

4000 Series mounted closers

APPLICATIONS

- For aluminum, hollow metal, or wood swinging doors and frames.
- Can be used with hinge or pivot mounted door.
- Adapter plates and other installation accessories available for unusual conditions.

FEATURES COMMON TO 4000 SERIES

- Each closer (except 4050, 4050T, 4040XP, 4040XPT, 4030, 4030T) is designed for a specific mounting; hinge side, top jamb, or parallel arm. 4040XP closer with regular or hold-open arm mounts hinge side or top jamb. 4030, 4040XP and 4050 regular parallel arm closers include 62PA SHOE required to parallel arm mount either regular or hold-open arm.
- Handed for right or left swinging doors, except for 4000T, 4030, 4030T, 4040XP, 4050, 4050T and 4040XPT.
- Closers to meet ADA reduced opening force requirements except 4000T.
- Adjustable hydraulic backcheck cushions opening swing prior to 90°.
- Separate regulation of general closing speed and latching speed.
- Joints in regular arm and shoe adapt to uneven trim.
- Reversible shoe to boost latching power on double lever arms.
- Available in a wide range of standard or optional custom powder coat finishes to blend with door and frame.
- Plated finishes available to accent door and frame.
- Not designed for exterior mounting or exposed to elements.

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; 25 year limited warranty (4050). See General Information Section for complete warranty details.

SPECIFICATIONS

Refer to "SPECIFICATIONS" section for suggested architectural specifications.

MATERIALS

- High strength **cast iron** or **cast aluminum** (4050) cylinder.
- **Forged steel** main arms.
- One piece **forged steel** piston.
- **Double heat treated** pinion.
- LCN's **all weather "Liquid X" fluid** performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) without any seasonal adjustment.
- 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 (track style) closers.

FINISHES

- Available in six standard or optional custom powder coat finishes to blend with door and frame.
- LCN's powder coat finishes surpass 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
- For installations where a higher level of corrosive resistance is required, LCN offers an optional special rust inhibiting (SRI) pre-treatment. 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. (SRI not available with plated finishes).

LISTINGS & APPROVALS

UL listed for self-closing doors without hold-open under "SWINGING DOOR CLOSERS"(GVEV) file R1943.

Tested and certified under ANSI Standard A156.4 Grade One. Consult factory for details.

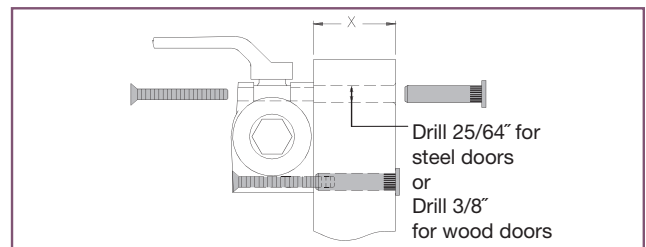
Consult factory for other listings such as; cUL, California State Fire Marshal, Bureau of Standards and Appeals.

POSITIVE PRESSURE

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

FASTENERS

4010, 4010T, 4020, 4020T, 4040XP, 4040XPT, 4050, 4050T, 4110, 4110T Series closers are shipped with: A standard SELF-REAMING and TAPPING SCREW (SRT) pack that contains Phillips head SRT screws to install the closer. 4000T series closers are shipped with: A standard WOOD and MACHINE SCREW (WMS) pack that contains Phillips head wood and machine screws to install the closer. 4030, 4030T series closers are shipped with: A standard WOOD and SELF-TAPPING MACHINE SCREW (WMS) pack that contains Phillips head wood and self-tapping machine screws to install the closer. 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" (44mm), represented in diagram as dimension "X".
2. Phillips head, metric machine screws are available, please specify.
3. LCN recommends the use of wood screws, available in optional WMS screw packs, for wood door applications.

MAINTENANCE

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

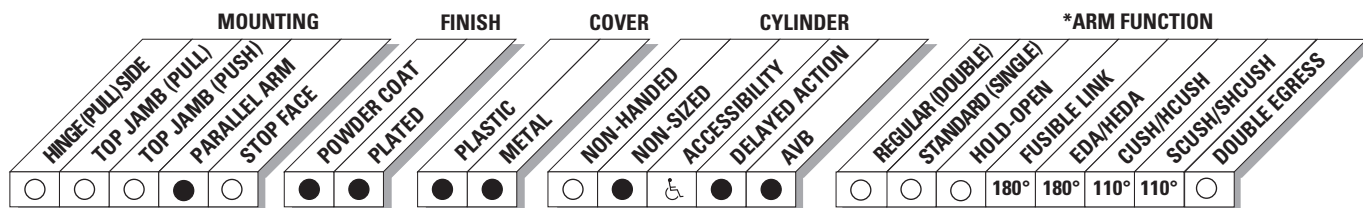


The 4110 is LCN's best performing heavy duty closer designed specifically for institutional and other rugged high traffic applications.

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> ■ Plastic, Standard ■ Metal, Optional
Body Construction	<ul style="list-style-type: none"> ■ Cast Iron Body ■ Full Complement Bearing ■ 1-1/2" Diameter Piston ■ 11/16" Diameter Double Heat Treated Pinion Journal 	Fasteners	Self Reaming and Tapping Screws (SRT)
Fluid	All Weather Fluid	Mounting	Parallel Arm (Push Side)
Handing	Handed	Arms	Extra-Duty arm
Templating	Peel-n-Stick templates - 2-1/2" x 6" Mounting Hole Pattern	Finishes/Colors/Powder Coat	<ul style="list-style-type: none"> ■ Aluminum (689) ■ Statuary Bronze (690) ■ Light Bronze (691) ■ Black (693) ■ Dark Bronze (695) ■ Brass (696) ■ Custom colors optional
Size	Adjustable Spring Size 1-5, or Sized 6, Includes Patented Green Dial		<ul style="list-style-type: none"> ■ Optional SRI primer - powder coat only ■ Optional plated finishes
Warranty	30 years		

Special Templates

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



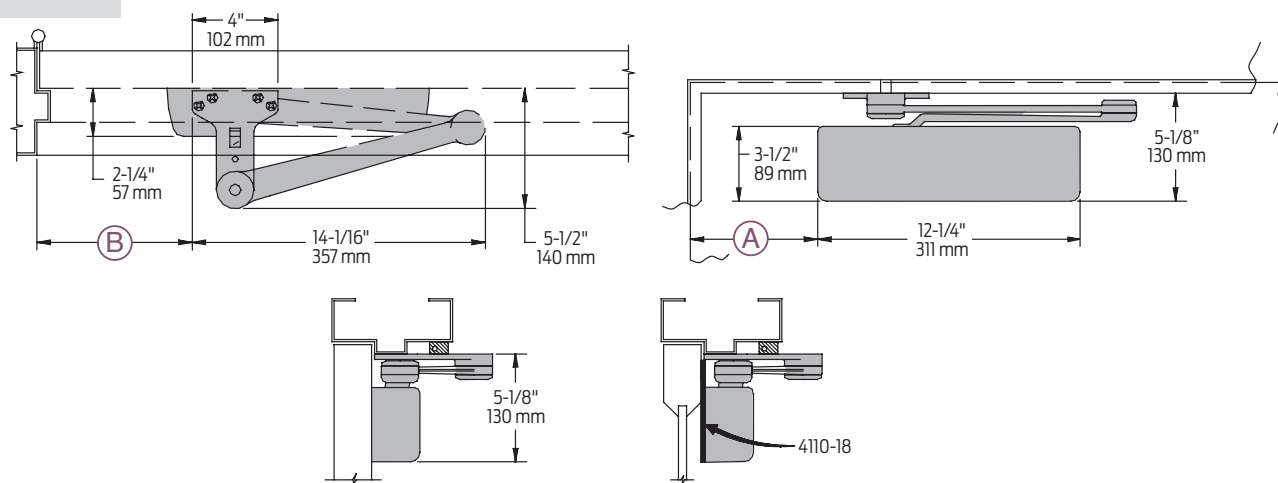
● AVAILABLE
○ NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* Maximum opening/hold-open point with standard template.

4110 Series

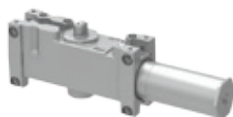
Mounting details

Parallel Arm (Push Side) Mounting



Butt Hinges	Should not exceed 5" (127 mm) in width	
Auxiliary Stop	Recommended at hold-open point, where a door cannot swing 180°, or where CUSH-N-STOP arm is not used	
Clearance	EDA, or CUSH shoe is 5-1/2" (140 mm) from door face	
Top Rail	<ul style="list-style-type: none"> Less than 5-1/8" (130 mm) measured from stop requires PLATE, 4110-18 Plate requires 2" (51 mm) minimum measured from the stop 	
Stop Width	Minimum 1" (25 mm)	
Head Frame	Flush or rabbeted requires CUSH FLUSH PANEL ADAPTER, 4110-419	
Reveal	Less than 2-3/4" (70 mm), use CUSH SHOE SUPPORT, 4110-30 with CUSH arms	
Blade Stop Spacer	4110-61 required to clear 1/2" (13 mm) blade stop	
Crush Arm	Requires CUSH SHOE SUPPORT, 4110-30 for fifth screw anchorage with CUSH arms	
Delayed Action	<ul style="list-style-type: none"> Add suffix "DEL" to selected cylinder (eg. 4111 DEL) Not available with 4116 cylinder. Delays closing from maximum opening to approximately 70° Delay time adjustable up to approximately 1 minute 	
Advanced Variable Backcheck	<ul style="list-style-type: none"> Cylinder starts backcheck at approximately 45° instead of the normal 75° Add suffix "AVB" to selected cylinder 	
Maximum opening	EDA or Fusible Link arm can be templated for	CUSH arm can be templated for maximum opening at
	100° A = 5-15/16" (151 mm) B = 7-1/4" (184 mm)	85° A = 8-5/16" (211 mm) B = 9-5/8" (244 mm)
	140° A = 4-7/16" (113 mm) B = 5-3/4" (146 mm)	90° A = 7-11/16" (195 mm) B = 9" (229 mm)
	or 180° A = 2-15/16" (75 mm) B = 2-15/16" (75 mm)	or 110° A = 5-9/16" (141 mm) B = 6-7/8" (175 mm)
	<ul style="list-style-type: none"> Hold-open points up to maximum opening with HEDA or Fusible Link arm 	<ul style="list-style-type: none"> Hold-open point at maximum opening with HCUSH arm Spring Cush hold-open points are approximately 5° less than templated stop point

Cylinder



4111(6)-3071
Cast Iron Cylinder Assembly

- Handed
- Standard

Covers



4110-72
Plastic Cover

- Non-handed
- Standard



Left hand shown

4110-72MC
Metal Cover

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



4110-3049EDA
Hold-Open Arm

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



4110-3049FL
Fusible Link Arm

- Handed
- Releases hold-open function adjustable at shoe when exposed to temperatures above 165° F
- Optional

NOTE: Check local codes before specifying FL arms. NOT A life safety product!



4110-3077CNS
Cush-N-Stop Arm

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



4110-3077EDA
Extra Duty Arm

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



4110-3077EDA/ 62G
Extra Duty Arm

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- Optional 4110-62G thick hub shoe for blade stop clearance

Arms



4110-3049CNS
HCUSH Arm

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



4110-3077SCNS
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



4110-3049SCNS
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

Installation Accessories



4110-18
Plate

- Required for push side mount where top rail is less than 5-1/8" (130 mm), measured from the stop
- Requires minimum 2" (51 mm) minimum top rail



4110-30
CUSH Shoe Support

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



4110-61
Blade Stop Spacer

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



4110-419
PA Flush Panel Adapter

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

How-to-order 4110 Series closers

1. Specify cylinder size

- 4111 (adjustable from size 1 to 5)
- 4116 (DEL, SHCUSH or HCUSH arm not available)

2. Specify hand

- RH
- LH

3. Select finish

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

Closer will be shipped with:

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

Closer options

Cylinder

- Delayed Action (DEL) (not available with 4116)
- Advanced Variable Backcheck (AVB)

Cover

- Metal (MC)

Finish

- Custom Powder Coat (RAL) _____
(handed metal cover required)
- Plated Finish, US _____
(handed metal cover required)
- SRI primer (use with powder coat finishes only)

Specify Arm

- Hold-Open Extra Duty (HEDA)
- Fusible Link, 165° F (FL)
- Cush-N-Stop (CUSH)
- H-Cush-N-Stop (n/a with 4116 cylinder) (HCUSH)
- Spring Cush (SCUSH)
- Spring H-Cush (n/a with 4116 cylinder) (SHCUSH)
- Extra Duty (EDA)
- H-Extra Duty (HEDA)

Screw Packs

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

Installation Accessories

- Plate, 4110-18
- CUSH Shoe Support, 4110-30
- Blade Stop Spacer, 4110-61
- PA Flush Panel Adapter, 4110-419

Special Template

- ST- _____

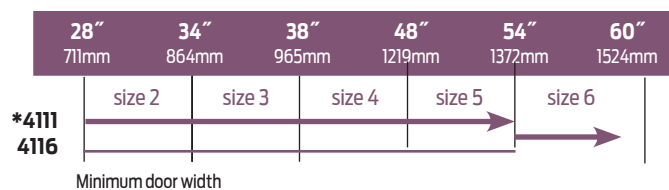
Table of sizes

- Select closer based on width of door.
- The spring power of non-sized 4111 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3.
- Sized 4116 series cylinders 6.
- Delayed action not available with 4116 cylinder
- H - CUSH and SPRING H-CUSH arm not available with 4116 cylinder.

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 4110 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 AUTOMATIC OPERATORS section for information on systems that meet reduced opening force requirements without effecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	4111	4111	4111
5.0* lbs.	4111	4111	4111	

* Maximum opening force.