inside or outside cylinder	Placing locking toggle in locked position	Turning key in outside cylinder or inside cylinder and placing locking toggle in unlocked position	Extending the deadbolt	Retracting the deadbolt
	1				1	1

\*ATTENTION: Locksets that secure both sides of the door are controlled by building codes and the Life Safety Code®. In an emergency exit situation, failure to quickly unlock the inside lever could be hazardous or even fatal.

	Description	Outside Le	ver or Knob		Inside Knob/Lever			
Function & Diag. (ANSI No.)	Latch operated by	Deadbolt operated by	Locked by	Unlocked by	Locked by	Unlocked by		
Double Keyed	(continued)							
Storeroom (*W) F30	Turning key in inside or outside cylinder	N/A	Always locked	Cannot be unlocked	Always locked	Cannot be unlocked		
	The latchbolt is deadlocked by master key only.	ed with an auxiliary dead	latch. When required,	inside cylinder may be con	nbinated to operate			
Deadlocks								
Deadlock (AD) F17	N/A	<ul> <li>Turning key in outside cylinder</li> <li>Turning inside turn lever.</li> </ul>	N/A	N/A	N/A	N/A		
Classroom Deadlock (RD) F29	N/A	<ul> <li>Turning key in outside cylinder</li> <li>Turning inside turn lever.*</li> </ul>	N/A	N/A	N/A	N/A		
•	*Function RD-the inside	l turn knob retracts deadb	l olt but will not proiect	it. (Specify hand of door.)	Only for $1 - \frac{3}{4}$ doors			
IYD-Deadlock F18	N/A	Turning key in outside cylinder only		N/A	N/A	N/A		
WD-Deadlock F16	N/A	Turning key in outside or inside cylinder	N/A	N/A	N/A	N/A		
٠	The latchbolt is deadlocked with an auxiliary deadlatch. When required, inside cylinder may be combinated to operate by master key only.							
Special			atern titler required,		isinated to operate by			
	<ul> <li>Rotating inside lever,</li> <li>Turning key in outside cylinder.</li> </ul>	N/A	N/A	N/A	Cannot be locked	Always unlocked		
Classroom Holdback (*XRHB)	<ul> <li>Rotating inside lever,</li> <li>Turning key in outside cylinder.</li> <li>Latchbolt held retracted by turning O/S key while holding up I/S lever</li> </ul>	N/A	N/A	N/A	Cannot be locked	Always unlocked		
	The latchbolt is deadlocke	ed with an auxiliary dead	1					
Storeroom (*ZD)	Turning key in outside cylinder	N/A	Always locked	Cannot be unlocked	N/A	N/A		
	The latchbolt is deadlocke	ed with an auxiliary dead	latch					

\*ATTENTION: Locksets that secure both sides of the door are controlled by building codes and the Life Safety Code<sup>®</sup>. In an emergency exit situation, failure to quickly unlock the inside lever could be hazardous or even fatal.