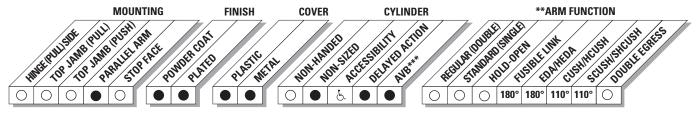


The 4110 is LCN's best performing heavy duty closer designed specifically for institutional and other rugged high traffic applications.

- Cast Iron
- Extra Duty Forged Steel Arm Standard
- Double Heat Treated Steel Pinion
- All Weather Fluid
- Advanced Variable Backcheck
- LCN Patented Green Dial
- UL & cUL Listed
- Peel-n-Stick Templates for Fast and Accurate Installations
- Standard 4110 Series closer is shipped with Extra Duty arm, standard plastic cover, 4110-201 FIFTH SCREW SPACER and self reaming and tapping screws. See 4110 Series pages 57 & 58 for options.
- Sized cylinders adjustable for interior doors to 5'0" and exterior doors to 4'0".
- Non-sized cylinder adjustable for interior doors to 4′6″ and exterior doors to 3′6″.
- Closer mounts parallel arm, specify right or left swinging door.
- 4111 cylinder meets ADA requirements. See 4110 Series page 59.
- Standard or optional custom powder coat finish.
- Optional plated finish on metal cover, arm and fasteners.
- Optional SRI primer for installations in corrosive conditions is available with powder coat only.
- The 4110 Series is UL and cUL listed for self-closing doors without hold-open.
- Tested and certified under ANSI Standard A156.4, grade one.





- AVAILABLENOT AVAILABLE
- & Closer available with less than 5.0 lbs. opening force on 36" door.
- \*\* Maximum opening/hold-open point with standard template.
- \*\*\* Advanced Variable Backcheck.



# PARALLEL ARM (PUSH SIDE) MOUNTING

### **MAXIMUM OPENING**

EDA or Fusible Link arm can be templated for 100°.

- $\triangle$  = 5-15/16" (151 mm)
- (B) = 7-1/4" (184 mm)

1400

- $\triangle$  = 4-7/16" (113 mm)
- (B) = 5-3/4" (146 mm)

or 180°.

- $\triangle$  = 2-15/16" (75 mm)
- (B) = 4-1/4" (108 mm)

Hold-open points up to maximum opening with HEDA or Fusible Link arm.

CUSH arm can be templated for maximum opening at 85%.

- (A) = 8-5/16" (211 mm)
- (244 mm)

900

- $\triangle$  = 7-11/16" (195 mm)
- (B) = 9'' (229 mm)

1000

- $\triangle$  = 6-7/16" (164 mm)
- (B) = 7-3/4" (197 mm)

or 1100

- $\triangle$  = 5-9/16" (141 mm)
- (B) = 6-7/8" (175 mm)

Hold-open point at maximum opening with HCUSH arm.

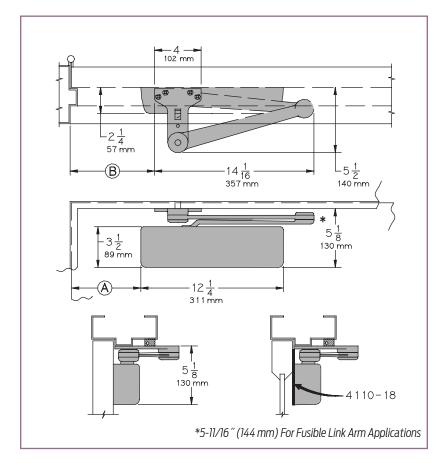
Spring Cush hold-open points are approximately 5° less than templated stop point.

#### **Options**

- Size 6 or non-sized cylinder.
- Delayed Action and/or Advanced Variable Backcheck cylinder.
- HEDA, CUSH, HCUSH, SPRING CUSH, SPRING HCUSH or Fusible Link arm.
- Metal cover.

## **Special Templates**

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



- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point, where a door cannot swing 180°, or where CUSH-N-STOP arm is not used.
- **Clearance** for EDA, or CUSH shoe is 5-1/2" (140 mm) from door face.
- **Top Rail** 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 rabetted 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.
- **Cush Arm** requires CUSH SHOE SUPPORT, 4110-30 for fifth screw anchorage with CUSH arms.
- **Delayed Action** 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** cylinder starts backcheck at approximately 45° instead of the normal 75°. Add suffix "AVB" to selected cylinder.



# **CYLINDERS**

#### **CYLINDER, 4110-3071**

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4110 Series page 59.

### **COVERS**

#### COVER, 4110-72

Standard, non-handed plastic cover.

#### **METAL COVER, 4110-72MC**

Optional, handed cover. Required for plated finishes and custom powder coat finishes.

# **ARMS**

### EXTRA DUTY ARM, 4110-3077EDA, 4110-3077EDAG

Non-handed parallel arm features forged, solid steel main and forearm for potentially abusive installations.

Optional 4110-62G thick hub shoe for blade stop clearance.

#### HOLD-OPEN ARM 4110-3049EDA

Optional handed arm provides hold-open function, adjustable at shoe.

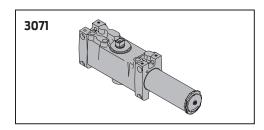
#### FUSIBLE LINK ARM, 4110-3049FL

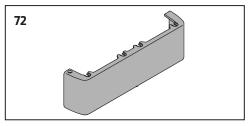
Optional, handed arm releases hold-open function adjustable at shoe when exposed to temperatures above 165° F.

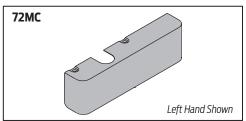
NOTE: Check local codes before specifing FL arms. NOT A life safety product!

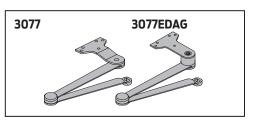
# **CUSH-N-STOP ARM, 4110-3077CNS**

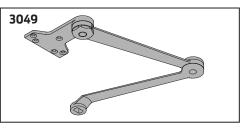
Non-handed parallel arm features solid forged steel main arm and forearm with built-in stop in soffit shoe.

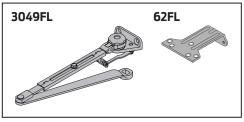


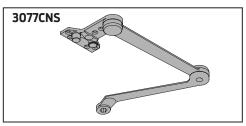












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#### H-CUSH ARM 4110-3049CNS

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

#### SPRING CUSH ARM, 4110-3077SCNS

Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe.



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

# **INSTALLATION ACCESSORIES**

#### **PLATE. 4110-18**

Required for push side mount where top rail is less than 5-1/8" (130 mm), measured from the stop. Plate requires minimum 2" (51 mm) minimum top rail. Plate also used with CUSH Arm installations.

### **CUSH SHOE SUPPORT, 4110-30**

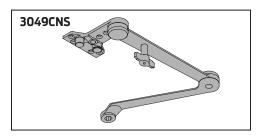
Provides anchorage for fifth screw used with CUSH arm, where reveal is less than 3-1/16″ (78 mm).

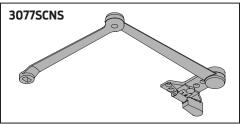
#### **BLADE STOP SPACER, 4110-61**

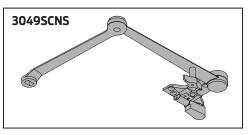
Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop

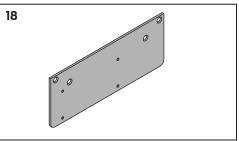
# PA FLUSH PANEL ADAPTER, 4110-419

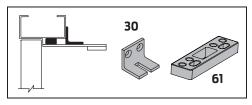
Provides horizontal mounting surface for CUSH shoe on single rabetted or flush frame.

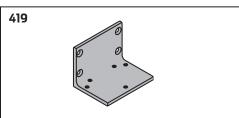














#### **TABLE OF SIZES**

Select closer based on width of door.

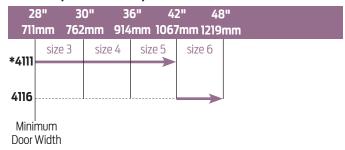
The spring power of non-sized 4111 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3.

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**



<sup>\*</sup> Adjustable Size 1 thru 5

#### INTERIOR DOOR WIDTH

28 711		4" 38 imm 965			" 60" mm 1524mm
*4111	size 2	size 3	size 4	size 5	size 6
4116					<b>——</b>
Minir Door \					

Indicates recommended range of door width for closer size.

### **REDUCED OPENING FORCE 4110 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"
Ė	8.5* lbs.	4111	4111	4111
	5.0* lbs.	4111	4111	4111

<sup>\*</sup> Maximum opening force.

# HOW-TO-ORDER 4110 SERIES CLOSERS

#### 1. SELECT CYLINDER SIZE

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

#### 2. SPECIFY HAND

- $\square RH$
- $\sqcap LH$

#### 3. SELECT FINISH

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

## Closer will be shipped with:

- STANDARD COVER.
- FIFTH SCREW SPACER.
- EDA ARM.
- SELF-REAMING and TAPPING SCREWS unless options listed below are selected.

# 4110 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 PACK**

- ☐ 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

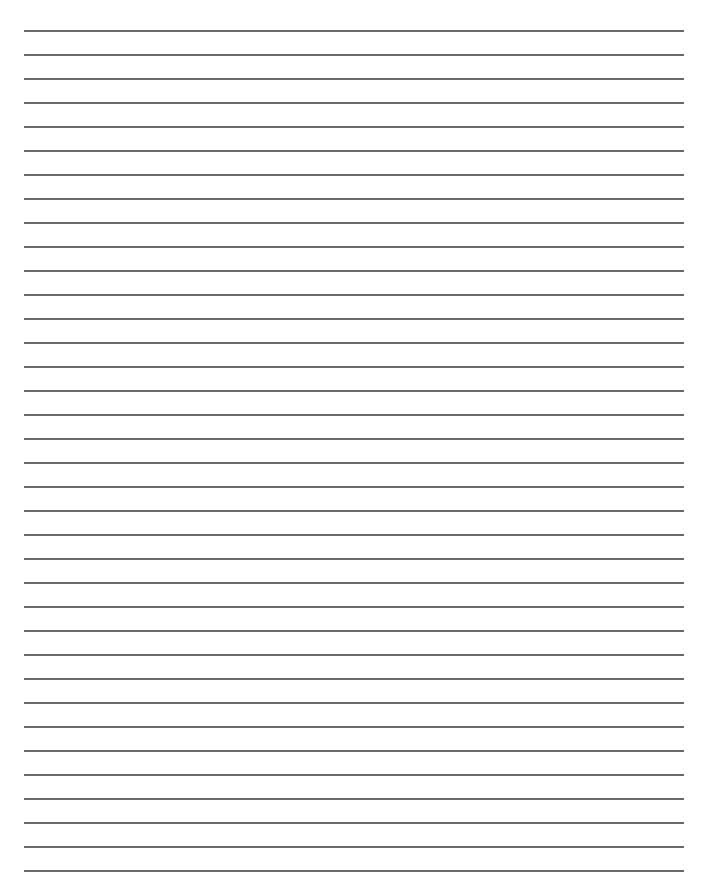
#### **SPECIAL TEMPLATE**

$\square S$	Γ-					



<sup>\*</sup> Adjustable Size 1 thru 5.

# **Notes**



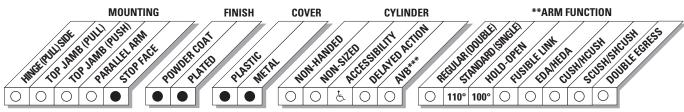




The 4110T is LCN's best performing heavy duty track closer designed specifically for interior doors in institutional and other high traffic applications.

- Cast Iron
- Forged Steel Main Arm
- Double Heat Treated Steel Pinion
- All Weather Fluid
- UL & cUL Listed
- Peel-n-Stick Templates for Fast and Accurate Installations

- Standard 4110T Series closer is shipped with standard arm, standard track, track roller, standard plastic cover and self reaming and tapping screws. See 4110T Series pages 63 & 64 for options.
- Sized cylinders for interior doors to 4′0″.
- Closer mounts stop face side, specify right or left swinging door.
- Standard or optional custom powder coat finish.
- Optional plated finish on metal cover, arm and fasteners.
- Optional SRI primer for installations in corrosive conditions is available with powder coat only.
- The 4110T Series is UL and cUL listed with a standard track for self-closing doors.
- Tested and certified under ANSI Standard A156.4, grade one.



AVAILABLENOT AVAILABLE

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



# STOP FACE (PUSH SIDE) MOUNTING

#### **MAXIMUM OPENING**

Templating allows 110° with standard track arm, limited to 100° with optional bumper tracks.

Hold-open points at 85°, 90°, 95°, or 100° with hold-open tracks.

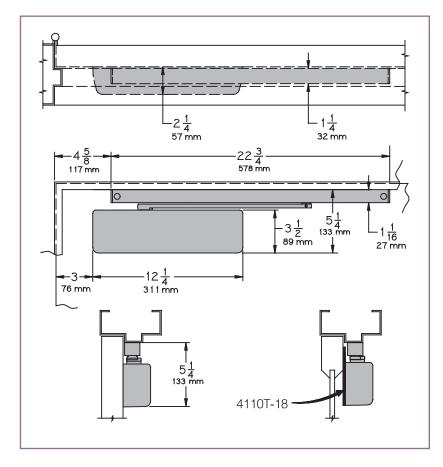
Please note that many track style door closers are capable of allowing 180° of door swing. Be aware that the majority of track style closers are at their weakest closing force in the 180° – 130° range. Consult factory for applications where an exterior or large/heavy door must swing 180°.

# **Options**

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Metal cover.

#### **Special Templates**

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



- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 110°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- **Clearance** projects 2-1/4" (57 mm) from face of door.
- **Top Rail** less than 5-1/4" (133 mm) measured from stop, requires PLATE, 4110T-18. Plate requires 2-1/4" (57 mm) minimum.
- **Stop Width** minimum 1-1/4" (32 mm).



# **CYLINDERS**

#### CYLINDER, 4110T-3071

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4110T Series page 65.

### **COVERS**

### COVER, 4110T-72

Standard, non-handed plastic cover.

#### **METAL COVER, 4110T-72MC**

Optional, handed cover. Required for plated finishes and custom powder coat finishes.

### **ARM**

#### **STANDARD ARM, 4110T-3077T**

Handed arm. Roller not included with arm.

#### TRACKS

#### STANDARD TRACK, 4110T-3038

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

#### STANDARD TRACK with BUMPER, 4110T-3038B

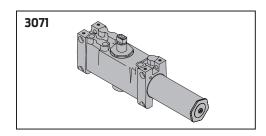
Optional non hold-open, non-handed track with bumper assembly installed. Will accept hold-open clip.

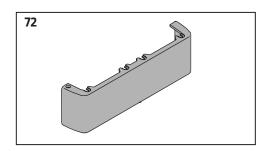
### HOLD-OPEN TRACK, 4110T-3038H

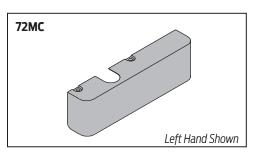
Optional, non-handed track with hold-open clip installed. Will accept bumper assembly.

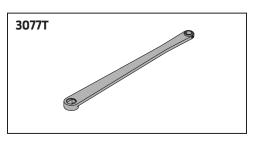
#### **HOLD-OPEN TRACK with BUMPER, 4110T-3038HB**

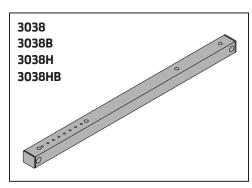
Optional, non-handed track with hold-open clip and bumper assembly installed.













# **INSTALLATION ACCESSORIES**

#### **PLATE, 4110T-18**

Required where top rail, when measured from the stop, is less than 5-1/4" (133 mm). Plate requires minimum 2-1/4" (57 mm) minimum top rail.

### **TRACK BUMPER, 4110T-169**

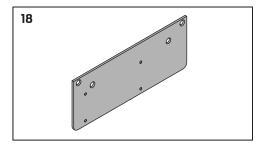
Mounts in track to assist backcheck, not replace auxiliary stop. Limits maximum opening. Consists of bumper, bumper post, and mounting screw.

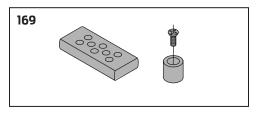
### **HOLD-OPEN CLIP, 4110T-3054**

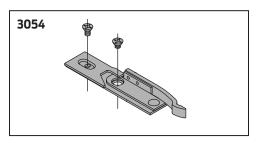
Mounts in track to provide hold-open function. Hold-open point controlled by clip location. Consists of clip and mounting screws.

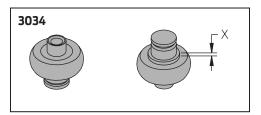
### **TRACK ROLLER, 4110T-3034**

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











### **TABLE OF SIZES**

Select closer based on width of door. Sized 4110T series cylinders available in size 1, 3 or 4. Closing power of all 4110T Series closers may be increased 15%. Specify next higher size closer where strong drafts exist.

#### INTERIOR DOOR WIDTH



Indicates recommended range of door width for closer size.

## REDUCED OPENING FORCE 4110T 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 effecting closing power.

E	DOOR WIDTH	36"	42"	48"		
	8.5* lbs.	N/A	N/A	N/A		
	5.0* lbs.	4111T	4111T	4111T		

<sup>\*</sup> Maximum opening force.

# **HOW-TO-ORDER**

# **4110T SERIES CLOSERS** 1. SELECT CYLINDER SIZE

# □4111T (ADA)

- □4113T
- □4114T

## 2. SPECIFY HAND

- $\sqcap RH$
- $\sqcap LH$

#### 3. SELECT FINISH

☐ Standard Powder Coat Aluminum, Dark Bronze, Statuary, Light Bronze, Black, Brass.

### Closer will be shipped with:

- STANDARD COVER,
- STANDARD ARM,
- TRACK ROLLER,
- STANDARD TRACK,
- SELF-REAMING and TAPPING SCREWS unless options listed below are selected.

# **CLOSER OPTIONS**

#### **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 TRACK**

- ☐ Standard with Bumper (BUMPER)
- ☐ Hold-Open (HO)
- ☐ Hold-Open with Bumper (HBUMPER)

#### SPECIFY SCREW PACK

- ☐ TB\* w/Self-Reaming and 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, 4110T-18

#### **SPECIAL TEMPLATE**

□ ST-



# **Notes**

