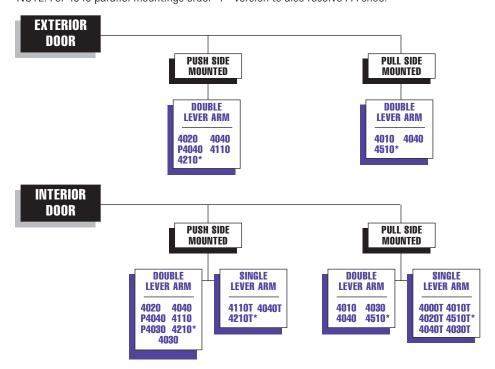
# **4000 SERIES**

### PRODUCT SELECTION GUIDE

Surface mounted 4000 Series LCN closers feature a modern design engineered for each application, easy installation, and superior performance. This guide is based on the desired mounting of the closer.

NOTE: For 4040 parallel mountings order "P" version to also receive PA shoe.



<sup>\*</sup> INDICATES HIGH SECURITY CLOSER. REFER TO THAT SECTION OF THE CATALOG. "P" = PARALLEL ARM MOUNTING

### PRODUCT COMPARISON

This chart shows a basic comparison of 4000 Series Closers. Refer to the specific closer chapter for complete details.

					MOU		NG			FIN	IISH			COVER					INDER							ARM F	UNCT	ION
	/	re pu	JAMES JAMES	o JAM	APUSH ARALEI	ARM	, Ct Pr	JWDER	CORT		ASTIC	TAL	cici	MER INE	al Har	on si	ictssir	SHITY	ACTION ACTION	/		CULAR	AND	did of	JSIBLE!	JAHED CO	A HICL	st stylistist
CLOSER Series		1/2	21 10	1 6	×11/5		- 60	24 S	N.	<u> </u>	12.4	EIRL		74	01. 4	Or P	in 4	(K) (K)	10 4	3/		\$ \	l		25/4	D. G	25 C	30
4010		$\cup$		$\circ$	0											6		$\circ$			140	$\cup$	140	140	0	$  \circ  $	$\circ$	
4010T		0		0	0	ш						0		0	0	Ė	0	0		П	$\circ$	180	120	0	0	0	0	
4020	0	0		0	0	ш						0		0		Ė		0	0		180	0	140	140	0	0	0	
4020T	0		0	0	0		•					0		0	0	Ė	0	0	0		0	180	100	0	0	0	0	
4030		0		•	0		•			0	•	0				F	0	0	0		180	0	180	0	110	100	100	
4030T			0	0			•			0		0				Ė	0	0	0		0	180	180	0	0	0	0	
4040		0		•	0		•	•							•	Ė		0	0		120	0	120	0	180	110	110	
4040XP		0		•	0		•	•								Ė	0	0			120	0	120	0	180	110	110	
4040T			0	0	•		•	•			•				•	F	0	0	0		0	120	110	0	0	0	0	
4110	0	0	0	•	0		•	•				0		0	•	Ė			0		0	0	0	180	180	110	110	
4110T	0	0	0	0	•		•	•			•	0		0	0	Ė	0	0	0		0	110	100	0	0	0	0	
4000T	•	0	0	0	0		•	•		•	•	0		•	0	0	0	0	0		0	90	0	0	0	0	0	

AvailableNot available

<sup>\*\*\*</sup> Advanced Variable Backcheck



LCN CLOSERS 121 W. RAILROAD AVE. P.O. BOX 100 PRINCETON, IL, USA 61356-0100 PHONE 800-526-2400 FAX 800-248-1460 www.lcn.ingersollrand.com ©2007 Ingersoll-Rand Company

<sup>&</sup>amp; Closer available with less than 5.0 lbs. opening force on 36" door.

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

# **4000 SERIES**

### **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 4040, 4040T, 4030T) is designed for a specific mounting; hinge side, top jamb, or parallel arm. 4040 closer with regular or hold-open arm mounts hinge side or top jamb. P4030 & P4040 closers include 62PA SHOE required to parallel arm mount either regular or hold-open arm.
- ► Handed for right or left swinging doors, except 4000T, 4030, 4030T, 4040, and 4040T.
- 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 for over 75 years. Design and specification assistance are only a phone call away.

Contact LCN for assistance or technical information at **800-526-2400** or FAX **800-248-1460 (Customer Service)**, Fax **815-879-1495** for Application Engineering.

### **WARRANTY**

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

### **SPECIFICATIONS**

Refer to "SPECIFICATIONS" section for suggested architectural specifications.

### **MATERIALS**

- ► High strength cast iron cylinder.
- ► Forged steel main arms.
- ► One piece **forged steel** piston.
- ► Double heat treated pinion.
- ► **All weather fluid** eliminates seasonal adjustments temperatures ranging 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 closers.

### **FINISHES**

Available in seven standard or optional custom powder coat finishes to blend with door and frame.

- ► LCN's powder coat finish surpasses 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) pretreatment. 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.

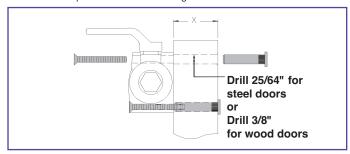
### **POSITIVE PRESSURE**



LCN closers have been certified for three hours by UL to be in compliance with UBC 7-2 (1997) and UL 10C. Contact LCN for specific details on door closer fire ratings.

### **FASTENERS**

4010, 4010T, 4020, 4020T, 4040, 4040T, 4110, 4110T series closers are shipped with: A standard SELF-REAMING and TAPPING SCREW (SRT) pack contains Philips head SRT screws to install the closer 4000T series closers are shipped with: A standard W00D and MACHINE SCREW (WMS) pack contains Philips head wood and machine screws to install the closer. 4030, 4030T series closers are shipped with: A standard W00D 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.

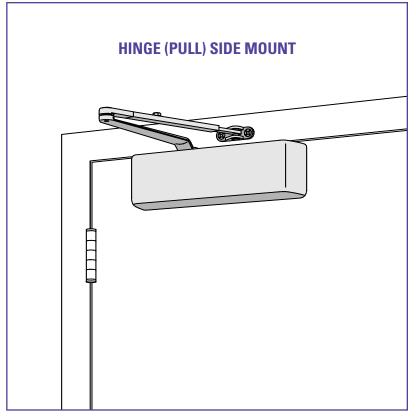


### Notes:

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

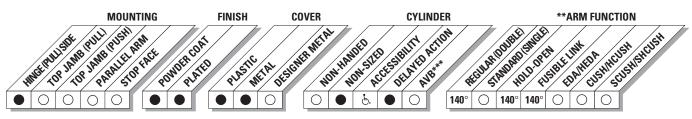


- Standard 4010 series closer is shipped with regular arm, standard plastic cover, and self reaming and tapping screws. See 4010 Series pages 5 & 6 for options.
- ► Sized cylinders for interior doors to 5'0" and exterior doors to 4'0".
- Non-sized cylinder (4011) adjustable for interior doors to 4'6" and exterior doors to 3'6".
- Closer mounts hinge side, specify right or left swinging door.
- ► Corner brackets available. See 4010 Series page 6 for options.
- ► 4011 cylinder meets ADA requirements. See 4010 Series page 7.
- 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 4010 Series is UL and cUL listed with regular or fusible link arms for self-closing doors.
- ► Tested and certified under ANSI Standard A156.4, grade one.



- ► Ten Million Cycles
- ► Cast Iron
- Forged Steel Main Arm
- Double Heat Treated Steel
   Pinion
- ► All Weather Fluid
- ► LCN<sub>®</sub> Fast<sup>™</sup> Power Adjust
- ► Fast & Accurate Installation
- ► UL & cUL Listed





- 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



# HINGE (PULL) SIDE MOUNTING

### **MAXIMUM OPENING**

Can be templated for 100°,

- (A) = 5 15/16" (151 mm)
- $B = 11 \ 15/16" \ (303 \ mm)$  or  $140^{\circ}$ .
  - (A) = 43/16" (106 mm)
  - (B) = 10 3/16" (259 mm)

Hold-open points up to maximum opening with hold-open arm.

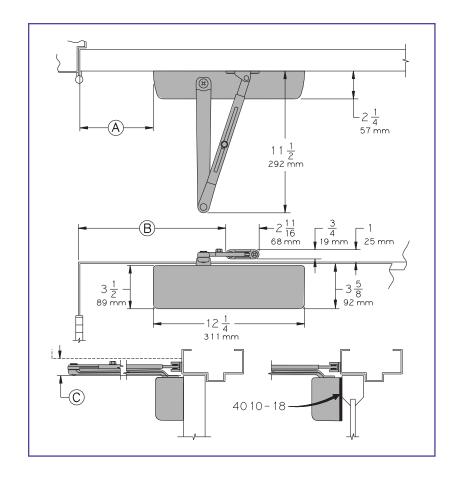
Arm Clearance above door.

Regular arm requires  $\mathbb{C} = 1.1/16''$  (27 mm).

Hold-open arm requires  $\mathbb{C}$  =

1 3/8" (35 mm).

Fusible link arm requires  $\mathbb{C} = 15/8"$  (41 mm).



- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 140°.
- ► **Reveal** should not exceed 3/4" (19 mm). Fusible link arm should not exceed 1/8" (3 mm).
- ► **Top Rail** less than 3 ³/4" (95 mm) requires PLATE, 4010-18. Plate requires 2" (51 mm) minimum.
- ► **Clearance** of 2 1/4" (57 mm) behind door required for 90° installation.
- Delayed Action Add suffix "DEL" to selected cylinder (eg. 4014 DEL). Not available with 4016 cylinder.

Delays closing from maximum opening to approximately 70°. Delay time adjustable up to approximately 1 minute.

- ► **Bull Nose Trim** requires SOFFIT SHOE, 4010-65.
- ► **Corner Bracket** for a door where top jamb or parallel arm mounting cannot be used. Consult factory on all corner bracket mounts.

### **Options**

- Sized or non-sized cylinder.
- Delayed action cylinder.
- Hold-open, H180 (corner bracket only) hold-open, or fusible link arm.
- Metal or lead lined cover.

### **Special Templates**



### **CYLINDERS**

### **CYLINDER, 4010-3071**

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4010 Series page 7.

### **COVERS**

### **COVER, 4010-72**

Standard, non-handed plastic cover.

### **LEAD LINED COVER, 4010-72LL**

Optional non-handed plastic cover.

### **METAL COVER, 4010-72MC**

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

### **ARMS**

### **REGULAR ARM, 4010-3077**

Non-handed arm.

### **HOLD-OPEN ARM, 4010-3049**

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

### HOLD-OPEN H180 ARM, 4010-3049H180

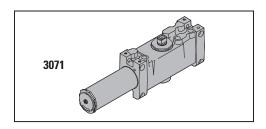
Optional, handed arm provides hold-open function up to 180°, adjustable at shoe.

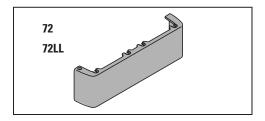
Closer must be mounted on 4010-11 corner bracket.

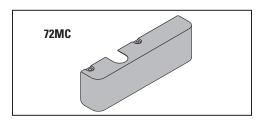
### **FUSIBLE LINK ARM, 4010-3049FL**

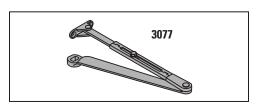
Optional, handed arm releases hold-open function when exposed to temperatures above 165° F.

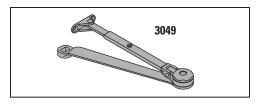
1/8" (3 mm) maximum reveal. NOTE: Check local codes before specifing FL arms. NOT A LIFE SAFETY PRODUCT!

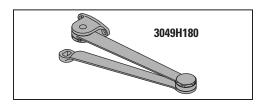


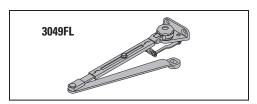














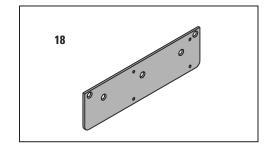
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### **INSTALLATION ACCESSORIES**

### PLATE, 4010-18

Required where top rail is less than 3 3/4" (95 mm).

Plate requires minimum 2" (51 mm) top rail.

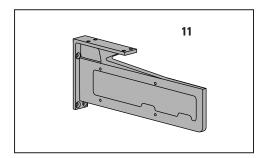


### **CORNER BRACKET, 4010-11**

For doors where top jamb or parallel arm mounted closer can not be used.

Allows  $180^{\circ}$  opening with regular or H180 hold-open arm. Projects 5" (127 mm) from stop,  $13\ 11/16$ " (348 mm) from frame.

Requires opposite hand closer.



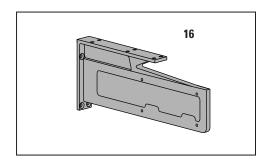
### **CORNER BRACKET, 4010-16**

For doors where top jamb or parallel arm mounted closer can not be used.

Allows 125° opening with regular arm or 100° with hold-open or fusible link arm.

Projects 5" (127 mm) from stop, 12 13/16" (325 mm) from frame.

Requires opposite hand closer.



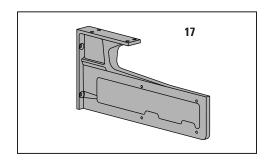
### **CORNER BRACKET, 4010-17**

Allows 110° opening with regular arm.

Designed to lower closer on door for clearance of auxiliary door holders (consult factory).

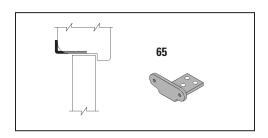
Projects 6 3/8" (162 mm) from stop, 13 11/16" (348 mm) from frame.

Requires opposite hand closer.



### **SOFFIT SHOE, 4010-65**

Adapts hinge side shoe to rounded or bull nose trim.





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### **TABLE OF SIZES** Select closer based on width of door.

The spring power of non-sized 4011 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3.

Sized 4010 series cylinders available in size 2, 3, 4, 5, or 6.

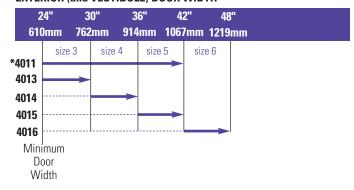
Closing power of all 4010 Series closers may be increased 50%.

Specify next higher size closer where strong drafts exist.

Delayed action not available with 4016 cylinder.

Indicates recommended range of door width for closer size.

### **EXTERIOR (and VESTIBULE) DOOR WIDTH**



### INTERIOR DOOR WIDTH

24 610		34" 864mm	38" 965mm	48 1219	" 54" nm 1372n		ım
*4011 4012	size 2	size	e 3	size 4	size 5	size 6	
4013 4014 4015					<b>→</b>		
4016   Minir Do Wid	or	* Adjus	stable Size	e 1 thru 5.			l

### **REDUCED OPENING FORCE 4010 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.

	DOOR WIDTH	36"	42"	48"
E	8.5* lbs.	4011	4011	4011
	5.0* lbs.	4011	4011	4011

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

### HOW-TO-ORDER S

☐ 4011 (adjustable from size 1 to 5)

		OII		•	
4010	SER	ES	CLO	OSE	RS

1. SELECT CYLINDER SIZE

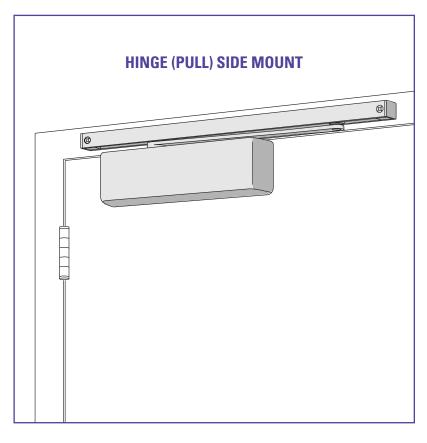
	4013
	4014
	4015
	4016 (DEL not available)
2. 3	SPECIFY HAND
	RH
	LH
3. 3	SELECT FINISH
	Standard Powder Coat
	Aluminum, Dark Bronze , Tan, Statuary,
	Light Bronze, Black, Brass.
	Closer will be shipped with:
	- STANDARD COVER,
	- REGULAR ARM,
	- SELF-REAMING and TAPPING SCREWS,
	unless options listed below are selected.
CI	OSER OPTIONS
	LINDER
	Delayed Action (DEL)
	VER
	Lead Lined (LL)
	Metal (MC)
AR	
П	Hold-Open (H)
	H180 Hold-Open (H180) (corner bracket mount
on	
	Fusible Link, 165°F (FL)
	FINISH
	Custom Powder Coat (RAL)
	(handed metal cover required)
	Plated Finish, US
	(handed metal cover required)
	SRI primer
SC	REW PACK
	TB* & SRT Screw (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".
IN	STALLATION ACCESSORIES
	Plate, 4010-18
	Bracket, 4010-11
	Bracket, 4010-16
	Bracket, 4010-17
	Soffit Shoe, 4010-65
SP	ECIAL TEMPLATE
П	ST-



# **Notes**

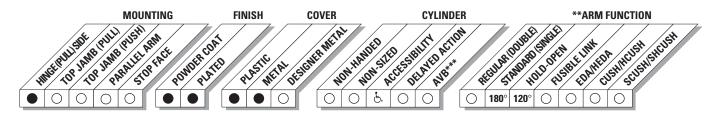






The 4010T SMOOTHEE® is LCN's best performing heavy duty track closer designed specifically for interior doors in institutional and other rugged high traffic applications.

- Cast Iron
- ► Forged Steel Arm
- Double Heat Treated Steel Pinion
- ► All Weather Fluid
- ► Fast & Accurate Installation
- ► UL & cUL Listed
- Standard 4010T series closer is shipped with standard arm, standard track, track roller, standard plastic cover, and self reaming and tapping screws. See 4010T Series pages 11 & 12 for options.
- Sized cylinders for interior doors to 4'0".
- Closer mounts hinge side, specify right or left swinging door.
- ► Closers to meet ADA requirements. See 4010T Series page 13.
- 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.
- ► 4010T-DE available for double egress frames. See 4010T Series page 11.
- ► The 4010T Series is UL and cUL listed with a standard track for self-closing doors.
- ► Tested and certified under ANSI Standard A156.4, grade one.



- Available
- O Not available
- & Closer available with less than 5.0 lbs. opening force on 36" door.
- \*\* Maximum opening with standard template.
- \*\*\* Advanced Variable Backcheck



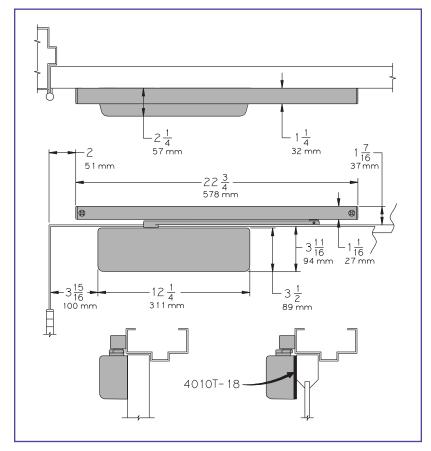
# HINGE (PULL) SIDE MOUNTING

### **MAXIMUM OPENING**

Templating allows 180° with standard arm, limited to 120° when optional bumper is installed.

Consult factory if door will be held open at 180°

Hold-open points at , 90°, 95°, 100°, 105°, 110° or 120°, depending on the clip location in track.



- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or 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.

- ► **Reveal** should not exceed 1/8" (3 mm) for standard arm. Should not exceed 3 5/16" (84 mm) for double egress arm.
- ► **Top Rail** less than 3 3/4" (95 mm) requires PLATE, 4010T-18. Plate requires 2" (51 mm) minimum.
- ► **Head Frame** requires 1 1/2" (38 mm) minimum.
- ► Clearance of 2 1/4" (57 mm) behind door required for 90° or 180° installation.

### **Options**

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Double egress arm.
- Metal or lead lined cover.

### **Special Templates**



### **CYLINDERS**

### **CYLINDER, 4010T-3071**

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4010T Series page 13.

### **COVERS**

### **COVER, 4010T-72**

Standard, non-handed plastic cover.

### **LEAD LINED COVER, 4010T-72LL**

Optional, non-handed plastic cover.

### **METAL COVER. 4010T-72MC**

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

### **ARMS**

### STANDARD ARM, 4010T-3077T

Handed arm.

Arm does not include track roller.

### **DOUBLE EGRESS ARM, 4010T-3077DE**

Optional, handed arm for double egress doors and frames. Arm does not include track roller.

Maximum reveal is 3 5/16" (84mm).

### **TRACKS**

### STANDARD TRACK, 4010T-3038

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

### STANDARD TRACK with BUMPER, 4010T-3038B

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

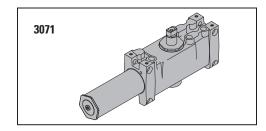
Will accept hold-open clip.

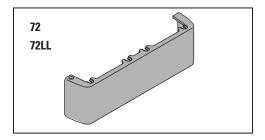
### HOLD-OPEN TRACK, 4010T-3038H

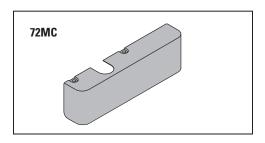
Optional, non-handed track with hold-open clip installed. Will accept bumper assembly.

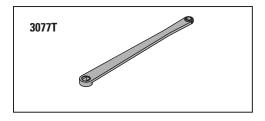
### **HOLD-OPEN TRACK with BUMPER, 4010T-3038HB**

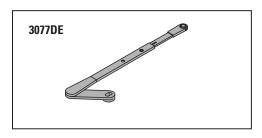
Optional, non-handed track with hold-open clip and bumper assembly installed.

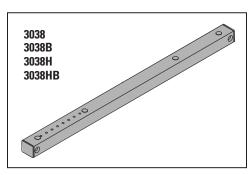












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### **INSTALLATION ACCESSORIES**

### **PLATE, 4010T-18**

Required where top rail is less than 3 3/4" (95 mm). Plate requires minimum 2" (51 mm) top rail.



Mounts in track to assist backcheck, does not replace auxiliary stop. Limits maximum opening.

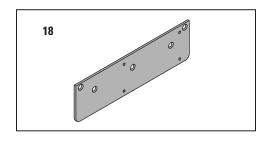
Consists of bumper, bumper post, and mounting screw.

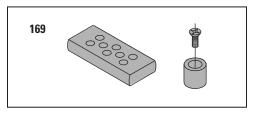


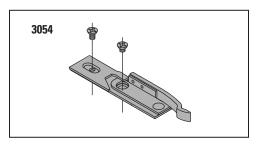
Mounts in track to provide hold-open function. Hold-open point controlled by clip location. Consists of clip and mounting screws.

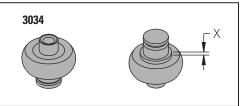
### TRACK ROLLER, 4010T-3034

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







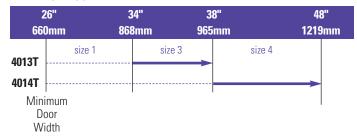




**TABLE OF SIZES** Select closer based on width of door. Sized 4010T series cylinders available in size 1,3 or 4. Closing power of all 4010T Series closers may be increased 15%.

Indicates recommended range of door width for closer size.

### INTERIOR DOOR WIDTH



\*\*Note: Using this closer on double-egress doors and frames requires the closer to be ordered with a "DE" suffix (i.e., 4014T DE). Standard "DE" option will accommodate pull side reveals up to 3 5/16". For deeper reveals, consult factory.

### **REDUCED OPENING FORCE 4010T 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.

	DOOR WIDTH	36"	42"	48"
E	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4011T	4011T	4011T

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

HUVV-	าบ-บหม	EK
4010T	<b>SERIES</b>	<b>CLOSERS</b>
1. SPEC	IFY CYLIND	DER SIZE

2. \$	SPECIFY HAND
	4014T
	4013T
	4011T (ADA)

Ш	KH	
	LH	
3 9	SPECIEV FINISH	

٠. ٠	
	Standard Powder Coat
	Aluminum, Dark Bronze , Tan, 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
☐ Lead Lined (LL)
☐ Metal (MC)
ARM
□ Double Egress (DE)**
TRACK
☐ Regular with Bumper (BUMPER)
☐ Hold-Open (HO)
☐ Hold-Open with Bumper (HBUMPER)
FINISH
☐ Custom Powder Coat (RAL)
(handed metal cover required)
Distant Finish LIC

Ш	Custom Powder Coat (nAL)
	(handed metal cover required)
	Plated Finish, US
	(handed metal cover required)
	SRI primer

### **SCREW PACK**

$\Box$ 1	ΓB*	&	SRT	Screw	(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 ACCESSORY**

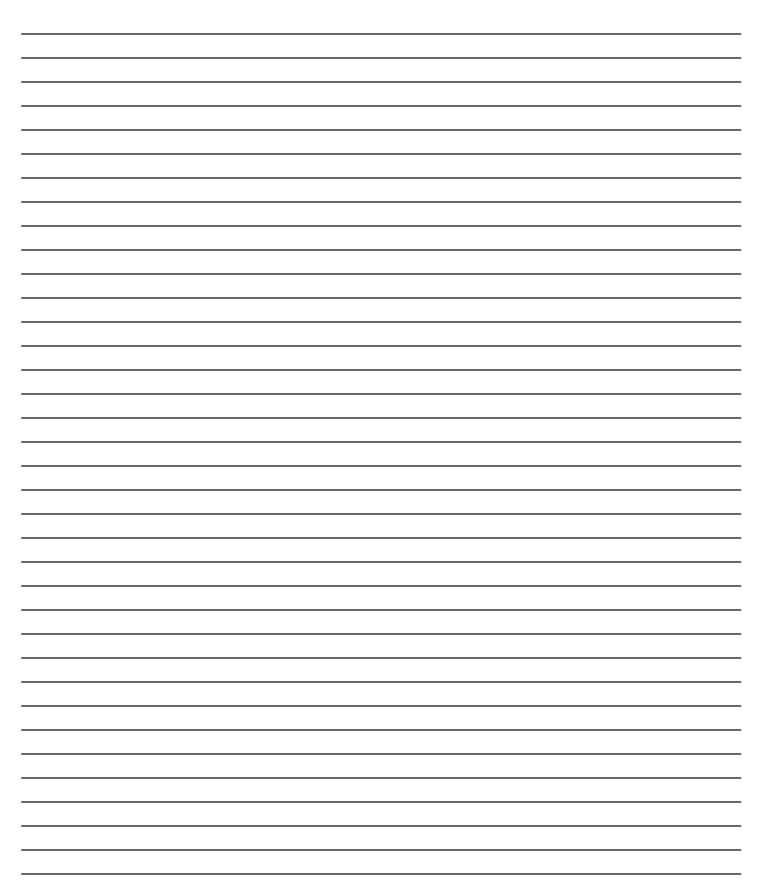
☐ Plate, 4010T-18

### **SPECIAL TEMPLATE**

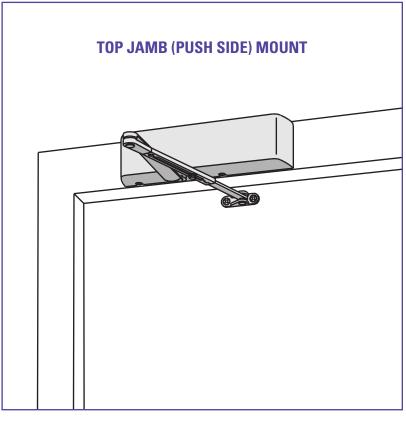
□ ST-\_\_\_\_



## **Notes**







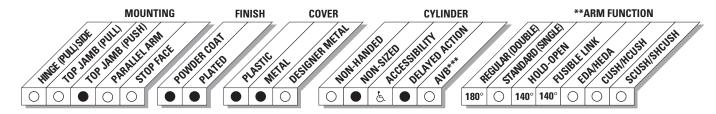
Standard 4020 series closer is shipped with regular arm, standard plastic cover, and self reaming and tapping screws. See 4020 Series page 17 for options.

- ► Sized cylinders for interior doors to 5'0" and exterior doors to 4'0".
- ► Non-sized cylinder (4021) adjustable for interior doors to 4'6" and exterior doors to 3'6".
- ► Closer mounts top jamb (push side), specify right or left swinging door.
- ► 4021 cylinder meets ADA requirements. See 4020 Series page 18.
- 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 4020 Series is UL and cUL listed with regular or fusible link arms for self-closing doors.
- ► Tested and certified under ANSI Standard A156.4, grade one.

The 4020 SMOOTHEE® is LCN's best performing heavy duty closer designed specifically for institutional and other rugged high traffic applications.

- ► Ten Million Cycles
- Cast Iron
- ► Forged Steel Main Arm
- ► Double Heat Treated Steel
  Pinion
- ► All Weather Fluid
- ► LCN® Fast™ Power Adjust
- ► Fast & Accurate Installation
- ► UL & cUL Listed





- 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



# TOP JAMB (PUSH SIDE) MOUNTING

### **MAXIMUM OPENING**

Can be templated for 100°,

- (A) = 6" (152 mm)
- B = 12 3/8" (314 mm)

140°.

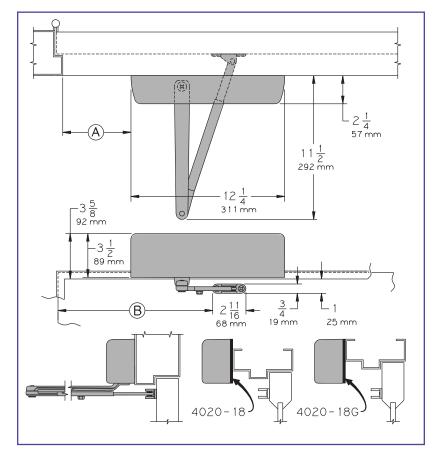
- (A) = 4'' (102 mm)
- (B) = 10 3/8" (264 mm)

or 180°.

- (A) = 2'' (51 mm)
- (B) = 83/8" (213 mm)

Hold-open points up to maximum opening or 140°, whichever is less, for hold-open or fusible link arm.

For hold-open beyond 140°, use 4110 Series closer.



- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or where the door cannot swing 180°.
- Reveal of 2 9/16" (65 mm) allows 180° opening with regular arm.
   4 13/16" (122 mm) allows up to 140° opening with regular arm.
   8" (203 mm) allows up to 140° opening with LONG ARM where standard rod and shoe is replaced with optional LONG ROD and SHOE (4020-79LR).
- ► **Head Frame** less than 3 7/16" (87 mm) requires PLATE, 4020-18 Use PLATE, 4020-18G for flush ceiling condition. Either plate requires 1 3/4" (44 mm) minimum.
- ► **Top Rail** requires minimum 1 1/2" (38 mm). Closer on 4020-18 plate requires 2" (51 mm) minimum. Closer on 4020-18G plate requires 2 3/4" (70 mm) minimum.
- Delayed Action Add suffix "DEL" to selected cylinder (eg. 4024 DEL).
   Not available with 4026 cylinder.
   Delays closing from maximum opening to approximately 75°.
   Delay time adjustable up to approximately 1 minute.

### **Options**

- Sized or non-sized cylinder.
- Delayed action cylinder.
- ► Hold-open, or fusible link arm.
- Metal or lead lined cover.

### **Special Templates**



### **CYLINDERS**

### CYLINDER, 4020-3071

Standard, handed cast iron cylinder assembly.
For various applications see "Table of Sizes" on 4020 Series page 18.

### **COVERS**

### **COVER, 4020-72**

Standard, handed plastic cover.

### **LEAD LINED COVER, 4020-72LL**

Optional handed plastic cover.

### **METAL COVER, 4020-72MC**

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

### **ARMS**

### **REGULAR ARM, 4020-3077**

Non-handed arm.

### LONG ARM, 4020-3077L

Optional non-handed arm includes 4020-79LR for deep reveals. (see page 16 for allowable reveals)

### **HOLD-OPEN ARM, 4020-3049**

Optional, handed arm provides hold-open function, adjustable at elbow. 5 3/4" (146 mm) maximum reveal, 140° hold open.

### **FUSIBLE LINK ARM, 4020-3049FL**

Optional, handed arm releases hold-open function, adjustable at shoe, when exposed to temperatures above 165° F. 3 7/8" (98 mm) maximum reveal. NOTE: Check local codes before specifing FL arms. NOT A LIFE SAFETY PRODUCT!

### **INSTALLATION ACCESSORIES**

### **PLATE, 4020-18**

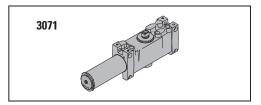
Required where head frame is less than 3 7/16" (87 mm). Plate requires minimum 1 3/4" (44 mm) minimum head frame and 2" (51 mm) top rail.

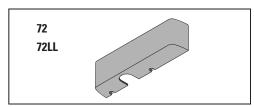
3 7/8" (98 mm) maximum reveal.

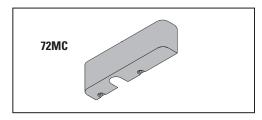
### **PLATE, 4020-18G**

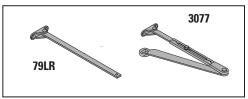
For flush ceiling condition.

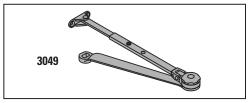
Plate requires minimum 1 3/4" (44 mm) minimum head frame and 2 3/4" (70 mm) top rail.

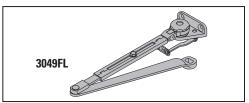


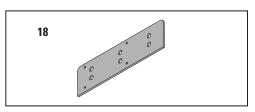


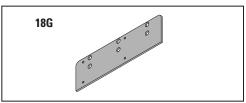












LCN CLOSERS 121 W. RAILROAD AVE. P.O. BOX 100 PRINCETON, IL, USA 61356-0100 PHONE 800-526-2400 FAX 800-248-1460 www.lcn.ingersollrand.com 3/07



**TABLE OF SIZES** Select closer based on width of door.

The spring power of non-sized 4021 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3.

Sized 4020 series cylinders available in size 2, 3, 4, 5, or 6.

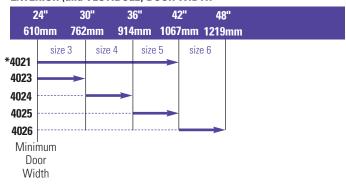
Closing power of all 4020 Series closers may be increased 50%.

Specify next higher size closer where strong drafts exist.

Delayed action not available with 4026 cylinder.

Indicates recommended range of door width for closer size.

### **EXTERIOR (and VESTIBULE) DOOR WIDTH**



### **INTERIOR DOOR WIDTH**

_	4" )mm	34" 864mm	38 965n		48" 1219n		60" nm 1524m	ım
*4021 4022 4023 4024 4025 4026	size 2	siz	e 3	size 4	<b>-&gt;</b>	size 5	size 6	
Minii Do Wid	or	* /	Adjusta	able Size 1	thru 5			

### **REDUCED OPENING FORCE 4020 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.

	DOOR WIDTH	36"	42"	48"
Ė	8.5* lbs.	4021	4021	4021
	5.0* lbs.	4021	4021	4021

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

### HOW-TO-ORDER 4020 SERIES CLOSERS

1. SELECT CYLINDER SIZE  ☐ 4021 (adjustable from size 1 to 5)  ☐ 4022  ☐ 4023
□ 4024
□ 4025
☐ 4026 (DEL not available)
2. SPECIFY HAND
3. SELECT FINISH
☐ Standard Powder Coat
Aluminum, Dark Bronze , Tan, Statuary,
Light Bronze, Black, Brass.
Closer will be shipped with:
- STANDARD COVER,
- REGULAR ARM, - SELF-REAMING and TAPPING SCREWS,
unless options listed below are selected.
CLOSER OPTIONS
CYLINDER
□ Delayed Action ( DEL)
COVER
☐ Lead Lined (LL)
☐ Metal (MC)
ARM
<ul><li>☐ Hold-Open (H)</li><li>☐ Fusible Link, 165°F (FL)</li></ul>
FINISH
☐ Custom Powder Coat (RAL)
(handed metal cover required)
☐ Plated Finish, US
(handed metal cover required)
☐ SRI primer
SCREW PACK
☐ TB* & SRT Screw (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, 4020-18
☐ Plate, 4020-18 ☐ Plate, 4020-18G
□ 1 1015, 4020-100

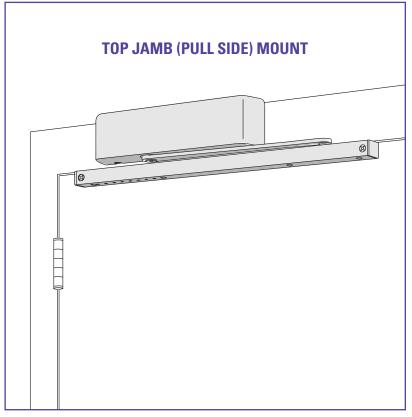


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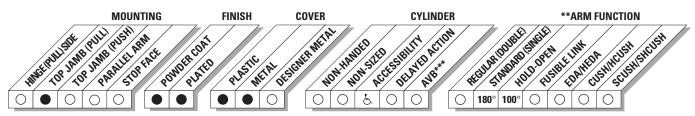
SPECIAL TEMPLATE

ST-\_\_\_\_

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- Standard 4020T series closer is shipped with standard arm, standard track, track roller, standard plastic cover, and self reaming and tapping screws. See 4020T Series pages 21 & 22 for options.
- Sized cylinders for interior doors to 4'0".
- ► Closer mounts top jamb (pull side), specify right or left swinging door.
- ► Closers to meet ADA requirements. See 4020T Series page 23.
- 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 4020T Series is UL and cUL listed with a standard track for selfclosing doors.
- ► Tested and certified under ANSI Standard A156.4, grade one.



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



The 4020T SMOOTHEE® 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 Arm
- ► Double Heat Treated Steel
  Pinion
- ► All Weather Fluid
- ► Fast & Accurate Installation
- UL & cUL Listed

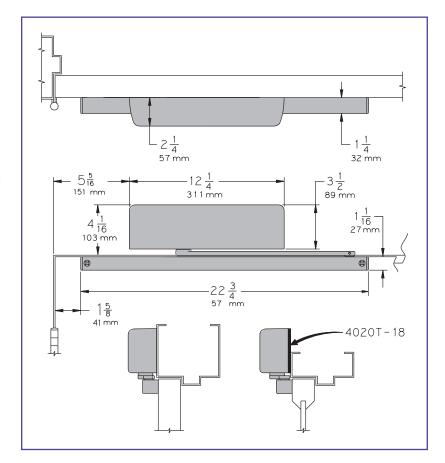
# TOP JAMB (PULL SIDE) MOUNTING

### **MAXIMUM OPENING**

Templating allows 180° with standard track arm, limited to 100° with optional bumper installed.

Consult factory if door will be held open at 180°

Hold-open points at 80°, 85°, 90°, 95°, or 100° with hold-open tracks.



- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or 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.

- ► **Reveal** should not exceed 1/8" (3 mm).
- ► **Head Frame** less than 3 7/8" (98 mm), requires PLATE, 4020T-18. Plate requires 1 3/4" (44 mm) minimum.
- ► **Clearance** of 1 1/2" (38 mm) behind door required for 90° or 180° installation.

### **Options**

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Metal or lead lined cover.

### **Special Templates**



### **CYLINDERS**

### **CYLINDER, 4020T-3071**

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4020T Series page 23.

### **COVERS**

### **COVER, 4020T-72**

Standard, handed plastic cover.

### **LEAD LINED COVER, 4020T-72LL**

Optional, handed plastic cover.

### **METAL COVER, 4020T-72MC**

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

### **ARMS**

### **STANDARD ARM, 4020T-3077T**

Handed arm.

Roller not included with arm.

### **TRACKS**

### STANDARD TRACK, 4020T-3038

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

### STANDARD TRACK with BUMPER, 4020T-3038B

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

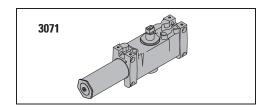
Will accept hold-open clip.

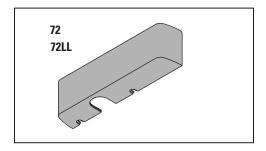
### HOLD-OPEN TRACK, 4020T-3038H

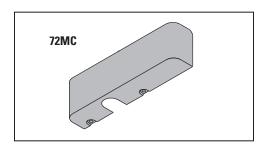
Optional, non-handed track with hold-open clip installed. Will accept bumper assembly.

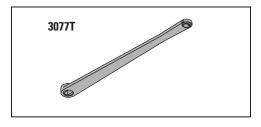
### **HOLD-OPEN TRACK with BUMPER, 4020T-3038HB**

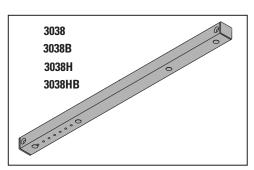
Optional, non-handed track with hold-open clip and bumper assembly installed.









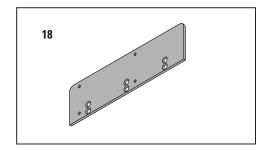




### **INSTALLATION ACCESSORIES**

### **PLATE, 4020T-18**

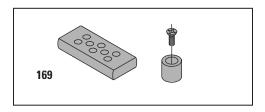
Required where head frame is less than 3 7/8" (98 mm). Plate requires minimum 1 3/4" (44 mm) frame face.



### TRACK BUMPER, 4020T-169

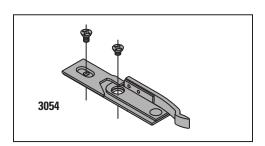
Mounts in track to assist backcheck, not replace auxiliary stop. Limits maximum opening.

Consists of bumper, bumper post, and mounting screw.



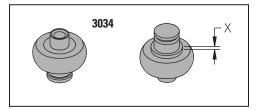
### **HOLD-OPEN CLIP, 4020T-3054**

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



### TRACK ROLLER, 4020T-3034

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





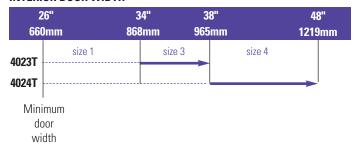
### **TABLE OF SIZES** Select closer based on width of door.

4020T Series cylinders available in size 1, 3 or 4.

Closing power of all 4020T Series closers may be increased 15%. Specify next higher size closer where strong drafts exist

Indicates recommended range of door width for closer size.

### INTERIOR DOOR WIDTH



### **REDUCED OPENING FORCE 4020T 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.

•	DOOR WIDTH	36"	42"	48"
6	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4021T	4021T	4021T

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

### HOW-TO-ORDER 4020T SERIES CLOSERS

1. SELECT CYLINDER SIZE  4021T (ADA)  4023T  4024T  2. SPECIFY HAND  RH  LH  3. SPECIFY FINISH  Standard Powder Coat  Aluminum, Dark Bronze, Tan, 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  Lead Lined (LL)  Metal (MC)  FINISH  Custom Powder Coat (RAL)  (handed metal cover required)  Plated Finish, US  (handed metal cover required)
□ SRI primer  TRACK
☐ Standard with Bumper (BUMPER) ☐ Hold-Open (HO) ☐ Hold-Open with Bumper (HBUMPER)  SCREW PACK
☐ TB* & SRT Screw (TBSRT)
<ul> <li>□ Wood &amp; Machine Screw (WMS)</li> <li>□ TB*, Wood &amp; Machine Screw (TBWMS)</li> <li>□ TORX Machine Screw (TORX)</li> <li>□ TB* &amp; TORX Machine Screw (TBTRX)</li> <li>* Specify door thickness if other than 1 3/4".</li> </ul> INSTALLATION ACCESSORY



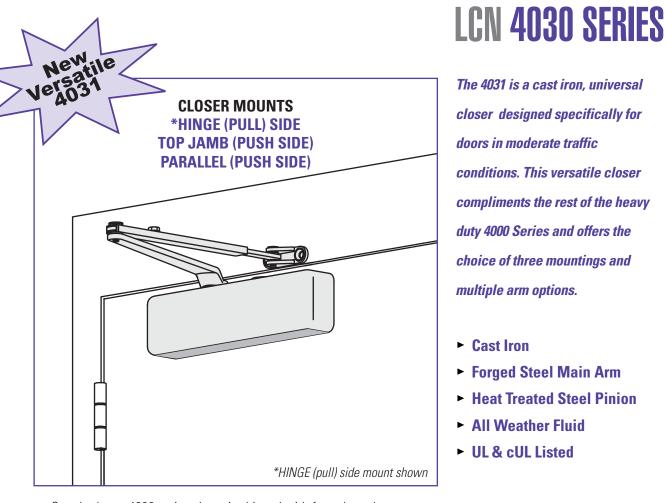
☐ Plate, 4020T-18

SPECIAL TEMPLATE

## **Notes**

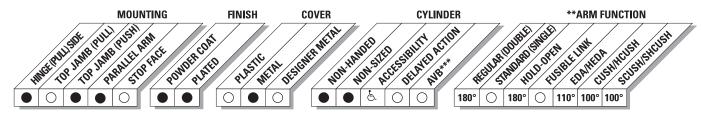






### ► Standard new 4030 series closer is shipped with forged regular arm, metal cover and wood/self-tapping machine screw pack. See 4030 Series pages 30 & 31 for options.

- ► Non-sized (1-4) 4031 cylinder for exterior doors to 36" (914 mm) and interior doors to 48" (1219 mm).
- ► Closer mounts hinge side, top jamb, and parallel arm, on either right or left swinging doors.
- ► Closer meets ADA requirements. See 4030 Series page 32.
- 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 4030 Series is UL and cUL listed for Self-closing doors without hold-open.
- ► Tested and certified under ANSI Standard A156.4, grade one.



- Available
- O Not available
- 占 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.
- \*\*\* Advanced Variable Backcheck

### LCN CLOSERS 121 W. RAILROAD AVE. P.O. BOX 100 PRINCETON, IL, USA 61356-0100

All Weather Fluid

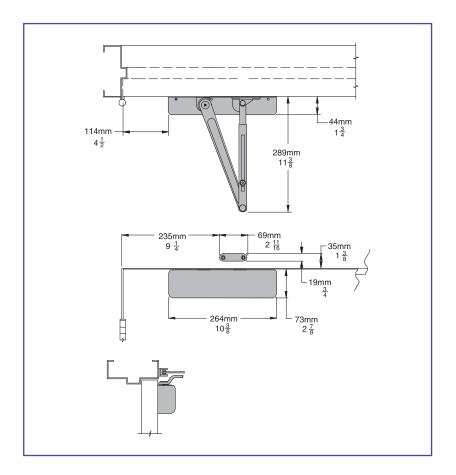


# HINGE (PULL) SIDE MOUNTING

### **MAXIMUM OPENING**

Can be templated for 180°.

Hold-open points up to maximum opening with hold-open arm.



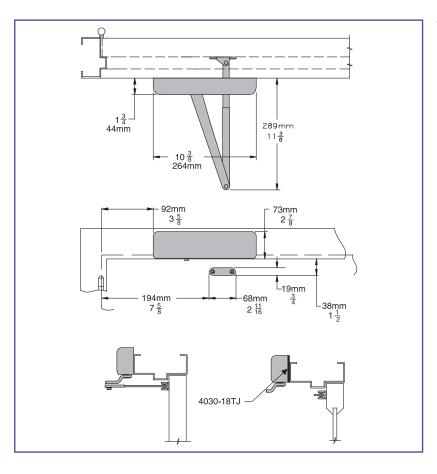
- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- Auxiliary Stop is recommended at hold-open point or where a door cannot swing 180°.
- ► **Reveal** should not exceed 3/16" (5 mm) for regular arm or 3/16" (5 mm) for hold-open arm.
- ► **Top Rail** requires 2 7/8" (73 mm) minimum.
- ► **Clearance** of 1 3/4" (44 mm), behind door required for installation.
- ► **Bull Nose Trim** requires SOFFIT SHOE 4030-65.

### **Options**

► Hold-open arm.

### **Special Templates**





# TOP JAMB (PUSH SIDE) MOUNTING

### **MAXIMUM OPENING**

Can be templated for 180°.

Hold-open points up to maximum opening with hold-open arm.

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or where the door cannot swing 180°.
- ► **Reveal** up to 3 1/2" (89 mm) allows 180° opening. Reveal up to 7 1/2" (191 mm) with long arm allows for 140° opening.
- ► **Top Rail** requires 1 1/2" (38 mm) minimum from stop.
- ► **Head Frame** less than 2 1/4" (57 mm) requires PLATE, 4030-18TJ. Plate requires 1 1/2" (38 mm) minimum.

### **Options**

- ► Hold-open arm.
- ► Long arm.
- ► Long Hold-open arm.

### **Special Templates**



### **PARALLEL ARM (PUSH SIDE) MOUNTING**

REGULAR or HOLD-OPEN arm mounting requires PA SHOE, 4030-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (eg. P4031). P4031 closer includes 4030-201 FIFTH HOLE SPACER to support PA SHOE.

### **MAXIMUM OPENING**

REGULAR or HOLD-OPEN arms can be templated for 180°.

EDA template allows 110° maximum opening. Hold-open points up to maximum opening with hold-open arm.

- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing maximum opening.
- ► Clearance for 4030-62PA shoe is 4" (102 mm) from door face. EDA arm is 5 1/2" (140 mm) from door face.
- ➤ **Top Rail** less than 5" (127 mm) measured from the stop requires PLATE, 4030-18PA. Plate requires 1 3/4" (44 mm) minimum.
- ► **Stop Width** minimum 1" (25 mm).
- ► **Head Frame** flush or single rabetted requires PA SHOE ADAPTER, 4030-418.
- ► **BLADE STOP** clearance, requires 1/2" (13 mm) BLADE STOP SPACER, 4030-61.
- Auxiliary Shoe 4030-62A allows installation of regular arm with overhead holder/stop. Special templating required.
- ► **EDA ARM** requires SHOE SUPPORT, 4030-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm).

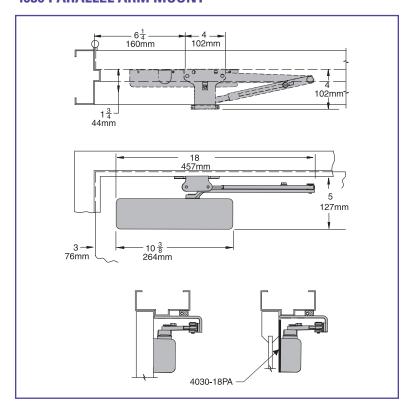
### **Options**

 Hold-open, EDA, HEDA, CUSH, HCUSH, SPRING
 CUSH, or SPRING HCUSH arm.

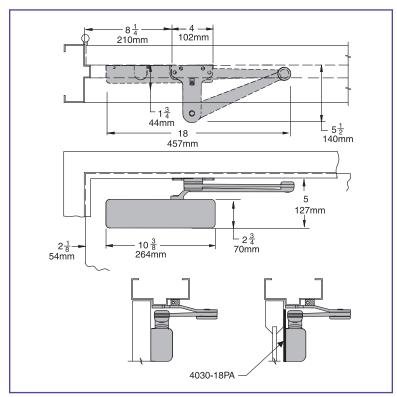
### **Special Templates**

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

### **4030 PARALLEL ARM MOUNT**



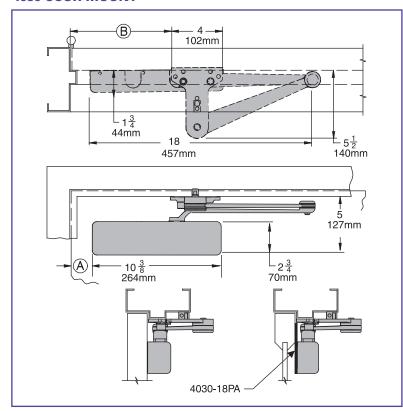
### **4030 EDA MOUNT**



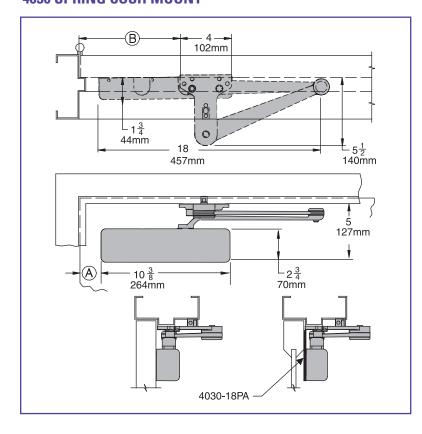
4030 closers ordered with EDA arms include 4030-201 FIFTH HOLE SPACER to support the shoe.



### **4030 CUSH MOUNT**



### **4030 SPRING CUSH MOUNT**



# CUSH-N-STOP or SPRING CUSH MOUNTING

4031 closers ordered with CUSH or SPRING CUSH arms include 4030-201 FIFTH HOLE SPACER to support the shoe.

### **MAXIMUM OPENING**

CUSH and SPRING CUSH arms can be templated for maximum opening/hold-open point at 85°,

- (A) = 35/8" (92 mm)
- B = 93/4" (248 mm)

90°,

- (A) = 3" (76 mm)
- (B) = 9.1/8" (232 mm)

or 100°\*.

- (A) = 17/8" (48 mm)
- (B) = 8 " (203 mm)

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

- ► Clearance for CUSH or SPRING CUSH shoe is 5 1/2" (140 mm) from door face.
- Head Frame flush or rabetted requires CUSH FLUSH PANEL ADAPTER, 4030-419.
- CUSH or SPRING CUSH ARM requires SHOE SUPPORT, 4030-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm).



<sup>\*100°</sup> mounting will not work with swing clear hinges.

### **CYLINDERS**

### **CYLINDER, 4031-3071**

Standard, non-handed cast iron cylinder assembly.

### **ARMS**

### **REGULAR ARM, 4030-3077**

Non-handed arm mounts hinge side or top jamb. P4031 closer includes PA SHOE, 4030-62PA is required for parallel arm mounting.

### **LIGHT DUTY ARM, 4030-3077LD**

Optional non-handed stamped arm mounts hinge side, top jamb or parallel arm (62PA required).

### PA SHOE, 4030-62PA

Required for parallel arm mounting.

### LONG ARM, 4030-3077L

Optional non-handed arm includes LONG ROD AND SHOE, 4030-79LR for top jamb mount with deep reveals.

### **HOLD-OPEN ARM, 4030-3049**

Optional, non-handed arm mounts hinge side, top jamb or parallel arm (62PA required). Hold-open adjustable at shoe.

### LONG HOLD-OPEN ARM, 4030-3049L

Optional non-handed arm includes LONG HEAD AND TUBE, 4030-3048L for top jamb mount with deep reveals.

### EXTRA DUTY ARM, 4030-3077EDA

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

### **HOLD-OPEN EDA ARM, 4030-3049EDA**

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

### CUSH-N-STOP® ARM, 4030-3077CNS

Optional, non-handed parallel arm features solid forged steel main arm and forearm with stop in soffit shoe.

### **HOLD-OPEN CUSH ARM, 4030-3049CNS**

Optional non-handed arm, provides hold-open function with templated stop/hold-open points. Handle controls hold-open function.

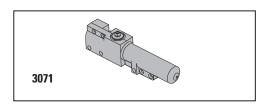
### SPRING CUSH ARM,4030-3077SCNS

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

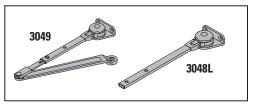
### **SPRING HCUSH ARM, 4030-3049SCNS**

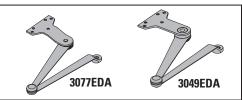
Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Handle controls hold-open function.

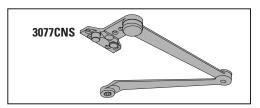


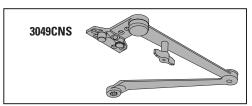


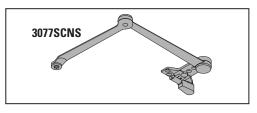


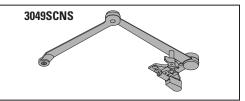












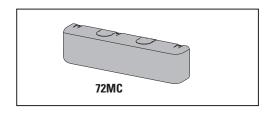
LCN CLOSERS PHOI
121 W. RAILROAD AVE. FAX
P.O. BOX 100 www
PRINCETON, IL, USA 61356-0100 3/07

PHONE 800-526-2400 FAX 800-248-1460 www.lcn.ingersollrand.com

### **COVERS**

### COVER, 4030-72MC

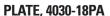
Non-handed metal cover.



### **INSTALLATION ACCESSORIES**

### PLATE, 4030-18TJ

Required for top jamb mounting where head frame is less than 2 1/4" (57 mm) or flush ceiling condition exists. Plate requires 1 1/2" (38 mm) minimum.



Required for parallel arm mounting where top rail is less than 5" (127 mm), measured from the stop. Plate requires 1 3/4" (44 mm) minimum.

### **CUSH SHOE SUPPORT, 4030-30**

Provide anchorage for fifth screw used with CUSH arms where reveal is less than 3 1/16" (78 mm).

### **BLADE STOP SPACER, 4030-61**

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

**AUXILIARY SHOE, 4030-62A** requires a top rail of 7" (178 mm). Optional shoe replaces -62PA for parallel arm mounting of regular arm with some overhead holder/stop. Consult factory.

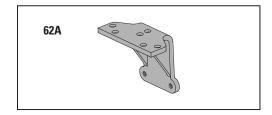
### **SOFFIT SHOE, 4030-65**

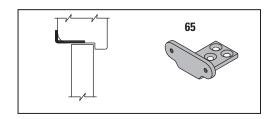
Adapts hinge side shoe to rounded or bull nose trim.

# 30

**18PA** 

18TJ





# 418

### PA SHOE ADAPTER, 4030-418

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

### **CUSH FLUSH PANEL ADAPTER, 4030-419**

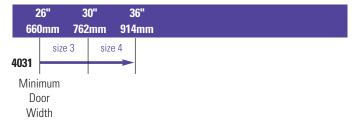
Provides horizontal mounting surface for CUSH shoe on single rabetted or flush frame.



**TABLE OF SIZES** Non-sized 4031 cylinder is adjustable from sizes 1 to 4 and is shipped set to size 3.

Indicates recommended range of door width for closer size.

### **EXTERIOR (and VESTIBULE) DOOR WIDTH**



### **INTERIOR DOOR WIDTH**

	6" )mm	4" mm	38' 965n		48 1219	
4024	size 2	size	e 3	size	4	
<b>4031</b> Mini	mum					
	oor dth					

### **REDUCED OPENING FORCE 4030 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"
E	8.5* lbs.	4031	4031	4031
	5.0* lbs.	4031	4031	4031

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

### HOW-TO-ORDER 4030 SERIES CLOSERS

1. SELECT FINISH
☐ Standard Powder Coat
Aluminum, Dark Bronze , Tan, Statuary,
Light Bronze, Black, Brass.
Eight Bronzo, Black, Braco.
Closer will be shipped with:
- STANDARD CYLINDER,
- STANDARD METAL COVER,
- REGULAR ARM
- Wood and Self-tapping Machine screw page
unless options listed below are indicated.
CLOSER OPTIONS
FINISH
☐ Custom Powder Coat (RAL)
☐ Plated Finish, US
☐ SRI primer
ARM
☐ Regular w/62PA (Rw/PA)
☐ Regular w/62A (R/62A)
☐ Long (LONG)
☐ Hold-Open (H)
☐ Hold-Open w/62PA (Hw/PA)
☐ Long Hold-Open (HLONG) ☐ Light Duty (LD)
☐ Light Duty (LD)
☐ Light Duty w/62PA (LD/PA)
☐ Light Duty Long (LDL) ☐ EDA
☐ HEDA (specify right or left hand)
☐ Cush-N-Stop (CUSH)
☐ HCush-N-Stop (HCUSH)
☐ Spring Cush (SCUSH)
☐ Spring HCush (SHCUSH)
OPTIONAL SCREW PACKS
☐ TB*, Wood & Machine Screw (TBWMS)
* Specify door thickness if other than 1 3/4".
INSTALLATION ACCESSORIES  Plate 4030-18T
T FISTE AUST-IXII



☐ Plate, 4030-18PA

**SPECIAL TEMPLATE** 

□ ST- \_\_\_\_\_

☐ CUSH Shoe Support, 4030-30

□ Blade Stop Spacer, 4030-61
□ Auxiliary Shoe, 4030-62A
□ Soffit Shoe, 4030-65
□ PA Shoe Adapter, 4030-418
□ CUSH Flush Panel Adapter, 4030-419



# arm, surface mounted closer designed for interior use on narrow head frames and top rails. The choice of three mountings and ease of installation offer a versatile solution to door control in

moderate traffic applications. The

4030T compliments the heavy duty

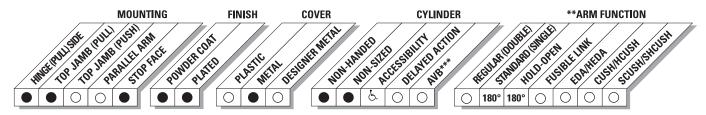
The 4031T is a single lever (track)

LCN 4030T SERIES

Cast Iron

4000 Series.

- ► Heat Treated Steel Pinion
- All Weather Fluid
- UL & cUL Listed
- ► Standard 4031T series closer is shipped with a standard arm, metal cover, a standard track and wood/self-tapping machine screw pack. See 4030T Series page 37 for options.
- ► Non-sized 4031T cylinder for interior doors to 38" (965 mm).
- Closer mounts pull side on door, pull side on frame and push side on door, on either right or left swinging doors.
- ► Closer meets ADA requirements. See 4030T Series page 38.
- 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 4030 Series is UL and cUL listed for Self-closing doors without hold-open.
- ► Tested and certified under ANSI Standard A156.4, grade one.



- Available
- O 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.
- \*\*\* Advanced Variable Backcheck



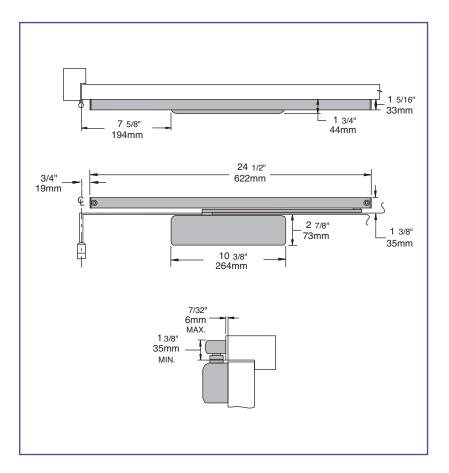
# HINGE (PULL) SIDE MOUNTING

### **MAXIMUM OPENING**

Can be templated for 180°.

Consult factory if door will be held open at 180°

Hold-open points up to 110° opening with hold-open option.



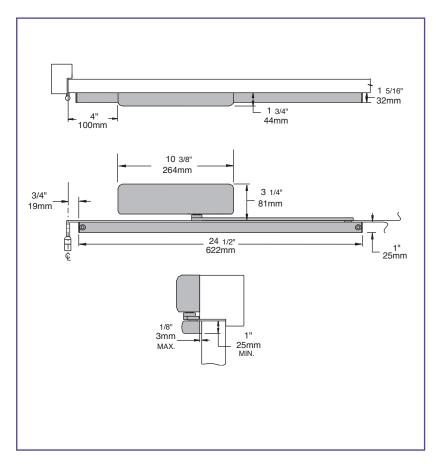
- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- Auxiliary Stop is recommended at hold-open point or where a door cannot swing 180°.
- ► **Reveal** should not exceed 7/32" (6 mm).
- ► **Top Rail** requires 2 7/8" (73 mm) minimum.
- ► **Clearance** of 1 3/4" (44 mm) behind door required for installation.

### **Options**

► Hold-open track.

### **Special Templates**





# TOP JAMB (PULL SIDE) MOUNTING

### **MAXIMUM OPENING**

Can be templated for 180°.

Consult factory if door will be held open at 180°

Hold-open points up to 110° opening with hold-open option.

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or where the door cannot swing 180°.
- ► **Reveal** should not exceed 1/8" (3 mm).
- ► **Top Rail** requires 1" (25 mm) minimum.
- ► **Head Frame** requires 2 7/8" (73 mm) minimum.

### **Options**

Hold-open track.

### **Special Templates**

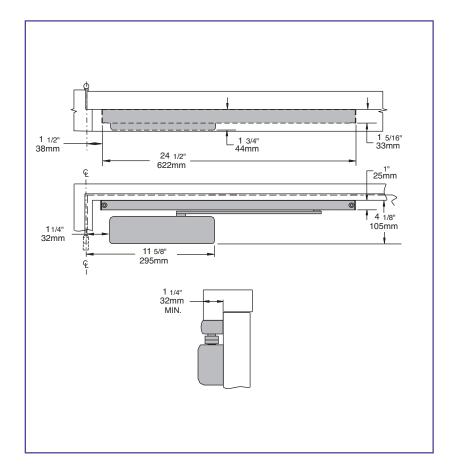


# STOP FACE (PUSH SIDE) MOUNTING

### **MAXIMUM OPENING**

Can be templated for 110°.

Hold-open points up to maximum opening with hold-open option.



- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- Auxiliary Stop is recommended at hold-open point or where a door cannot swing 120°.
- ► Clearance projects 1 3/4" (44 mm).
- ► **Top Rail** requires 4 1/8" (105mm) minimum measured from the stop.
- ► **Stop Width** minimum 1 1/4" (32 mm).

### **Options**

► Hold-open track.

### **Special Templates**



#### **CYLINDERS**

#### **CYLINDER, 4031T-3071**

Standard, non-handed cast iron cylinder assembly.

#### **COVERS**

#### **COVER, 4030T-72MC**

Non-handed metal cover.

#### **ARMS**

#### STANDARD ARM, 4030T-3077T

Non-handed single lever arm mounts hinge side, top jamb or stop face. Track roller included with arm.

#### STANDARD TRACK, 4030T-3038

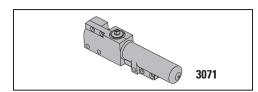
Standard, non hold-open, non-handed track mounts on either side of the door. Will accept hold-open clip.

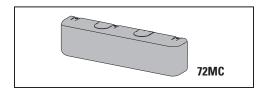
#### HOLD-OPEN TRACK, 4030T-3038H

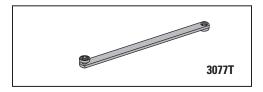
Optional non-handed hold-open track mounts on either side of the door. Comes with 4030T-3054 Hold-open clip.

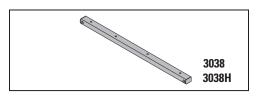
#### **HOLD-OPEN CLIP, 4030T-3054**

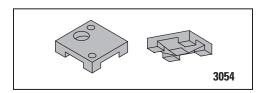
Mounts in track to provide hold-open function. Hold-open point controlled by clip location.











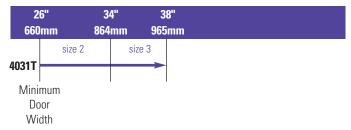


**TABLE OF SIZES** Non-sized 4031T cylinder is adjustable from sizes 1 to 3 and is shipped set to size 3.

 $\longrightarrow$ 

Indicates recommended range of door width for closer size.

#### **INTERIOR DOOR WIDTH**



#### **REDUCED OPENING FORCE 4030T 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"
E	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4031T	4031T	4031T

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

#### HOW-TO-ORDER 4030T SERIES CLOSERS

#### 1. SELECT FINISH

	Standard Powder Coat
A	Aluminum, Dark Bronze , Tan, Statuary,
L	Light Bronze, Black, Brass.

#### Closer will be shipped with:

- STANDARD CYLINDER
- STANDARD METAL COVER.
- STANDARD TRACK
- STANDARD ARM
- TRACK ROLLER
- Wood and Self-tapping Machine screw pack unless options listed below are indicated.

#### **CLOSER OPTIONS**

#### TRACK

☐ Hold-open (H)

#### **FINISH**

Custom Powder Coat (RAL)
Plated Finish, US

 $\ \square$  SRI primer

#### SCREW PACK

☐ TB\*, Wood & Machine Screws (TBWMS)



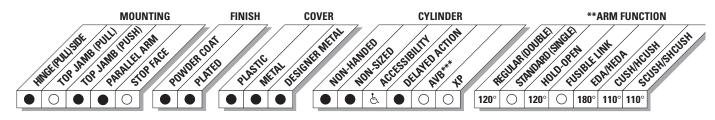
CLOSER MOUNTS
HINGE (PULL) SIDE (Shown)
TOP JAMB (PUSH SIDE)
PARALLEL ARM (PUSH SIDE)

- Standard 4040 series closer shipped with regular arm, standard plastic clip-on cover, and self reaming and tapping screws. See 4040 Series pages 45-47 for options.
- Non-sized cylinder is adjustable for interior doors to 5'0" and exterior doors to 4'0".
- ► Closer mounts hinge side, top jamb, and parallel arm w/PA Shoe on either right or left swinging doors.
- Closers to meet ADA requirements. See 4040 Series page 48.
- Standard or optional custom powder coat finish.
- Optional plated finish on cover, arm, and fasteners.
- Optional SRI primer for installations in corrosive conditions.
- Optional designer series metal cover
- ► UL and cUL listed for self-closing doors without hold-open.
- Tested and certified under ANSI Standard A156.4, grade one.

The 4040 SUPER SMOOTHEE® is LCN's most flexible heavy duty closer designed for institutional and other rugged high traffic applications.

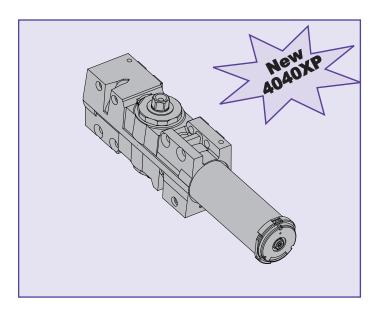
- ► Ten Million Cycles
- Cast Iron
- Forged Steel Arm
- Double Heat Treated Steel
   Pinion
- ► All Weather Fluid
- ► Non-Handed
- ► LCN® Fast™ Power Adjust
- ► Fast & Accurate Installation
- ► UL & cUL Listed
- ► For XP See Page 40





- 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





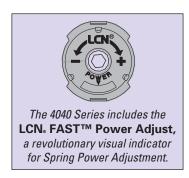
### ► **NEW 4040XP** closer shipped with **EDA arm**, standard plastic cover, and self reaming and tapping screws.

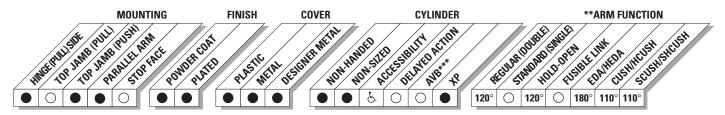
- ► Non-sized cylinder is adjustable for interior doors to 5'0" and exterior doors to 4'0".
- Closer mounts parallel arm (EDA arm) on either right or left swinging doors.
- Optional hinge side and top jamb mount with optional regular arm.
- Closers to meet ADA requirements. See 4040XP Series page 49.
- 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.
- Optional designer series metal cover
- ► UL and cUL listed for self-closing doors without hold-open.
- 4040XP can be used with all 4041 accessories. See pages 45-47 for options.

#### New 4040XP

The new 4040XP is LCN's most durable heavy duty closer designed for the most demanding, high use and abuse applications.

- ► 44% increased bearing load capacity
- ► Strongest pinion ever- at 3/4" journal diameter
- ► Widest bearing ever- at 5/8"
- ► Stronger pinion teeth
- ► New V-shield<sup>TM</sup> seal with 20% longer life
- ► XP = eXtra Protection in real world applications
- ► Cast Iron
- ► Forged Steel Arm
- ► Double Heat Treated Steel Pinion
- ► All Weather Fluid
- ► Non-Handed
- ► LCN® Fast<sup>TM</sup> Power Adjust
- ► Fast & Accurate Installation
- ► UL & cUL Listed
- ► Tested and certified under ANSI Standard A156.4, grade one







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



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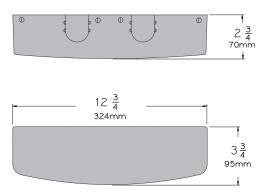
### HINGE (PULL) SIDE MOUNTING

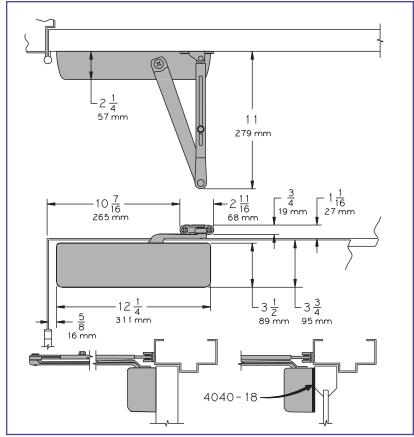
#### **MAXIMUM OPENING**

Templating allows up to 120°.

Hold-open points 90° up to 120° with hold-open arm.

#### Optional, Non-handed Designer Series Metal Cover





- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing beyond 120°.
- ▶ Reveal should not exceed 3/4" (19 mm) for regular arm or hold-open arm.
- ➤ **Top Rail** less than 3 3/4" (95 mm) requires PLATE, 4040-18. Plate requires 2" (51 mm) minimum. With Designer Series metal cover, use PLATE, 4040-18DS1
- ► **Clearance** of 2 3/8" (60 mm) behind door required for 90° installation. 2 7/8" (73 mm) for Designer Series metal covers
- ► **Delayed Action** (not available on 4040XP) Add suffix "DEL" to selected cylinder (eg. 4041 DEL). Delays closing from 120° to 70°. Delay time adjustable up to approximately 1 minute.
- Bull Nose Trim requires SOFFIT SHOE, 4040-65.
- ► **Corner Bracket** available for doors where top jamb or parallel arm mounting can not be used.

4040-16 allows 110° opening. Projects 5" (127 mm) from stop, 12 13/16" (325 mm) from frame.

4040-17 allows 100° opening with certain auxiliary door holders (consult factory). Projects 6 3/8" (162 mm) from stop, 13 11/16" (348 mm) from frame.

#### **Options**

- ► 4040XP cylinder
- ► 4041 Delayed action cylinder.
- ► Hold-open arm.
- Metal or lead lined cover.
- Corner bracket.
- Designer Series metal cover.

#### **Special Templates**

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



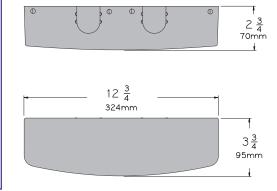
# TOP JAMB (PUSH SIDE) MOUNTING

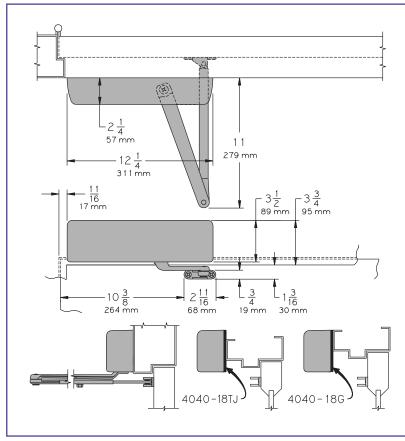
#### **MAXIMUM OPENING**

Templating allows up to 120°.

Hold-open points 85° up to 120° with hold-open arm.

#### Optional, Non-handed Designer Series Metal Cover





- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point or where the door cannot swing 120°.
- ▶ Reveal of 2 9/16" (65 mm) allows 120° opening for REGULAR ARM or standard HOLD-OPEN ARM. 4 13/16" (122 mm) allows up to 120° opening with LONG ARM where standard rod and shoe is replaced with optional LONG ROD AND SHOE 4040-79LR. Use H-LONG ARM with LONG HEAD AND TUBE, 4040-78HL for hold-open. 8" (203 mm) allows up to 120° opening with EXTRA LONG ARM where standard rod and shoe is replaced with optional EXTRA LONG ROD AND SHOE, 4040-79ELR.
- ➤ **Top Rail** requires 1 1/4" (32 mm) minimum. 2 1/4" (57 mm) minimum with closer on PLATE, 4040-18TJ. 3" (76 mm) minimum with closer on PLATE, 4040-18G. With Designer Series metal cover, use PLATE, 4040-18TJDS1
- ► **Head Frame** less than 3 1/2" (89 mm) requires PLATE, 4040-18TJ. With flush ceiling, use PLATE, 4040-18G. Either plate requires 1 3/4" (44 mm) minimum.
- ► **Delayed Action** (not available on 4040XP) Add suffix "DEL" to selected cylinder (eg. 4041 DEL). Delays closing from 120° to 80°. Delay time adjustable up to approximately 1 minute.

#### **Options**

- ► 4040XP cylinder
- ► 4041Delayed action cylinder.
- Long arm, extra long arm, holdopen arm, long hold-open arm.
- Metal or lead lined cover.
- ► Designer Series metal cover.

#### **Special Templates**

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

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### PARALLEL ARM (PUSH SIDE) MOUNTING

Optional mounting requires PA SHOE, 4040-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (eg. P4041). P4041 closer includes 4040-201 FIFTH HOLE SPACER to support PA SHOE.

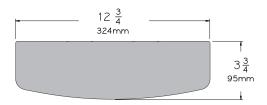
#### **MAXIMUM OPENING**

180° opening/hold-open points with all except CUSH arms.

110° opening/hold-open with CUSH arms.





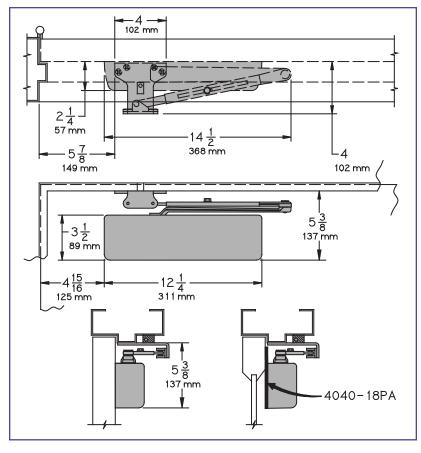


#### **Options**

- ► 4040XP cylinder
- ► 4041Delayed action cylinder.
- ► Hold-open, EDA, HEDA, CUSH, HCUSH, SPRING CUSH, or SPRING HCUSH arm.
- Metal or lead lined cover.
- Designer Series metal cover.

#### **Special Templates**

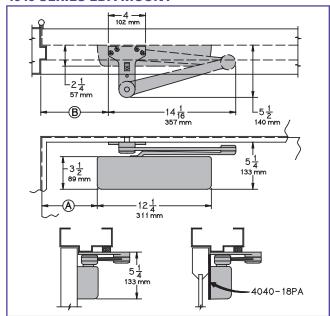
Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.



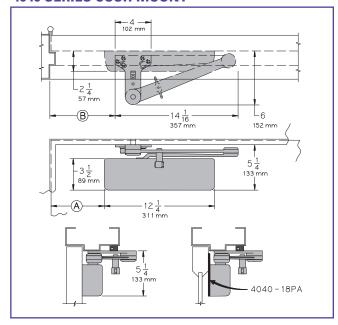
- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► **Auxiliary Stop** is recommended at hold-open point, where the door cannot swing 180°, or where CUSH-N-STOP arm is not used.
- ► **Clearance** for 4040-62PA shoe is 4" (102 mm) from door face. EDA shoe projects 5 1/2" (140 mm) from door face. CUSH shoe projects 6" (152 mm) from door face.
- ► **Top Rail** less than 5 3/8" (137 mm) measured from the stop requires PLATE, 4040-18PA. Plate requires 2" (51 mm) minimum from the stop. With Designer Series metal cover. use PLATE, 4040-18PADS1
- ► **Head Frame** flush or rabetted requires PA SHOE ADAPTER, 4040-418.
- ► **Stop Width** minimum 1" (25 mm).
- ▶ **Blade Stop** clearance requires 1/2" (13mm) BLADE STOP SPACER, 4040-61.
- ► **Delayed Action** (not available on 4040XP) Add suffix "DEL" to selected cylinder (eg. P4041 DEL). Delays time adjustable up to approximately 1 minute.



#### **4040 SERIES EDA MOUNT**



#### **4040 SERIES CUSH MOUNT**



- ► **Clearance** for 4040-62EDA is 5 1/2" (140 mm) from door face. 6" (152 mm) for CUSH.
- ► **Head Frame** flush or rabetted requires CUSH FLUSH PANEL ADAPTER, 4040-419.
- ► **CUSH ARM** requires SH0E SUPPORT, 4040-30 for fifth screw anchorage for narrow frames.
- ► **Delayed Action** (not available on 4040XP) Add suffix "DEL" to selected cylinder (eg. 4041 DEL). Delays closing from maximum opening to; 115° with 180° template. 95° with 110° template. 85° with 100° template. 75° with 90° template.

Delay time adjustable up to approximately 1 minute.

### **LCN 4040 SERIES**

Mounting details are the same as 4040 Series REGULAR or HOLD-OPEN except as listed below. 4040 Series closers ordered with EDA or CUSH arms include 4040-201 FIFTH HOLE SPACER to support the shoe.

#### **MAXIMUM OPENING**

EDA arm can be templated for points at: 110°,

- (A) = 6 3/8" (162 mm)
- (B) = 7 3/4" (197 mm)

or 180°.

- (A) = 27/8" (73 mm)
- $(B) = 4 \frac{1}{4}$ " (108 mm)

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

CUSH arms can be templated for opening/hold-open point at: 85°.

- (A) = 7 15/16" (202 mm)
- $(B) = 9 \frac{1}{8}$ " (232 mm)

90°.

- (A) = 7 3/16" (183 mm)
- (B) = 8 1/2" (216 mm)

100°,

- $(A) = 6 \frac{1}{16}$ " (154 mm)
- $(B) = 7 \frac{1}{4}$ " (184 mm)

or 110°.

- $(A) = 5 \frac{1}{16}$ " (129 mm)
- (B) = 6.3/8" (162 mm)

Spring Cush dead stop points are approximately 5° more than templated stop point. Hold open at templated stop points.



#### **CYLINDERS**

#### CYLINDER, 4041-3071

Standard, non-handed cast iron cylinder assembly.

#### **CYLINDER, 4040XP-3071**

Heavy duty, non-handed cast iron cylinder assembly.

#### **COVERS**

#### **COVER, 4040-72**

Standard, non-handed plastic clip-on cover.

#### **METAL COVER, 4040-72MC**

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

#### **LEAD LINED COVER, 4040-72LL**

Optional non-handed plastic clip-on cover.

#### **DESIGNER SERIES METAL COVER, 4040-72DS1**

Optional, non-handed designer series metal cover.

#### **ARMS**

#### **REGULAR ARM, 4040-3077**

Non-handed arm mounts pull side or top jamb with shallow reveal. P4041 closer includes PA SHOE, 4040-62PA required for parallel arm mounting.

#### PA SHOE, 4040-62PA

Required for parallel arm mounting.

#### LONG ARM, 4040-3077L

Optional non-handed arm includes LONG ROD AND SHOE, 4040-79LR for top jamb mount.

#### EXTRA LONG ARM, 4040-3077ELR

Optional non-handed arm includes EXTRA LONG ROD AND SHOE, 4040-79ELR for top jamb mount with deep reveal.

#### **HOLD-OPEN ARM, 4040-3049**

Optional, non-handed arm mounts pull side or top jamb with shallow reveal, hold-open adjustable shoe. P4041 closer includes 4040-62PA shoe required for parallel arm mounting.

#### LONG HOLD-OPEN ARM, 4040-3049L

Optional non-handed arm includes LONG HEAD AND TUBE, 4040-3048L for top jamb mount.

#### EXTRA DUTY ARM, 4040-3077EDA

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

#### **HOLD-OPEN EXTRA DUTY ARM, 4040-3049EDA**

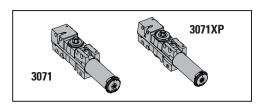
Optional handed arm provides hold-open function, adjustable at the shoe.

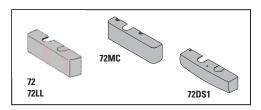
#### THICK HUB SHOE, 4040-62G

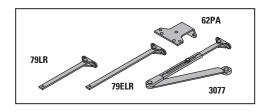
Optional for blade stop clearance, requires special templating.

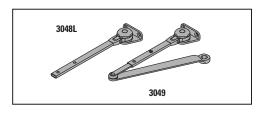
#### FLUSH TRANSOM SHOE, 4040-145

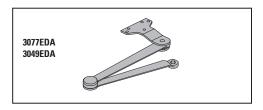
Optional for single rabetted installations, requires special templating.

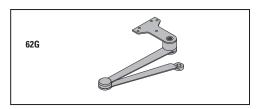


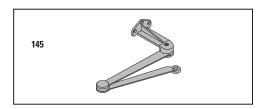














#### **ARMS** cont.

#### CUSH-N-STOP® ARM, 4040-3077CNS

Optional, non-handed parallel arm features solid forged steel main arm and forearm with stop in soffit shoe.

#### **HCUSH ARM, 4040-3049CNS**

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

#### **SPRING CUSH ARM, 4040-3077SCNS**

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

#### **SPRING HCUSH ARM, 4040-3049SCNS**

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, 4040-18/4040-18DS1

Required for hinge side mount where top rail is less than 3 3/4" (95 mm). Plate requires minimum 2" (51 mm) minimum top rail. With Designer Series metal cover, use PLATE, 4040-18DS1

#### PLATE, 4040-18G

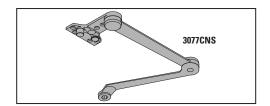
Locates top jamb mounted closer flush with top of head frame face in flush ceiling condition. Plate requires 1 3/4" (44 mm) minimum head frame.

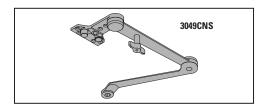
#### PLATE, 4040-18TJ/4040-18TJDS1

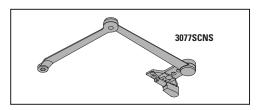
Centers top jamb mounted closer vertically on head frame where face is less than 3 1/2" (89 mm). Plate requires 1 3/4" (44 mm) minimum head frame. With Designer Series metal cover, use PLATE, 4040-18TJDS1

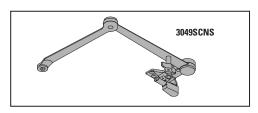
#### PLATE, 4040-18PA/4040-18PADS1

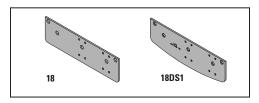
Required for parallel arm mounting where top rail is less than 5 1/2" (140 mm), measured from the stop. Plate requires 2" (51 mm) minimum top rail. With Designer Series metal cover, use PLATE, 4040-18PADS1

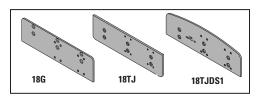


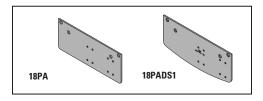














### **INSTALLATION ACCESSORIES cont.**

#### **CORNER BRACKET, 4040-17**

Designed to lower closer for clearance of certain auxiliary holders (consult factory).

#### **CORNER BRACKET, 4040-16**

For doors where top jamb or parallel arm mounting cannot be used (consult factory).

**CUSH SHOE SUPPORT, 4040-30** provides anchorage for fifth screw used with CUSH arms, where reveal is less than 3 1/16" (78 mm).

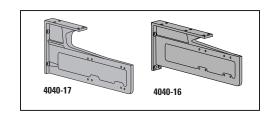
**BLADE STOP SPACER, 4040-61** required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop.

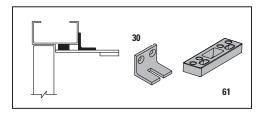
**SOFFIT SHOE, 4040-65** adapts hinge side shoe to rounded or bull nose trim.

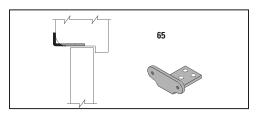
**PA SHOE ADAPTER, 4040-418** provides horizontal mounting surface for parallel arm shoe on single rabetted or flush frame.

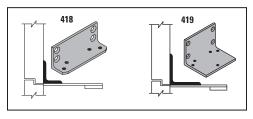
**CUSH FLUSH PANEL ADAPTER, 4040-419** provides horizontal mounting surface for CUSH shoe on single rabetted or flush frame.

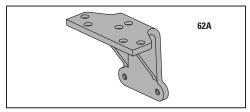
**AUXILIARY SHOE, 4040-62A** requires a top rail of 7" (178 mm). Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop.













#### **TABLE OF SIZES**

4041 cylinders are adjustable from size 1 through size 6 and is shipped set to size 3.

Closing power of 4040 series closers may be adjusted 50%.

Indicates recommended range of door width for closer size.

#### **EXTERIOR (and VESTIBULE) DOOR WIDTH**



#### INTERIOR DOOR WIDTH



#### **REDUCED OPENING FORCE 4040 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 effecting closing power.

	DOOR WIDTH	36"	42"	48"
E	8.5* lbs.	4041	4041	4041
	5.0* lbs.	4041	4041	4041

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

#### HOW-TO-ORDER 4041 SERIES CLOSERS

1. SELECT FINISH.	
☐ Standard Powder Coat	
Aluminum, Dark Bronze, Tan, Statuary, Light Bronze	Э,
Black, Brass.	
Closer will be shipped with: - STANDARD CLIP-ON COVER, - REGULAR ARM, - SELF-REAMING and TAPPING SCREWS, unless options listed below are selected.	
CLOSER OPTIONS	
CYLINDER	
☐ Delayed Action (DEL)	
COVER	
Lead Lined (LL)	
☐ Metal (specify right or left hand) (MC)	
☐ Designer Series Metal (non-handed) (DS1)  FINISH	
☐ Custom Powder Coat (RAL)	
(handed metal cover required)	
☐ Plated Finish, US	
(handed metal cover required)	
□ SRI primer	
ARM	
Regular w/62PA (Rw/PA)	
Regular w/62A (R/62A)	
□ Long (LONG)	
☐ Extra Long (XLONG) ☐ Hold-Open (H)	
☐ Hold-Open w/62PA (Hw/PA)	
□ Long Hold-Open (HLONG)	
□ EDA (optional -62G or -145)	
☐ HEDA (specify right or left hand, optional-62G or -1	45)
☐ Cush-N-Stop (CUSH)	
☐ HCush-N-Stop (HCUSH)	
☐ Spring Cush (SCUSH)	
Spring HCush (SHCUSH)	
OPTIONAL SCREW PACKS  ☐ 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, 4040-18	
☐ Plate, 4040-18TJ	
☐ Plate, 4040-18G ☐ Plate, 4040-18PA	
☐ Plate, 4040-18DS1	
☐ Plate, 4040-18TJDS1	
☐ Plate, 4040-18PADS1	
☐ CUSH Shoe Support, 4040-30	
☐ Blade Stop Spacer, 4040-61	
☐ Auxiliary Shoe, 4040-62A	
□ Soffit Shoe, 4040-65	
PA Shoe Adapter, 4040-418	
☐ CUSH Flush Panel Adapter, 4040-419	



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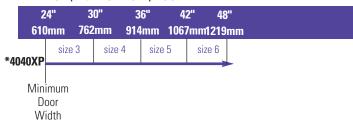
#### **TABLE OF SIZES**

4040XP cylinders are adjustable from size 1 through size 6 and is shipped set

Closing power of 4040 series closers may be adjusted 50%.

Indicates recommended range of door width for closer size.

#### **EXTERIOR (and VESTIBULE) DOOR WIDTH**



#### INTERIOR DOOR WIDTH

		4" mm	34 864	ļ" mm	38 965		48' 1219ı		•	60" 1524mm
<b>*</b> Δ(	MUXP	size 2		size	3		size 4	size 5		size 6
*4040XP  Minimum  Door  Width		* /	Adjus	table	e Size	e 1 thru 6				

#### **REDUCED OPENING FORCE 4040 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 effecting closing power.

	DOOR WIDTH	36"	42"	48"
E	8.5* lbs.	4041	4041	4041
	5.0* lbs.	4041	4041	4041

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

#### **HOW-TO-ORDER 4040XP SERIES CLOSERS**

#### 1. SELECT FINISH.

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

#### Closer will be shipped with:

- STANDARD CLIP-ON COVER,
- EDA ARM.
- SELF-REAMING and TAPPING SCREWS, unless options listed below are selected.

CLOSER OPTIONS
COVER
☐ Lead Lined (LL)
☐ Metal (specify right or left hand) (MC)
☐ Designer Series Metal (non-handed) (DS1)
FINISH
☐ Custom Powder Coat (RAL)
(handed metal cover required)
☐ Plated Finish, US
(handed metal cover required)
☐ SRI primer
ARM
☐ Regular (Rw)
☐ Regular w/62PA (Rw/PA)
☐ Regular w/62A (R/62A)
☐ Long (LONG)
☐ Extra Long (XLONG)
☐ Hold-Open (H)
☐ Hold-Open w/62PA (Hw/PA)
☐ Long Hold-Open (HLONG)
□ EDA -62G or -145
☐ HEDA (specify right or left hand, optional-62G or -145)
☐ Cush-N-Stop (CUSH)
☐ HCush-N-Stop (HCUSH)
☐ Spring Cush (SCUSH)
☐ Spring HCush (SHCUSH)
OPTIONAL SCREW PACKS
☐ TB* w/Self-Reaming and Tapping (TBSRT)
☐ Wood & Machine Screw (WMS) ☐ TR* Wood & Machine Screw (TRWMS)
T TR.: ANDOU & INISCUIDE 2CLEM (TRANINIZ)

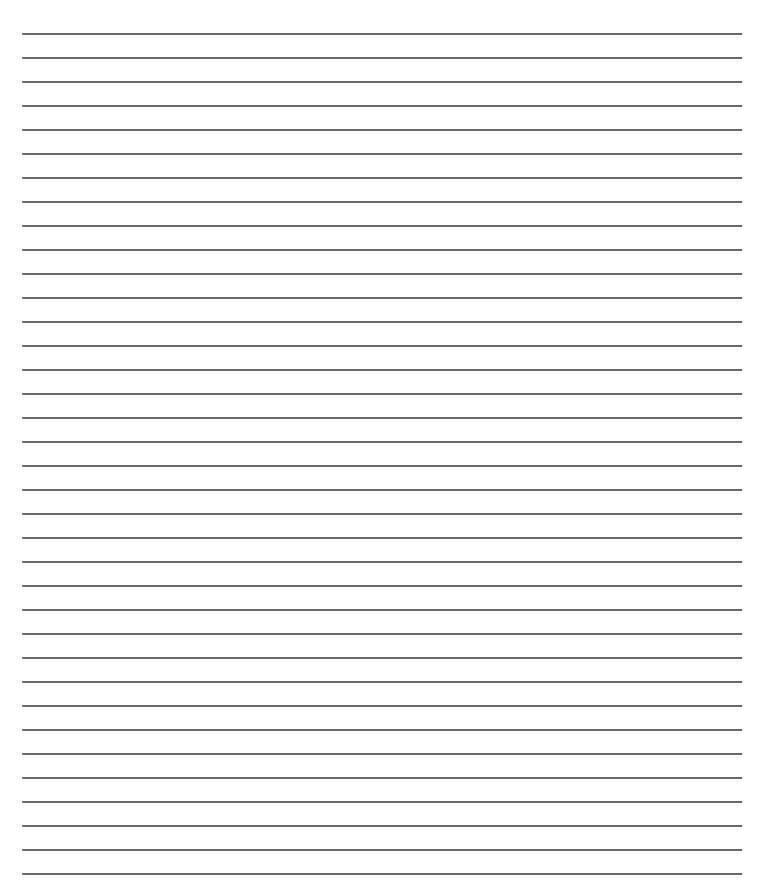
□ TORX Machine Screw (TORX)

I TOTA Machine Sciew (TOTA)
☐ TB* & TORX Machine Screw (TBTRX)
* Specify door thickness if other than 1 3/4".
INSTALLATION ACCESSORIES
☐ Plate, 4040-18
☐ Plate, 4040-18TJ
☐ Plate, 4040-18G
☐ Plate, 4040-18PA
☐ Plate, 4040-18DS1
☐ Plate, 4040-18TJDS1
☐ Plate, 4040-18PADS1
☐ CUSH Shoe Support, 4040-30
☐ Blade Stop Spacer, 4040-61
☐ Auxiliary Shoe, 4040-62A
□ Soffit Shoe, 4040-65
☐ PA Shoe Adapter, 4040-418
☐ CUSH Flush Panel Adapter, 4040-419
SPECIAL TEMPLATE

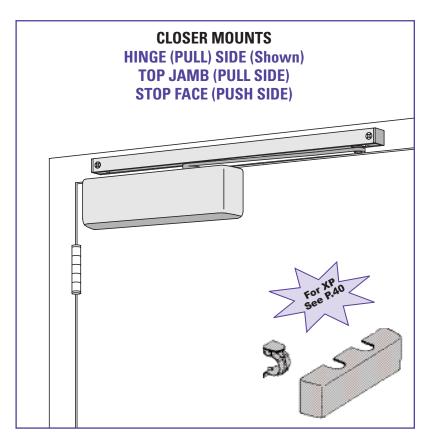


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### **Notes**

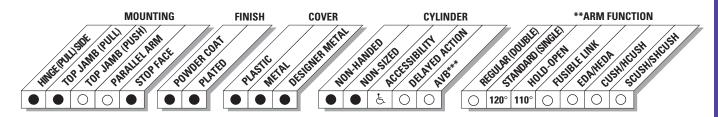






The 4040T SMOOTHEE® is LCN's most flexible heavy duty track closer designed specifically for interior doors in institutional and other rugged high traffic applications.

- Cast Iron
- ► Forged Steel Arm
- ► Double Heat Treated Steel
  Pinion
- ► All Weather Fluid
- Non-Handed
- Fast & Accurate Installation
- UL & cUL Listed
- ► Standard 4040T series closer is shipped with standard arm, standard track, track roller, standard plastic clip-on cover, and self reaming and tapping screws. See 4040T Series pages 55 & 56 for options
- ► Non-sized cylinders for interior doors to 4'0".
- ► Closer mounts pull side on door, pull side top jamb or push side on door.
- ► Closers to meet ADA requirements. See 4040T Series page 57.
- 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.
- Consult factory for double egress applications.
- Optional designer series metal cover
- ► The 4040T Series is UL and cUL listed with a standard track for self-closing doors.
- ► Tested and certified under ANSI Standard A156.4, grade one.



- Available
- O Not 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



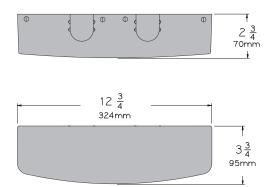
### HINGE (PULL) SIDE MOUNTING

#### **MAXIMUM OPENING**

Templating allows 120° with standard arm, limited to 110° when optional bumper is installed.

Hold-open points at 85°, 90°, 95°, 100°, 105°, or 110°, depending on the clip location in track.

#### Optional, Non-handed Designer Series Metal Cover



► **Butt Hinges** should not exceed 5" (127 mm) in width.

-2<u>1</u> 57 mm

51 mm

-12<u>1</u> 311mm

7 16 11mm 32 mm

3 11/16

-3<u>1</u> 89mm

94 mm

1 16

-1<del>1</del>6 / 27 mm

► Auxiliary Stop is recommended at hold-open point or where a door cannot swing 120°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.

4040T-18

- ► **Reveal** should not exceed 1/8" (3 mm) for standard arm.
- ► **Top Rail** less than 3 3/4" (95 mm) requires PLATE, 4040T-18. Plate requires 1 13/16" (44 mm) minimum. With Designer Series metal cover, use PLATE, 4040T-18DS1.
- ► **Head Frame** requires 1 1/4" (32 mm) minimum.
- ► **Clearance** of 2 1/4" (57 mm) behind door required for 90° installation.

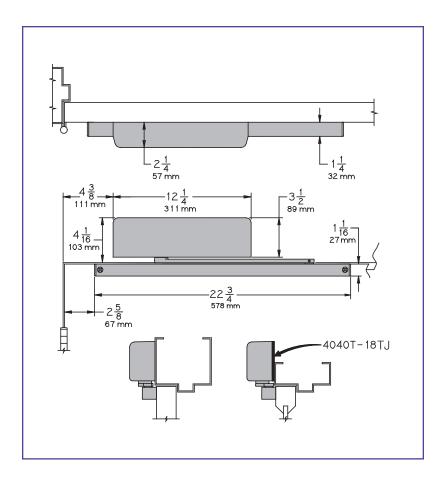
#### **Options**

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Metal or lead lined cover.
- Designer Series metal cover
- ST required for double egress applications. Consult factory

#### **Special Templates**

Customized installation templates or products may be available to solve unusual applications. Contact LCN 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 180°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- ► **Reveal** should not exceed 1/8" (3 mm).
- ► **Head Frame** less than 3 7/8" (98 mm), requires PLATE, 4040T-18TJ. Plate requires 1 3/4" (44 mm) minimum. With Designer Series metal cover, use PLATE, 4040T-18TJDS1.
- ► **Clearance** of 1 1/4" (32 mm) behind door required for 180° installation.

### TOP JAMB (PULL SIDE) MOUNTING

#### **MAXIMUM OPENING**

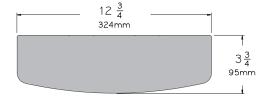
Templating allows 180° with standard track arm, limited to 110° with optional bumper installed.

Consult factory if door will be held open at 180°

Hold-open points at 85°, 90°, 95°, 100°, 105° or 110° with hold-open tracks.

#### Optional, Non-handed Designer Series Metal Cover





#### **Options**

- Standard track with bumper, hold-open track, hold-open track with bumper.
- ► Metal or lead lined cover.
- Designer Series metal cover

#### **Special Templates**

Customized installation templates or products may be available to solve unusual applications.

Contact I CN for assistance.



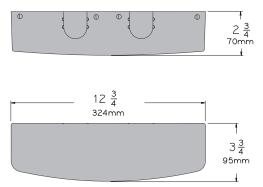
### STOP FACE (PUSH SIDE) MOUNTING

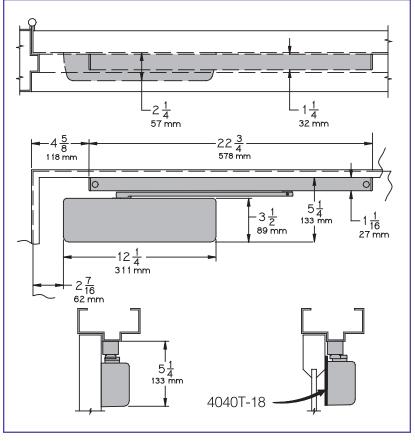
#### **MAXIMUM OPENING**

Templating allows 120° with standard track arm, limited to 110° with optional bumper tracks.

Hold-open points at 85°, 90°, 95°, 100°, 105° or 110° with hold-open tracks.

#### Optional, Non-handed Designer Series Metal Cover





- ► **Butt Hinges** should not exceed 5" (127 mm) in width.
- ► Auxiliary Stop is recommended at hold-open point or where a door cannot swing 120°. 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 the stop, requires PLATE, 4040T-18. Plate requires 3 1/2" (89 mm) minimum. With Designer Series metal cover, use PLATE, 4040T-18DS1.
- ► **Stop Width** minimum 1 1/4" (32 mm).

#### **Options**

- Standard track with bumper, hold-open track, hold-open track with bumper.
- ► Metal or lead lined cover.
- Designer Series metal cover

#### **Special Templates**

Customized installation templates or products may be available to solve unusual applications.

Contact LCN for assistance.



#### **CYLINDERS**

#### **CYLINDER, 4041T-3071**

Standard, non-handed cast iron cylinder assembly.

#### **COVERS**

#### **COVER, 4040T-72**

Standard, non-handed plastic clip-on cover.

#### **LEAD LINED COVER, 4040T-72LL**

Optional, non-handed plastic clip-on cover.

#### **METAL COVER, 4040T-72MC**

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

#### **DESIGNER SERIES METAL COVER, 4040T-72DS1**

Optional, non-handed designer series metal cover.

#### **ARMS**

#### STANDARD ARM, 4040T-3077T

Non-handed arm.

Arm does not include track roller.

#### **DOUBLE EGRESS ARM, 4040T-3077DE**

Optional, handed arm for double egress doors and frames. Arm does not include track roller.

Maximum reveal is 2 11/16" (68mm).

#### **TRACKS**

#### STANDARD TRACK, 4040T-3038

Standard, non hold-open, non-handed track.

Will accept hold-open clip and/or bumper assembly.

#### STANDARD TRACK with BUMPER, 4040T-3038B

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

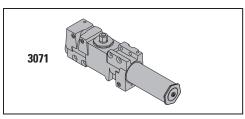
Will accept hold-open clip.

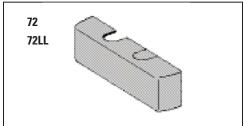
#### **HOLD-OPEN TRACK, 4040T-3038H**

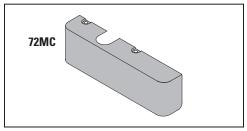
Optional, non-handed track with hold-open clip installed. Will accept bumper assembly.

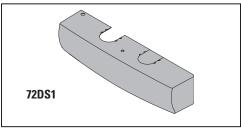
#### **HOLD-OPEN TRACK with BUMPER, 4040T-3038HB**

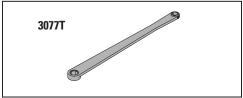
Optional, non-handed track with hold-open clip and bumper assembly installed.

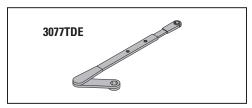


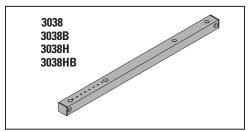














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#### **INSTALLATION ACCESSORIES**

#### PLATE, 4040T-18/4040T-18DS1

Required for pull side (door mount) installations where top rail is less than 3 3/4" (95 mm).

Plate requires minimum 1 3/4" (44 mm) top rail.

Required for push side (door mount) installations where top rail is less than 5 1/4" (133 mm) measured from the stop. Plate requires minimum 3 1/2" (89 mm) top rail. With Designer Series metal cover, use PLATE, 4040T-18DS1.

#### PLATE, 4040T-18TJ/ 4040T-18TJDS1

Required for pull side top jamb installations where head frame is less than 3 7/8" (98 mm). Plate requires minimum 1 3/4" (44 mm) head frame. With Designer Series metal cover, use PLATE, 4040T-18TJDS1.

#### **TRACK BUMPER, 4040T-169**

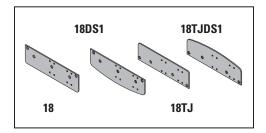
Mounts in track to assist backcheck, does not replace auxiliary stop. Limits maximum opening. Consists of bumper, bumper post, and mounting screw.

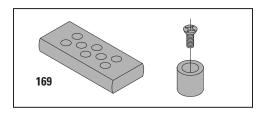
#### **HOLD-OPEN CLIP, 4040T-3054**

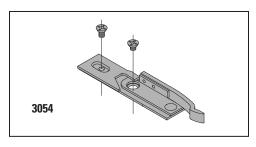
Mounts in track to provide hold-open function. Hold-open point controlled by clip location. Consists of clip and mounting screws.

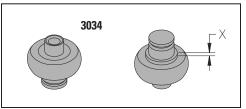
#### TRACK ROLLER, 4040T-3034

Quiet, low friction roller assembly. Shoulder dimension "X" = 1/8" (3mm).











#### **TABLE OF SIZES**

Non-Sized 4041T cylinder is adjustable from sizes 1 thru 4 and is shipped set to size 3.

Indicates recommended range of door width for closer size.

#### INTERIOR DOOR WIDTH



#### **REDUCED OPENING FORCE 4040T 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.

,	DOOR WIDTH	36"	42"	48"
E	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4041T	4041T	4041T

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

#### HOW-TO-ORDER 4040T SERIES CLOSERS

#### 1. SPECIFY FINISH

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

#### Closer will be shipped with:

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

#### **CLOSER OPTIONS**

# COVER ☐ Lead Lined (LL) ☐ Metal (specify right or left hand) (MC) ☐ Designer Series Metal (non-handed) (DS1) FINISH

☐ Custom Powder Coat (RAL)	
(handed metal cover required)	
☐ Plated Finish, US	
(handed metal cover required)	
□ SRI primer	

TR	AC	K

$\square$ Regular with	Bumper	(BUMPER
------------------------	--------	---------

☐ Hold-Open (HO)

☐ Hold-Open with Bumpe	er (HBI	JMPEK
------------------------	---------	-------

#### **SPECIFY SCREW PACK**

_	TDX	(0 1( 0		1.7		TDODE
	IR.	w/Self-R	eaming	and la	nnına	HRZRI

☐ 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 ACCESSORY**

□ Plate, 4040T	-18
☐ Plate, 4040T	-18DS1

☐ Plate, 4040T-18TJ

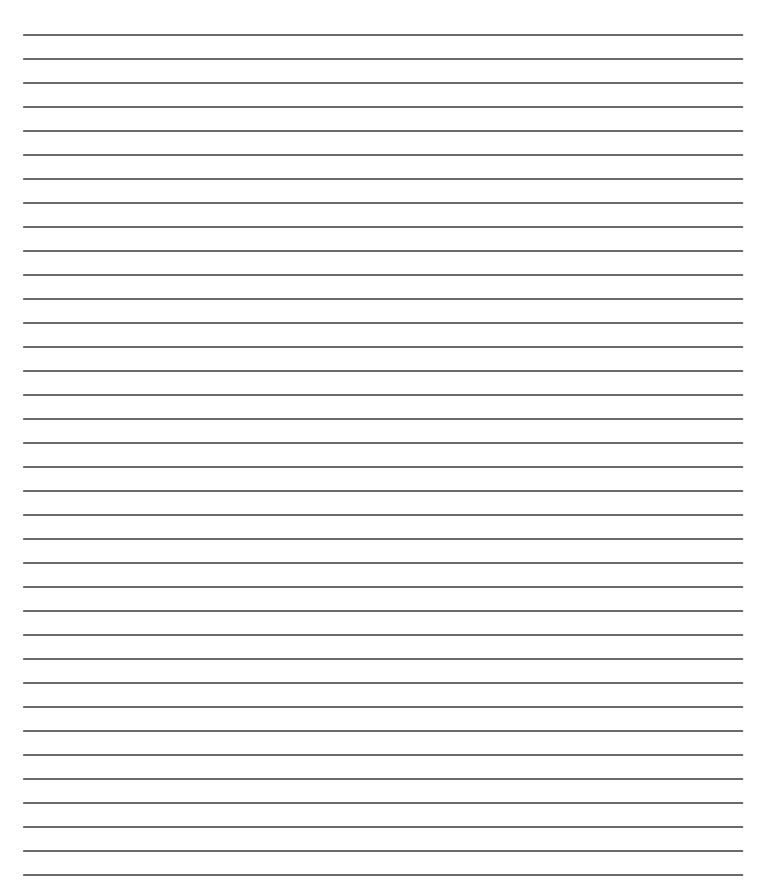
☐ Plate, 4040T-18TJDS1

SPECIAL TEMPLATE

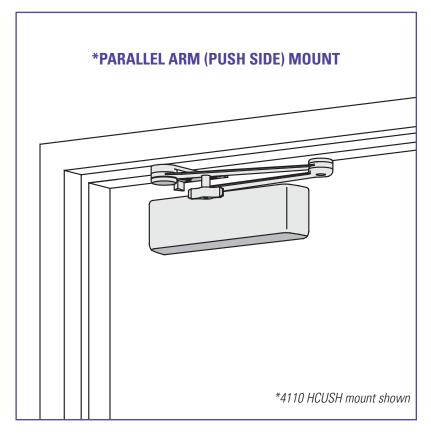
□ ST- \_\_\_\_\_



### **Notes**





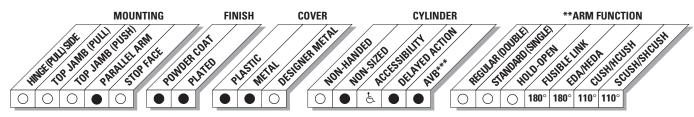


- Standard 4110 series closer is shipped with EXTRA DUTY arm, standard plastic cover, 4110-201 FIFTH SCREW SPACER and self reaming and tapping screws. See 4110 Series pages 61 & 62 for options.
- ➤ Sized cylinders adjustable for interior doors to 5'0" and exterior doors to 4'0".
- ► Non-sized cylinder 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 63.
- 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 holdopen.
- ► Tested and certified under ANSI Standard A156.4, grade one.

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

- ► Ten Million Cycles
- Cast Iron
- Extra Duty Forged Steel Arm Standard
- Double Heat Treated Steel
   Pinion
- ► All Weather Fluid
- ► LCN<sub>®</sub> Fast<sup>™</sup> Power Adjust
- ► Fast & Accurate Installation
- ► UL & cUL Listed





- 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°.

- (A) = 5.15/16" (151 mm)
- $(B) = 7 \frac{1}{4}$ " (184 mm)

140°

- $(\widehat{A}) = 47/16" (113 mm)$
- (B) = 5 3/4" (146 mm)

or 180°.

- (A) = 2.15/16" (75 mm)
- $B = 4 \frac{1}{4}$ " (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°,

- $\triangle$  = 8 5/16" (211 mm)
- (B) = 95/8" (244 mm)

90°

- $(\widehat{A}) = 7 \, 11/16'' \, (195 \, mm)$
- (B) = 9'' (229 mm)

100°.

- (A) = 67/16" (164 mm)
- $B = 7 \, 3/4" \, (197 \, \text{mm})$

or 110°.

- $\triangle$  = 5 9/16" (141 mm)
- B = 67/8" (175 mm)

Hold-open point at maximum opening with HCUSH arm.

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

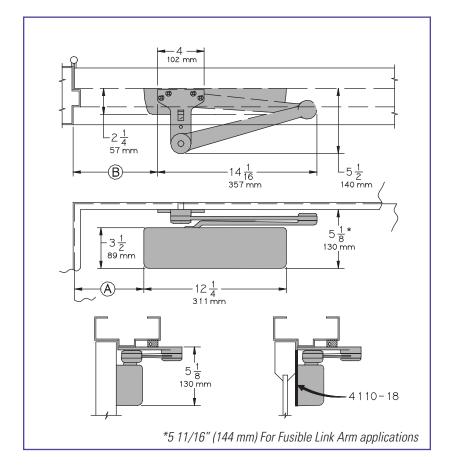
#### **Options**

- Sized or non-sized cylinder.
- Delayed Action and/or Advanced Variable Backcheck cylinder.
- HEDA, CUSH, HCUSH, SPRING CUSH, SPRING HCUSH or Fusible Link arm.
- ► Metal or lead lined cover.

#### **Special Templates**

Customized installation templates or products may be available to solve unusual applications.

Contact LCN 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 4110-145 arm or PA SHOE ADAPTER, 4110-418, Use CUSH FLUSH PANEL ADAPTER, 4110-419 with CUSH arms.
- 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 SH0E SUPPORT, 4110-30 for fifth screw anchorage with CUSH arms
- ► **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 4114 DEL). Not available with 4115 or 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. When combined with Delayed Action consult factory for special template.



#### **CYLINDERS**

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

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4110 Series page 63.

#### **COVERS**

#### **COVER, 4110-72**

Standard, non-handed plastic cover.

#### **LEAD LINED COVER, 4110-72LL**

Optional, 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, 4110-62G, 4110-145

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. Optional 4110-145 flush transom shoe for single rabetted installations. Optional shoes require special templating.

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

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

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

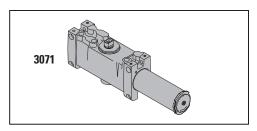
Optional, handed arm releases hold-open function adjustable at shoe when exposed to temperatures above 165° F.

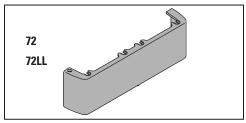
NOTE: Check local codes before specifing FL arms. NOT A LIFE

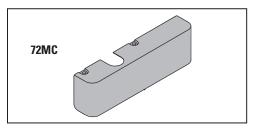
SAFETY PRODUCT!

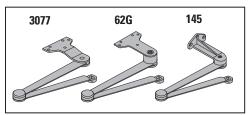
#### **CUSH-N-STOP ARM, 4110-3077CNS**

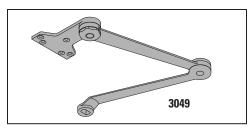
Optional, handed parallel arm features solid forged steel main arm and forearm with built-in stop in soffit shoe.

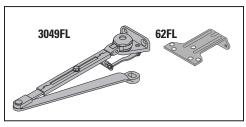


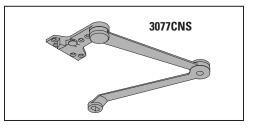












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#### H-CUSH ARM 4110-3049CNS

Optional 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.

#### SPRING H-CUSH ARM, 4110-3049SCNS

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  $2^{\prime\prime}$  (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**

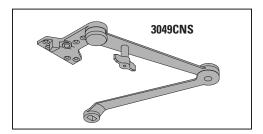
Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop

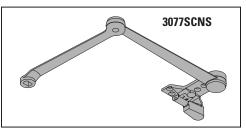
#### PA SHOE ADAPTER, 4110-418

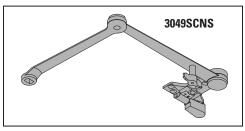
Provides horizontal mounting surface for parallel arm shoe on single rabetted or flush frame.

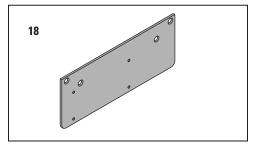
#### **CUSH FLUSH PANEL ADAPTER, 4110-419**

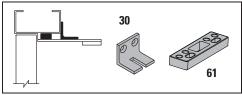
Provides horizontal mounting surface for CUSH shoe on single rabetted or flush frame.

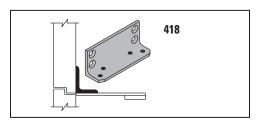


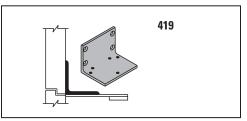












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### **TABLE OF SIZES** Select closer based on width of door.

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

Sized 4110 series cylinders available in size 2, 3, 4, 5, or 6.

Closing power of all 4110 Series closers can be increased 50%.

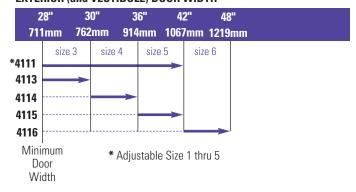
Specify next higher size closer where strong drafts exist.

Delayed action not available with 4115 or 4116 cylinder

H - CUSH and SPRING H-CUSH arm not available with 4116 cylinder.

Indicates recommended range of door width for closer size

#### **EXTERIOR (and VESTIBULE) DOOR WIDTH**



#### **INTERIOR DOOR WIDTH**

	8" mm	34" 864mm	38 965r		48' 1219n	' 54" nm 1372n		ım
*4111 4112 4113 4114 4115 4116	size 2	Size	3	size 4		size 5	size 6	
Do Wie	or	* Ad	justał	ble Size 1 t	hru 5			

#### **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 POWER OPERATORS section for information on systems that meet reduced opening force requirements without effecting closing power.

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

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

### HUM-TU-UBDED

HOW-HO-UNDEN
<b>4110 SERIES CLOSERS</b>
1. SELECT CYLINDER SIZE

	4111 (adjustable from size 1 to 5) 4112
	4113
	4114
	4115 (DEL not available)
	4116 (DEL, SHCUSH or HCUSH arm not available)
2.	SPECIFY HAND
	RH
	LH
	SELECT FINISH
	Standard Powder Coat
	Aluminum, Dark Bronze , Tan, 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.
41	110 CLOSER OPTIONS
	/LINDER
	Delayed Action ((DEL), not available
	with 4115 or 4116)
	Advanced Variable Backcheck (AVB)
-	DVER
	Lead Lined (LL)
	Metal (MC)
	NISH
Ш	Custom Powder Coat (RAL)
	(handed metal cover required)
	Plated Finish, US
	(handed metal cover required)
	SRI primer
	PECIFY 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)
	CREW 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".
IN	STALLATION ACCESSORIES
	Plate, 4110-18
	CUSH Shoe Support, 4110-30
	Blade Stop Spacer, 4110-61
	PA Shoe Adapter, 4110-418

☐ CUSH Flush Panel Adapter, 4110-419

**SPECIAL TEMPLATE** □ ST-

### **Notes**

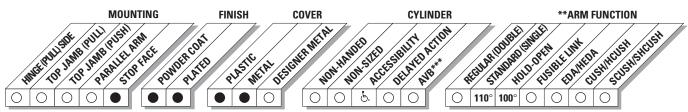






Standard 4110T series closer is shipped with standard arm, standard track, track roller, standard plastic cover and self reaming and tapping screws. See 4110T Series pages 67 & 68 for options.

- ► Sized cylinders for interior doors to 4'0".
- Closer mounts stop face side, specify right or left swinging door.
- ► Closers to meet ADA requirements. See 4110T Series page 69.
- 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 selfclosing doors.
- ► Tested and certified under ANSI Standard A156.4, grade one.



- Available
- O Not available
- 🖔 Closer available with less than 5.0 lbs. opening force on 36" door.
- \*\*Maximum opening with standard template.
- \*\*\* Advanced Variable Backcheck

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

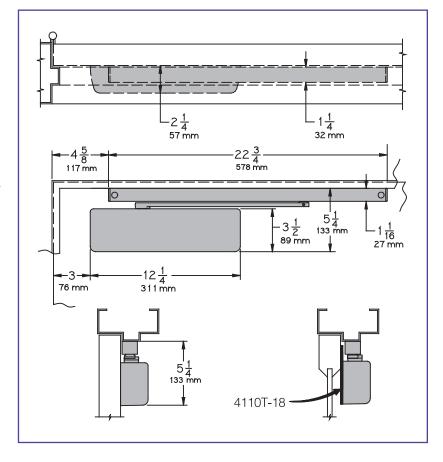
- Cast Iron
- ► Forged Steel Main Arm
- ► Double Heat Treated Steel
  Pinion
- ► All Weather Fluid
- ► Fast & Accurate Installation
- ► UL & cUL Listed

### 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.



- ► **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).

#### **Options**

- Standard track with bumper, hold-open track, hold-open track with bumper.
- Metal or lead lined cover.

#### **Special Templates**

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



#### **CYLINDERS**

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

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4110T Series page 69.

#### **COVERS**

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

Standard, non-handed plastic cover.

#### **LEAD LINED COVER, 4110T-72LL**

Optional 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.

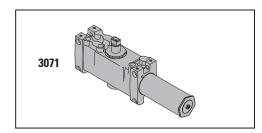
Will accept hold-open clip.

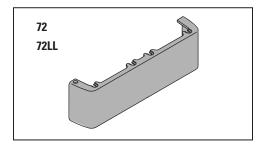
#### **HOLD-OPEN TRACK, 4110T-3038H**

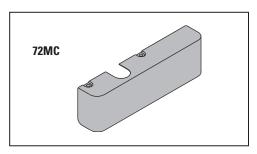
Optional, non-handed track with hold-open clip installed. Will accept bumper assembly.

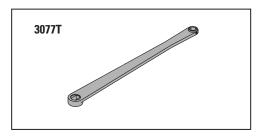
#### **HOLD-OPEN TRACK with BUMPER, 4110T-3038HB**

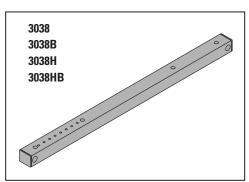
Optional, non-handed track with hold-open clip and bumper assembly installed.











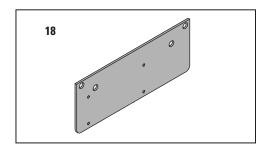


#### **INSTALLATION ACCESSORIES**

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

Required where top rail, when measured from the stop, is less than  $5 \frac{1}{4}$ " (133 mm).

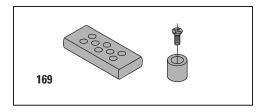
Plate requires minimum 2 1/4" (57 mm) minimum top rail.



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

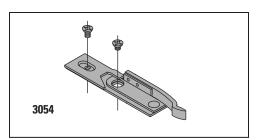
Mounts in track to assist backcheck, not replace auxiliary stop. Limits maximum opening.

Consists of bumper, bumper post, and mounting screw.



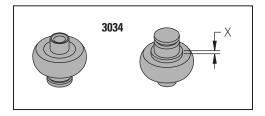
#### **HOLD-OPEN CLIP, 4110T-3054**

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).

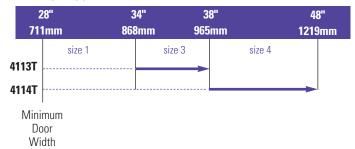




**TABLE OF SIZES** Select closer based on width of door. Sized 4110T series cylinders available in size 1, 3 or 4. Closing power of all 4110T Series closers may be increased 15%. Specify next higher size closer where strong drafts exist.

Indicates recommended range of door width for closer size.

#### INTERIOR DOOR WIDTH



#### **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.

,	DOOR WIDTH	36"	42"	48"
E	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

Ш	41111 (ADA)
	4113T
	4114T
2.	SPECIFY HAND
	RH
	LH
	SELECT FINISH
	Standard Powder Coat
	Aluminum, Dark Bronze , Tan, 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.
	uniess options nated below are selected.
CI	LOSER OPTIONS
CO	OVER
	Lead Lined (LL)
	Metal (MC)
FII	NISH
	Custom Powder Coat (RAL)
	(handed metal cover required)
	Plated Finish, US
	(handed metal cover required)
	SRI primer
	PECIFY TRACK
	Standard with Bumper (BUMPER)
	Hold-Open (HO)
	Hold-Open with Bumper (HBUMPER)
	PECIFY 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".
	STALLATION ACCESSORIES
	Plate, 4110T-18
SP	PECIAL TEMPLATE
	ST



### **Notes**



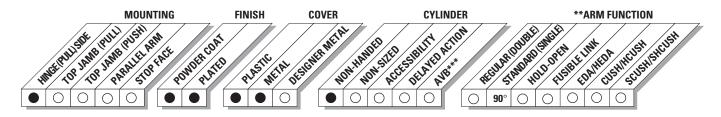




The 4000T is a heavy duty closer to reliably control fire and smoke barrier doors with maximum swing of 90°.

Designed for use with an SEM 7850 wall magnet.

- Cast Iron
- ► Forged Steel Arm
- ► Double Heat Treated Steel
  Pinion
- ► All Weather Fluid
- ► UL & cUL Listed
- 4000T series closer is shipped with standard arm, standard track, track roller, standard plastic clip-on cover, and wood and machine screw pack. See 4000T Series page 73 for options.
- ► Sized cylinders for interior fire/smoke barrier doors to 4'0".
- Closer mounts in a wall pocket, hinge side, on either right or left hand 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 4000T Series is UL and cUL listed with a standard arm for self-closing doors.
- ► Tested and certified under ANSI Standard A156.4, grade one.



- Available
- Not available
- \*\*Maximum opening/hold-open point with standard template.
- \*\*\* Advanced Variable Backcheck



#### WALL POCKET MOUNTING

Cylinder mounts on wall.

Track mounts on hinge side of door.

#### **MAXIMUM OPENING**

Templating allows 90° only. Hold-open point 90° with magnet.

**Dimension 1** is the distance from the centerline of the closer shaft to the centerline of the hinge or pivot. For pocket pivot or total door hinge, 9 1/2" (241 mm).

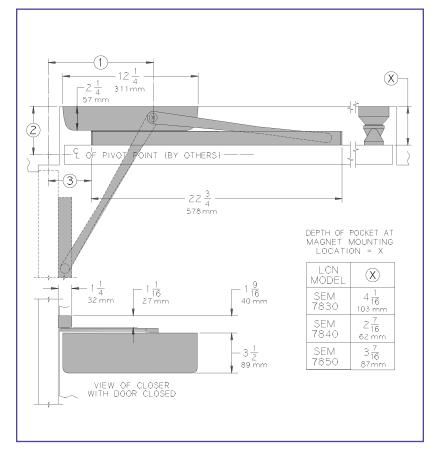
For butt hinge 8" (203 mm). For center pivot 10" (254 mm).

**Dimension 2** is the distance from the centerline of the pivot or hinge to the cylinder mounting surface. For pocket pivot 4 1/2" (114 mm). For total door hinge 3 7/8" (98mm) For butt hinge 2 7/8" (73 mm). For center pivot 4 1/2" (114 mm).

**Dimension 3** is the distance from the centerline of the pivot or hinge to end of the track.

For pocket pivot or total door hinge, 3 7/8" (98mm).

For butt hinge 2 3/8" (60mm). For center pivot 4 5/8" (117mm).



- ► Butt Hinges, Pocket Pivot, Total Door Hinge or Center Pivot are door mounting options.
- ► **Butt Hinges** should not exceed 5" (127 mm).
- ► **Pocket Depth,** See above table for distance required between door and closer mounting location. This dimension is measured from the cylinder mounting surface to the pull side face of the door at 90°.
- ► Wall Magnet SEM 7850 is recommended. Use of other magnets may require special construction to alter the depth of the pocket at the magnet location. See Fire Life Safety Section.

#### **Options**

Metal cover.

#### **Special Templates**

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



### **CYLINDERS**

#### **CYLINDER, 4000T-3071**

Standard, non-handed cast iron cylinder assembly.

#### **COVERS**

#### **COVER, 4000T-72**

Standard, non-handed plastic clip-on cover.

#### **LEAD LINED COVER, 4000T-72LL**

Standard, non-handed clip-on plastic cover.

#### **METAL COVER, 4000T-72MC**

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

#### **ARM**

#### STANDARD ARM, 4000T-3077T

Non-handed arm.

#### **TRACK**

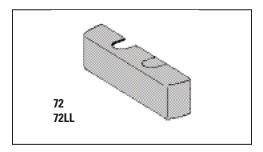
#### STANDARD TRACK, 4000T-3038

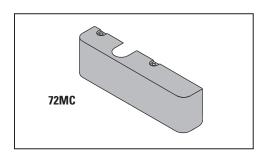
Standard, non hold-open, non-handed track.
Will not accept hold-open clip or bumper assembly.

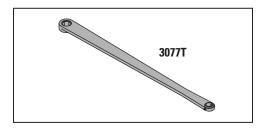
#### TRACK ROLLER, 4000T-3034

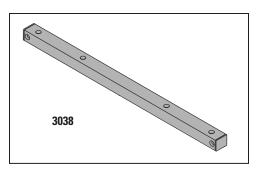
Quiet, low friction roller assembly. Shoulder Dimension "X"= 1/8" (3 mm).

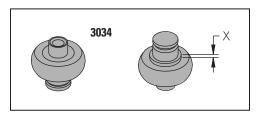
# 3071











LCN CLOSERS 121 W. RAILROAD AVE. P.O. BOX 100 PRINCETON, IL, USA 61356-0100 PHONE 800-526-2400 FAX 800-248-1460 www.lcn.ingersollrand.com 3/07

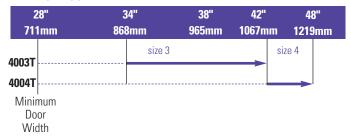


**TABLE OF SIZES** Select closer based on width of door.

4000T Series cylinders available in size 3 or 4. Closing power of 4000T Series closers is not adjustable.

Indicates recommended range of door width for closer size.

#### **INTERIOR DOOR WIDTH**



#### HOW-TO-ORDER 4000T SERIES CLOSERS

10001 OLINEO OLOGENO
1. SELECT CYLINDER SIZE
□ 4003T
□ 4004T
2. SELECT FINISH
☐ Standard Powder Coat
Aluminum, Dark Bronze , Tan, Statuary,
Light Bronze, Black, Brass.
Closer will be shipped with: - STANDARD CLIP-ON COVER, - STANDARD ARM, - TRACK ROLLER, - STANDARD TRACK, - WOOD and MACHINE SCREW PACK, unless options below are selected.
CLOSER OPTIONS COVER  Lead Lined (LL)

- STANDARD CLIP-ON COVER, - STANDARD ARM, - TRACK ROLLER, - STANDARD TRACK, - WOOD and MACHINE SCREW PACK, unless options below are selected.
CLOSER OPTIONS
COVER
☐ Lead Lined (LL)
☐ Metal (MC)
FINISH
☐ Custom Powder Coat (RAL)
(handed metal cover required)
☐ Plated Finish, US
(handed metal cover required)
☐ SRI primer
SCREW PACK
☐ TB*, Wood & Machine Screw (TBWMS)
☐ TORX Machine Screw (TORX)
☐ TB* & TORX Machine Screw (TBTRX)
* Specify door thickness if other than 1 3/4".
SPECIAL TEMPLATE
□ ST

