

# 1000 Series surface mounted closers

## APPLICATIONS

- For aluminum, hollow metal, or wood swinging doors and frames.
- Can be used with hinge or pivot mounted door.
- Mounts on 1-3/4" transom without adapter plates.
- Adapter plates and other installation accessories available for unusual conditions.

## FEATURES COMMON TO 1000 SERIES

- 1000 series closers mount three ways. Closers with regular or hold-open arm mount hinge side or top jamb. Parallel arm, closers include - 62PA SHOE required for parallel arm mount. 1460T mounts hinge side, top jamb (pull side) and stop face.
- Non-handed for right and left swinging doors.
- Closers to meet ADA reduced opening force requirements.
- Adjustable hydraulic backcheck cushions opening swing prior to 90°.
- Separate regulation of general closing speed and latching speed.
- Joints in arm and shoe adapt to uneven trim.
- Reversible shoe to boost latching power on double lever arms.

## DESIGN ASSISTANCE

LCN has been providing reliable solutions to unique door control problems since 1925. Design and specification assistance are only a phone call away.

Contact LCN for assistance or technical information at **877-671-7011** or **FAX 800-248-1460 (Order Entry)**, Fax **815-879-1495** for Product Support.

## WARRANTY

- 30 year limited warranty (1460 Series) and 20 year limited warranty (1260 Series) on cast iron closers.
- 15 year limited warranty (1250 series) and 25 year limited warranty (1450 series) on cast aluminum closers.

See General Information Section for complete warranty details.

## SPECIFICATIONS

Refer to "SPECIFICATIONS" section for suggested architectural specifications.

## MATERIALS

- High strength **cast iron** (1260, 1460, 1460T) or **cast aluminum** (1250, 1450) cylinder.
- **Forged steel** main arm for all EDA, Cush, 1460HD and 1460T Arms.
- One piece **forged steel** piston.
- Heat treated pinion.
- LCN's standard **all weather fluid** performs to temperature ranges from 120°F (49°C) to -30°F (-35°C).
- **High efficiency, full complement**, low friction bearings.
- Tamper resistant regulating screws.
- Full rack and pinion hydraulic action.
- Quiet, low friction track and roller combination for all single lever arm closers.

## FINISHES

- Available in six standard or a wide selection of optional custom powder coat finishes to blend with door and frame.

- LCN's powder coat finish surpasses 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
- Painted finishes on cast aluminum closers (1250, 1450).
- For installations where a higher level of corrosion resistance is required, LCN offers an optional special rust inhibiting (SRI) pre-treatment (cast iron). Closers that combine the exclusive LCN powder coat finish and the SRI pre-treatment exceed the ANSI standard for corrosion resistance even further.
- Plated finishes are available as an option to accent door and frame for the 1460 Series closers.

## LISTINGS & APPROVALS

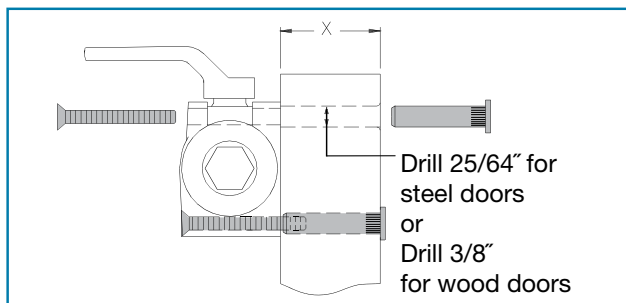
UL listed for self-closing doors without hold-open under "SWINGING DOOR CLOSERS" (GVEV) file R 1943. Tested and certified under ANSI Standard A156.4 grade one. Consult factory for details. Consult factory for other listings such as; cUL, California State Fire Marshal, Bureau of Standards and Appeals.

## POSITIVE PRESSURE

LCN closers have been certified for three hours by UL to be in compliance with UL 10 C. Contact LCN for specific details on door closer fire ratings.

## FASTENERS

1260, 1460, 1460T series closers are shipped with: A standard SELF-REAMING and TAPPING SCREW (SRT) pack that contains Philips head SRT screws to install the closer. 1250 and 1450 series closers are shipped with: A universal screw pack to include self reaming and tapping screws (SRT), machine screws and wood screws. Standard LCN thru bolts (TB) can be installed on 1-3/4" (44 mm) thick doors with 1/4-20 machine screws. Optional thru bolt (TB) sizes are available for 1-5/8" (41 mm) or 1-3/8" (35 mm) door thickness, but this must be specified when ordering.

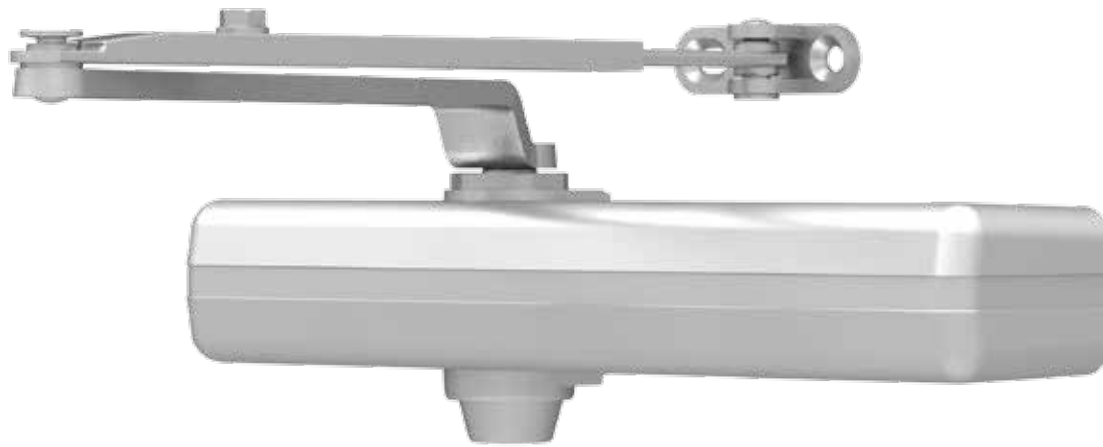


### Notes:

1. For Thru Bolts, specify door thickness if other than 1-3/4" (44 mm). Represented in diagram as dimension "X".
2. Phillips head, metric machine screws are available, please specify.
3. LCN recommends the use of wood screws in wood door applications.

## MAINTENANCE

Closers mounted according to LCN installation instructions require no periodic maintenance or adjustments..

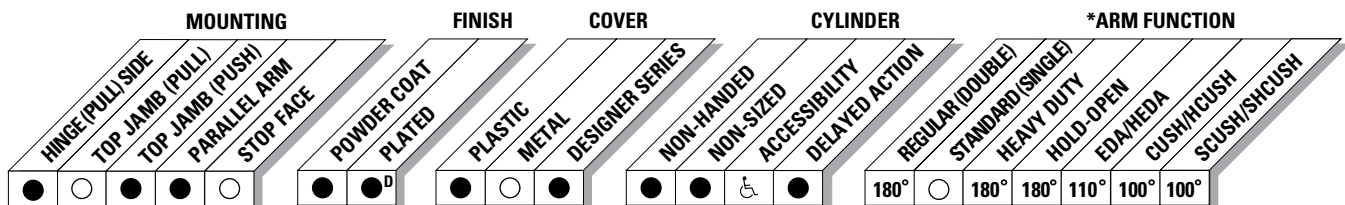


Designed for maximum versatility, the 1460, available with multiple cover options, can be used for both commercial and institutional applications. This fully universal closer offers a wide variety of options and fast and accurate installation.

|                          |   |                                    |  |
|--------------------------|---|------------------------------------|--|
| <b>Certifications</b>    | Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act   | <b>Cover</b>                       | <ul style="list-style-type: none"> <li>■ Slim Line Plastic, Standard</li> <li>■ Full Plastic and Metal Designer Series, Optional</li> </ul>  |
| <b>Body Construction</b> | <ul style="list-style-type: none"> <li>■ Cast Iron Body</li> <li>■ Full Complement Bearing</li> <li>■ 1-1/4" Diameter Piston</li> <li>■ 3/4" Diameter Single Heat Treated Pinion Journal</li> </ul> | <b>Fasteners</b>                   | Self Reaming and Tapping Screws (SRT)  |
| <b>Fluid</b>             | All Weather Fluid   | <b>Mounting</b>                    | Hinge (Pull Side), Top Jamb (Push Side), Parallel Arm (Push Side)  |
| <b>Handing</b>           | Non-Handed  | <b>Arms</b>                        | Standard regular pull side, and top jamb   |
| <b>Templating</b>        | Peel-n-Stick templates - 1" x 7-1/2" Mounting Hole Pattern  | <b>Finishes/Colors/Powder Coat</b> | <ul style="list-style-type: none"> <li>■ Aluminum (689)</li> <li>■ Statuary Bronze (690)</li> <li>■ Light Bronze (691)</li> <li>■ Black (693)</li> <li>■ Dark Bronze (695)</li> <li>■ Brass (696)</li> <li>■ Custom colors optional</li> </ul> |
| <b>Size</b>              | Adjustable Spring Size 1-6. Includes Patented Green Dial  |                                    | <ul style="list-style-type: none"> <li>■ Optional SRI primer - powder coat only</li> <li>■ Optional plated finishes</li> </ul>   |
| <b>Warranty</b>          | 30 years  |                                    |  |

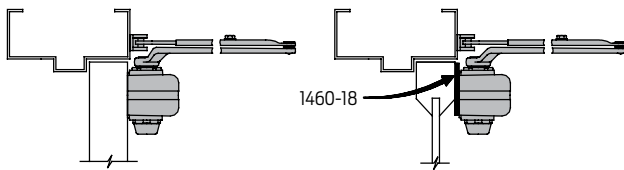
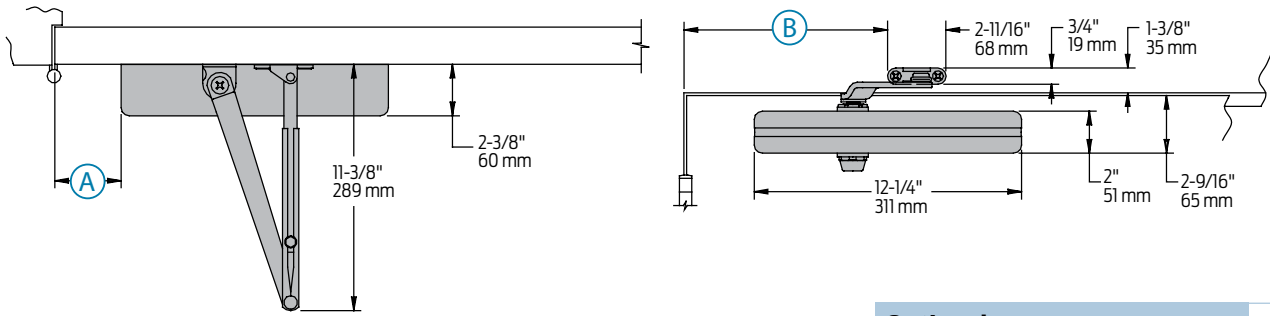
**Special Templates**

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



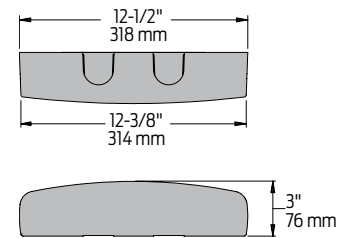
● AVAILABLE  
○ NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.  
 \* Maximum opening/hold-open point with standard template.  
 D = For designer series only.

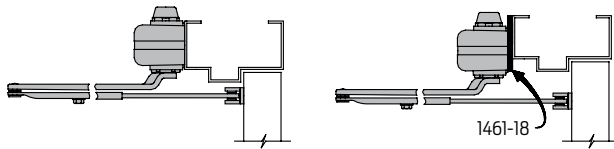
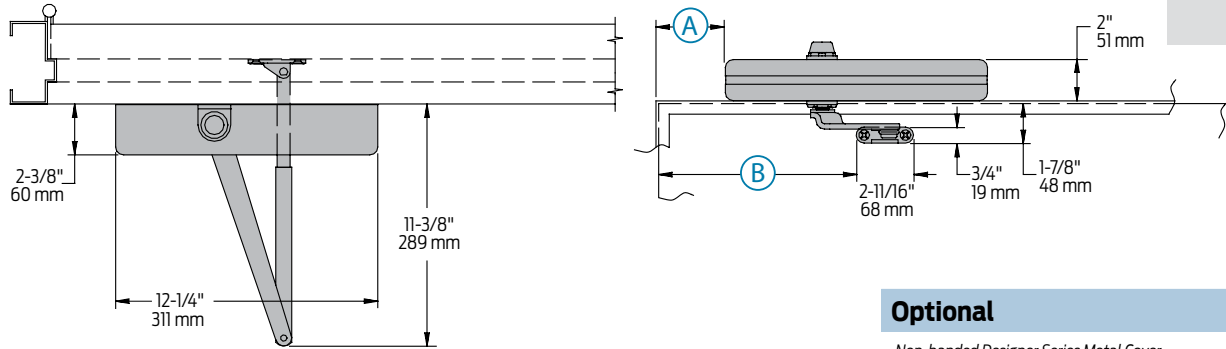


### Optional

Non-handed Designer Series Metal Cover

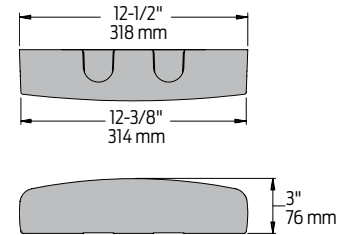


|                        |  |
|------------------------|--|
| <b>Butt Hinges</b>     | Should not exceed 5" (127 mm) in width   |
| <b>Auxiliary Stop</b>  | Recommended at hold-open point or where a door cannot swing 180°   |
| <b>Reveal</b>          | Should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for hold-open arm   |
| <b>Top Rail</b>        | <ul style="list-style-type: none"> <li>Less than 2-1/2" (64 mm) requires PLATE, 1460-18</li> <li>With Full cover, use PLATE, 1460-18FC. Plate requires 1-1/2" (38 mm) minimum</li> <li>With Designer Series metal cover, use PLATE, 1460-18DSI</li> </ul>  |
| <b>Clearance</b>       | 2-3/8" (60 mm) behind door required for installation   |
| <b>Delayed Action</b>  | <ul style="list-style-type: none"> <li>Add suffix "DEL" to selected cylinder (eg. 1461 DEL)</li> <li>Delays closing from:                             <ul style="list-style-type: none"> <li>110° to 65° (using 110° template)</li> <li>160° to 75° (using 180° template)</li> </ul> </li> <li>Delay time adjustable up to approximately 1 minute</li> </ul> |
| <b>Maximum opening</b> | 110°:    A = 5-7/8" (149 mm)<br>B = 10-7/8" (276 mm)<br><br>or *180° A = 2-7/8" (73 mm)<br>B = 7-7/8" (200 mm)<br><br>Hold-open points up to maximum opening with hold-open arm<br>*Frame and trim permitting.   |

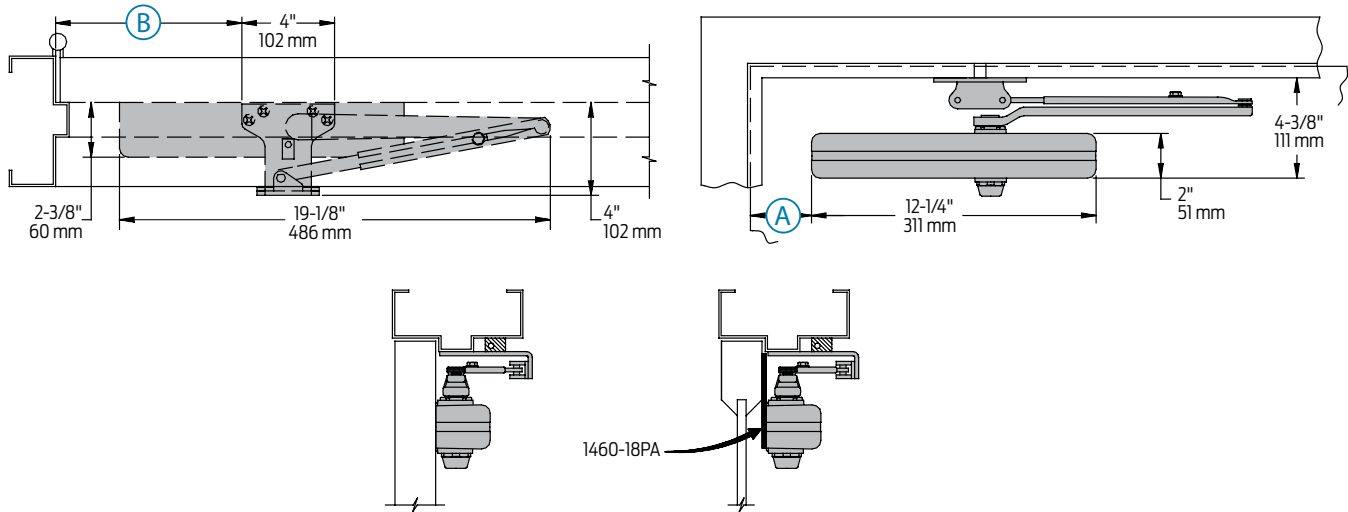


**Optional**

*Non-handed Designer Series Metal Cover*



|                        |   |   |             |
|------------------------|---|---|-------------|
| <b>Butt Hinges</b>     | Should not exceed 5" (127 mm) in width  |   |             |
| <b>Auxiliary Stop</b>  | Recommended at hold-open point or where a door cannot swing 180°  |   |             |
| <b>Reveal</b>          | Arm Type  | Reveal                                      | Max Opening |
|                        | Regular Arm   | 4-7/8"                                      | Up to 140°  |
|                        | Regular Arm   | 3-1/2"                                      | Up to 180°  |
|                        | Long Arm  | 7"  | Up to 140°  |
|                        | Hold-Open Arm   | 2-1/2"                                      | Up to 180°  |
|                        | Long Hold-Open Arm  | 4-7/8"                                      | Up to 140°  |
| <b>Top Rail</b>        | Requires 1-7/8" (48 mm) minimum. 2-3/4" (70 mm) minimum with closer on PLATE, 1460-18   |   |             |
| <b>Head Frame</b>      | Less than 1-3/4" (44 mm) requires PLATE, 1460-18. For flush ceiling condition with 2" (51 mm) head frame, use PLATE, 1460-18  |   |             |
| <b>Delayed Action</b>  | <ul style="list-style-type: none"> <li>■ Add suffix "DEL" to selected cylinder (eg. 1460 DEL).</li> <li>■ Delays closing:                             <ul style="list-style-type: none"> <li>110° to 75° (using 110° template)</li> <li>180° to 95° (using 180° template)</li> </ul> </li> <li>■ Delay time adjustable up to approximately 1 minute.</li> </ul> |   |             |
| <b>Maximum opening</b> | 110°:   | A = 6-3/4" (169 mm)<br>B = 11-1/4" (286 mm) |             |
|                        | 101° to 120°:   | A = 3" (76 mm)<br>B = 7-1/2" (191 mm)       |             |
|                        | Hold-open points up to maximum opening with hold-open arm.<br>*Frame and trim permitting.   |   |             |

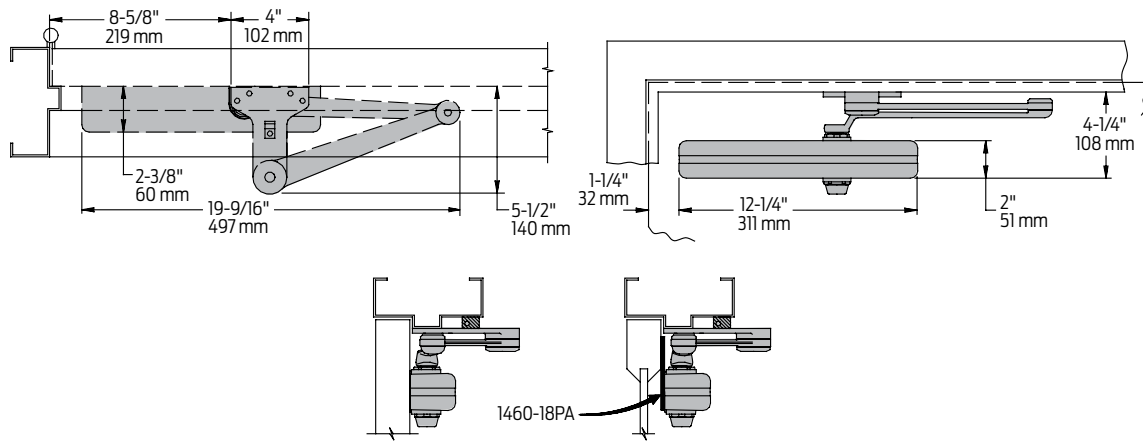


|                        |   |
|------------------------|---|
| <b>Butt Hinges</b>     | Should not exceed 5" (127 mm) in width  |
| <b>Auxiliary Stop</b>  | Recommended at hold-open point, where a door cannot swing 180°, or where CUSH-N-STOP arm is not used  |
| <b>Top Rail</b>        | <ul style="list-style-type: none"> <li>Less than 4-3/8" (111 mm) measured from the stop requires PLATE, 1460-18PAFC</li> <li>Plate requires 1-3/4" (44 mm) minimum. Plate requires 1-1/4" (32 mm) minimum</li> <li>With Designer Series metal cover, use PLATE, 1460-18PADSI</li> </ul> |
| <b>Clearance</b>       | 1460-62PA shoe projects 4" (102 mm) from door face  |
| <b>Head Frame</b>      | Flush or single rabbeted requires PA SHOE ADAPTER, 1460-419   |
| <b>Stop Width</b>      | Minimum 1" (25 mm)  |
| <b>Blade Stop</b>      | Clearance, requires 1/2" (13 mm) BLADE STOP SPACER, 1460-61   |
| <b>Auxiliary Shoe</b>  | <ul style="list-style-type: none"> <li>1460-62A allows installation of regular arm with overhead holder/stop</li> <li>Special templating required</li> </ul>  |
| <b>Delayed Action</b>  | <ul style="list-style-type: none"> <li>Add suffix "DEL" to selected cylinder (eg. P1460 DEL)</li> <li>Delays closing from maximum opening to approximately 75°</li> <li>Delay time adjustable up to approximately 1 minute</li> </ul>   |
| <b>Maximum opening</b> | <p>Regular or hold-open arm can be templated to</p> <p>100°: A = 4-1/4" (108 mm)<br/>B = 9-1/4" (235 mm)</p> <p>or 180°: A = 1-3/4" (44 mm)<br/>B = 6-3/4" (171 mm)</p> <p>Hold-open points up to maximum opening with hold-open arm.</p>   |

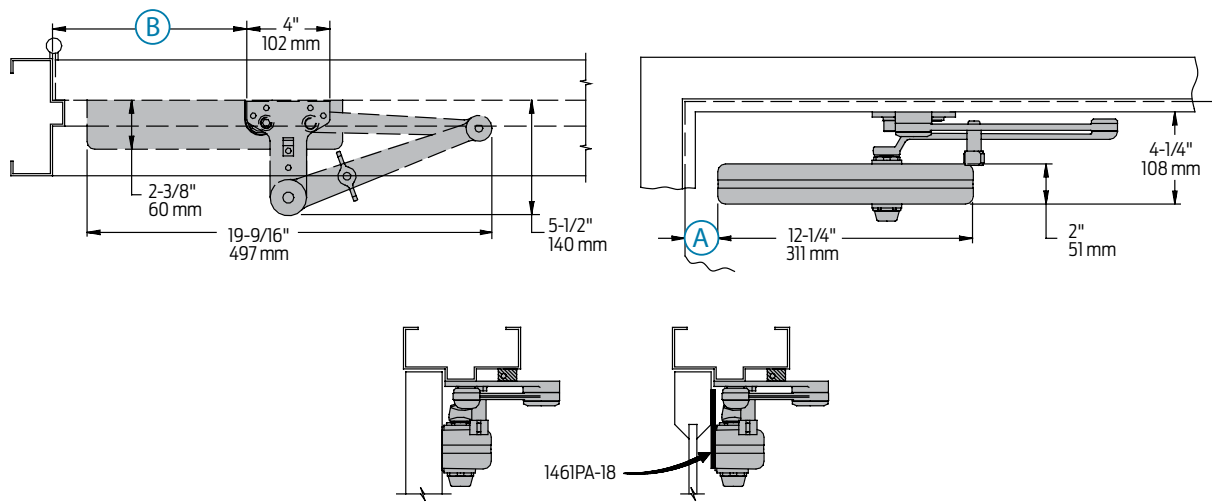
**Notes:**

- Optional mounting requires PA SHOE, 1460-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (e.g. P1460)
- P1460 closer includes 1460-201 FIFTH HOLE SPACER to support PA SHOE.

EDA mount



CUSH mount



|                        |  |
|------------------------|--|
| <b>Spring CUSH</b>     | Hold open points are approximately 5° less than dead stop point                                    |
| <b>Clearance</b>       | 1460-62EDA or CUSH shoe projects 5-1/2" (140 mm) from door face                                    |
| <b>Head Frame</b>      | Flush or rabbeted requires PA FLUSH PANEL ADAPTER, 1460-419  |
| <b>EDA or CUSH ARM</b> | Requires SHOE SUPPORT, 1460-30 for fifth screw anchorage where reveal is less than 3-1/16" (78 mm) |
| <b>Maximum opening</b> | EDA template allows 110°<br>Hold-open point up to maximum opening                                  |
|                        | CUSH arms can be templated for maximum opening/hold-open point at                                  |
|                        | 85°: A = 2-3/8" (60 mm)<br>B = 9-9/16" (243 mm)  |
|                        | 90°: A = 1-5/8" (41 mm)<br>B = 9-1/16" (230 mm)  |
|                        | 100°: A = 5/8" (16 mm)<br>B = 8-1/16" (205 mm)   |

Note:

• 1460 closers ordered with EDA, CUSH or SPRING CUSH arms include 1460-201 FIFTH HOLE SPACER to support the shoe

### Cylinders



**1461-3071**  
Cast Iron Cylinder Assembly

- Non-Handed
- Standard

### Covers



**1460-72**  
Slim Line Plastic Cover

- Non-Handed
- Standard



**1460-72FC**  
Full Cover

- Non-Handed
- Plastic cover
- Optional



**1460-72DS**  
Designer Series Metal Cover

- Non-Handed
- Provides complete enclosure with a stylish look
- Required for plating and custom powder coat option
- Optional

### Installation Accessories



**1460-18**  
Plate



**1460-18DS1**  
Plate



**1460-18FC**  
Plate

The following details pertain to the above plates:

- Required for hinge side mount where top rail is less than 2-1/2" (64 mm)
- Required for top jamb mounting where head frame is less than 1-3/4" (44 mm) or flush ceiling condition exists
- Requires minimum 1-1/2" (38 mm) minimum top rail or 1-1/4" (32 mm) head frame
- With full cover, use PLATE, 1460-18FC
- With Designer Series metal cover, use PLATE, 1460-18DS1

*Note: 18FC and 18DS will not work in top jamb application.*



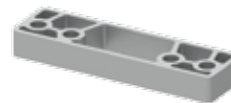
**1460-30**  
Cush Shoe Support

- Provide anchorage for fifth screw used with CUSH arm where reveal is less than 3-1/16" (78 mm)



**1460-30A**  
Mounting Bracket

- Bracket to be used when installing cylinder body
- Included with cylinder when ordered



**1460-61**  
Blade Stop Spacer

- Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop



**1460-62A**  
Auxiliary Shoe

- Requires a top rail of 7" (178 mm)
- Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop



**1460-18PA**  
Plate



**1460-18PADS1**  
Plate



**1460-18PAFC**  
Plate

The following details pertain to the above plates:

- Required for parallel arm mounting where top rail is less than 4-3/8" (111 mm), measured from the stop
- Requires 1-3/4" (44 mm) minimum top rail
- With full cover, use PLATE, 1460-18PAFC
- With Designer Series metal cover, use PLATE, 1460-18PADS1



**1460-419**  
PA Flush Panel Adapter

- Provides horizontal mounting surface for PA, EDA, or CUSH shoe on single rabbeted or flush frame



**1460-62PA**  
PA Shoe

- Required for parallel arm mounting

### Arms



**1460-3077**  
Regular Arm

- Non-handed
- Mounts hinge side or top jamb
- P1460 closer includes PA SHOE, 1460-62PA required for parallel arm mounting



**1460-3077L**  
Long Arm

- Non-handed
- Includes LONG ROD AND SHOE, 1460-79LR for top jamb mount with deep reveals
- Optional



**1460-3077HD**  
Heavy Duty Regular Arm

- Non-handed
- Mounts hinge side, top jamb or parallel arm
- Optional



**1460-3077HDL**  
Heavy Duty Long Arm

- Non-handed
- Includes long rod and shoe, 1460-79LR for top jamb mounts with deep reveals
- Optional



**1460-3049**  
Hold-Open Arm

- Non-handed
- Mounts hinge side, top jamb or parallel arm (62PA required)
- Hold-open adjustable at shoe
- Optional



**1460-3049L**  
Long Hold-Open Arm

- Non-handed
- Includes LONG HEAD AND TUBE, 1460-3048L for top jamb mount with deep reveals
- Optional



**1460-3077EDA**  
Extra Duty Arm

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations
- Optional 1460-3077EDA/62G for blade stop clearance



**1460-3077EDA/62G**  
Extra Duty Arm w/ 62G

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations



**1460-3049EDA**  
Hold-Open Extra Duty Arm

- Handed arm
- Provides hold-open function adjustable at shoe
- Optional



**1460-3077CNS**  
Cush-N-Stop® Arm

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe
- Optional



**1460-3049CNS**  
HCUSH Arm

- Non-handed
- Provides hold-open function with templated stop/hold-open points
- Handle controls hold-open function
- Optional



**1460-3077SCNS**  
Spring CUSH Arm

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



**1460-3049SHCNS**  
Spring HCUSH Arm

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Handle controls hold-open function
- Optional



### How-to-order 1460 Series closers

#### Select finish

- Standard Powder Coat \_\_\_\_\_  
Aluminum, Dark Bronze, Statuary,  
Light Bronze, Black, Brass

#### Closer will be shipped with:

- Standard cylinder
- Standard cover
- Regular arm
- Self-reaming and tapping screws  
unless options listed below are selected.

### Closer options

#### Cylinder

- Delayed Action (DEL)

#### Cover

- Full cover (FC)
- Designer series cover (DS)

#### Finish

- Custom Powder Coat (RAL) \_\_\_\_\_  
(DS cover required)
- Plated Finish, US \_\_\_\_\_  
(DS cover required)
- SRI primer (for use with powder coat finishes only)

#### Arm

- Regular w/62PA (Rw/PA)
- Long (LONG)
- Regular w/62A (Rw/62A)
- Hold-Open (H)
- Hold-Open w/62PA (Hw/PA)
- Long Hold-Open (HLONG)
- Heavy Duty (HD)
- Heavy Duty w/62A (HD/62A)
- Heavy Duty w/62PA (HD/PA)
- Heavy Duty Long (HDL)
- Extra Duty Arm (EDA) (optional -62G)
- Hold-Open Extra Duty (HEDA)  
(specify handing), (optional -62G)
- Cush-N-Stop (CUSH)
- HCush (HCUSH)
- Spring Cush (SCUSH)
- Spring HCush (SHCUSH)

#### Optional screw packs

- TB\* w/Self-Reaming and Tapping Screws (TBSRT)
- Wood & Machine Screw (WMS)
- TB\*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB\* & TORX Machine Screw (TBTORX)
- \* Specify door thickness if other than 1-3/4"

#### Installation accessories

- Plate, 1460-18
- Plate, 1460-18DS
- Plate, 1460-18FC
- Plate, 1460-18PA
- Plate, 1460-18PADS
- Plate, 1460-18PAFC
- CUSH Shoe Support, 1460-30
- Blade Stop Spacer, 1460-61
- Auxiliary Shoe, 1460-62A
- PA Flush Panel Adapter, 1460-419

#### Special template

- ST- \_\_\_\_\_

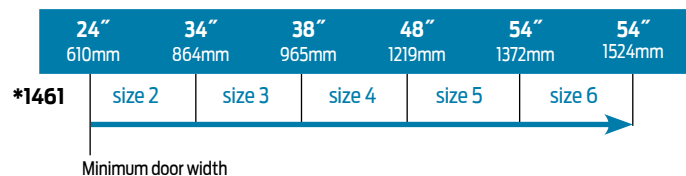
### Table of sizes

- Select closer based on width of door
- The spring power of a 1461 cylinder is field adjustable from size 1 through size 6 and is shipped adjusted to size 3

#### Exterior (and Vestibule) door width



#### Interior door width




→ Indicates recommended range of door width for closer size.  
\* Adjustable Size 1 thru 5.

### Reduced opening force 1460 Series closers

**CAUTION!** Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

\* Maximum opening force.

|  | DOOR WIDTH | 36"  | 42"  | 48"  |
|---|------------|------|------|------|
|   | 8.5* lbs.  | 1461 | 1461 | 1461 |
|   | 5.0* lbs.  | 1461 | 1461 | 1461 |