

# CONCEALED CLOSER SERIES

## APPLICATIONS

- For aluminum, hollow metal, or wood doors and frames.
- Can be used with hinge or pivot mounted door.
- Closers for 4" or minimum 1-3/4" head frame or 4" top rail.
- Mounting clips for wood frames and other installation accessories available for unusual conditions.
- For concealed in door closers consult factory for installations with pivots.

## FEATURES COMMON TO CONCEALED CLOSERS

- Mountings for head frame or door top rail.
- Handed for right or left swinging doors. (except 6030)
- 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. (for double lever arms)

## DESIGN ASSISTANCE

LCN has been providing reliable solutions to unique door control problems for over 85 years. 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 Application Engineering.

## WARRANTY

10 year limited warranty. See General Information Section for complete warranty details.

## SPECIFICATIONS

Refer to "SPECIFICATIONS" section for suggested architectural specifications.

## MATERIALS

(Closers concealed in the door or frame)

- High strength **cast iron** cylinder.
- **Forged steel** main arms (except 6030).
- One piece **forged steel** piston.
- **All weather fluid** in overhead concealed models eliminates seasonal adjustments. From 120°F to -30°F.
- **High efficiency, full compliment**, low friction bearings.
- Tamper resistant regulating screws.
- Full rack and pinion hydraulic action.
- Quiet, low friction track and roller combination for all single lever (standard) 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 A156.4. 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 UBC 7.2 (1997) and UL 10 C. Contact LCN for specific details on door closer fire ratings.

## FASTENERS

Standard WOOD and MACHINE SCREW (WMS) pack contains phillips head wood and machine screws to install the closer. TORX machine screws are available for some closers.

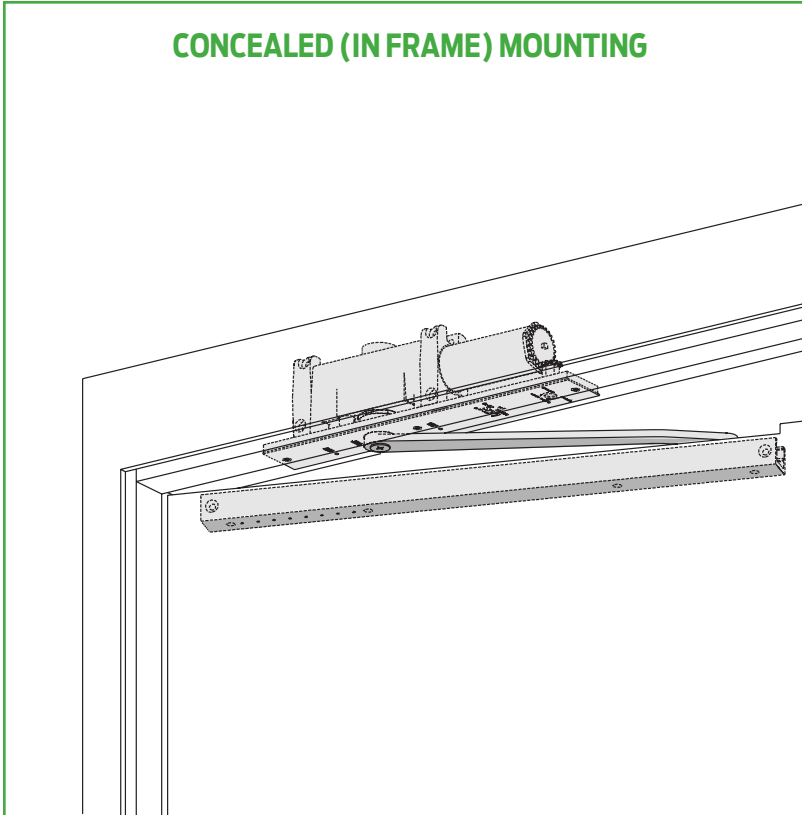
Note 1: Phillips head, metric machine screws are available, please specify.

## MAINTENANCE

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

# 2010 SERIES

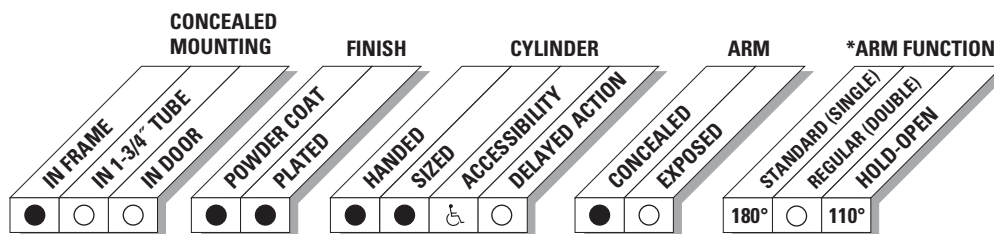
## CONCEALED (IN FRAME) MOUNTING



The concealed 2010 Series is a heavy duty closer designed to provide complete concealment. The single lever arm and roller assembly provide smooth, quiet door control and the choice of finishes and track functions meet virtually all architectural requirements.

The 2010 Series is UL & cUL listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.4, grade one.

- Standard 2010 Series closer shipped with standard arm, standard track, metal finish plate and wood and machine screw pack. See 2010 Series page 5 for options.
- Sized cylinders for interior doors to 5'0" and exterior doors to 4'0".
- Handed for right or left swinging doors.
- For aluminum, hollow metal, or wood, doors and frames.
- Aluminum frame requires minimum 4" x 4" (102 mm) tube.
- Closers to meet ADA requirements. See 2010 Series page 6.
- Standard or optional custom powder coat finish.
- Optional plated finish on arm, fasteners and finish plate.
- Optional SRI primer for installations in corrosive conditions. (Available with powder coat finishes only.)



● AVAILABLE  
○ NOT AVAILABLE

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

\* Maximum opening/hold-open point with standard template. See individual closer series for degrees of opening per installation.

# 2010 SERIES

## MOUNTING DETAILS

### CONCEALED MOUNTING

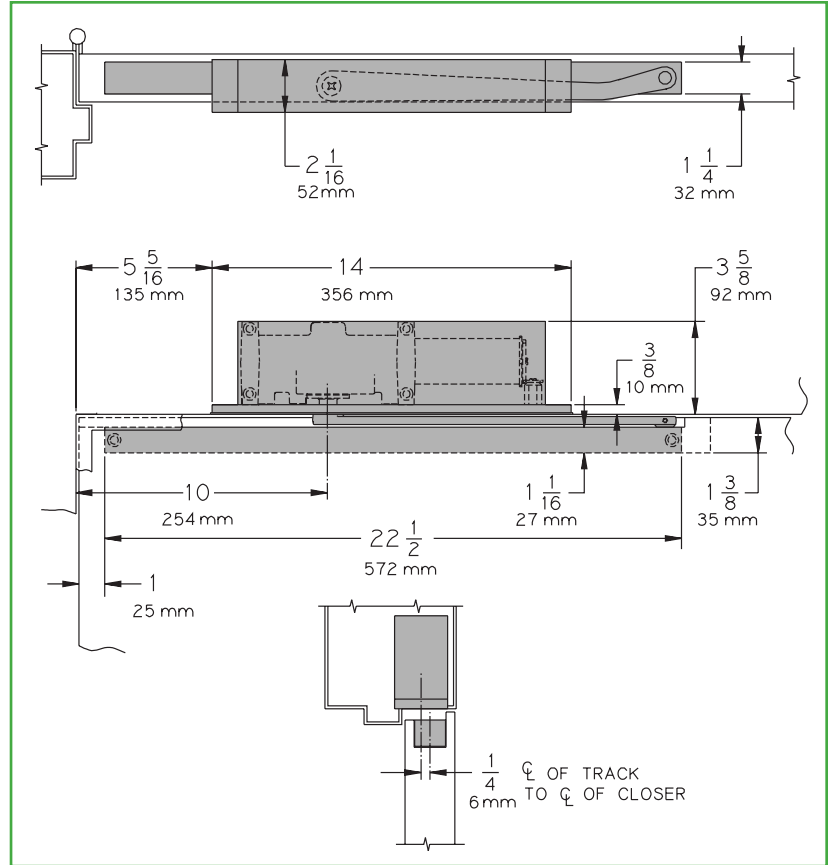
For interior or exterior doors.  
Single acting cylinder in head frame.  
Concealed arm and track in door top rail.

### MAXIMUM OPENING

Butt hinge template allows 180°, trim permitting. Limited to 110° when optional bumper is installed.  
Adjustable hold-open points from 85° to 110°, with hold-open track.

Offset pivot template allows 110°, trim permitting. Limited to 95° when optional bumper is installed.  
Adjustable hold-open points from 75° to 95°, with hold-open track.

Center pivot template allows 120°, trim permitting. Limited to 95° when optional bumper is installed.  
Adjustable hold-open points from 75° to 95°, with hold-open track.



- Butt Hinges should not exceed 5" (127 mm) in width.
- Auxiliary Stop is recommended where a door cannot swing 180°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- Top Rail 1-3/8" (35 mm) mortise required.  
With Fire Shield, 1-13/32" (36 mm) mortise required.  
5/16" (8 mm) cutout required at top of the door, stop face only.
- Door Thickness 1-3/4" (44 mm) minimum.
- Hollow Metal Frame Consult factory for installation instructions.

#### Options

- Standard track with Bumper.
- Hold-open track.
- Hold-open track with Bumper.
- Fire Shield.

#### Special Templates

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

## CYLINDERS

### CYLINDER, 2010-3071

Standard, handed, cast iron cylinder assembly with mounting plate.  
For various applications see "Table of Sizes" on 2010 Series page 6.

## ARM

### STANDARD ARM, 2010-3077T

Handed arm.  
Track roller not included with arm.

## TRACKS

### STANDARD TRACK, 2010-3038

Standard, non hold-open, non-handed track.  
Will accept hold-open clip and/or bumper assembly.

### STANDARD TRACK with BUMPER, 2010-3038B

Optional, non hold-open, non-handed track with bumper.  
Will accept hold-open clip.

### HOLD-OPEN TRACK, 2010-3038H

Optional, non-handed hold-open track.  
Will accept bumper assembly.

### HOLD-OPEN TRACK with BUMPER, 2010-3038HB

Optional, non-handed hold-open track with bumper.

## INSTALLATION ACCESSORIES

### FIRE SHIELD, 2010-420

22 gauge steel liner mounts in the track mortise of the door's top rail  
for 20 minute labeled wood doors.

### TRACK BUMPER, 2010-169

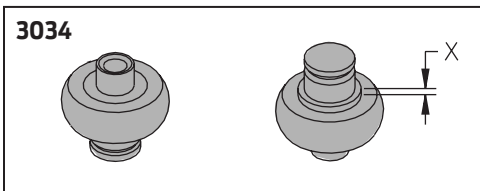
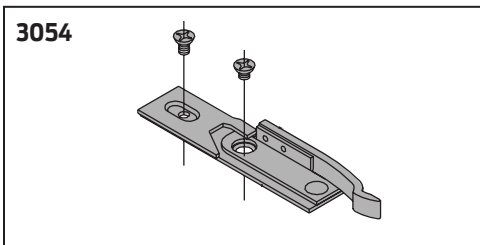
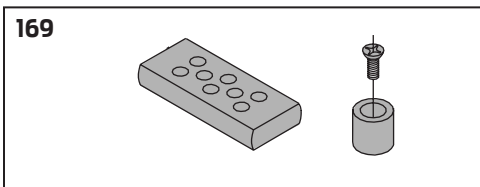
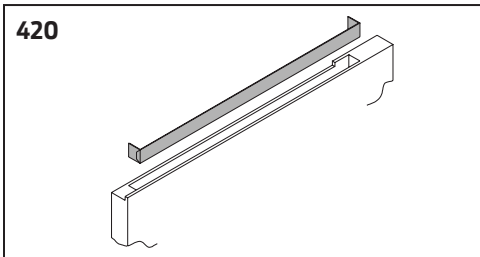
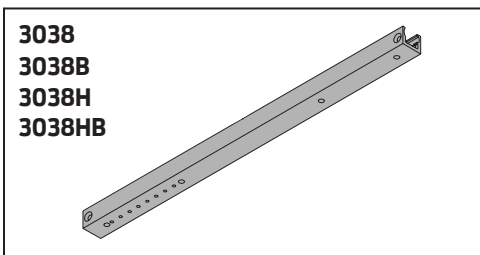
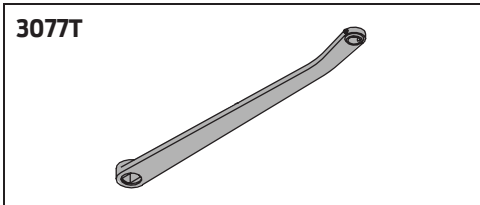
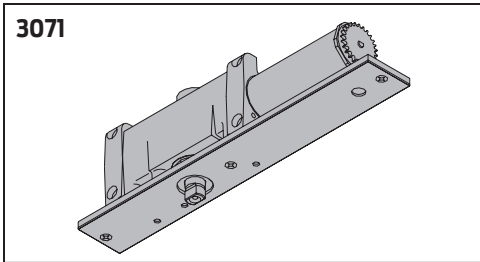
Mounts in track to assist backcheck. Limits maximum opening.  
Consists of bumper, bumper post, and mounting screw.  
NOTE: Track bumper does not replace auxiliary stop.

### HOLD-OPEN CLIP, 2010-3054

Mounts in track to provide hold-open function.  
Hold-open point controlled by clip location.

### TRACK ROLLER, 2010-3034

Quiet, low friction roller assembly.  
Shoulder dimension "X" = 1/16" (2mm).

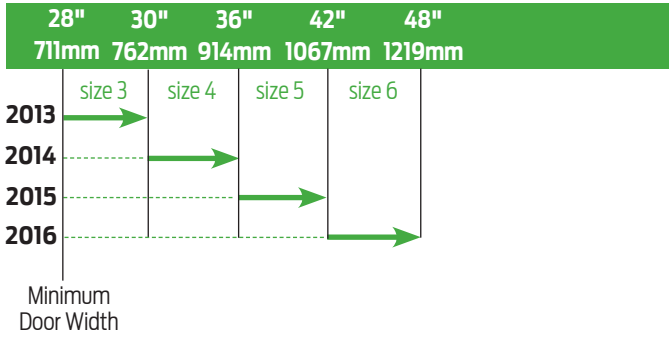


# 2010 SERIES

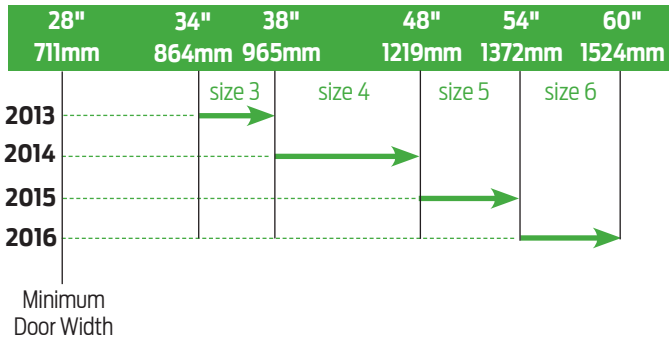
## TABLE OF SIZES

Select closer based on width of door.  
 2010 Series cylinders available in size 1, 3, 4, 5, or 6.  
 Closing power of all 2010 Series closers may be increased 15%.  
 Specify next higher size closer where strong drafts exist.

### EXTERIOR (and VESTIBULE) DOOR WIDTH



### INTERIOR DOOR WIDTH




→ Indicates recommended range of door width for closer size.

## REDUCED OPENING FORCE 2010 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.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	2014	2014	2015
	5.0* lbs.	2011	2011	2013

\* Maximum opening force.

## HOW-TO-ORDER 2010 SERIES CLOSERS

### 1. SELECT CYLINDER SIZE

- 2011 (ADA)
- 2013
- 2014
- 2015
- 2016

### 2. SPECIFY HAND

- RH
- LH

### 3. SPECIFY FINISH

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

### Closer will be shipped with:

- FINISH PLATE,
- TRACK ARM,
- TRACK ROLLER,
- STANDARD TRACK,
- WOOD and MACHINE SCREW PACK,  
*unless options listed below are selected.*

## CLOSER OPTIONS

### TRACK

- Standard with Bumper (BUMPER)
- Hold-open (H)
- Hold-open with Bumper (HBUMPER)

### FINISHES

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

### SCREW PACK

- TORX Machine Screw (TORX)

### INSTALLATION ACCESSORIES

- Fire Shield, 2010-420

### SPECIAL TEMPLATE

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