

STANDARD POWDER COAT FINISHES

LCN powder coating provides superior protection against the effects of weather conditions and is an environmentally friendly process. The high quality, chip resistant finish is far superior to any previously offered. Corrosion resistance surpasses 100 hours salt spray testing (four times the industry standard). Non-metallic components also provide the same high resistance to the effects of the elements. All LCN products must be shipped with a finish.

**LCN STANDARD FINISHES
(CLOSEST BHMA EQUIVALENT):****ALUM ALUMINUM** (BHMA 689)**DKBRZ DARK BRONZE** (BHMA 695)**STAT STATUARY BRONZE** (BHMA 690)**LTBRZ LIGHT BRONZE** (BHMA 691)**BLK BLACK** (BHMA 693)**BRASS BRASS** (BHMA 696)**OPTIONAL CUSTOM POWDER COAT FINISHES**

LCN offers custom powder coating to provide a custom appearance and all the corrosion resistance of standard powder coat finishes at a nominal additional cost. LCN uses the RAL numbering system for the 150+ custom colors available. Contact your local SSC representative for a brochure showing the available custom colors. Note: Custom powder coat finishes require a metal cover.

OPTIONAL PLATED FINISHES

Visible components such as metal covers, arms, fasteners, and finish plates are plated to match the selected finish. Surface mounted tracks are powder coated to compliment the plated finish. Hidden assemblies such as cylinders, tracks, and mounting plates are supplied with a powder coated finish. Plated finishes require handling of closers.

LCN PLATED FINISHES:

US 3	Bright Brass (BHMA 632)
US 4	Satin Brass (BHMA 633)
US 10	Satin Bronze (BHMA 639)
US 11	Satin Bronze (BHMA 643)
US 15	Satin Nickel (BHMA 646)
US 26	Bright Chrome (BHMA 651)
US 26D	Satin Chrome (BHMA 652)

LCN PAINTED FINISHERS

Aluminum	ALUM (BHMA 689)
Dark Bronze	DKBRZ (BHMA 695)

SPECIAL RUST INHIBITING (SRI) PROCESS

For installations where a higher level of protection against weather conditions, or the effects of a potentially corrosive atmosphere is required, LCN offers a special rust inhibiting (SRI) process. Ferrous metal components receive an SRI pretreatment and a standard powder coat finish of your choice, or a custom powder coat finish for a nominal additional cost. Closers treated with the SRI process exceed the 100 hour protection level available with standard LCN powder coated finishes. For details, contact your local SSC representative or the LCN factory.

STANDARD ANODIZED FINISHES

LCN Senior Swing & Benchmark electromechanical power operators are offered with an anodized finish. Anodizing is an electrochemical process that thickens and toughens the protective oxide on aluminum metal.

LCN ANODIZED FINISHES:

Aluminum	ANCLR (BHMA 628)
Dark Bronze	ANDKBRZ (BHMA 710)

Arm Options

STD	- Standard Arm
REG	- Regular Arm
Rw/PA	- Regular Arm with Parallel Arm Shoe
R/62A	- Regular Arm with Auxiliary Parallel Arm Shoe
H	- Hold Open Arm
Hw/PA	- Hold Open Arm with Parallel Arm Shoe
LONG	- Long Arm
XLONG	- Extra Long Arm
HLONG	- Hold Open Long Arm
EDA	- Extra Duty Arm
EDAw/62G	- Extra Duty Arm with Thick Hub Shoe
HEDA	- Hold Open Extra Duty Arm
HEDAw/62G	- Hold Open Extra Duty Arm w/ Thick Hub Shoe
CUSH	- Cush -n- Stop Arm
HCUSH	- Hold Open Cush -n- Stop Arm
SCUSH(SCNS)	- Spring Cush -n- Stop Arm
SHCUSH(SHCNS)	- Spring Hold Open Cush -n- Stop Arm
SF	- Swing Free Arm
DE	- Double Egress Arm
FL	- Fusible Link Arm

Control Box Options

SC	- Standard Control Box
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Cylinder Options

STD	- Standard Cylinder
DEL(DA)	- Delayed Action Cylinder
AVB	- Advanced Variable Backcheck
B80	- Bypass 80 Degree ME Cylinder
B140	- Bypass 140 Degree ME Cylinder
TEL	- Telephone Cylinder

Cover Option

STD	- Standard Plastic Cover
MC	- Metal Cover
FC	- Full Cover
CL	- Cover Length
DSI	- Designer Series Cover

Track Options

STD	- Standard Track
HO	- Hold Open Track
BUMPER	- Track with Bumper
HBUMPER	- Hold Open Track with Bumper

Fastener Pack Options

WMS	- Wood & Machine Screws
TBWMS	- Thru-Bolt, Wood & Machine Screws
SRT	- Self Reaming & Tapping Screws
TBSRT	- Thru-Bolt, Self Reaming & Tapping Screws
TORX	- 'TORX' Machine Screws
TBTRX	- Thru-Bolt, 'TORX' Machine Screws
UNIV	- Universal Screw Pack

Motor Gearbox Options

SF	- Standard Force Motor Gearbox
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Powder Coat Finishes

AL	- Aluminum
DKBRZ	- Dark Bronze
STAT	- Statuary Bronze
LTBRZ	- Light Bronze
BLK	- Black
BRASS	- Brass

Miscellaneous Terms

ELR	- Extra Long Rod
SRI	- Special Rust Inhibitor
SE	- Single Point Electronic
ME	- Multi-Point Electronic
PAH	- Parallel Arm Holder
HSA	- Hold Open / Scanner Activated
ES	- Electric Strike Relay (Control Boxes)
S	- Sequential (Control Boxes)
RF	- Radio Frequency
TJ	- Top Jamb
PA	- Parallel Arm
G	- Flush Ceiling
T	- Track
DPS	- Door Position Switch
LR	- Long Rod
ST	- Special Template
RH	- Right Hand
LH	- Left Hand
HL	- Header Length
DD	- Double Door Header
POS	- Positive Mechanical Stop
BKY	- Panic Breakaway Stop
XP	- Extra Protection

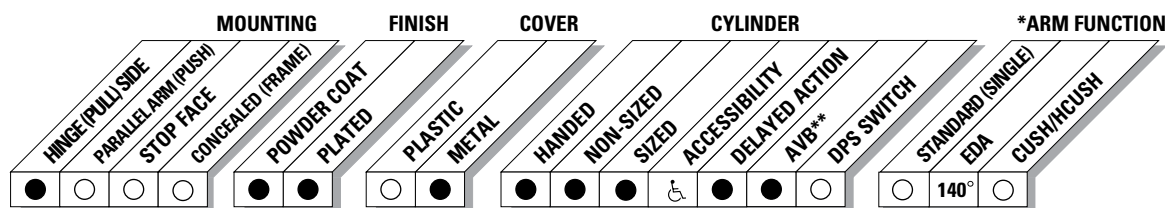


The 4510 SMOOTHEE® Series is a heavy duty, high security closer with special components to minimize tampering and vandalism. Forged steel double lever arms and heavy gauge metal security covers are designed for correctional, vandal prone, institutional and other high traffic applications. The closer has passed 10 million cycles in independent testing. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA*, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	Metal Security
	<i>*4511 cylinder meets ADA requirements</i>	Fasteners	TORX machine screw pack
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 	Mounting	Hinge (Pull Side)
Fluid	All Weather Fluid	Arms	Extra heavy duty, non-hold open
Handing	Handed	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	Exterior and Vestibule, Adjustable Size 1-5 Interior, Adjustable Size 1-5		<ul style="list-style-type: none"> ■ Optional SRI primer - powder coat only ■ Optional plated finishes
Warranty	15 years		

Special Templates

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



● AVAILABLE
○ NOT AVAILABLE

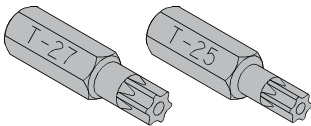
♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* Maximum opening with standard template.
** Advanced Variable Backcheck.

How-to-order 4510 Series

- Select cylinder size**
- ☐ 4511 (adjustable from size 1 to 5)
 - ☐ 4516 (DEL not available)
- Select hand**
- ☐ RH
 - ☐ LH
- Specify finish**
- ☐ Standard Powder Coat _____
 - Aluminum, Dark Bronze, Statuary, Light Bronze, Black, Brass

- Closer will be shipped with:**
- Standard cylinder
 - Security cover
 - Extra duty arm
 - TORX machine screw pack, unless options listed below are selected.

NOTE: Installation of this closer requires T-27 and T-25 driver bits for TORX machine screws with a security pin. Sold separately.



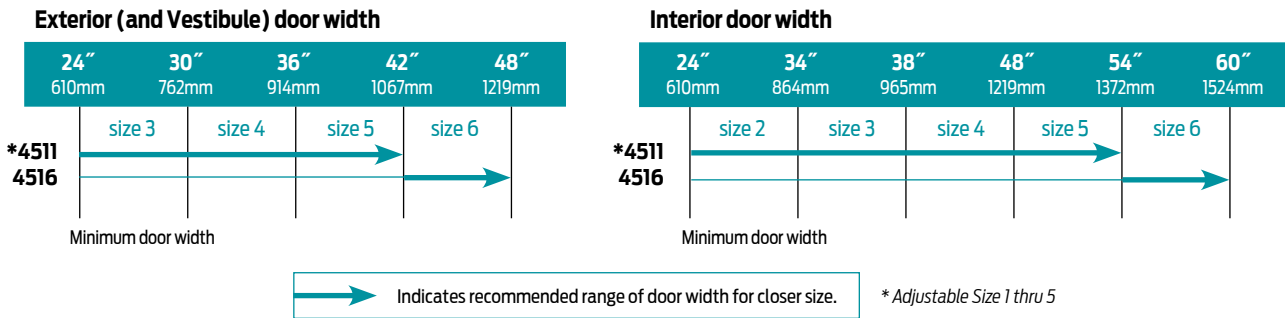
Closer options

- Cylinder**
- ☐ Delayed Action (DEL)
 - ☐ Advanced Variable Backcheck (AVB)
- Finishes**
- ☐ Custom Powder Coat (RAL) _____
 - ☐ Plated Finish, US _____
 - ☐ SRI primer (use with powder coat finishes only)
- Screw pack**
- ☐ TB* and TORX Machine Screw (TBTRX)
 - * Specify door thickness if other than 1-3/4".

- Installation accessories**
- ☐ PLATE, 4510-18
- Special template**
- ☐ ST- _____

Table of sizes

- Select closer based on width of door
- The spring power of non-sized 4511 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3
- Sized 4510 Series cylinder available in size 6
- Delayed action not available with 4516 cylinder




Reduced opening force 4510 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.	4511	4511	4511
	5.0* lbs.	4511	4511	4511

* Maximum opening force.