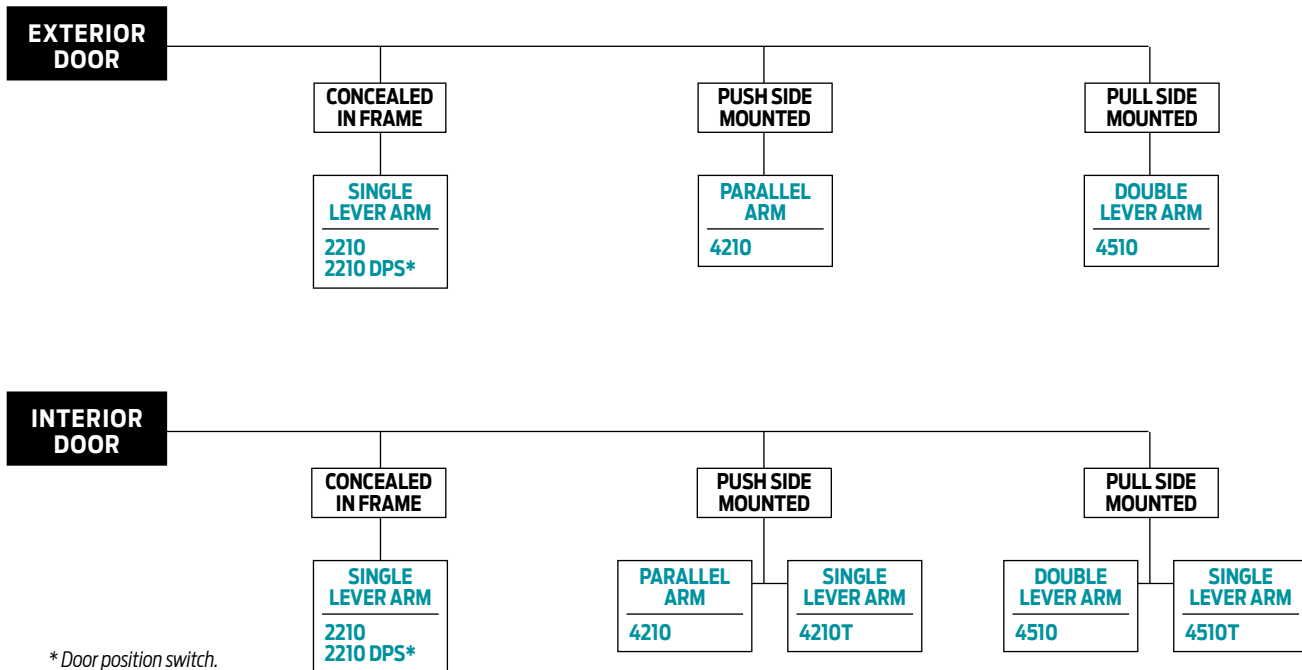


Product selection guide

High Security LCN closers feature a vandal resistant design engineered for each application, easy installation, and superior performance. This guide is based on the desired mounting of the closer.



Product comparison

This chart shows a basic comparison of LCN High Security closers. Refer to the specific closer chapter for complete details.

CLOSER SERIES	MOUNTING				FINISH		COVER		CYLINDER			**ARM FUNCTION					
	HINGE (PULL) SIDE	PARALLEL ARM (PUSH)	STOP FACE	CONCEALED (FRAME)	POWDER COAT	PLATED	PLASTIC	METAL	HANDED	NON-SIZED	SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	DPS SWITCH	STANDARD (SINGLE)	EDA
2210	○	○	○	●	●	●	○	○	●	○	●	○	○	○	○	○	○
2210DPS	○	○	○	●	●	●	○	○	●	○	●	○	○	○	○	○	○
4210	○	●	○	○	●	●	○	○	●	●	●	○	○	○	○	○	○
4210T	○	○	●	○	●	●	○	○	●	○	●	○	○	○	○	○	○
4510	●	○	○	○	●	●	○	○	●	●	●	○	○	○	○	○	○
4510T	●	○	○	○	●	●	○	○	●	○	●	○	○	○	○	○	○

● AVAILABLE
○ NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.

** Maximum opening with standard template. See individual closer series for degrees of opening per installation.

*** Advanced Variable Backcheck.

High Security Closers Series

APPLICATIONS

- For any concealed or surface mounted installation subject to potential abuse or vandalism.
- For correctional, aluminum, hollow metal, or wood 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 HIGH SECURITY CLOSERS

- Each closer is a vandal resistant design for a specific mounting; hinge side, parallel arm, stop face, or concealed.
- All high security closers are based on a cylinder certified to exceed 10,000,000 cycles in independent testing.
- Handed for right or left swinging doors.
- Closers to meet ADA reduced opening force requirements.
- All closers furnished with TORX tamper resistant machine screws.
- All surface mount closers include a heavy gauge steel cover with four attachment points.
- All closer adjustments are protected when installation is complete.
- All track closers use a jam resistant track and tamper resistant arm/roller assembly.
- Adjustable hydraulic backcheck cushions opening swing prior to 90°.
- Advanced variable backcheck (AVB) is available on all high security closers.
- Separate regulation of general closing speed and latching speed.

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.

WARRANTY

High Security Series closers carry a 15 year limited warranty, except for the 2210DPS Series closer that carries a 2 year limited warranty. See General Information Section for complete warranty details.

MATERIALS

- High strength **cast iron** cylinder.
- **Forged steel** main arms and forearms.
- One piece **forged steel** piston.
- 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.
- **High efficiency, full complement**, low friction bearings.
- **Double heat treated** pinions.
- 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 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.

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 A 156.4. Consult factory for details.

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

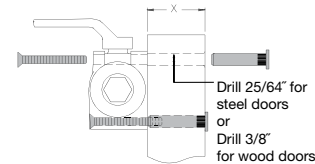
POSITIVE PRESSURE

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

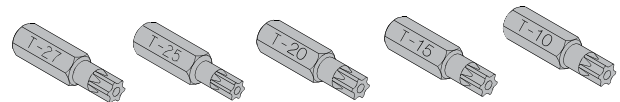
TORX MACHINE SCREW (TORX) pack contains tamper resistant machine screws to install the closer. Thru Bolts for TORX machine screws are available for all high security closers, except 2210 series.

LCN thru bolts (TB) can be installed on 1-3/4" thick doors with the 1/4-20 TORX screws supplied with the closer. Optional sizes are available for 1-5/8" or 1-3/8" door thicknesses, but this must be specified when ordering.



Note 1: For Thru Bolts, specify door thickness if other than 1-3/4" (44mm).

Special driver bits are required for installation or removal of TORX machine screws with a security pin as supplied with LCN High Security closers. All bits fit a 1/4" hex drive socket. For 1/4-20 screws use T-27, for #12 machine screws use T-25, for 10# machine screws use T20, for #8 (and undercut #10) machine screws use T15, and for #6 machine screws use T10. The specific bits required for installation are listed on the "HOW TO ORDER" page for each closer. Sold separately.

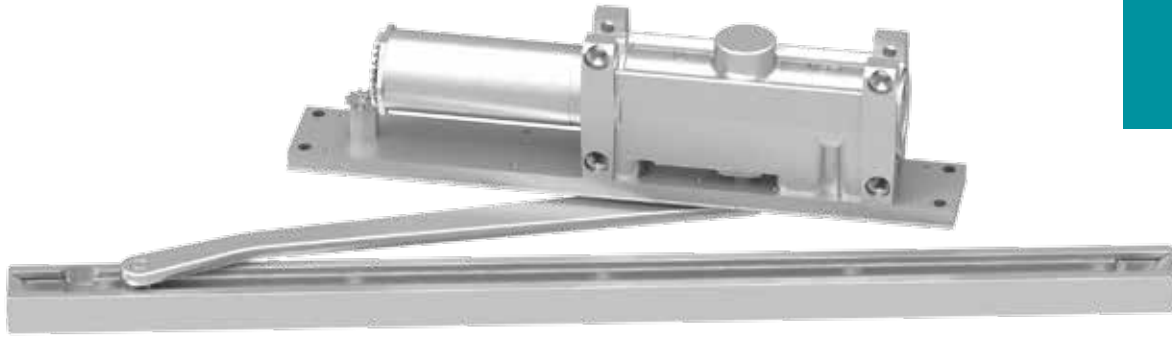


FASTENERS

TORX MACHINE SCREW (TORX) pack contains tamper resistant machine screws to install the closer. Thru Bolts for TORX machine screws are available for all high security closers, except 2210 series.

SPECIFICATIONS

Refer to "SPECIFICATIONS" section for suggested architectural specifications.

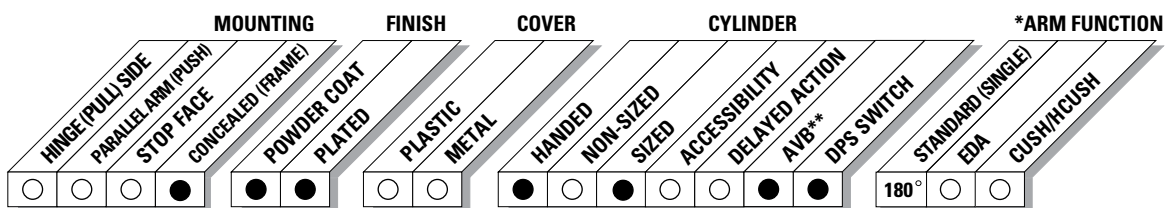


The concealed 2210 Series, heavy duty, high security track closer features complete concealment with special components to minimize tampering and vandalism. Forged steel, single lever arm and heavy steel mounting plate are designed for correctional, vandal prone, institutional, and other high traffic applications. 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, standard
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	TORX machine screw pack
Fluid	All Weather Liquid X Fluid	Mounting	<ul style="list-style-type: none"> Concealed, single acting cylinder in head frame Concealed, arm and track in top rail of door
Handing	Handed	Arms	Standard security arm and security track
Size	Sized, interior, exterior and vestibule 3-5 (refer to chart)	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
Warranty	15 years (2210); 2 years (2210DPS)		<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

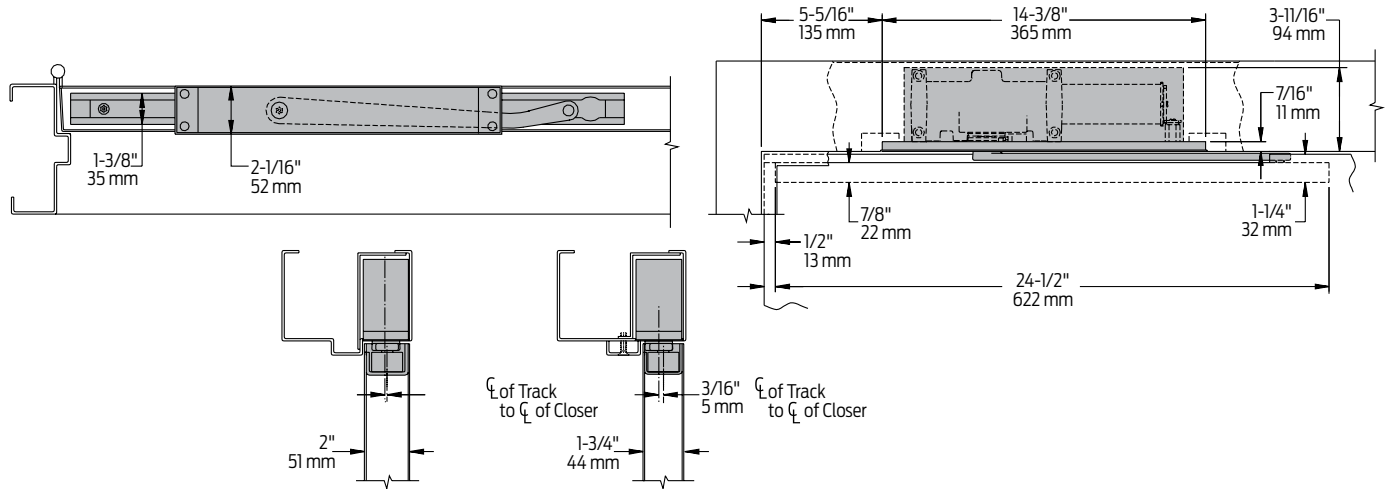
Special Templates

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



● AVAILABLE
○ NOT AVAILABLE

* Maximum opening with standard template.
** Advanced Variable Backcheck.



Butt Hinges	Should not exceed 4-1/2" (114 mm) in width
Auxiliary Stop	Recommended where a door cannot swing 180°
Top Rail	1-1/4" (32 mm) mortise required. 3/8" (10 mm) cutout required at top of door, stop face only
Door Thickness	1-3/4" (44 mm) minimum
Door Width	28" (711 mm) minimum
Head Frame	<ul style="list-style-type: none"> 5-3/4" (146 mm) wide and 4" (102 mm) high with 2-3/16" (56 mm) rabbet required Consult factory if any dimension is less
Steel Mounting Plate	Thickness 3/8" (10 mm)
Door Position Switch	<ul style="list-style-type: none"> Optional, newly redesigned, field adjustable switch can interface with security and monitoring systems Add suffix "DPS" to selected cylinder Provides normally open (N.O.) and normally closed (N.C.) circuit A three wire connector harness with 84" (2134 mm), 16 AWG leads is furnished to simplify connection to field wiring Single pole double throw (SPDT) contacts rated at 125/250 VAC at 10.1 amps maximum resistive load are standard
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 (eg. 2213 DPS AVB)
Maximum Opening	<ul style="list-style-type: none"> Templating allows 180° Consult factory if door will be held open at 180° Pivot mounting door limits opening to 110° and increases minimum door width to 32" (813 mm). Consult factory Please note that many track style door closers are capable of allowing 180° of door swing <p><i>Note: Track style closers are at their weakest closing force at 180°. Consult factory for applications where door must swing 180°.</i></p>
Options	<ul style="list-style-type: none"> Advanced Variable Backcheck Cylinder Door Position Switch

Cylinder



2213(4)(5)-3071
Cylinder Assembly

- Handed
- Cast iron
- Standard



2210DPS-3071
Cylinder Assembly

- Handed
- Cast iron

Arms



2210-3077T
2210DPS-3077T
Standard Security Arm

- Handed
- Solid forged steel and large cross section for potentially abusive installations
- Special threaded attachment of track roller for extra security
- Double slab arm/pinion attachment for maximum strength

- Can only be used with high security track roller, 2210-3034 or 2210DPS-3034
- Roller is included with arm when either the 2210-3077T or 2210DPS-3077T are ordered separately

Tracks



2210-3038
Security Track

- Non-handed
- Hold-open function not available
- Designed to eject foreign objects placed in track during either opening or closing motion
- Requires track roller, 2210-3034



2210DPS-3038

Finish Plates



2210-11
Long Plate

- Heavy gauge metal plate
- Required for complete enclosure
- Six point TORX® mounting screws for extra security
- Closer adjustments not accessible with finish plates installed



2210-12
Short Plate

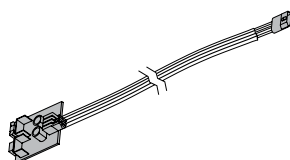
- Heavy gauge metal plate
- Required for complete enclosure
- Four point TORX® mounting screws for extra security
- Closer adjustments not accessible with finish plates installed

Installation Accessories



2210-3034
Security Track Roller

- Low friction track roller threads into 2210-3077T arm for extra strength and security
- Can not be removed without disconnecting arm from closer



2210-493
Test Kit

- Battery operated designed to verify switch signal response point
- Can be used directly at door location (used for 2210 DPS only)

How-to-order 2210 Series closers

Select cylinder size

- 2213
- 2213 DPS
- 2214
- 2214 DPS
- 2215
- 2215 DPS

Select hand

- RH
- LH

Specify finish

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

Closer will be shipped with:

- Standard cylinder
- Finish plate
- Standard security arm
- Security track roller
- Security track
- TORX machine screw pack, unless options listed below are selected.

Closer options

Cylinder

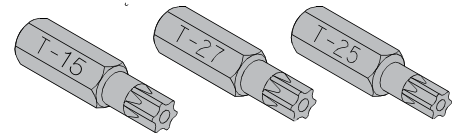
- Advanced Variable Backcheck (AVB)

Finishes

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____ (cover plate and arm only)
- SRI primer (excludes DPS) (use with powder _ coat finishes only)

Special template

- ST- _____



NOTE: Installation of this closer requires T-27, T-25 and T-15 driver bits for TORX machine screws with a security pin. Sold separately.

Table of sizes

- Select closer based on width of door
- 2210 Series cylinders available in size 3, 4, or 5
- Spring power is set at the factory for size 3, 4, or 5, but is field adjustable (may be increased 50%)

