Door Hardware

1) Best Locksets
2) Stanley Commercial Hardware
3) Stanley Commercial Closers
4) Automatic Doors
Mortise Locksets - 40H

**FEATURES**

1. Solid one-piece stainless steel anti-friction latch provides 50% more surface contact with strike for superior strength and security. Reversible latch rotates 180 degrees for easy handling change without opening case. Precision-engineered curve provides enhanced cycle life with reduced wear to the strike.

2. Non-handed cylinder retainer and stainless steel auxiliary bolt for ease of changing hand.

3. Armored front completely surrounds latch and deadbolt providing increased lateral strength. Staked assembly design allows the armored front to self-align with the door bevel during installation.

4. Enhanced case integrity achieved through four case cover screws (one at each corner), plus interlocking armored front and cover design at the latch.

5. Roller bearing hub mechanism provides smooth, wear resistant operation.

6. Locking toggle includes clear indication of "locked" and "unlocked" states.

7. 40H case, cover, and armored front manufactured from 0.095" cold rolled steel for strength and durability.

8. Fusible link.

9. Four position hub toggle design determines whether each hub is always locked, always unlocked, or locked by key for easy handling change without opening case.

10. Lever return spring mechanism located in trim for enhanced protection against lever droop, providing a firm, positive return of the lever to the horizontal position.

11. Self-aligning trim mechanism for fast, easy, and accurate installation.

12. Curved lip strike and strike box assembly provides an aesthetic, non-handed solution to complement field reversible case.

13. Solid machined cylinder rings with tension spring provide resistance to wrenching of cylinder. Cylinder security screw prevents removal of cylinder without first removing interchangeable core.

**40H SPECIFICATIONS**
The 45H and 47H mortise locks meet or exceed the following standards:

**American National Standards:**

**45H Series** - ANSI A156.13, Series 1000, Grade 1 Operational and Grade 2 Security.

**47H Series** - ANSI A156.13, Series 1000, Grade 1 Operational and Grade 1 Security.

**Underwriters Laboratories®**

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 1E7H 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.

**Miami-Dade County Code Compliance Office**

For the "ABT" function the 40H series lock is certified for use in applications requiring a design pressure rating of ± 90 PSF for single doors and ± 50 PSF for double door openings.

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

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

4873853, Other patents pending.

**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.

**Faceplate:** Brass or bronze material, 8" H x 1 1/4" W x 1/16" T. Lock face automatically adjusts to proper bevel during installation.

**Strike:** Brass, bronze, or stainless steel base material, 47/8" x 1 1/8" x 3/32". Fits standard door frame cut out as specified in ANSI A155.1. Universal (non-handed) strike and strike box combination supplied standard with lock. Handled strikes (for use without strike box) available for special order.

**Backset:** 2 3/4"

**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).

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

**Deadbolt:** Stainless steel, 1" throw.

**Auxiliary bolt:** Stainless steel, non-handed. #4

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

**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, 14, and 15 conform to California Title 19 and 24. Lever styles 12, 16 and 17 do not return. Levers project 2 15/16" from door surface with H, J, S trim. Levers project 3 1/64" with M and N trim.

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

**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 11/64" T, through bolt mounted (no exposed screws outside). M – Standard cylinder; N – Concealed cylinder.

**Vandal Trim:**

- 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)
- 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.

INTRO TO 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 Access Systems 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 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 Access Systems 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 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.

<table>
<thead>
<tr>
<th>UNR</th>
<th>ANSI</th>
<th>UNT</th>
<th>ANSI</th>
<th>UNAB</th>
<th>ANSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - office</td>
<td>F04</td>
<td>L - privacy</td>
<td>F19</td>
<td>AB - office</td>
<td>F20</td>
</tr>
<tr>
<td>AT - office</td>
<td>F04</td>
<td>T - dormitory</td>
<td>F13</td>
<td>TA - dormitory</td>
<td>F12</td>
</tr>
<tr>
<td>D - storeroom</td>
<td>F07</td>
<td></td>
<td></td>
<td>TD - dormitory</td>
<td></td>
</tr>
<tr>
<td>N - passage</td>
<td>F01</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>NX - exit</td>
<td>F31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R - classroom</td>
<td>F05</td>
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</tbody>
</table>

THREE-PART LOCK
For the maximum flexibility in ordering a mortise lock, BEST provides a way to order your 40H lock in three parts: Inside Trim, Case Only, and Outside Trim. The kits that make up these three parts have been carefully designed so that when all three are combined you have everything found in a complete 40H lock.

This order method is ideal for customers wanting to stock a variety of trim designs with a minimal number of lock cases.

![Inside Kit](image1)
![Case Only](image2)
![Outside Kit](image3)

**PARTS ORDERING MADE EASY**

No more searching through service manuals or calling technical support for the right part numbers. BEST has developed a variety of kits you can order when you only need part of a 40H mortise, rather than the whole lock.

**Case Only**

A Case Only lock includes all parts normally included with a complete lock that are not specifically associated with either the inside or outside trim, including: lock case, faceplate, strike and strike box, fasteners (for case and strike), and installation instructions. Case Only mortise locks will be shipped in the standard mortise packaging, allowing trim kits to be included at a future date to make a complete lock.

**Trim Kits**

A 40H Trim Kit is simply one half of a complete trim package. An Outside Trim Kit must always be matched up with an Inside Trim Kit to operate with a lock. Each kit includes all the necessary parts (including fasteners) required for installation that are associated with just the one side of the door.

**Strike Packages**

The universal (non-handed) strike & strike box combination is supplied as standard for all 40H functions. For applications where the strike box cannot be installed in the frame, handed strikes can be ordered. Security Head screws are an option for this kit.

**Lever Sets**

A lever set kit provides the inside lever assembly (with set screw) and outside lever assembly (with spindle attached). Thick Door and Tactile Lever options are available for this kit.

**Faceplate Kits**

The Face Plate kit includes a finished faceplate and the appropriate screws. Security Head screws are an option for this kit.

**Replacement Spindles**

As a security feature, the outside spindle on the 40H is designed to twist off during abuse before any internal damage to the lock occurs. The Replacement Spindle kit is a quick, easy, and inexpensive way to replace any spindles damaged by attack or abuse. This kit includes the inside and outside spindles, plus the pin to attach the outside lever.

**Screw Kits**
Nothing's more frustrating than spending time searching for the part number of a single screw. With the 40H Screw Kits, you don't have to worry about that anymore. These kits have been designed to provide all the necessary fasteners for one lock in a single bag. All you need to know is the trim style and finish, and you're set. Security head screws are an option for this kit.

FUNCTION LETTER CHANGES
With the introduction of the 40H mortise lock, BEST has decided to alter the mortise function letter designations to bring them in alignment with the BEST cylindrical lock functions. This way, a classroom lock will be "R" and a store room lock will be "D", regardless of which lock family is used.

<table>
<thead>
<tr>
<th>35H</th>
<th>45H</th>
<th>ANSI</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2DT</td>
<td>2DT</td>
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<td>E</td>
<td>A</td>
<td>F94</td>
</tr>
<tr>
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<td>AB</td>
<td>F20</td>
</tr>
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<td>F94</td>
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<td>B</td>
<td>B</td>
<td>F21</td>
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<tr>
<td>B54/B5</td>
<td>B5</td>
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<td>B6/B7</td>
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<td>BA</td>
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<td>BW</td>
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<tr>
<td>G</td>
<td>C</td>
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<td>F31</td>
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<td>RHB</td>
<td>F06</td>
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<td>F35</td>
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<td>TA</td>
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HOW TO ORDER: 45H

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<tr>
<th>45H</th>
<th>7</th>
<th>R</th>
<th>14</th>
<th>H</th>
<th>626</th>
<th>RH</th>
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<tr>
<td></td>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LL= lead lined</td>
</tr>
<tr>
<td></td>
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<td>B</td>
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<td></td>
<td></td>
<td></td>
<td>D= security head screws</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Thick Door (specify</td>
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<td></td>
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<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>thickness if other than</td>
</tr>
</tbody>
</table>
|     |   | N |     |   |     |    | 1 1/2"
|     |   | C |     |   |     |    | TAC= double lever knob |
|     |   |      |     |   |     |    | TAR= TALINE (7 1/8" guide plate) |
|     |   |      |     |   |     |    | V= visual indicator |
|     |   |      |     |   |     |    | ROE= request to exit |

HOW TO ORDER: 47H

http://www.bestaccess.com/products/mortiselocksets40h.asp
### HOW TO ORDER: 45H CASE ONLY

<table>
<thead>
<tr>
<th>45HCA</th>
<th>R</th>
<th>626</th>
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<tbody>
<tr>
<td>Series</td>
<td>Function Code</td>
<td>Finishes</td>
<td>Door Hand</td>
</tr>
<tr>
<td>45HCA - case only mortise lock</td>
<td>A - office</td>
<td>605, 606</td>
<td>RH</td>
</tr>
<tr>
<td></td>
<td>D - storeroom</td>
<td>610, 612</td>
<td>RHRB</td>
</tr>
<tr>
<td></td>
<td>R - classroom</td>
<td>613, 618</td>
<td>LH</td>
</tr>
<tr>
<td></td>
<td>T - dormitory etc.</td>
<td>619, 625</td>
<td>LHRB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>626, 629</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>630, 690</td>
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</table>

Knobs

4- round

Options

SH- security head screws

*Only works with R, S, M and N trim.

### HOW TO ORDER: 40H TRIM KITS

<table>
<thead>
<tr>
<th>40HTK</th>
<th>OS2</th>
<th>14</th>
<th>H</th>
<th>626</th>
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<tbody>
<tr>
<td>Series</td>
<td>Function Code</td>
<td>Lever/ Knob Code</td>
<td>Trim Style</td>
<td>Finishes</td>
</tr>
<tr>
<td>40HTK - trim kit</td>
<td>831 - inside lever only</td>
<td>5- solid lever</td>
<td>H- 2 3/4 in.</td>
<td>605, 606</td>
</tr>
<tr>
<td></td>
<td>832 - inside lever x thumb turn</td>
<td>5- solid lever x cylinder</td>
<td>B- 2 3/4 in.</td>
<td>611, 612</td>
</tr>
<tr>
<td></td>
<td>833 - inside lever x cylinder</td>
<td>13 - solid lever x lever</td>
<td>S- 3 1/2 in.</td>
<td>613, 618</td>
</tr>
<tr>
<td></td>
<td>834 - inside lever x visual indicator</td>
<td>16 - curved return</td>
<td>J= wrought</td>
<td>619, 625</td>
</tr>
<tr>
<td></td>
<td>841 - outside lever only</td>
<td>16 - curved return</td>
<td>M= forged</td>
<td>626, 629</td>
</tr>
<tr>
<td></td>
<td>851 - outside lever x cylinder</td>
<td>16 - curved return</td>
<td>N= forged (concealed cylinder)</td>
<td>630, 690</td>
</tr>
<tr>
<td></td>
<td>852 - outside lever x visual indicator</td>
<td>17RH= right handed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>853 - outside lever x access plate</td>
<td>17LH= left handed</td>
<td></td>
<td></td>
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<tr>
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<td>898 - outside cylinder only</td>
<td>4- round</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>899 - outside lever x visual indicator</td>
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</tr>
<tr>
<td></td>
<td>906 - outside lever x cylinder x visual indicator</td>
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* Only works with R, S, M and N trim.

### HOW TO ORDER: 40H STRIKE PACKAGES

<table>
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<th>1</th>
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<th>RH</th>
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<tbody>
<tr>
<td>Series</td>
<td>Kit Number</td>
<td>Finishes</td>
<td>Door Hand</td>
</tr>
<tr>
<td>40HST - strike package</td>
<td>1- universal strike (non handed)</td>
<td>605, 606</td>
<td>RH</td>
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<tr>
<td></td>
<td>3RH - S3 strike. RH</td>
<td>611, 612</td>
<td>RHRB</td>
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<tr>
<td></td>
<td>3LH - S3 strike. LH</td>
<td>613, 618</td>
<td>LH</td>
</tr>
<tr>
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<td></td>
<td>619, 625</td>
<td>LHRB</td>
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<td></td>
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<td>626, 629</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>630, 690</td>
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</tr>
</tbody>
</table>

4-6 page

78LTC - 7 3/4 in. lip-to-center strike

SH- security head screws

### HOW TO ORDER: 40H LEVER SETS

http://www.bestaccess.com/products/mortiselocksets40h.asp
### HOW TO ORDER: 40H FACEPLATE KITS

<table>
<thead>
<tr>
<th>40HFP</th>
<th>3</th>
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<th>Options</th>
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<tbody>
<tr>
<td>Series</td>
<td>Kit Number</td>
<td>Finishes</td>
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</tr>
<tr>
<td>40HFP- faceplate kit</td>
<td>0- AB</td>
<td>605, 606</td>
<td>SH- security head screws</td>
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<tr>
<td></td>
<td>1- BW, TD, H, HJ</td>
<td>611, 612</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2- A</td>
<td>613, 619</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3- AT, D, C, INL, NX, R, W</td>
<td>619, 625</td>
<td></td>
</tr>
<tr>
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<td>4- N, LT</td>
<td>526, 629</td>
<td></td>
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<tr>
<td></td>
<td>5- AD, RD, YD, WD</td>
<td>630, 690</td>
<td></td>
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<tr>
<td></td>
<td>6- blank</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>7- BA, S, TA</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>8- B, G, IND, L, LB, T</td>
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*Hook spindle is available for 1 3/4" thick door only.*

### HOW TO ORDER: 40H REPLACEMENT SPINDLES

<table>
<thead>
<tr>
<th>40HRS</th>
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<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Function Code</td>
<td></td>
</tr>
<tr>
<td>40HRS- replacement spindle kits</td>
<td>2- 40H split spindle (standard)</td>
<td>Thick Door- (specify thickness if other than 1 3/4&quot;&quot;)</td>
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<tr>
<td></td>
<td>4- 40H hook spindle *</td>
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### HOW TO ORDER: 40H SCREW KITS

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</tr>
<tr>
<td>40HSK- screw kits</td>
<td>1- H, R, S, J trim screw kit</td>
<td>606, 612, 613, 625</td>
<td>Thick Door- (specify thickness if other than 1 3/4&quot;&quot;)</td>
</tr>
<tr>
<td></td>
<td>2- M, N trim screw kit</td>
<td>663</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3- special purpose fasteners screw kit</td>
<td>625</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4- special mounted trim screw kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5- VIN trim screw kit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Lead Lined Feature* – The 40H mortise lock can be lead lined to protect against x-rays. Since the majority of lead lined doors contain the lead in the surface of the door, the 40H provides lead lining for the holes cut in the door when preparing the door for
the trim. The two holes that are lead lined are the lever hole and the cylinder hole. (except in double cylinder or non-keyed functions). **To order:** designate "LL" on order procedure (page 6-7)

**Security Head Screws** – Security head screws. **To order:** designate "SH" on 45H/47H in order procedure (page 6-7).

**Tactile Feature Knob/Lever** – This option is for use in applications where special notice is needed to warn the blind about safety or accessibility environments. Depending on the style ordered, the knob or lever will receive either grooves or knurling as the tactile feature. **To order:** designate "TL" on 45H/47H knobs/levers in order procedure (page 6-7).

**Visual Indicators Feature** – This option adds a visual indicator for certain functions that visually reflects whether the lockset is in the locked or unlocked position. This option is available for the following functions: TO–Dormitory, IND–Intruder, INL–Intruder, L–Privacy, LT–Privacy. It is standard on the H–Hotel function.

**SERVICE EQUIPMENT**

**ED 211 Mortise Cylinder Wrench** – The Best mortise cylinder wrench and test handle is an essential dual-purpose tool. It is used primarily to install or remove Best mortise cylinders without marring the cylinder surface finish. The single end may be used to test the lock operation, as well as align the throw pins. **To order specify:** ED 211 mortise cylinder wrench.

**ED 212 Mortise Cylinder Cam Assembly Tool** – Mortise cylinder cams are quickly changed with the use of this tool. Approximate length 1 3/4". **To order specify:** ED 212 assembly tool.

**ED 221 Mortise Cylinder Thread Repair Die** – Tool for rethreading 1 5/32" diameter cylinders. **To order specify:** ED 221 thread repair die.

**ED 225 Hole Tap for 1 5/32" Mortise Cylinder** – Tap tool used to rethread housing threads for 1E Mortise Cylinders. **To order specify:** ED 225 hole tap.

**KD 316 Spanner Wrench (CS4466)** – All "H" locksets require the use of the KD 316 spanner wrench for door mounting. This tool is included with every (10) locksets ordered. If more are needed designate quantity and KD 316 on your order.

**HAND OF DOOR**

- Left hand (LH) OUTSIDE Right hand (RH) OUTSIDE
- Left hand reverse bevel (LHB) OUTSIDE Right hand reverse bevel (RHB)

**40H SERIES - STANDARD LEVERS & TRIMS**
40H SERIES - DECORATIVE LEVERS
FUNCTIONS
<table>
<thead>
<tr>
<th>Function &amp; Diag.</th>
<th>Description</th>
<th>Outside Lever or Knob</th>
<th>Inside Lever or Knob</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Latch operated by</td>
<td>Deadbolt operated by</td>
</tr>
<tr>
<td><strong>A-Office</strong></td>
<td>• Rotating inside lever, OR • Rotating outside lever—only when locking toggle is in unlocked position, OR • Turning key in outside cylinder.</td>
<td>N/A</td>
<td>Placing locking toggle in locked position</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The latchbolt is deadlocked with an auxiliary deadbolt</td>
</tr>
<tr>
<td><strong>AB-Office</strong></td>
<td>• Rotating inside lever, OR • Rotating outside lever—only when locking toggle is in unlocked position, OR • Turning key in outside cylinder.</td>
<td>• Turning key in outside cylinder, OR • Inside turn lever, OR • Inside lever retracts deadbolt and latch simultaneously</td>
<td>Placing locking toggle in locked position, OR • Placing locking toggle in unlocked position</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The latchbolt is deadlocked with an auxiliary deadbolt</td>
</tr>
<tr>
<td><strong>AT-Office</strong></td>
<td>• Rotating inside lever, OR • Rotating outside lever—only when unlocked by key or turn lever, OR • Turning key in outside cylinder.</td>
<td>N/A</td>
<td>• Turning inside turn lever, OR • Turning key in outside cylinder.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The latchbolt is deadlocked with an auxiliary deadbolt</td>
</tr>
<tr>
<td><strong>D-Storeroom</strong></td>
<td>• Rotating inside lever, OR • Turning key in outside cylinder.</td>
<td>N/A</td>
<td>Always locked</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The latchbolt is deadlocked with an auxiliary deadbolt</td>
</tr>
<tr>
<td><strong>R-Classroom</strong></td>
<td>• Rotating inside lever, OR • Rotating outside lever—only when unlocked by key, OR • Turning key in outside cylinder.</td>
<td>N/A</td>
<td>Turning key in outside cylinder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The latchbolt is deadlocked with an auxiliary deadbolt</td>
</tr>
<tr>
<td><strong>RHS-Classroom</strong></td>
<td>• Rotating inside lever, OR • Turning key in outside cylinder, OR • Outside lever except when locked by outside key, OR • Latchbolt held retracted by turning DS key while holding up IS lever</td>
<td>N/A</td>
<td>Turning key in outside cylinder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The latchbolt is deadlocked with an auxiliary deadbolt</td>
</tr>
<tr>
<td><strong>T-Dormitory</strong></td>
<td>• Rotating inside lever, OR • Rotating outside lever—only when deadbolt is retracted, OR • Turning key in outside cylinder</td>
<td>• Turning key in outside cylinder, OR • Inside turn lever, OR • Inside lever retracts deadbolt and latch simultaneously</td>
<td>• Turning key in outside cylinder, OR • Turning inside turn lever, OR • Rotating inside lever</td>
</tr>
<tr>
<td>Function &amp; Dia.</td>
<td>Description</td>
<td>Outside Lever or Knob</td>
<td>Inside Lever or Knob</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Latch operated by</td>
<td>Deadbolt operated by</td>
</tr>
<tr>
<td>Single Keyed (continued)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA: Dormitory</td>
<td>Rotating inside lever, OR</td>
<td><strong>Turning key in outside cylinder.</strong> OR</td>
<td><strong>Placing locking toggle in locked position.</strong> OR</td>
</tr>
<tr>
<td></td>
<td>Rotating outside lever only when locking toggle</td>
<td>**Turning inside turn</td>
<td><strong>Projecting deadbolt by key or turn lever.</strong></td>
</tr>
<tr>
<td></td>
<td>is in unlocked position and deadbolt is</td>
<td>lever (Rotating</td>
<td>and placing locking</td>
</tr>
<tr>
<td></td>
<td>retracted, OR</td>
<td>inside knob/lever</td>
<td>toggle in locked</td>
</tr>
<tr>
<td></td>
<td>**Turning key in outside</td>
<td>retracts deadbolt</td>
<td>position, OR</td>
</tr>
<tr>
<td></td>
<td>cylinder.**</td>
<td>and latch</td>
<td>**Turning key in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>simultaneously.**</td>
<td>outside cylinder</td>
</tr>
<tr>
<td>TD: Dormitory</td>
<td>Rotating inside lever, OR</td>
<td>**Turning inside turn</td>
<td>Cannot be unlocked</td>
</tr>
<tr>
<td></td>
<td>**Turning key in outside</td>
<td>lever, OR**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cylinder.**</td>
<td>**Rotating inside lever</td>
<td>**Cannot be locked</td>
</tr>
<tr>
<td></td>
<td></td>
<td>retracts deadbolt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and latch</td>
<td></td>
</tr>
<tr>
<td>IU: Hotel</td>
<td>Rotating inside lever, OR</td>
<td>**Turning inside turn</td>
<td>Cannot be unlocked</td>
</tr>
<tr>
<td></td>
<td>**Turning key in outside</td>
<td>lever, OR**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cylinder.**</td>
<td>**Rotating key in</td>
<td>**Cannot be locked</td>
</tr>
<tr>
<td></td>
<td></td>
<td>outside cylinder</td>
<td></td>
</tr>
<tr>
<td>Non-Keyed</td>
<td>Rotating inside lever, OR</td>
<td><strong>Turning the emergency key.</strong> OR</td>
<td><strong>Turning inside turn lever, OR</strong></td>
</tr>
<tr>
<td>L: Privacy</td>
<td>Rotating outside lever only when deadbolt is retracted</td>
<td>**Turning inside turn</td>
<td><strong>Turning the emergency key.</strong> OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lever.**</td>
<td><strong>Turning the emergency key.</strong> OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Turning inside turn lever, OR</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Rotating inside lever retracts deadbolt and latch simultaneously.</strong></td>
</tr>
<tr>
<td>LT: Privacy</td>
<td>Rotating inside lever, OR</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Rotating outside lever only when turn knob is unlocked.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N: Passage</td>
<td>Rotating inside or outside lever</td>
<td>N/A</td>
<td>Cannot be locked</td>
</tr>
<tr>
<td>MS: Exit</td>
<td>Rotating inside lever</td>
<td>N/A</td>
<td>Always locked</td>
</tr>
<tr>
<td>Function &amp; Description</td>
<td>Outside Lever or Knob</td>
<td>Inside Lever or Knob</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td><strong>C - Public Entrance</strong></td>
<td>Turning key in inside cylinder</td>
<td>Turning key in inside cylinder</td>
<td></td>
</tr>
<tr>
<td><strong>CHB - Hold back</strong></td>
<td>Turning key in inside cylinder</td>
<td>Turning key in inside cylinder</td>
<td></td>
</tr>
<tr>
<td><strong>G - Communicating</strong></td>
<td>Turning key in inside or outside cylinder</td>
<td>Turning key in inside or outside cylinder</td>
<td></td>
</tr>
<tr>
<td><strong>IND - Intruder</strong></td>
<td>Turning key in inside or outside cylinder</td>
<td>Extending the deadbolt by turning key in inside or outside cylinder</td>
<td></td>
</tr>
<tr>
<td><strong>INL - Intruder</strong></td>
<td>Turning key in inside or outside cylinder</td>
<td>Extending the deadbolt by turning key in inside or outside cylinder</td>
<td></td>
</tr>
<tr>
<td><strong>S - Storeroom</strong></td>
<td>Turning key in inside or outside cylinder</td>
<td>Extending the deadbolt by turning key in inside or outside cylinder</td>
<td></td>
</tr>
<tr>
<td><strong>W - Storeroom</strong></td>
<td>Turning key in inside or outside cylinder</td>
<td>Extending the deadbolt by turning key in inside or outside cylinder</td>
<td></td>
</tr>
</tbody>
</table>

The latchbolt is deadlocked with an auxiliary deadlatch. When required, inside cylinder may be combinated to operate by master key only. **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 unlock the inside lever could be hazardous or even fatal.
<table>
<thead>
<tr>
<th>Description</th>
<th>Latch operated by</th>
<th>Outside Lever or Knob</th>
<th>Deadbolt operated by</th>
<th>Inside Lever or Knob</th>
<th>ANSI No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4D-Deadlock</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>4R-Deadbolt</td>
<td>N/A</td>
<td>Turning key in outside cylinder only</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>4D-Deadbolt</td>
<td>N/A</td>
<td>Turning key in outside cylinder only</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Special</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XR-Classroom Deadbolt</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Cannot be locked</td>
<td>Always unlocked</td>
</tr>
<tr>
<td>XR/HS-Classroom Deadbolt</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Cannot be locked</td>
<td>Always unlocked</td>
</tr>
</tbody>
</table>

**ATTENTION:** Locksets that secure both sides of the door are controlled by building codes and the Life Safety Code. Failure to quickly unlock the inside lever could be hazardous or even fatal.

### 48H/49H SERIES-MORTISE DEADLOCKS

**Specifications**

**Case:** 0.095" cold rolled steel, 3 3/8" x 4 3/16" x 1". Steel is zinc dichromate plated for corrosion protection.

**Faceplate:** Brass or bronze material, 5 3/8" x 1 3/16" x 7/32".

**Strike:** Brass, bronze, or stainless steel base material.

**48HS1:** Flat strike supplied standard, 3 1/2" x 1 1/8" x 3/32". Fits standard door frame cut out as specified in ANSI A155.5.

**48HS2:** Lipped strike supplied as option, 4 7/8" x 1 1/4" x 3/32". Fits standard door frame cut out as specified in ANSI A155.1.

**Backset:** 2 3/4"

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

**Note:** Thick door not available in "R" function.

**Deadbolt:** Stainless steel, 1" throw
Trim:
48H: Cylinder and trim ring only.
49H: M escutcheon supplied; refer to 47H specification for dimensions.

Finishes:
48H: Available in all finishes offered for 45H.
49H: Available in 626 only.

48H/49H FUNCTION CHART

<table>
<thead>
<tr>
<th>Function &amp; Dia.</th>
<th>Deadbolt operated by:</th>
</tr>
</thead>
</table>
| K-Cylinder Deadlock | • Rotating the inside thumbturn rosette. 2H  
                     | • Turning the outside key. |
| L-Cylinder Deadlock | Turning the outside key |

<table>
<thead>
<tr>
<th>Function &amp; Dia.</th>
<th>Deadbolt operated by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Cylinder Deadlock</td>
<td>Turning the outside or inside key</td>
</tr>
</tbody>
</table>
| R-Cylinder Deadlock | • Turning the outside key.  
                     | • Rotating the inside thumb-turn  
                     | cylinder assembly retracts the  
                     | deadbolt, but will not project it |

*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 retract the deadbolt could be hazardous or even fatal.

*NOTES: Specify the hand of door when ordering. The R function deadbolt can only be used on 1 3/8" thick doors.

HOW TO ORDER - 48H/49H SERIES

<table>
<thead>
<tr>
<th>48H</th>
<th>7</th>
<th>K</th>
<th>S1</th>
<th>626</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Core Housing</td>
<td>Function Code</td>
<td>Standard Finishes</td>
<td>Options</td>
</tr>
<tr>
<td>48H - standard security</td>
<td>7-7-pin housing</td>
<td>K - cylinder x turn</td>
<td>48H - 605</td>
<td>48H:</td>
</tr>
<tr>
<td>49H - high security</td>
<td>48H accepts all Best cores</td>
<td>L - cylinder only</td>
<td>611 612</td>
<td>49H:</td>
</tr>
<tr>
<td>49H only 5C cores</td>
<td>M - double cylinder</td>
<td></td>
<td>613 618</td>
<td>SH - security head</td>
</tr>
<tr>
<td></td>
<td>R - classroom cylinder x turn</td>
<td></td>
<td>616 625</td>
<td>49H:</td>
</tr>
<tr>
<td></td>
<td>S1 - flat strike</td>
<td></td>
<td>626 690</td>
<td>non UL cylinder</td>
</tr>
<tr>
<td></td>
<td>S2 - ANSI strike</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>49H - 626 ONLY</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Must specify key mark and number of keys or designate L/C for less core.

MORTISE SAMPLE SPECIFICATIONS

A. Locksets and Latchsets:

[Best Access Systems] - [___________] [___________]

1. Base Specification: Best Access Systems components as listed in Hardware Schedule per Article 3.05.
2. Locksets and latchsets of other acceptable manufacturers must conform to the requirements of Subparagraphs 3 and 4.
3. Mortise Type:
   a. Locksets shall be tested and approved by BHMA for ANSI A156.13, Series 1000, Operational Grade 1, Extra-Heavy Duty, Security Grade 2 and be UL10C.
   b. Locksets shall be mortise type with solid 3/4 inch throw one-piece radiused latchbolt made of self-lubricating stainless steel. Deadbolt functions shall be one inch projection stainless steel construction. Both deadbolt and latchbolt to extend into lock case with reinforcing a minimum of 3/8 inch when fully extended.
   c. Knobs to be [ ] design. Levers to be [ ] design.
   d. Furnish locksets and latchsets with sufficient strike lip to protect door trim.
   e. Provide locksets with 7 pin [BEST] interchangeable core cylinders. [All mortise cylinders shall have a concealed internal set screw for securing the cylinder to the lockset. The internal set screw will be accessible only by removing the core from the cylinder body with a control key]
f. All mortise locksets and latches must conform to ANSI A156.13, Series 1000, Operational Grade 1 [Security Grade 2 for locksets in security areas] and be listed by UL. [High Security Option: All mortise locksets must conform to ANSI A156.13, Series 1000, Operational Grade 1, Security Grade 1 and listed by UL, and must include interchangeable core cylinders which conform to High Security Cylinder requirements of UL 437.]

g. Locksets must fit ANSI A15.1 door preparation.

h. Locksets and latches to have self-aligning through-bolted trim.

i. Locksets and latches must have the ability to change handling without opening case.

j. Auxiliary latch to be made of one-piece self-lubricating stainless steel.

k. Locksets must be available with tactile or knurled knobs or levers for identification of hazardous areas.

l. Lever handles must be of forged or cast brass, bronze or stainless steel construction and conform to ANSI A117.1. Levers which contain a hollow cavity are not acceptable.

Subparagraphs m through r describe quality features of Best mortise locksets which may or may not be available from other lock manufacturers. Edit accordingly.

m. [Spindle to be such that if forced it will twist first, then break, thus preventing forced entry.]

n. [Knobs and levers to be operated with a roller bearing spindle hub mechanism.]

o. [Permanent core face must be the same finish as the lockset finish.]

p. [Cylinder retaining screw, auxiliary latch, and strike must be non-handed.]

q. [Locking toggle on face of door must clearly indicate whether mortise lock is in the "locked" or "unlocked" state.]

r. [Cover and armored front must interlock at the latch, preventing the cover from spreading or bowing while under duress.]

Subparagraphs s through x describe quality features of Best mortise locksets which may or may not be available from other lock manufacturers. Subparagraphs s, t, and u should remain as a group, and subparagraphs v, w, and x should remain as a group. Choose either s or v, but not both groups.

s. [Mortise lock to offer a complete lock (including trim) with the ability to be configured in the field to any of the following ANSI functions: F01, F04, F05, F07, F31.]

t. [Mortise lock to offer a complete lock (including trim) with the ability to be configured in the field to any of the following ANSI functions: F19, F13]

u. [Mortise lock to offer a complete lock (including trim) with the ability to be configured in the field to any of the following ANSI functions: F12, F20]

v. [Mortise lock to offer a multi-function case with the ability to be configured in the field to any of the following ANSI functions: F01, F04, F05, F07, F09, F30, F31, F32.]

w. [Mortise lock to offer a multi-function case with the ability to be configured in the field to any of the following ANSI functions: F13, F19, F33.]

x. [Mortise lock to offer a multi-function case with the ability to be configured in the field to any of the following ANSI functions: F12, F15, F20]
Exit Device - Heavy Duty - Grade 1 - QED 100

QED
100 Series - Grade 1
Heavy-Duty Exit Devices

All Stanley exit devices are manufactured to heavy duty, architectural grade expectations and meet or exceed ANSI Grade 1 specifications. In addition, all exit devices are offered in rim, rim fire, surface vertical rod, surface vertical rod fire and surface vertical-less bottom rod configurations. A variety of optional trims and accessories are also available to meet your needs, and Stanley exit devices are designed to coordinate with Stanley locksets and closers for a professional look.

Application
The heavy duty QED100 series exit devices are designed for institutional, commercial uses such as educational, health care and industrial facilities where a long-lasting, highly durable product is required. These exit devices will deliver the operational requirements set forth while withstanding the physical abuse associated with the applied environment.

Performance Features
- Tested and certified to significantly exceed 1,000,000 cycles - well above the requirements for Grade 1 certification.
- Dampening device ensures smooth, quiet operation.
- Field sizeable. 35° device adjustable to 32°.
- Thru-bolted trim design for increased security and durability.
- Wide variety of trim options to fit any job.
- Consistent styling allows for suturing with other Stanley Commercial Hardware products.

Certifications
- ANSI/BHMA A156.3 Series Grade 1
- UL/ULC listed (3-hours) for "A" label single door applications (4' x 8')
- UL103C/UBC 7-2 (1997) Positive Pressure Rated
- UL108 Pressure Rated
- UL305 for panic hardware

Product Specifications
- Handling - All QED100 series exit devices are non-handed.
- Door Thickness - 1-3/4" standard (44.5mm).
- Latchbolt - Stainless Steel 3/4" throw (19mm).
- Head Cap & End Cap - Zinc die-cast.
- Trims - Sierra and Summit Styles available.
- Escutcheon Offering - Dummy, Passage, Keyed, Night Latch.
- Pull Plate Offering - Dummy, Thumbpiece, Night Latch, Flat Plate.
- Stile Width - 41/4" Minimum (108mm).
- Dogging - Hex key dogging and cylinder dogging available.
- 36" Field Sizeable to 32" Door
- 48" Field Sizeable to 36" Door
- Standard Backset: 2.716" (62mm) to face of door stop

Keying
- Offered with the following keyway options: KW-Kwikset, WE-Weiser, SC-Schlage, GA-Yale, LA-Sargent, BF-Best TION (SICF) & LC-Less Cylinder. (SICF) offered keyed different only. Consult factory for details on Mortise and Rim Cylinder requirements.

Warranty
- Lifetime mechanical, 3 year finish & 1 year electronics
- *613 finish excluded

Function
- 11 - Rim - Hex Dogging
- 12 - Rim (Cylinder Dogging)
- 13 - Rim - (Fire Rated)
- 14 - Surface Vertical Rod (Hex Dogging)
- 15 - Surface Vertical Rod (Cylinder Dogging)
- 16 - Surface Vertical Rod (Fire Rated)
• 17 - Less Bottom Rod (Hex Dogging)
• 18 - Less Bottom Rod (Cylinder Dogging)
• 19 - Less Bottom Rod (Fire Rated)
• 24 - Concealed Vertical Rod Hex Dog
• 25 - Concealed Vertical Rod Cylinder Dog
• 26 - Concealed Vertical Rod Fire Rated
• 27 - Concealed Vertical Rod Less Bottom Rod Hex Dog
• 28 - Concealed Vertical Rod Less Bottom Rod Cylinder Dog
• 29 - Concealed Vertical Rod Less Bottom Rod - Fire Rated

Options

• LR - Electrified latch retraction
• ED - Electrified dogging
• X - Request-to-exit switch
• LRX - Electrified latch retraction with request-to-exit switch
• EDX - Electrified dogging with request-to-exit
• Power supplies also available

Finishes

• 605 - Bright Brass ; US Code US3
• 626 - Satin Chrome ; US Code US26D
• 710 - Anodized Duranodic Bronze ; US Code 313AN
D4550 Institutional Door Closer

Introduction
The model D4550 Series is Stanley’s best performing Heavy Duty Closer. The cylinder body is manufactured using R-14 Silicon Aluminum Alloy providing superior strength and durability on institutional applications. Available in a variety of standard and heavy-duty arm configurations accommodating a broader range of today’s growing architectural application requirements.

Features
Fully Hydraulic Checking
Controls the door through the entire opening and closing cycles by providing adjustable backcheck upon opening and adjusting general and latch speeds through the closing cycle.

Delayed Action

Delayed Action - Optional
The D-4550DA / D-4551DA Series Door Closers are equipped with a separate hydraulic valve adjustment to delay the
closing speed from 180 to 70 degrees of door opening range.

Non-Handed
Can be used on both RH and LH doors for both push side and pull side mounting.

Adjustable Spring Power
The D-4550 Series Door Closers are adjustable from size 1 through 6 with more than 50% adjustment over size 6. The D-4551 Series Door Closers are adjustable from size 1 through 4 more than 20% adjustment over size 4. The D-4551 Series Door Closers are designed to meet entrance accessibility requirements of 5LBF opening force or less.

Non-Critical Regulation
The separate adjustments for backcheck, general and latch speeds are equipped with non-critical "V-Slot" regulating valves which allow for fine tuning the closing and latching speeds as well as the backcheck intensity.

All Season Fluid
All season fluid eliminates the need for seasonal adjustment.

Special High Silicon Aluminum Alloy Housing
All D-4550 / D-4551 Series Door Closers are constructed of RYOBI'S K14 HIGH SILICON ALUMINUM ALLOY to exceed the ANSI/BHMA A156.4 Grade 1 requirements.

Forged Arms
Heavy duty forged arms are interchangeable between the D-4550 and D-3550 Series Door Closers.

High Impact Cover
All D-4550 / D-4551 Series Door Closers are shipped with a high impact self-extinguishing decorative cover.

Metal Cover - Optional
An optional stainless steel, brushed finish metal cover is available.

Maintenance Free
Door Closers mounted in accordance with the provided installation instructions are maintenance free from periodic inspection and adjustment.

Handing

Closing Power Adjustment
D-4550* - Size 2 – 6 with 50% with spring power adjustment over size 6. * Meets ADA 5lb opening force requirements on all applications except Pull-Side Regular Arm Mount. The D-4550 Series is adjusted to size 3 before leaving the factory. D-4551** - Size 1 – 5 with 35% spring power adjustment over size 5. ** Meets ADA 5lb
opening force requirements. The D-4551 Series is adjusted to size 2 before leaving the factory.

**Latch Design Adjustment**
The D-4550 / D-4551 Series Door Closers have the provision to adjust the leverage of the arms by changing the pivot position of the arm in the shoe. The shoe itself does not have to be removed from the door or jamb.

**Delayed Action**
A delayed action feature is available with this series for all applications and arms. The feature permits the door to close very slowly through the delayed action cycle range. To order add suffix DA to closer number.

**Arm Options**

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Long Rod Forearm (T) only</td>
</tr>
<tr>
<td>H</td>
<td>Standard Hold Open</td>
</tr>
<tr>
<td>PH</td>
<td>Parallel Hold Open</td>
</tr>
<tr>
<td>EDA</td>
<td>Heavy Duty Arm</td>
</tr>
<tr>
<td>H:EDA</td>
<td>Heavy Duty Arm w/Hold Open</td>
</tr>
<tr>
<td>S</td>
<td>Heavy Duty Arm w/Stop</td>
</tr>
<tr>
<td>CS</td>
<td>Heavy Duty Arm w/Compression Stop</td>
</tr>
<tr>
<td>HS</td>
<td>Heavy Duty Arm w/Hold Open and Stop</td>
</tr>
<tr>
<td>HCS</td>
<td>Heavy Duty Arm w/Hold Open &amp; Comp. Stop</td>
</tr>
<tr>
<td>T</td>
<td>Track Mount</td>
</tr>
</tbody>
</table>
HT  Track Mount w/Hold Open
TCS  Track Compression Stop

Packing
All D-4550 / D-4551 Series Door Closers with standard arm sets are packed for mounting on standard, parallel arm or top jamb applications. All closer assemblies are packed 6 per carton. Tracks for track mounted closers are packed separately.

Thru Bolts and Sex Nuts
When thru bolting is ordered, factory will furnish sex nuts for use with the machine screws furnished with the closer. Nuts are sized to accommodate 1-3/8” or 1-3/4” thick doors.

ANSI and U.L. Specifications
The D-4550 / D-4551 Series Door Closers have been tested and exceed the requirements of the ANSI/BHMA Standard A156.4 - 2000 Grade 1.
UL listed with Underwriters' Laboratories, Inc. and Underwriters' Laboratories of Canada for "Self Closing Doors Without Hold-Open Feature". (File number 7525R).
UL10C – UBC 7.2
D-4550/D-4551 closers have been tested and certified to meet the positive pressure criterion of UL10C & UBC 7.2 (1997)

How to Order

Options: add suffix
AVB : Advanced Variable Backcheck (optional)
DA : Delayed Action (optional)
MC : Metal Cover (optional)

Arm Type: add suffix
L : Long Rod Forearm (TJ only)
H : Standard Hold Open
PH : Parallel Hold Open
EDA : Heavy Duty Arm
EDA : Heavy Duty Arm w/ Hold Open
S : Heavy Duty Arm w/ Stop
CS : Heavy Duty Arm w/ Compression Stop
HS : Heavy Duty Arm w/ Hold Open & Stop
HCS : Heavy Duty Arm w/ Hold Open & Comp. Stop
T : Track Mount
HT : Track Mount w/ Hold Open
TCS : Track Compression Stop

Model No.
D-4550DAEDA x 689 x SN

Finish:
689 : Aluminum
690 : Statuary Bronze
691 : Bronze
692 : Black
695 : Dark Bronze
696 : Brass

Fasteners:
SN : Sex Nuts & Bolts
Wood & Machine
Screws furnished standard

Features

Cylinder Assembly Feature
Non-Handed, available in a variety of finishes Wide range of spring power adjustment.
Standard packaging with Tri-Peck: Regular, Top-Jamb and Parallel Arm arrangement.
Can be ordered with Heavy Duty Arm assembly. ANSI/BHMA A156.4 Grade 1, U.L.
Listed U.S. & Canada

Cylinder Body, R-14 Die Cast Aluminum Alloy Feature
R-14 Aluminum Alloy provides wear resistance from contact with the piston during the opening and closing cycle (R-14 Wear characteristics similar to that of Cast Iron) In addition the R-14 Aluminum Alloy holds the Cylinder Body dimensionally stable under extreme internal hydraulic pressures.
Piston Body Feature
Heavy steel construction with a 1-1/2" diameter. The large 1-1/2" Piston reduces internal hydraulic pressures. No Pressure Relief Valve Needed.

Internal Springs Feature
High strength steel construction. Longest dual springs provide greatest adjustment range in the industry.

Multiple Regulating Valves, V-Slotted Valve Regulation Feature
Multiple Regulating Valves provide a wide range of door control features. V-Slotted Valve maximizes fine tune adjustment capability.

All Weather Hydraulic Fluid Feature
All Weather Hydraulic Fluid eliminates the need for seasonal adjustment. Fire Resistant conforms to UL10C.

Variety of Standard Arm options
Forged Main Arm provides high strength with a reduced profile.

- Parallel Hold Open Arm
- Standard Arm Set
- Standard Hold-Open Arm Set

Variety of Heavy Duty Arm options
Forged Main Arm provides high strength with a reduced profile. Non-Handed.

- Heavy Duty Parallel Arm with Stop
- Heavy Duty Parallel Arm with Compression Stop
- Heavy Duty Parallel Arm Hold-Open & Stop

Track Rail Arm
Forged Main Arm provides high strength with a reduced profile. Non-Handed.

Track Rail Arm with Hold Open & Stop
Endure Hurricane-Force Winds with Dura-Storm Sliding Door system

As a leader in door automation since 1932, STANLEY offers the convenience of automatics doors while providing the peace of mind knowing that your doors meet the strict requirements of Miami-Dade County and Florida’s building codes. With the flexibility and modern aesthetics of STANLEY’s Dura-Storm Sliding Door System, you can choose from three options to address the individual needs of your building. The Impact Series meets the most stringent building design and code requirements in the US and eliminates hurricane shutters per the Florida code. The Impact Steel Reinforced Series with standard medium stiles provide the extra rigidity for large size door opening applications. The Non-Impact series offers a transom option to bring in additional light. Medium and narrow stiles are offered on both the Impact and Non Impact Series.
The Dura-Storm Sliding Door Systems provide peace of mind in any weather conditions

- **Code Compliant** – Tested to withstand high winds of up to 75psf and the impact of flying debris. Meets the stringent Florida Building Code and Miami-Dade requirements.

- **Durable** – Reinforced security hooks and welded joints ensure panel integrity under the most extreme weather conditions. Tested to 1 ½ times the rated design pressure.

- **Aesthetically Pleasing** – Offers greater customization and improved aesthetics with the addition of the narrow stile option.

- **Easy to Install** – Installation is now faster and simpler by utilizing a 3M VHB environmentally-friendly glazing technique which is applied at the factory. This eliminates the need to caulk when putting in glass and provides a more reliable seal.

- **Increased Security** – Armored strikes and heavy duty security hooks with steel reinforcement for additional security.

**STANLEY. Built to Last.**

When it comes to automatic door openings, STANLEY is setting the standard for tough, dependable, long-lasting performance. Since 1932, we’ve grown into one of the largest manufacturers, installers and service providers of automatic doors in North America.

From engineering and development, to product delivery and quality, STANLEY is constantly moving forward with innovative solutions you can depend on.
Dura-Storm™ Sliding Door System

Dura-Storm Product Specifications*

<table>
<thead>
<tr>
<th>Description</th>
<th>Standard</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Bi-Part or Single Slide</td>
<td></td>
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<tr>
<td>Breakout</td>
<td>Series 2000 Sliding Panels Only or</td>
<td>Series 3000 Full Breakout</td>
</tr>
<tr>
<td>Jamb Dimension</td>
<td>1 3/4” x 4 1/2”</td>
<td>1 3/4” x 6”</td>
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<tr>
<td>Finish</td>
<td>Clear or Dark Bronze</td>
<td>Special Finish Available</td>
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<tr>
<td>Stiles</td>
<td>Narrow</td>
<td>Medium</td>
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<tr>
<td>Glass</td>
<td>9/16” Laminated (impact)</td>
<td>1/4” / 1” (non-impact)</td>
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<tr>
<td>Mechanical Locking</td>
<td>Key Operated Multi-Point</td>
<td>Panic Release, Multi-Point, Keyed **</td>
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<tr>
<td>Electric Locking</td>
<td>Optional Solenoid Lock</td>
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<tr>
<td>Lock Indicator</td>
<td>Standard (Not Available With Panic)</td>
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<tr>
<td>MC-521 Pro Controller</td>
<td>Standard</td>
<td></td>
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<tr>
<td>Controls</td>
<td>6 Position Rotary</td>
<td>Rocker Switch, Keyed Rotary Controls, ECO Pro*</td>
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<tr>
<td>Door Position Switch</td>
<td>Optional, Single or Dual</td>
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<tr>
<td>Battery Backup</td>
<td>Optional</td>
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<tr>
<td>Transom</td>
<td>Optional (1/4” or 1” glass; non-impact series only)</td>
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<tr>
<td>Muntin Bars</td>
<td>Optional</td>
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<tr>
<td>Threshold</td>
<td>Configurable Options, Continuous</td>
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<tr>
<td>Approvals</td>
<td>FBC, Miami-Dade Product Control, BOCA, IBC, NFPA 101, UL, ANSI/BHMA</td>
<td></td>
</tr>
</tbody>
</table>

*Certain options are NOA specific
** 3000 Series only

Dura-Storm Maximum Package Dimensions including PSF Ratings

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Package Type</td>
<td>Bi-Part</td>
<td>Single Slide</td>
<td>Bi-Part</td>
<td>Bi-Part</td>
</tr>
<tr>
<td>Maximum Dimensions</td>
<td>168” x 96”</td>
<td>108” x 96”</td>
<td>168” x 96” x T 119 ¾”</td>
<td>192” x 104”</td>
</tr>
<tr>
<td>(width x height)</td>
<td>75</td>
<td>75</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>PSF Rating</td>
<td></td>
<td></td>
<td></td>
<td>* Medium Stile Only</td>
</tr>
</tbody>
</table>

* Medium Stile Only
NOTICE OF ACCEPTANCE (NOA)

Stanley Access Technologies, LLC  
65 Scott Swamp Road  
Farmington, CT 06032

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ). This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series “Dura Storm” Aluminum Automatic Sliding Glass Door: O-Sx-Sx-O, O-Sx and So-Sx-Sx-So, So-Sx w/ Operable Panels w/ Full Breakout-LMI

APPROVAL DOCUMENT: Drawing No. 14-1856, titled “Series Dura-Storm 2000/3000 Auto SGD, Bi-Parting/Single Slide (LMI)”, sheets 1 thru 14 of 14 prepared by Engineering Express, dated 07/01/12, and last revised on 08/23/17, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact

LIMITATIONS:
1. See elevation for anchors requirements in sheet 1 and Header clusters details in sheet 5 and Threshold clusters in sheet 9. See sheets 2 & 3 for concealed 3-point locking (active panel) & 2-point (in-active). Also see applicable 2-point G-86 CVR panic devices (active/inactive panels) for series 3000 in sheets 3 & 4 to be used w/ Horizontal muntin bars (detail V, sheet 12) and DLO height not to exceed 36-3/4” max.
2. Not approved where water infiltration is required. Fixed glass more than 36” wide must be supported with approved setting blocks per FBC requirements.
3. Electrical devices, functions and installation are not part of this approval and are to be reviewed and approved by Authority Having Jurisdiction (AHJ).

LABELING: Each unit shall bear a permanent label with the manufacturer’s name or logo, city, state and series and following statement: “Miami-Dade County Product Control Approved”, noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

NOA No. 18-0221.11
Expiration Date: April 04, 2023
Approval Date: March 22, 2018
Page 1 of 2
**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **renews #17-0828.11** and consists of page 1, this page 2 and evidence pages E-1, E-2 & E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jorge M. Plasencia, P.E.**
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S
   A. DRAWINGS
      1. Manufacturer's die drawings and sections (submitted under file see below).
      2. Drawing No. 14-1856 (former 12-SAT-13), titled “Dura-Storm 2000/3000 Auto SGD, Bi-Parting/Single Slide-LMI”, sheets 1 thru 14 of 14 prepared by Engineering Express, dated 07-01-12 and last revised on 10/15/2014, signed and sealed by Frank L. Bennardo, P.E.

   B. TESTS (submitted under files #13-0529.23/#12-0807.03)
      1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
         2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
         3) Water Resistance Test, per FBC, TAS 202-94 (Not conducted)
         4) Large Missile Impact Test per FBC, TAS 201-94
         5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
         6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94
         Along with installation diagram of aluminum automatic entrance doors Sx-So w/ G-86 CVR Panic (TAS 202, 201/203-94) and So-Sx-Sx-So w/ Transom & G-86 CVR Panic (TAS 202), prepared by Fenestration Testing Laboratory, Inc. Test Report No. FTL-7247, dated 3/08/13, signed and sealed by Marlin D. Brinson, P.E.
      2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
         2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
         3) Water Resistance Test, per FBC, TAS 202-94 (Not conducted)
         4) Large Missile Impact Test per FBC, TAS 201-94
         5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
         6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94
         Along with installation diagram of aluminum automatic entrance doors, prepared by Fenestration Testing Laboratory, Inc. Test Report No. FTL-6803, dated 05/11/12 and last revised on 03/21/13, signed and sealed by Marlin D. Brinson, P.E.
         Note: This test report has been revised by an addendum letter dated Nov 21, 2012, issued by Fenestration Testing Lab, signed and sealed by Marlin D. Brinson, P.E.

   C. CALCULATIONS
      1. Anchor verification calculations and structural analysis, complying with FBC-2014 (5th Edition), prepared by Engineering Express, dated 05-13-15, signed and sealed by Frank L. Bennardo, P.E.
      2. Glazing complies w/ ASTM E-1300-02, -04 & -09.

   D. QUALITY ASSURANCE
      1. Miami Dade Department of Regulatory and Economic Resources (RER).

[Signature]
Jorge M. Plasencia, P.E.
Product Control Unit Supervisor
NOA No. 18-0221.11
Expiration Date: April 04, 2023
Approval Date: March 22, 2018

E - 1
E. MATERIAL CERTIFICATIONS
2. Notice of Acceptance No. 11-0624.01 issued to E.I. DuPont DeNemours & Co., Inc. for their “DuPont PVB Butacite ®”, expiring on 12/11/16.
3. Technical strength data of Trelleborg EPDM per ASTM C864.

F. STATEMENTS
2. Statement letter of no financial interest, prepared by Engineering Express, dated 08-02-12, signed and sealed by Frank L. Bennardo, P.E. (submitted under file # 12-0807.03)
3. Lab compliance as part of the above referenced test report.

G. OTHER
1. This NOA revises NOA #13-0529.23, expiring 04/04/18.
2. Test proposals # 13-0006 dated 01/14/13 approved by RER and # 11-1016, dated NOV 11, 2011 approved by PERA and Test proposal # 11-1016, dated NOV 11, 2011 approved by PERA.
3. Manufacture supplied Adam Rites deadbolt/hook & bolts mechanism and G-86 CVR Panic exit brochures.

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 17-0828.11
A. DRAWINGS
1. Drawing No. 14-1856, titled “Series Dura-Storm 2000/3000 Auto SGD, Bi-Parting/Single Slide (LMI)”, sheets 1 thru 14 of 14 prepared by Engineering Express, dated 07/01/12 and last revised on 08/23/17, signed and sealed by Frank L. Bennardo, P.E.

B. TESTS
1. None.

C. CALCULATIONS
1. Anchor verification calculations and structural analysis, complying with FBC 6th Edition (2017), prepared by Engineering Express, dated 08/07/17, signed and sealed by Frank L. Bennardo, P.E.

D. QUALITY ASSURANCE
1. Miami Dade Department of Regulatory and Economic Resources (RER).

Jorge M. Plasencia, P.E.
Product Control Unit Supervisor
NOA No. 18-0221.11
Expiration Date: April 04, 2023
Approval Date: March 22, 2018
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS
1. Notice of Acceptance No. 16-1117.01 issued Kuraray America, Inc. (formerly DuPont) for their “Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers”, expiring on 07/08/19.

F. STATEMENTS

G. OTHER
1. This NOA revises NOA #15-0127.07, expiring on 04/04/18.

3. NEW EVIDENCE SUBMITTED
A. DRAWINGS
1. None.

B. TESTS
1. None.

C. CALCULATIONS
1. None.

D. QUALITY ASSURANCE
1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

F. STATEMENTS
1. None.

G. OTHER
1. This NOA renews NOA #17-0828.11, expiring on 04/04/18.

Jorge M. Plasencia, P.E.
Product Control Unit Supervisor
NOA No. 18-0221.11
Expiration Date: April 04, 2023
Approval Date: March 22, 2018

E - 3
NOTES:
1. TYPICAL DOOR SHOWN. STILE, RAIL, AND MUNTIN OPTIONS AVAILABLE AS INDICATED.
2. HORIZONTAL MUNTIN BAR NOT REQUIRED AS INDICATED BY DASHED LINES. MAX DLO: 38 1/4" W X 75 3/4" H AS SHOWN
3. 5-POINT LOCKING STANDARD (3-PT ACTIVE & 2-PT). SEE SHEET 12.
4. REGULAR PANEL SIZES FOR REQUIRED ANCHORAGE.
5. SEE SHEET 12 FOR GLAZING DETAILS.
NOTES:
1. TYPICAL DOOR SHOWN. STYLE, RAIL AND MUNTIN OPTIONS AVAILABLE AS INDICATED.
2. HORIZONTAL MUNTIN BAR NOT REQUIRED EXCEPT AT PANIC DEVICE AS INDICATED BY DASHED LINES. MAX DLO: 47 3/4" W X 76" H AS SHOWN, 50 3/4" H WITH PANIC DEVICE MUNTIN.
4. PRODUCT SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH PRODUCT APPROVALS.
5. SEE SHEETS 5, 7, 8, 9, 10, 11 AND 12 FOR PRODUCT ACCEPTANCE.
6. SEE SHEET 12 FOR GLAZING DETAILS.
DURA-STORM SERIES 2000/3000 HEADER ANCHORING

13" O.C. MAX BETWEEN INTERMED. ANCHOR, TYP.

MAX PACKAGE WIDTH

CLUSTER OF ANCHORS CENTERED AT PANEL OVERLAP, QUANTITY PER CLUSTER PER ANCHOR SCHEDULE, ANCHORS IN CLUSTER SPACED 3" O.C. TYP.

INTERLOCK CLUSTER

LOCK STL.

EXT

INTERLOCK CLUSTER

PERP. TO ANCHOR

ANCHOR SHEET 6

THROUGH 8, AND THRESHOLD ANCHORS SHEET 8, THRESHOLD ANCHORS APPLICABLE ONLY TO 3KSI CONCRETE.

SEE JAMB ANCHORS SHEETS 6 THROUGH 8, AND THRESHOLD ANCHORS SHEET 8, THRESHOLD ANCHORS APPLICABLE ONLY TO 3KSI CONCRETE.

HEADER ANCHORING

N.T.S. SINGLE SLIDE

HEADER ANCHORING

N.T.S. BI-PARTING

MAX PACKAGE WIDTH

JAMB BRACKET MOUNT HOLES

JAMB BRACKET MOUNT HOLES

INTERLOCK CLUSTER

EXT

INTERLOCK CLUSTER

PERP. TO ANCHOR

ANCHOR SHEET 6

THROUGH 8, AND THRESHOLD ANCHORS SHEET 8, THRESHOLD ANCHORS APPLICABLE ONLY TO 3KSI CONCRETE.

SEE JAMB ANCHORS SHEETS 6 THROUGH 8, AND THRESHOLD ANCHORS SHEET 8, THRESHOLD ANCHORS APPLICABLE ONLY TO 3KSI CONCRETE.

HEADER ANCHORING

N.T.S. SINGLE SLIDE
DURA-STORM SERIES 2000 SECTIONS & ANCHORING, STANDARD 5-PT LOCKS

FRAME ANCHORING

NOTES:
1. JAMB TO HEAD CONNECTION FASTENERS, 5/16-18 HIMS WITH WASHER.
2. SEE SHEET #1 FOR STACKED BOTTOM RAIL OPTIONS.

NOTE: SEE SHEET 5 FOR ANCHOR SCHEDULE AND ALLOWABLE ANCHOR TYPES.

NOTE: ITEM 58 "FOAM BLOCK" INSTALLED IN ALL STYLES, EXCEPT LOCKING STILES, NOT SHOWN IN ALL STYLES FOR CLARITY.
SEE HEAD ANCHORS SHEET 5, AND THRESHOLD ANCHORS SHEET 9. THRESHOLD ANCHORS APPLICABLE ONLY TO 3001 CONCRETE.

NOTE: ITEM 58 "FOAM BLOCK" INSTALLED IN ALL STILES, EXCEPT LOCKING STILES. NOT SHOWN IN ALL STILES FOR CLARITY.

NOTE: SEE SHEET 4 FOR ANCHOR SCHEDULE AND ALLOWABLE ANCHOR TYPES.

NOTES:
1. JAMB TO HEAD CONNECTION FASTENERS: 5/16-18 HMHS WITH WASHER.
2. SEE SHEET 11 FOR STACKED BOTTOM HAIL OPTIONS.
DURA-STORM SERIES 2000/3000 EXTRUSIONS

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No: 17-0828.11
Expiration Date 04/04/2018
By
Miami-Dade Product Control

ALT THRESHOLD
N.T.S. 6063-76

MUNTIN BAR
N.T.S. 6063-76

THRESHOLD
N.T.S. 6063-76

KEY STRIP
N.T.S. 6063-76

BRACKET
N.T.S. 6063-76

ANGLE
N.T.S. 6063-76

STACKED BOTTOM RAIL, O
N.T.S. 6063-76

BOTTOM RAIL, O
N.T.S. 6063-76

BOTTOM RAIL, SX/SO
N.T.S. 6063-76

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No: 18-0221.11
Expiration Date 04/04/2023
By
Miami-Dade Product Control

MIN. OF (2) 3/16" POP RIVETS
@ 22" C.C. MAX.

MIN. OF (2) 3/16" POP RIVETS
@ 22" C.C. MAX.

STANLEY
69 SOUTHWAY ROAD
WAPPINGERS FALLS, NY 12590
(845) 876-1456
www.stanley.com
NOTES

1. ITEM 74, "STEEL PLATE—PANIC REINFORCING", IS CONTAINED WITHIN VERTICAL STILE, HAS A MINIMUM LENGTH OF 48", AND IS CENTERED VERTICALLY IN CENTERLINE OF HORIZONTAL MUNTIN. ITEM 74 IS FASTENED AS FOLLOWS: SINGLE ROW #10 x 3 1/2" PT W/ ø 8" OC.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 18-0221.11
Expiration Date 04/04/2023
By Munt-Edge Product Control

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 17-0828.11
Expiration Date 04/04/2018
By Munt-Edge Product Control
DURA-STORM SERIES 2000/3000 LOCKING ARRANGEMENTS

3-PT CONCEALED LOCKING SYSTEM
SERIES 2000/3000
SINGLE SIDE

ADAMS RITE 4015 THRESHOLD BOLT

ADAMS RITE 1870 SERIES, CYLINDER OPERATED FLUSH BOLT

ADAMS RITE 4016 HEADER BOLT

(Act.) FINISHED FLOOR

ADAMS RITE MS1850S-050 SERIES BEABOLT

ADAMS RITE 4016 HEADER BOLT

ADAMS RITE MS1850S-050 SERIES HOOK BOLT

FINISHED FLOOR

1" x 15/32" ANGLE

#10 x 3/4" SMS 85.5° O.C.

#14 x 1.25" FH SDS, 2" FROM ENDS & MIDPOINT

FASTEN WITH
#10 x 3/4" FH SMS, (4) TO BOTTOM RAIL (3) TO THRESHOLD

SERIES 3000 SQ-PANEL

ADAMS RITE 4015 THRESHOLD BOLT

ADAMS RITE 1870 SERIES, CYLINDER OPERATED FLUSH BOLT

ADAMS RITE MS1850S-050 SERIES HOOK BOLT

FINISHED FLOOR

SERIES 2000 O-PANEL

2-PT CONCEALED VERTICAL ROD WITH PANIC EXIT DEVICE

LOCKING SYSTEM
SERIES 3000
SINGLE SIDE

ADAMS RITE G86 SERIES

ADAMS RITE G86 SERIES

PANIC MUNITION

PANIC MUNITION

FINISHED FLOOR

PANIC EXIT DEVICE WITH 2-PT CONCEALED VERTICAL ROD

FINISHED FLOOR

PRODUCT RENEWED
as complying with the Florida Building Code
NGB-No. 16-0221.11
Expiration Date 04/04/2023

PRODUCT REVISED
as complying with the Florida Building Code
NGB-No. 17-0826.11
Expiration Date 04/04/2018

STANLEY SPECIALTIES
1-888-DURASTORM (387-2767)

STANLEY
14-1856
## DURA-STORM SERIES 2000/3000 BILL OF MATERIALS

### BILL OF MATERIALS

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<td>Extrusion - Threshold - Sq/Bvl - 4.5&quot;</td>
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<td>75</td>
<td>Extrusion - Bottom Rail O - 10&quot;</td>
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<tr>
<td>76</td>
<td>Component - Ball Detent - SO</td>
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<tr>
<td>77</td>
<td>Component - Throw Bolt - Std - Adams Rite 4016</td>
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<td>78</td>
<td>Component - Guide - Throw Bolt - Adams Rite 4016</td>
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<tr>
<td>79</td>
<td>Extrusion - 1&quot;x1.5/3/16&quot; Angle</td>
</tr>
</tbody>
</table>

**NON-CALL OUT PART #S FROM 44,45, 67-73, 78, 80-89 ARE NOT PART OF BOM**
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following types of automatic entrances:
   1. Exterior, single slide, impact rated sliding automatic entrances.

B. Related Sections:
   1. Division 7 Sections for caulking to the extent not specified in this section.
   2. Division 8 Section "Aluminum-Framed Entrances and Storefronts" for entrances furnished separately in Division 8 Section.
   3. Division 8 Section "Door Hardware" for hardware to the extent not specified in this Section.
   4. Division 26 Sections for electrical connections provided separately in Division 26 including conduit and wiring for power to, and monitoring of, sliding automatic entrances.
   5. Division 28 Section "Electronic Safety and Security" for systems not specified in this section.

1.3 REFERENCES

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

B. Underwriters Laboratories (UL):
   1. UL 325 – Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

C. American National Standards Institute (ANSI) / Builders’ Hardware Manufacturers Association (BHMA):
   2. ANSI/BHMA A156.5: Standard for Auxiliary Locks and Associated Products

D. Consumer Product Safety Commission (CPSC):

E. American Society for Testing and Materials (ASTM):
   2. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

F. American Welding Society (AWS):
   1. AWS A5.10/A5.10M - Specification For Bare Aluminum And Aluminum-Alloy Welding Electrodes And Rods.

G. American Association of Automatic Door Manufacturers (AAADM):

H. National Fire Protection Association (NFPA):

I. International Code Council (ICC):
   1. IBC: International Building

J. Building Officials and Code Administrators International (BOCA), 1999:

K. International Organization for Standardization (ISO):
   1. ISO 9001 - Quality Management Systems

L. National Association of Architectural Metal Manufacturers (NAAMM):
   1. Metal Finishes Manual for Architectural and Metal Products.

M. American Architectural Manufacturers Association (AAMA):
   1. AAMA 607.1 - Clear Anodic Finishes for Architectural Aluminum.
   2. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum.
   3. AAMA 701 Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals.

N. Miami-Dade County Building Code Compliance Office
   1. Product Control Division, Notice of Acceptance

O. Florida Building Code, 2017

P. Florida Administrative Code (FAC)
   1. 9N-3 – Product Approval

1.4 DEFINITIONS

A. Activation Device: Device that, when actuated, sends an electrical signal to the door operator to open the door.

B. Safety Device: Device that prevents a door from opening or closing, as appropriate.

1.5 PERFORMANCE REQUIREMENTS

A. General: Provide automatic entrance assemblies capable of withstanding structural loads and thermal movements based on testing manufacturer’s standard units in assemblies similar to those indicated for this Project.

B. Operating Range: Minus 30 deg F (Minus 34 deg C) to 130 deg F (54 deg C).
C. Opening-Force Requirements for Egress Doors: Not more than 50 lbf (222 N) required to manually set door in motion if power fails, and not more than 15 lbf (67 N) required to open door to minimum required width.

D. Closing-Force Requirements: Not more than 30 lbf (133 N) required to prevent door from closing.

E. Air Infiltration: Maximum air leakage through fixed glazing and framing areas of 1.25 cfm/sf. (6.4 L/s-m²) of fixed entrance system area when tested according to ASTM E 283 at a minimum static-air-pressure difference of 6.24 lbf/sf (299 Pa).

F. Design Pressures: Impact rated sliding automatic entrance systems shall be designed to withstand up to 75 psf (3591 Pa), wind force in both the positive and negative direction, and be large and small missile impact rated in accordance with Florida Building Code.

1.6 SUBMITTALS

A. General: Submit the following in accordance with Conditions of the Contract and Division 1 Specification Sections.

B. Shop Drawings: Include plans, elevations, sections, details, hardware mounting heights, and attachments to other work.

C. Closeout Submittals:
   2. Warranties.

D. Color Samples for selection of factory-applied color finishes.

E. Design Certifications:
   1. Product Control Division, Notice of Acceptance from Miami-Dade County Building Code Compliance Office.
   2. Product Approval in accordance with FAC 9B-72.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer’s authorized representative, with certificate issued by AAADM, who is trained for installation and maintenance of units required for this Project.

B. Manufacturer Qualifications: A qualified manufacturer with a manufacturing facility certified under ISO 9001.

C. Manufacturer shall have in place a national service dispatch center providing 24 hours a day, 7 days a week, emergency call back service.

D. Certifications: Automatic sliding door systems shall be certified by the manufacturer to meet performance design criteria in accordance with the following standards:
   1. ANSI/BHMA A156.10.
   3. UL 325 listed.
   4. IBC
   5. BOCA
   6. Miami-Dade County Building Code Compliance Office
E. Source Limitations: Obtain automatic entrance assemblies through one source from a single manufacturer.

F. Product Options: Drawings indicate sizes, profiles, and dimensional requirements of automatic entrance assemblies and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."

G. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

H. Emergency-Exit Door Requirements: Comply with requirements of authorities having jurisdiction for automatic entrances serving as a required means of egress.

1.8 PROJECT CONDITIONS

A. Field Measurements: General Contractor shall verify openings to receive automatic entrance assemblies by field measurements before fabrication and indicate measurements on Shop Drawings.

B. Mounting Surfaces: General Contractor shall verify all surfaces to be plumb, straight and secure; substrates to be of proper dimension and material.

C. Other trades: General Contract shall advise of any inadequate conditions or equipment.

1.9 COORDINATION

A. Templates: Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing automatic entrances to comply with indicated requirements.

B. Electrical System Roughing-in: Coordinate layout and installation of automatic entrance assemblies with connections to power supplies, and remote monitoring system. See Division 28 Section "Electronic Safety and Security" for systems not provided under this section.

C. System Integration: Integrate sliding automatic entrances with other systems as required for a complete working installation. Provide electrical interface to allow for remote monitoring of automatic entrance panel status.

1.10 WARRANTY

A. Automatic Entrances shall be free of defects in material and workmanship for a period of one (1) year from the date of substantial completion.

B. During the warranty period the Owner shall engage a factory-trained technician to perform service and affect repairs. A safety inspection shall be performed after each adjustment or repair and a completed inspection form shall be submitted to the Owner.

C. During the warranty period all warranty work, including but not limited to emergency service, shall be performed during normal working hours.

D. Automatic Entrances finish shall be warranted against failure, deterioration, or fading for a period of five (5) years from the date of substantial completion. Erosion of finish shall be less than 10% film loss after exposure test using Eddy Current Meter as defined in ASTM B244.
PART 2 - PRODUCTS

2.1 AUTOMATIC ENTRANCES

A. Manufacturer: Stanley Access Technologies; Dura-Storm™ 2000 Series impact rated sliding automatic entrances.
   1. Contact: Stanley Access Technologies, 5140 Meldon Circle, Sarasota FL 34232; Attn: Don Hunt; Phone: 941-706-1248, Fax: 941-706-1348, Email: Donald.Hunt@sbdinc.com.

B. Substitutions: See Division 1, Section 01 25 00 Substitution Procedures.

2.2 MATERIALS

A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
   1. Headers, stiles, rails, and frames 6063-T6
   2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.

B. Welding Rods and Bare Electrodes: AWS A5.10/A5.10M.

C. Sealants and Joint Fillers: Performed under Division 7 Section "Joint Sealants".

2.3 IMPACT RATED AUTOMATIC ENTRANCE ASSEMBLIES

A. General: Provide manufacturer’s standard automatic entrance assemblies including doors, sidelights, framing, headers, carrier assemblies, roller tracks, door operators, activation and safety devices, and accessories required for a complete installation.

B. Impact Rated Sliding Automatic Entrances:
   1. Configuration: One sliding leaf and one full sidelight; single slide.
   3. Emergency Breakaway Capability: Sliding leaves only. Sliding leaves and sidelights
   5. Maximum Dimensions: Not to exceed dimensions specified in product approvals; see 1.7 Quality Assurance.

2.4 COMPONENTS

A. Framing Members: Manufacturer’s standard extruded aluminum reinforced as required to support imposed loads.
   1. Nominal Size: 1 3/4 inch by 4 1/2 inch (45 by 115 mm).
   2. Concealed Fastening: Framing shall incorporate a concealed fastening pocket, and continuous flush insert cover, extending full length of each framing member.

B. Stile and Rail Doors and Sidelights: Manufacturer’s standard 1 3/4 inch (45 mm) thick glazed doors with extruded-aluminum tubular stile and rail members. Incorporate concealed tie-rods that span full length of top and bottom rails. All corners, including intersections of stiles and rails, or stiles and muntin bars, shall be welded secure.
   2. Stile Design: Narrow stile; 2 inch (51 mm) nominal width.
   3. Bottom Rail Design: Minimum 10 inch (254 mm) nominal height.
   4. Muntin Bars: Horizontal tubular rail member for each door; 2 inch (51 mm) nominal width.
C. Glazing: Glaze impact rated sliding automatic entrances in accordance with product approvals and the following:
   2. Glass: 9/16 inch (14 mm) laminated impact rated glass as specified in product approvals.
   3. Glazing: Outboard stop with approved structural tape.

D. Headers: Fabricated from extruded aluminum and extending full width of automatic entrance door units to conceal door operators, carrier assemblies, and roller tracks. Provide hinged or removable access panels for service and adjustment of door operators and controls. Secure panels to prevent unauthorized access.
   1. Mounting: Concealed, with one side of header flush with framing.
   2. Capacity: Capable of supporting up to 220 lb (100 kg) per panel, up to four panels, over spans up to 14 feet (4.3 m) without intermediate supports.

E. Carrier Assemblies and Overhead Roller Tracks: Manufacturer's standard carrier assembly that allows vertical adjustment of at least 1/8 inch (3 mm); consisting of urethane with precision steel lubricated ball-bearing wheels, operating on a continuous roller track. Support panels from carrier assembly by load wheels and anti-riser wheels with factory adjusted cantilever and pivot assembly. Minimum two ball-bearing load wheels and two anti-rise rollers for each active leaf. Minimum load wheel diameter shall be 2 1/2 inch (64 mm); minimum anti-rise roller diameter shall be 2 inch (51 mm).

F. Thresholds: Manufacturer's standard saddle type thresholds as indicated below:
   1. Continuous standard tapered extrusion double bevel.
   2. All thresholds to conform to details and requirements for code compliance.

G. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.

H. Signage: Provide signage in accordance with ANSI/BHMA A156.10.

2.5 DOOR OPERATORS

A. General: Provide door operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for long-term, operation under normal traffic load for type of occupancy indicated.

B. Electromechanical Operators: Self-contained overhead unit powered by a minimum of 1/4 horsepower, permanent-magnet DC motor with gear reduction drive, microprocessor controller; and encoder.
   2. Features:
      a. Adjustable opening and closing speeds.
      b. Adjustable back-check and latching.
      c. Adjustable braking.
      d. Adjustable hold-open time between 0 and 30 seconds.
      e. Obstruction recycle.
      f. On/Off switch to control electric power to operator.
      g. Energy conservation switch that reduces door-opening width.
      h. Closed loop speed control with active braking and acceleration.
      i. Adjustable obstruction recycle time delay.
      j. Self adjusting stop position.
      k. Self adjusting closing compression force.
I. Onboard sensor power supply.

m. Onboard sensor monitoring.

n. Optional Switch to open/Switch to close operation.


4. Drive System: Synchronous belt type.

C. Electrical service to door operators shall be provided under Division 16 Electrical. Minimum service to be 120 VAC, 5 amps.

2.6 ELECTRICAL CONTROLS

A. Electrical Control System: Electrical control system shall include a microprocessor controller and position encoder. The encoder shall monitor revolutions of the operator shaft and send signals to microprocessor controller to define door position and speed. Systems utilizing external magnets and magnetic switches are not acceptable.

B. Performance Data: The microprocessor shall collect and store performance data as follows:

1. Counter: A non-resettable counter to track operating cycles.

2. Event Reporting: Unit shall include event and error recording including number of occurrences of events and errors, and cycle count of most recent events and errors.

3. LED Display: Display presenting the current operating state of the controller.

C. Controller Protection: The microprocessor controller shall incorporate the following features to ensure trouble free operation:


2. Main Fuse Protection.

3. Electronic Surge Protection.


5. Auto-Resetting sensor supply protection.


D. Soft Start/Stop: A "soft-start" "soft-stop" motor driving circuit shall be provided for smooth normal opening and recycling.

E. Obstruction Recycle: Provide system to recycle the sliding panels when an obstruction is encountered during the closing cycle. If an obstruction is detected, the system shall search for that object on the next closing cycle by reducing door closing speed prior to the previously encountered obstruction location, and will continue to close in check speed until doors are fully closed, at which time the doors will reset to normal speed. If obstruction is encountered again, the door will come to a full stop. The doors shall remain stopped until obstruction is removed and operate signal is given, resetting the door to normal operation.

F. Programmable Controller: Microprocessor controller shall be programmable and shall be designed for connection to a local configuration tool. Local configuration tool shall be a software driven handheld interface. The following parameters may be adjusted via the configuration tool.

1. Operating speeds and forces as required to meet ANSI/BHMA A156.10.

2. Adjustable and variable features as specified in 2.5, B., 2.

3. Reduced opening position.

4. Fail Safe/Secure control.

5. Firmware update.

6. Trouble Shooting
   a. I/O Status.
   b. Electrical component monitoring including parameter summary.

7. Software for local configuration tool shall be available as a free download from the sliding automatic entrance manufacturer’s internet site. Software shall be compatible with the
2.7 ACTIVATION AND SAFETY DEVICES

A. Motion Sensors: Motion sensors shall be mounted on each side of door header to detect pedestrians in the activating zone, and to provide a signal to open doors in accordance with ANSI/BHMA A156.10. Units shall be programmable for bi-directional or uni-directional operation and shall incorporate K-band microwave frequency to detect all motion in both directions.

B. Presence Sensors: Presence sensors shall be provided to sense people or objects in the threshold safety zone in accordance with ANSI/BHMA A156.10. Units shall be self-contained, fully adjustable, and shall function accordingly with motion sensors provided. The sensor shall be energized simultaneously with the door-opening signal and shall emit an elliptical shaped infrared presence zone, centered on the doorway threshold line. Presence sensors shall be capable of selectively retuning to adjust for objects which may enter the safety zone; tuning out, or disregarding, the presence of small nuisance objects and not tuning out large objects regardless of the time the object is present in the safety zone. The door shall close only after all sensors detect a clear surveillance field.

C. Photoclectric Beams: In addition to the threshold sensor include a minimum of two (2) doorway holding beams. Photoclectric beams shall be pulsed infrared type, including sender receiver assemblies for recessed mounting. Beams shall be monitored by electrical controls for faults and shall fail safe.

D. Presence Sensor Monitoring: Sliding automatic entrances control system shall include a means to verify the functionality of all active presence sensors in accordance with ANSI/BHMA A156.10. A detected fault shall cause automatic operation to cease until the fault is corrected.

2.8 HARDWARE

A. General: Provide units in sizes and types recommended by automatic entrance and hardware manufacturers for entrances and uses indicated.

B. Emergency Breakaway Feature: Provide release hardware that allows panel(s) to swing out in direction of egress to full 90 degrees from any position in sliding mode. Maximum force to open panel shall be 50 lbf (222 N) according to ANSI/BHMA A156.10. Interrupt powered operation of panel operator while in breakaway mode.
   1. Emergency breakaway feature shall include at least two adjustable detent devices mounted in each breakaway panel; one top mounted and one bottom mounted, to control panel breakaway force.
   2. Wind Resistant Damper: Provide factory installed concealed gas dampers in each breakaway panel to protect door panels from wind damage. Dampers shall be designed to slow panel movement after breakout.

C. Locking: Manufacturer's approved multi-point locking system as follows:
   1. Hook bolt: Laminated-steel hook, mortise type, operated by exterior cylinder and interior thumb turn; with minimum 1 inch (25 mm) long throw bolt; ANSI/BHMA A156.5, Grade 1.
   2. Three-Point Locking: Provide locking components, operated by exterior cylinders and interior thumb turns, that extend flush bolts into overhead carrier assembly of sliding leaf and threshold on engagement of hook bolt lock.
   3. Cylinders: Provide lock cylinders by BEST Access Systems, with core and key.
   4. Lock/Unlock Indicators: Provide lock position indicators integrated with locking system. Indicators shall be stile mounted on the secure side of the door and provide a visual display of lock position for; “OPEN” in black letters when unlocked, “LOCKED” in red letters when locked.
5. Armored Strike: Provide reinforced security strike plate.

D. Alarm Contacts: Impact rated sliding automatic entrances shall include factory installed integrated alarm contacts which shall provide a closed circuit dry contact for remote monitoring of sliding panel security. Alarm contacts shall be configured to signal forced entry, normal sliding, and emergency breakout conditions.

E. Control Switch: Provide manufacturer’s standard rotary switch mounted on the interior jamb to allow for full control of the automatic entrance door. Rotary switch shall be keyed on entrances with automatic locking. Controls to include, but are not limited to:
1. One-way traffic
2. Reduced Opening
3. Open/Closed/Automatic

F. Power Switch: Impact rated sliding automatic entrances shall be equipped with a two position On/Off rocker switch to control power to the door.

G. Sliding Weather Stripping: Manufacturer’s standard replaceable components complying with AAMA 701; made of wool, polypropylene, or nylon woven pile with nylon-fabric or aluminum-strip backing.
1. Provide double pile weather stripping on lead stiles of sliding panels.
2. Provide single pile weather stripping between carrier and header, lead stiles of sidelights, and on pivot stiles of sliding panels.

H. Weather Sweeps: Adjustable, dual brush, nylon brush sweep mounted to underside of door bottom.

2.9 FABRICATION

A. General: Factory fabricates automatic entrance assembly components to designs, sizes, and thickness indicated and to comply with indicated standards.
1. Form aluminum shapes before finishing.
2. Use concealed fasteners to greatest extent possible.
   a. Where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration, use self-locking devices.
   b. Reinforce members as required to receive fastener threads.

B. Framing: Provide automatic entrances as prefabricated assemblies.
1. Fabricate tubular and channel frame assemblies with manufacturer’s standard mechanical or welded joints. Provide sub-frames and reinforcement as required for a complete system to support required loads.
2. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
3. Perform fabrication operations in manner that prevents damage to exposed finish surfaces.
4. Form profiles that are sharp, straight, and free of defects or deformations.
5. Prepare components to receive concealed fasteners and anchor and connection devices.
6. Fabricate components with accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion.

C. Doors: Factory fabricated and assembled in profiles indicated. Reinforce as required to support imposed loads and for installing hardware.
D. Door Operators: Factory fabricated and installed in headers, including adjusting and testing.

E. Glazing: Fabricate framing with minimum glazing edge clearances for thickness and type of glazing indicated.

F. Hardware: Factory install hardware to the greatest extent possible; remove only as required for final finishing operation and for delivery to and installation at Project site.

2.10 ALUMINUM FINISHES

A. General: Comply with NAAMM Metal Finishes Manual for Architectural and Metal Products for recommendations for applying and designing finishes. Finish designations prefixed by AA comply with system established by Aluminum Association for designing finishes.

B. Class II, Clear Anodic Finish: AA-M12C22A31 Mechanical Finish: as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.40 mils minimum complying with AAMA 611-98, and the following:
   1. AAMA 607.1
   2. Applicator must be fully compliant with all applicable environmental regulations and permits, including wastewater and heavy metal discharge.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine conditions for compliance with requirements for installation tolerances, header support, and other conditions affecting performance of automatic entrances. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Do not install damaged components. Fit frame joints to produce joints free of burrs and distortion. Rigidly secure non-movement joints.

B. Entrances: Install automatic entrances plumb and true in alignment with established lines and grades without warp or rack of framing members and doors. Anchor securely in place.
   1. Install surface-mounted hardware using concealed fasteners to greatest extent possible.
   2. Set headers, carrier assemblies, tracks, operating brackets, and guides level and true to location with anchorage for permanent support.

C. Door Operators: Connect door operators to electrical power distribution system as specified in Division 26 Sections.

D. Glazing: Glaze impact rated sliding automatic entrance panels in accordance with, the Glass Association of North America (GANA) Glazing Manual, published recommendations of glass product manufacturer, entrance manufacturer’s instructions, and product approvals.

E. Sealants: Comply with requirements specified in Division 7 Section "Joint Sealants".

3.3 FIELD QUALITY CONTROL

A. Testing Services: Factory Trained Installer shall test and inspect each automatic entrance to determine compliance of installed systems with applicable ANSI standards.
3.4  ADJUSTING

A.  Adjust door operators, controls, and hardware for smooth and safe operation, for tight closure, and complying with requirements in ANSI/BHMA A156.10.

3.5  CLEANING AND PROTECTION

A.  Clean glass and aluminum surfaces promptly after installation. Remove excess glazing and sealant compounds, dirt, and other substances. Repair damaged finish to match original finish. Comply with requirements in Division 8 Section “Glazing”, for cleaning and maintaining glass.

END OF SECTION 08 42 29.43