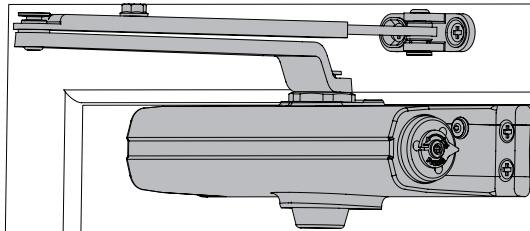


LCN 1260 SERIES

FEATURES

New

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



*HINGE (pull) side mount shown

The LCN 1260 Series combines the best features from the previous 1070 and 1370 into a single versatile and economical cast iron closer, with dual mounting capability. The 1260 is adjustable spring sizes 1-5 and mounts to the most common commercial footprint. The 1260 also features a complete line of regular and extra duty arms, LCN's peel-n-stick installation templates, a convenient spring adjust pointer, and an optional Quick Fix™ bracket kit.

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

- ▶ Standard 1260 series closer shipped with regular arm, a shaft cover, and self reaming and tapping screws. See 1260 Series Pages 8-9 for options.
- ▶ Non-sized (1-5) cylinder is adjustable for interior doors to 4'6" and exterior doors to 3'6".
- ▶ Closer mounts hinge side, top jamb and parallel arm on either right or left swinging doors.
- ▶ Mounts to most common commercial footprint (3/4" x 9 1/16").
- ▶ Closer meets ADA requirements. See 1260 Series page 10.
- ▶ Optional Quick Fix™ bracket kit.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ Optional Slim Line cover.

MOUNTING					FINISH		COVER		CYLINDER			*ARM FUNCTION									
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER SERIES	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	REGULAR (DOUBLE)	STANDARD (SINGLE)	HEAVY DUTY	HOLD-OPEN	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH	
●	●	○	●	○	●	○	●	○	●	●	○	○	○	○	○	○	○	○	○	○	○
										180°	○	○	○	180°	120°	110°	110°				

● Available
 ○ Not available

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

LCN 1260 SERIES

MOUNTING DETAILS

HINGE (PULL) SIDE MOUNTING

MAXIMUM OPENING

To 100°

Ⓐ = 6 9/16" (167 mm)

Ⓑ = 12 7/16" (316 mm)

or 101° to 120°

Ⓐ = 5 9/16" (141 mm)

Ⓑ = 11 7/16" (291 mm)

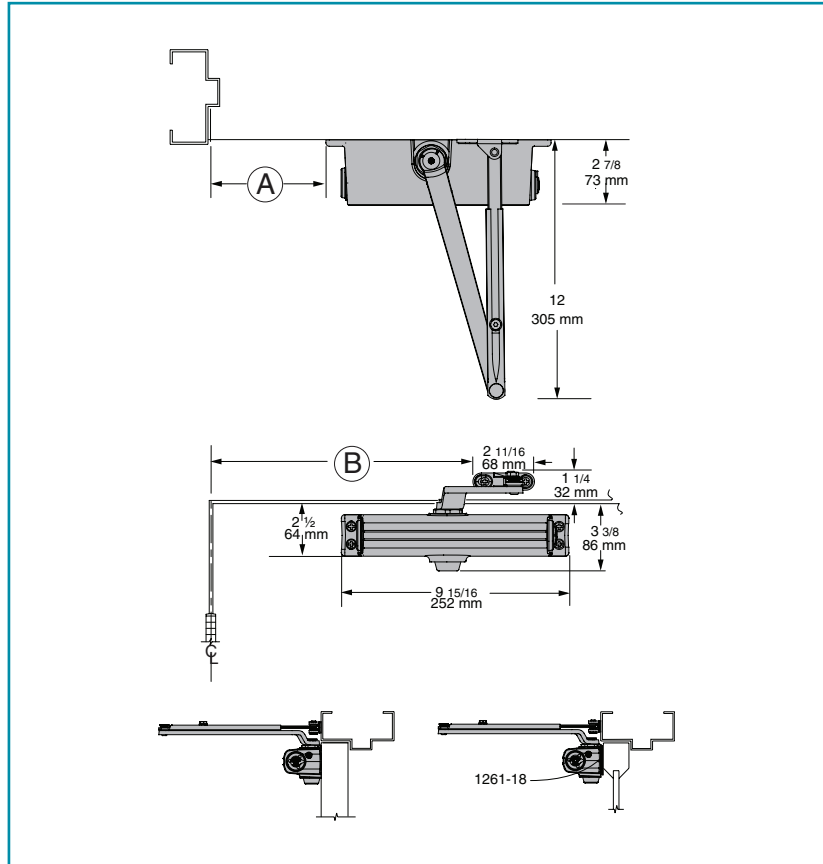
or *121° to 180°

Ⓐ = 3 1/16" (78 mm)

Ⓑ = 8 15/16" (227 mm)

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

*Frame and trim permitting.



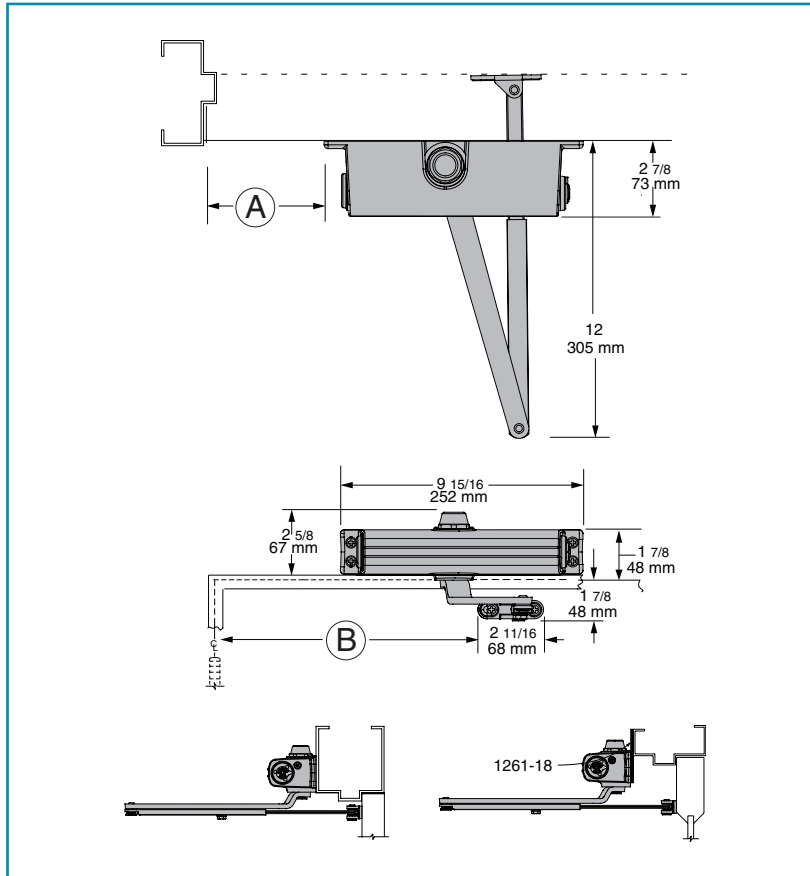
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 180°.
- ▶ **Reveal** should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for hold-open arm.
- ▶ **Top Rail** less than 2 1/2" (64 mm) requires PLATE, 1260-18.
- ▶ **Clearance** of 2 7/8" (73 mm) behind door required for installation.
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 1260 DEL). Delays closing from 100° to 54°, 120° to 57° or 180° to 66° depending on templating. Delay time adjustable up to approximately 1 minute.
- ▶ **Bull Nose Trim** requires SOFFIT SHOE, 1260-65.

Options

- ▶ Delayed action cylinder.
- ▶ Hold-open arm.
- ▶ Slim Line cover. (C)

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

To 100°

- Ⓐ = 7 1/16" (179 mm)
- Ⓑ = 12 15/16" (329 mm)

or 101° to 120°

- Ⓐ = 5 9/16" (141 mm)
- Ⓑ = 11 7/16" (291 mm)

or *121° to 180°

- Ⓐ = 3 1/16" (78 mm)
- Ⓑ = 8 15/16" (227 mm)

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

**Frame and trim permitting.*

- ▶ **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**

Arm Type	Maximum Reveal	Opening
Regular Arm	3 1/2"	Up to 120°
Regular Arm	2 1/4"	121° to 180°
Long Arm	7 1/2"	Up to 120°
Long Arm	3 1/2"	121° to 180°
Hold-Open Arm	2"	Up to 120°
Hold-Open Arm	2 1/4"	121° to 180°
Long Hold-Open Arm	4 1/2"	Up to 120°
Long Hold-Open Arm	4 1/2"	121° to 160°

- ▶ **Top Rail** requires 1 3/4" (44 mm) minimum.
2 1/2" (64 mm) minimum with closer on PLATE, 1260-18.
- ▶ **Head Frame** less than 1 3/4" (44 mm) requires PLATE, 1260-18. For flush ceiling condition with 2" (51 mm) headframe, use PLATE, 1260-18. (Plate requires 1 3/8" (35 mm) minimum.)
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 1260 DEL). Delays closing from 100° to 63°, 120° to 70° or 180° to 85° depending on templating. Delay time adjustable up to approximately 1 minute.

Options

- ▶ Delayed action cylinder.
- ▶ Long arm, hold-open arm, long hold-open arm.
- ▶ Slim Line cover (C).

Special Templates

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

LCN 1260 SERIES

MOUNTING DETAILS

PARALLEL ARM (PUSH SIDE) MOUNTING

Optional mounting requires PA SHOE, 1260-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (e.g. P1260). P1260 closer includes 1260-201 FIFTH HOLE SPACER to support PA SHOE.

MAXIMUM OPENING

Regular or hold-open arm can be templated to 100°

Ⓐ = 7 3/16" (183 mm)

Ⓑ = 8 5/8" (219 mm)

or 101° to 130°

Ⓐ = 5 11/16" (144 mm)

Ⓑ = 7 1/8" (181 mm)

or *131° to 180°

Ⓐ = 3 11/16" (94 mm)

Ⓑ = 5 1/8" (130 mm)

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

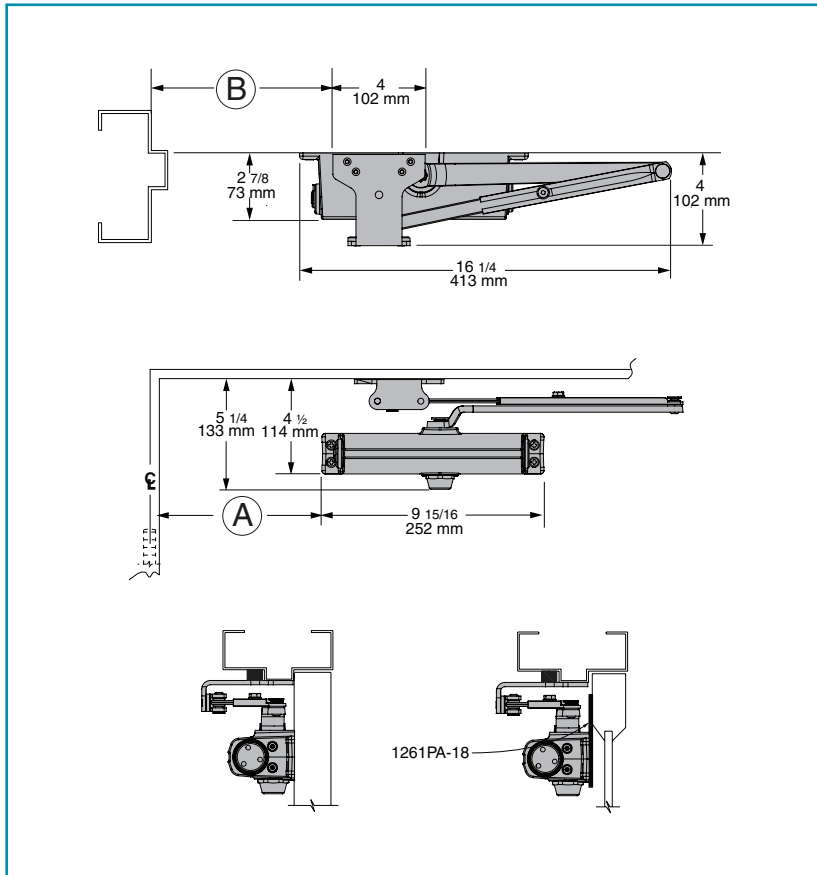
**Frame and trim permitting.*

Options

- ▶ Delayed action cylinder.
- ▶ Hold-open, EDA, HEDA, CUSH, HCUSH arm, SPRING CUSH, SHCUSH arms.
- ▶ Slim Line cover. (C)

Special Templates

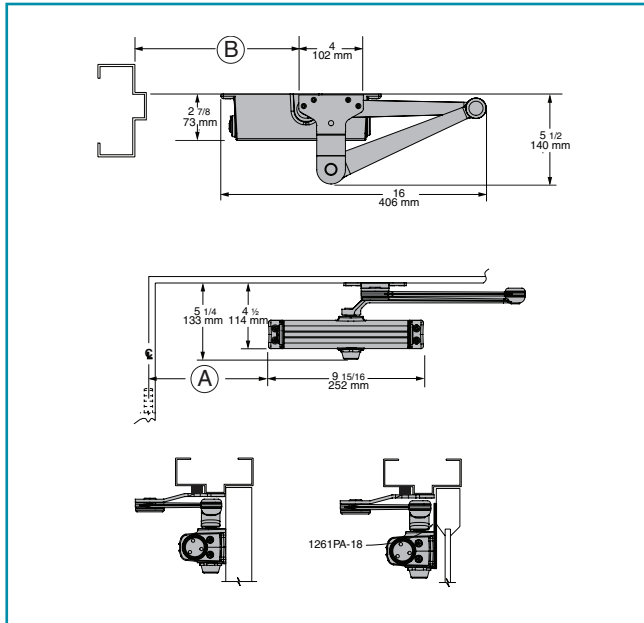
Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.



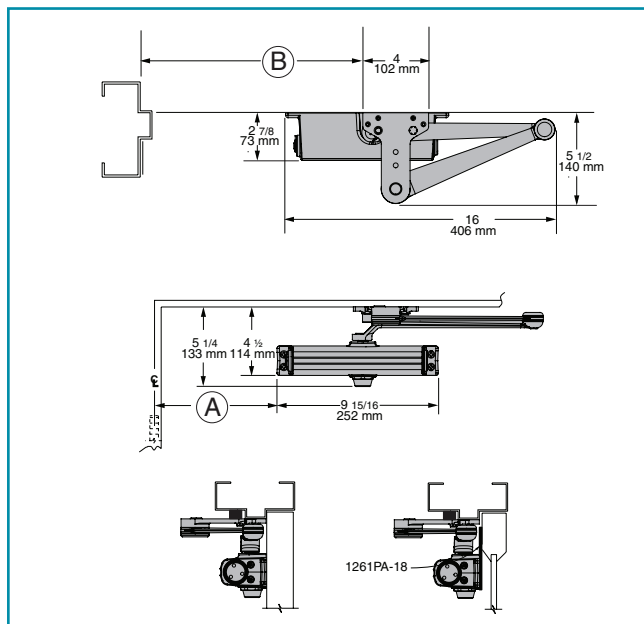
1260 REGULAR or HOLD-OPEN MOUNT

- ▶ **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 1260-62PA shoe is 4" (102 mm) from door face.
- ▶ **Top Rail** less than 4 3/8" (111 mm) measured from the stop requires PLATE, 1260-18PA.
- ▶ **Stop Width** minimum 1" (25 mm).
- ▶ **Blade Stop** clearance, requires 1/2" (13 mm) BLADE STOP SPACER, 1260-61.
- ▶ **Auxiliary Shoe**, 1260-62A allows installation of regular arm with overhead holder/stop. Special templating required.
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 1260 DEL). Delays closing from 100° to 67°, 130° to 70° or 180° to 73° depending on templating. Delay time adjustable up to approximately 1 minute.

1260 EDA MOUNT



1260 CUSH MOUNT



1260 EDA or CUSH-N-STOP MOUNTING

1260 closers ordered with EDA, CUSH or SPRING CUSH arms include 1260-201 FIFTH HOLE SPACER to support the shoe.

MAXIMUM OPENING

EDA template allows 120°.
Hold-open point up to maximum opening.

- 90°,
 (A) = 4 13/16" (122 mm)
 (B) = 9 1/2" (241 mm)
 or 120°,
 (A) = 3 5/16" (84 mm)
 (B) = 8" (203 mm)

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

- (A) = 5 5/16" (135 mm)
 (B) = 10" (254 mm)
 90°,
 (A) = 4 11/16" (119 mm)
 (B) = 9 3/8" (238 mm)
 100°,
 (A) = 3 9/16" (90 mm)
 (B) = 8 1/4" (210 mm)
 or 110°.
 (A) = 2 13/16" (71 mm)
 (B) = 7 1/2" (191 mm)

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

- ▶ **Clearance** for 1260-62EDA or CUSH shoe is 5 1/2" (140 mm) from door face.
- ▶ **Head Frame** flush or rabbeted requires CUSH FLUSH PANEL ADAPTER, 1260-419.
- ▶ **EDA or CUSH ARM** requires SHOE SUPPORT, 1260-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm).
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 1260 DEL).
 Delays closing for EDA from 90° to 61° or 120° to 63° depending on templating.
 Delays closing for CUSH from 85° to 60°, 90° to 62°, 100° to 63° or 110° to 65° depending on templating. Delay time adjustable up to approximately 1 minute.

LCN 1260 SERIES

CYLINDERS

CYLINDER, 1260-3071

Standard, non-handed cast iron cylinder assembly.

ARMS

REGULAR ARM, 1260-3077

Non-handed arm mounts hinge side or top jamb. P1260 closer includes PA SHOE, 1260-62PA required for parallel arm mounting.

PA SHOE, 1260-62PA

Required for parallel arm mounting.

LONG ARM, 1260-3077L

Optional, non-handed arm includes LONG ROD AND SHOE, 1260-79LR for top jamb mount with deep reveals.

HOLD-OPEN ARM, 1260-3049

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

Hold-open adjustable at shoe.

LONG HOLD-OPEN ARM, 1260-3049L

Optional non-handed arm includes LONG HEAD AND TUBE, 1260-3048L for top jamb mount with deep reveals.

EXTRA DUTY ARM, 1260-3077EDA, 1260-3077EDA/G, 1260-3077EDA/145

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

Optional 1260-3077EDA/G for blade stop clearance.

Optional 1260-3077EDA/145 for flush transom frame.

HEDA ARM, 1260-3049EDA

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

CUSH-N-STOP® ARM, 1260-3077CNS

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

HCUSH ARM, 1260-3049CNS

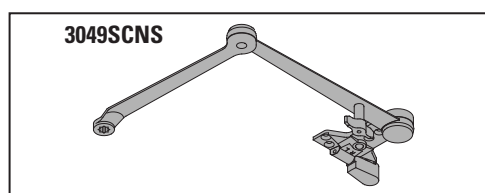
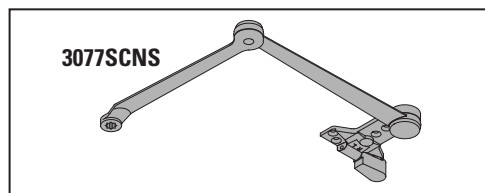
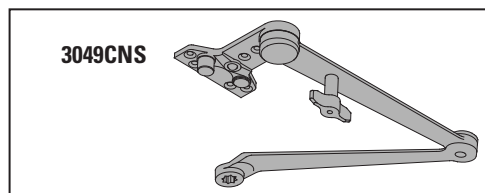
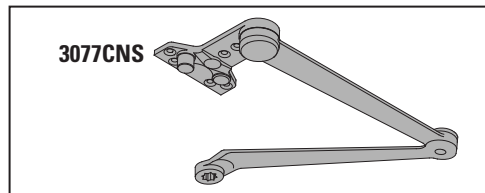
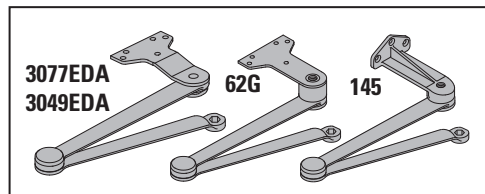
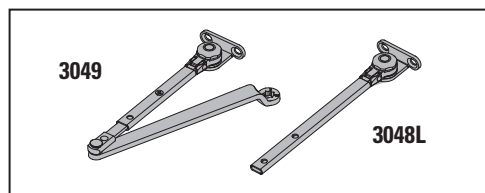
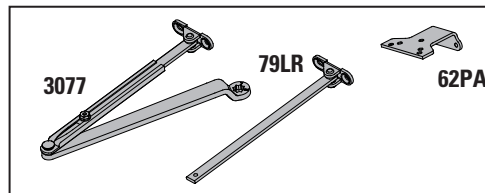
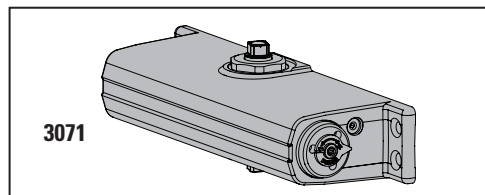
Optional non-handed arm, provides hold-open function with templated stop/hold-open points. Handle controls hold-open function.

SPRING CUSH ARM, 1260-3077SCNS

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, 1260-3049SCNS

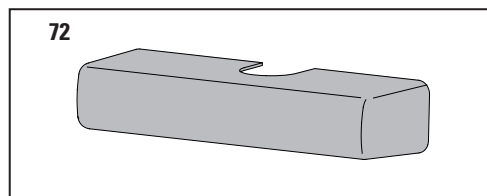
Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Handle controls hold-open function.



COVER

COVER, 1260-72

Optional, non-handed, slim line plastic cover.



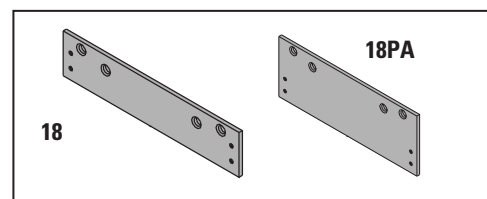
INSTALLATION ACCESSORIES

PLATE, 1260-18

Required for hinge side mount where top rail is less than 2 1/2" (64 mm).

Required for top jamb mounting where head frame is less than 1 3/4" (44 mm) or flush ceiling condition exists.

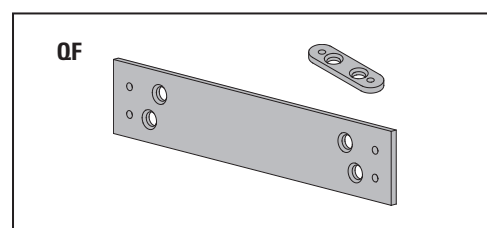
Plate requires minimum 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame.



PLATE, 1260-18PA

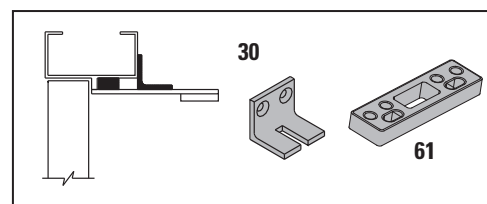
Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop.

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



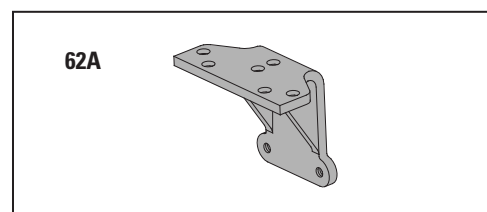
QUICK FIX™ BRACKET KIT, 1260-QF

Optional kit includes retro-fit mounting plates for closer cylinder and shoe. Useful in applications when previously drilled holes are damaged.



CUSH SHOE SUPPORT, 1260-30

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



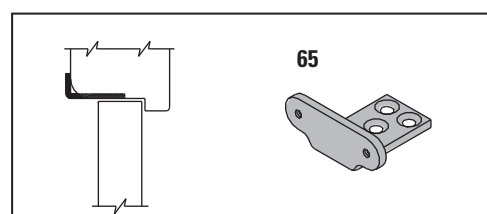
BLADE STOP SPACER, 1260-61

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

AUXILIARY SHOE, 1260-62A requires a top rail of 7" (178 mm).

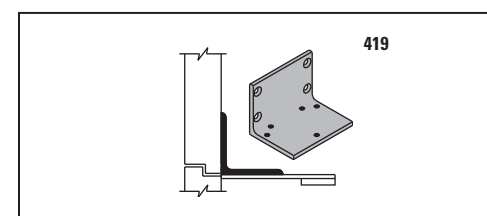
Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop.

Special template required.



SOFFIT SHOE, 1260-65

Adapts hinge side shoe to rounded or bull nose trim.



CUSH FLUSH PANEL ADAPTER, 1260-419

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

LCN 1260 SERIES

TABLE OF SIZES Select closer based on width of door.
 The spring power of a 1261 cylinder is field adjustable from size 1 through size 5 and is shipped adjusted to size 3.
 PA mount adjustable - size 1 to 4.

→ Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH

24"	30"	36"	42"
610mm	762mm	914mm	1067mm



Minimum
Door
Width

INTERIOR DOOR WIDTH

24"	34"	38"	48"	54"
610mm	864mm	965mm	1219mm	1372mm




Minimum
Door
Width

* Adjustable Size 1 thru 5

REDUCED OPENING FORCE 1260 CLOSERS

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	1261	1261	1261
	5.0* lbs.	1261	1261	1261

* Maximum opening force

HOW-TO-ORDER 1260 SERIES CLOSERS

1. SELECT FINISH

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

Closer will be shipped with:

- STANDARD CYLINDER,
- REGULAR ARM,
- SELF-REAMING and TAPPING SCREWS,
unless options listed below are selected.

CLOSER OPTIONS

CYLINDER

- Delayed Action (DEL)

COVER

- Slim line cover (C)

FINISH

- Custom Powder Coat (RAL) _____
- SRI primer

ARM

- Regular w/62PA (Rw/PA)
- Long (LONG)
- Regular w/62A (R/62A)
- 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 -145)
- Cush-N-Stop (CUSH)
- HCush (HCUSH)
- Spring Cush(SCUSH)
- Spring HCush (SHCUSH)

OPTIONAL SCREW PACKS

- TB* w/Self-Reaming and Tapping Screws (TBSRT)
 - Wood & Machine Screw (WMS)
 - TB*, Wood & Machine Screw (TBWMS)
 - TORX Machine Screw (TORX)
 - TB* & TORX Machine Screw (TBTORX)
- * Specify door thickness if other than 1 3/4".

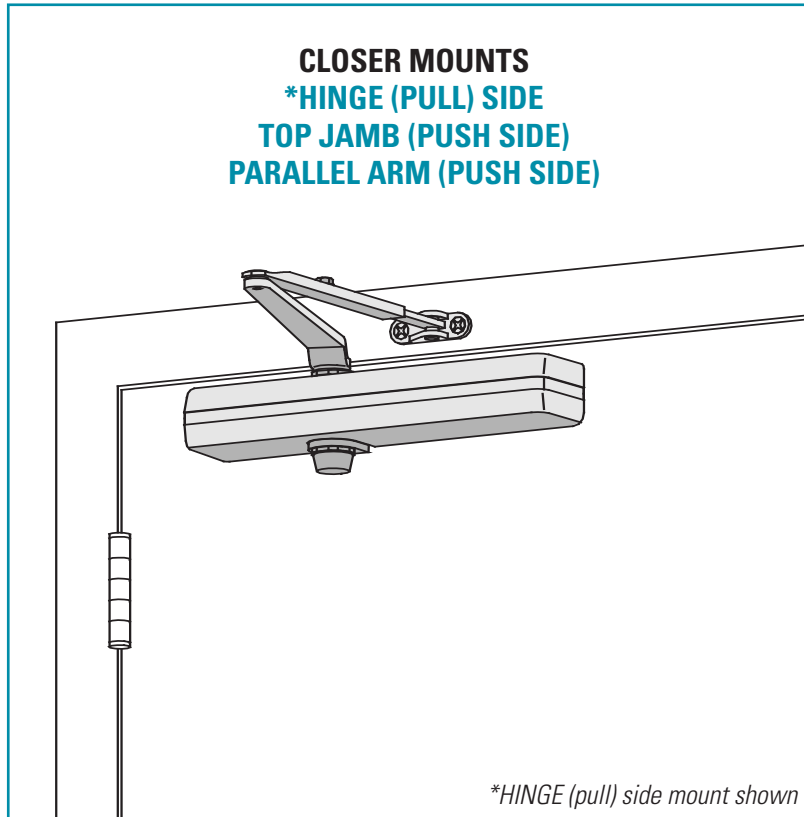
SPECIAL TEMPLATE

- ST- _____

INSTALLATION ACCESSORIES

- Plate, 1260-18
- Plate, 1260-18PA
- CUSH Shoe Support, 1260-30
- Blade Stop Spacer, 1260-61
- Auxiliary Shoe, 1260-62A
- Soffit Shoe, 1260-65
- CUSH Flush Panel Adapter, 1260-419
- Quick Fix™ Bracket Kit, 1260-QF

LCN 1460 SERIES



Designed for maximum versatility, the 1460, available with multiple cover options, can be used for both commercial and institutional applications. This fully universal closer offers a wide variety of options and new fast and accurate installation.

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

- ▶ Standard 1460 series closer shipped with regular arm, a slim line plastic cover, and self reaming and tapping screws. See 1460 Series Pages 16 & 17 for options.
- ▶ Multiple cover options include; Standard (Slim line), Smooth Slim line (EC), Full and Designer Series.
- ▶ Non-sized (1-6) cylinder is adjustable for interior doors to 5'0" and exterior doors to 4'0".
- ▶ Closer mounts hinge side, top jamb and parallel arm on either right or left swinging doors.
- ▶ Closer meets ADA requirements. See 1460 Series page 18.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on Designer Series metal cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.

MOUNTING					FINISH		COVER		CYLINDER			*ARM FUNCTION								
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER SERIES	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	REGULAR (DOUBLE)	STANDARD (SINGLE)	HEAVY DUTY	HOLD-OPEN	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH
●	○	●	●	○	●	D	●	○	●	●	♿	●	180°	○	180°	180°	110°	100°	100°	

● Available
○ Not available

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* Maximum opening/hold-open point with standard template.
D = For Designer series only.

LCN 1460 SERIES

MOUNTING DETAILS

HINGE (PULL) SIDE MOUNTING

MAXIMUM OPENING

110°

(A) = 5 7/8" (149 mm)

(B) = 10 7/8" (276 mm)

or *180°

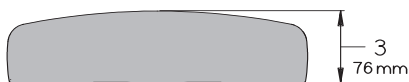
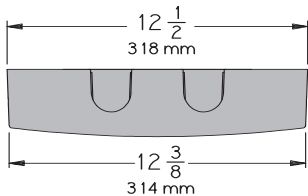
(A) = 2 7/8" (73 mm)

(B) = 7 7/8" (200 mm)

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

*Frame and trim permitting.

Optional, Non-handed Designer Series Metal Cover

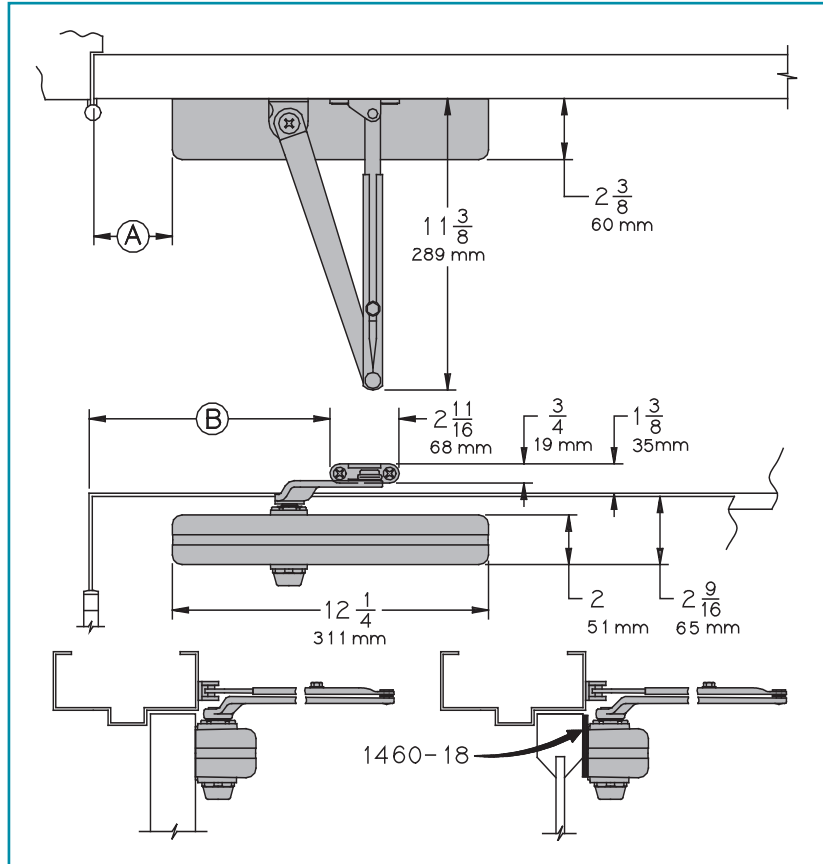


Options

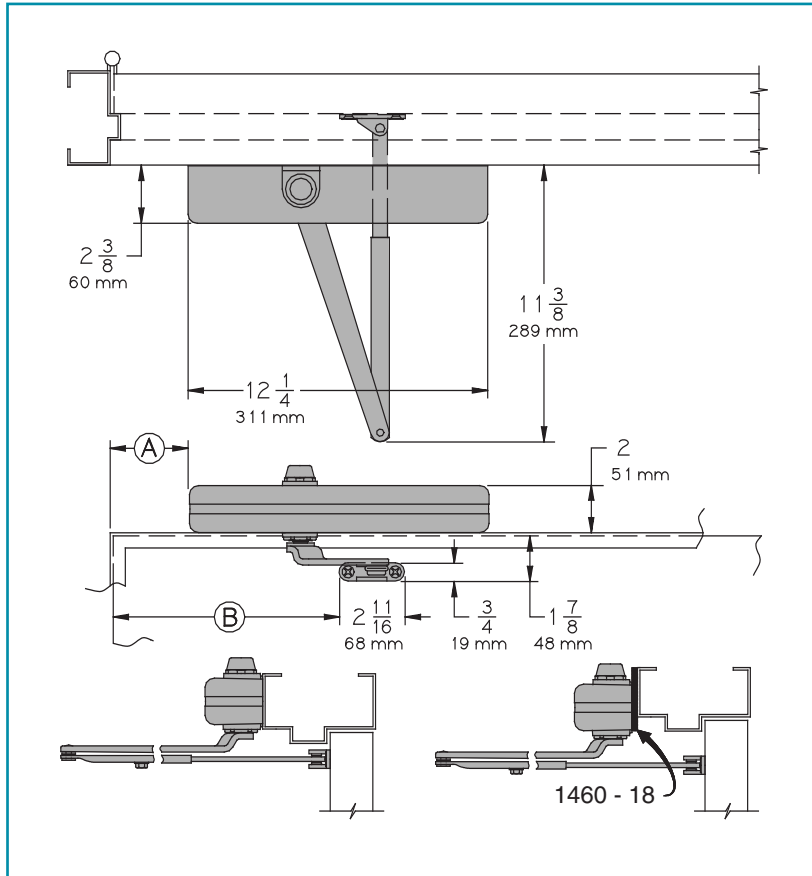
- ▶ Delayed action cylinder.
- ▶ Hold-open arm.
- ▶ Full cover. (FC)
- ▶ Smooth Slim line cover. (EC)
- ▶ Designer Series metal cover. (DS1)

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°.
- ▶ **Reveal** should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for hold-open arm.
- ▶ **Top Rail** less than 2 1/2" (64 mm) requires PLATE, 1460-18. With Full cover, use PLATE, 1460-18FC. Plate requires 1 1/2" (38 mm) minimum. With Designer Series metal cover, use PLATE, 1460-18DS1.
- ▶ **Clearance** of 2 3/8" (60 mm) behind door required for installation.
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 1461 DEL). Delays closing from 110° to 65° or 160° to 75° depending on templating. Delay time adjustable up to approximately 1 minute.
- ▶ **Bull Nose Trim** requires SOFFIT SHOE, 1460-65.



TOP JAMB (PUSH SIDE) MOUNTING

MAXIMUM OPENING

110°

Ⓐ = 6 3/4" (169 mm)

Ⓑ = 11 1/4" (286 mm)

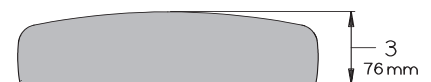
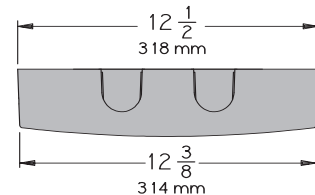
180°

Ⓐ = 3" (76 mm)

Ⓑ = 7 1/2" (191 mm)

Hold-open points up to maximum opening 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 180°.
- ▶ **Reveal** of 2 1/2" (64 mm) allows 180° opening with REGULAR HOLD-OPEN ARM. 3 1/2" (89 mm) allows up to 180° opening with REGULAR ARM or 180° with optional LONG HOLD-OPEN ARM when standard head and tube is replaced with optional LONG HEAD AND TUBE, 1460-78HL. 4 7/8" (124 mm) allows up to 140° with REGULAR ARM or LONG HOLD-OPEN ARM. 7" (178 mm) allows up to 140° opening with LONG ARM when standard rod and shoe is replaced with optional LONG ROD AND SHOE, 1460-79LR.
- ▶ **Top Rail** requires 1 7/8" (48 mm) minimum. 2 3/4" (70 mm) minimum with closer on PLATE, 1460-18.
- ▶ **Head Frame** less than 1 3/4" (44 mm) requires PLATE, 1460-18. For flush ceiling condition with 2" (51 mm) headframe, use PLATE, 1460-18. With Full cover, use PLATE, 1460-18FC. Plate requires 1 1/4" (32 mm) minimum. With Designer Series metal cover, use PLATE, 1460-18DS1.
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 1460 DEL). Delays closing from 110° to 75° or 180° to 95° depending on templating. Delay time adjustable up to approximately 1 minute.

Options

- ▶ Delayed action cylinder.
- ▶ Long arm, hold-open arm, long hold-open arm.
- ▶ Full cover (FC).
- ▶ Smooth Slim line cover (EC).
- ▶ Designer Series metal cover (DS1).

Special Templates

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

LCN 1460 SERIES

MOUNTING DETAILS

PARALLEL ARM (PUSH SIDE) MOUNTING

Optional mounting requires PA SHOE, 1460-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (e.g. P1460). P1460 closer includes 1460-201 FIFTH HOLE SPACER to support PA SHOE.

MAXIMUM OPENING

Regular or hold-open arm can be templated for 100°

Ⓐ = 4 1/4" (108 mm)

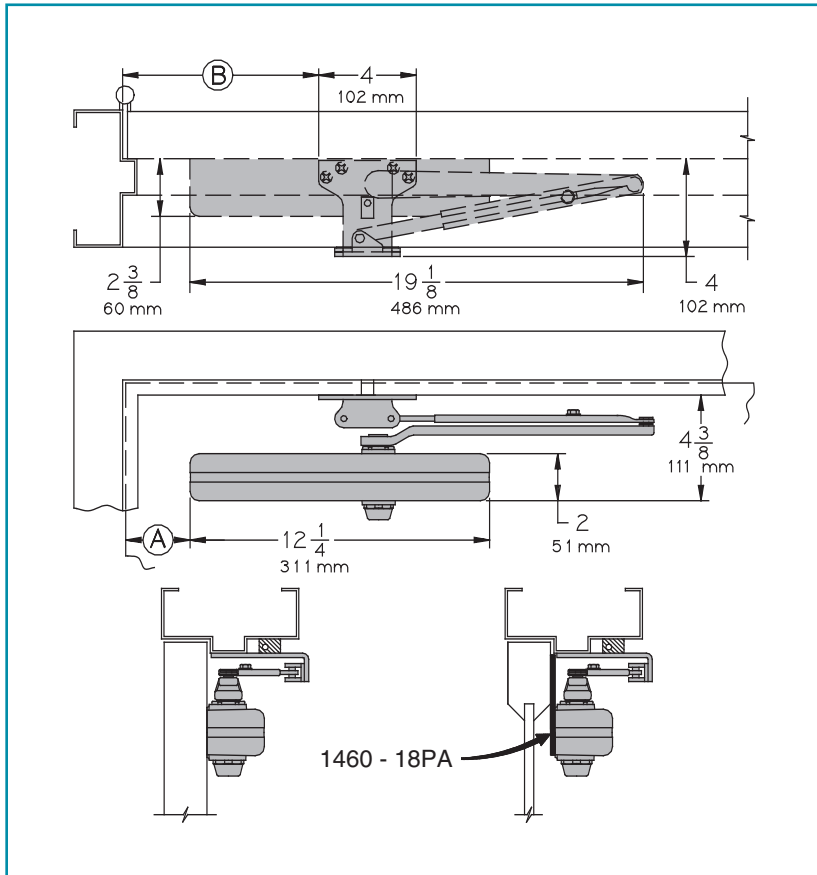
Ⓑ = 9 1/4" (235 mm)

or 180°.

Ⓐ = 1 3/4" (44 mm)

Ⓑ = 6 3/4" (171 mm)

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



1460 REGULAR or HOLD-OPEN MOUNT

- ▶ **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 1460-62PA shoe is 4" (102 mm) from door face.
- ▶ **Top Rail** less than 4 3/8" (111 mm) measured from the stop requires PLATE, 1460-18PA. With Full cover, use PLATE, 1460-18PAFC. Plate requires 1 3/4" (44 mm) minimum. Plate requires 1 1/4" (32 mm) minimum. With Designer Series metal cover, use PLATE, 1460-18PADS1.
- ▶ **Head Frame** flush or single rabbeted requires PA SHOE ADAPTER, 1460-418.
- ▶ **Stop Width** minimum 1" (25 mm).
- ▶ **Blade Stop** clearance, requires 1/2" (13 mm) BLADE STOP SPACER, 1460-61.
- ▶ **Auxiliary Shoe**, 1460-62A allows installation of regular arm with overhead holder/stop. Special templating required.
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. P1460 DEL). Delays closing from maximum opening to approximately 75°. Delay time adjustable up to approximately 1 minute.

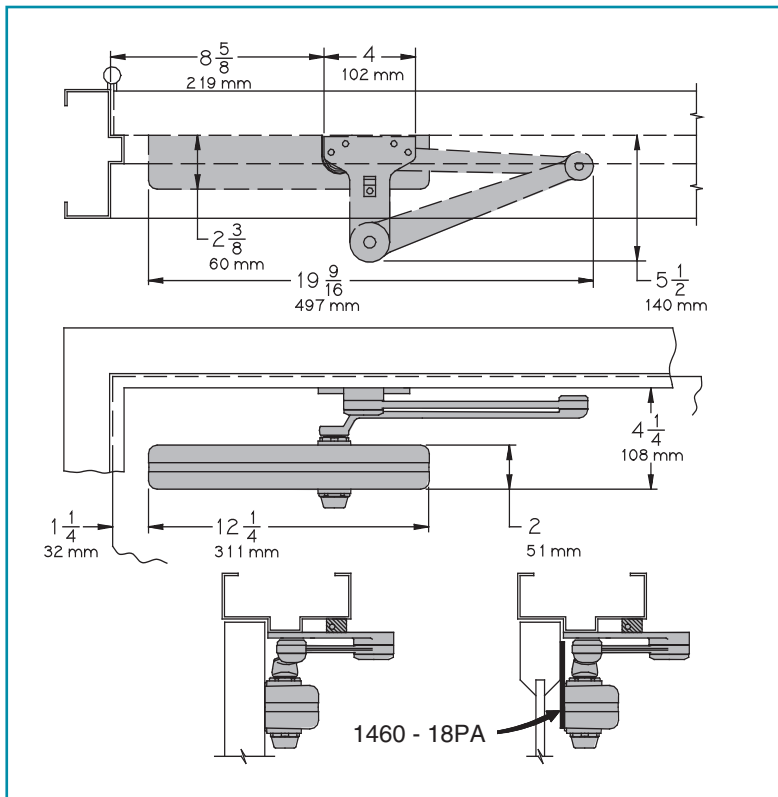
Options

- ▶ Delayed action cylinder.
- ▶ Hold-open, EDA, HEDA, CUSH, HCUSH arm, SPRING CUSH, SHCUSH arms.
- ▶ Full cover. (FC)
- ▶ Smooth Slim line cover. (EC)
- ▶ Designer Series metal cover. (DS1)

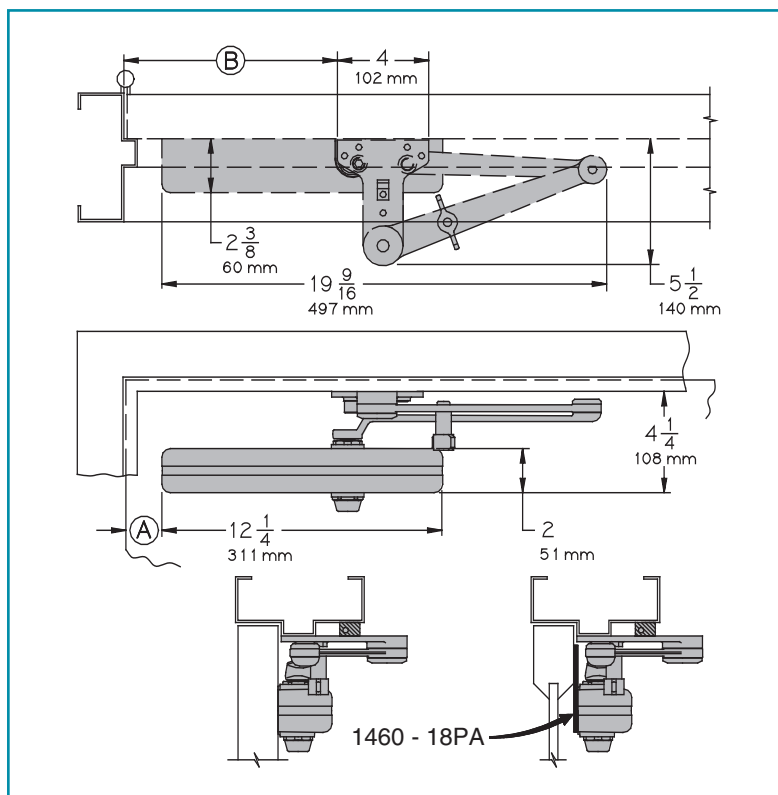
Special Templates

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

1460 EDA MOUNT



1460 CUSH MOUNT



1460 EDA or CUSH-N-STOP MOUNTING

1460 closers ordered with EDA, CUSH or SPRING CUSH arms include 1460-201 FIFTH HOLE SPACER to support the shoe.

MAXIMUM OPENING

EDA template allows 110°.

Hold-open point up to maximum opening.

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

Ⓐ = 2 3/8" (60 mm)

Ⓑ = 9 9/16" (243 mm)

90°.

Ⓐ = 1 5/8" (41 mm)

Ⓑ = 9 1/16" (230 mm)

or 100°.

Ⓐ = 5/8" (16 mm)

Ⓑ = 8 1/16" (205 mm)

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

► **Clearance** for 1460-62EDA or CUSH shoe is 5 1/2" (140 mm) from door face.

► **Head Frame** flush or rabbeted requires CUSH FLUSH PANEL ADAPTER, 1460-419.

► **EDA or CUSH ARM** requires SHOE SUPPORT, 1460-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm).

LCN 1460 SERIES

CYLINDERS

CYLINDER, 1460-3071

Standard, non-handed cast iron cylinder assembly.

ARMS

REGULAR ARM, 1460-3077

Non-handed arm mounts hinge side or top jamb. P1460 closer includes PA SHOE, 1460-62PA required for parallel arm mounting.

PA SHOE, 1460-62PA

Required for parallel arm mounting.

LONG ARM, 1460-3077L

Optional, non-handed arm includes LONG ROD AND SHOE, 1460-79LR for top jamb mount with deep reveals.

HEAVY DUTY REGULAR ARM 1460-3077HD

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

HEAVY DUTY LONG ARM 1460-3077HDL

Optional, heavy duty, forged, non-handed arm. Includes long rod and shoe, 1460-79LR for top jamb mounts with deep reveals.

HOLD-OPEN ARM, 1460-3049

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

Hold-open adjustable at shoe.

LONG HOLD-OPEN ARM, 1460-3049L

Optional non-handed arm includes LONG HEAD AND TUBE, 1460-3048L for top jamb mount with deep reveals.

EXTRA DUTY ARM, 1460-3077EDA, 1460-3077EDA/G, 1460-3077EDA/145

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

Optional 1460-3077EDA/G for blade stop clearance.

Optional 1460-3077EDA/145 for flush transom frame.

HEDA ARM, 1460-3049EDA

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

CUSH-N-STOP® ARM, 1460-3077CNS

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

HCUSH ARM, 1460-3049CNS

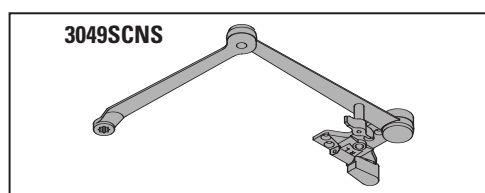
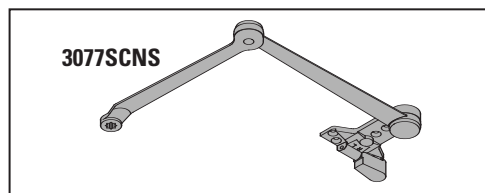
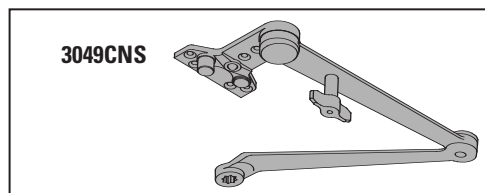
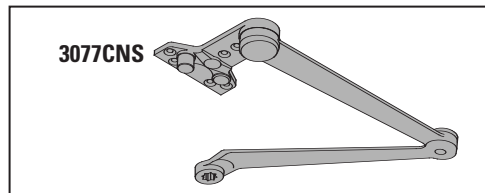
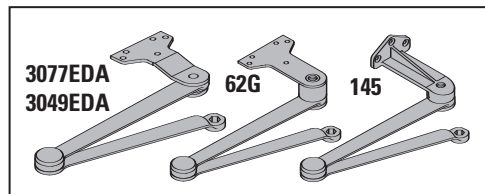
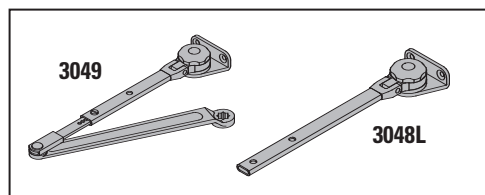
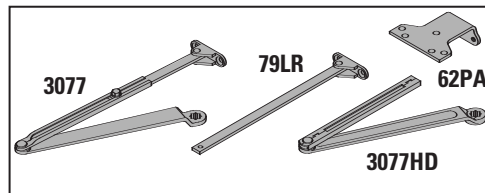
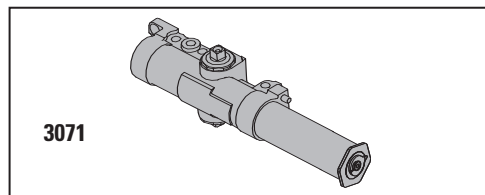
Optional non-handed arm, provides hold-open function with templated stop/hold-open points. Handle controls hold-open function.

SPRING CUSH ARM, 1460-3077SCNS

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, 1460-3049SCNS

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.



COVERS

COVER, 1460-72

Standard, non-handed, slim line plastic cover with feature strip.

LEAD LINED COVER, 1460-72LL

Optional non-handed cover.

FULL COVER, 1460-72FC

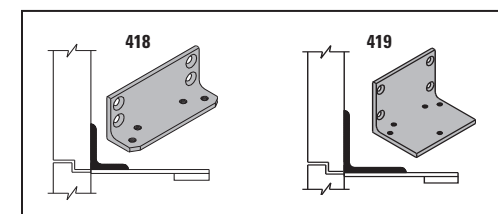
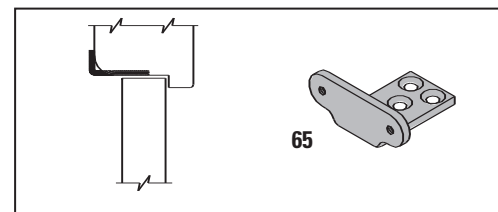
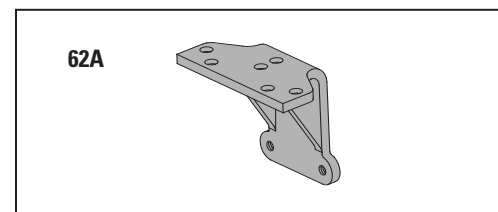
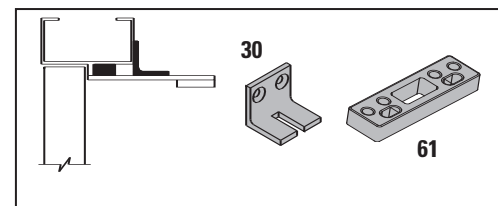
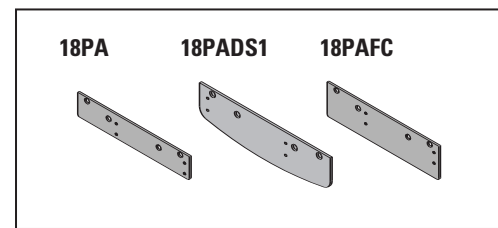
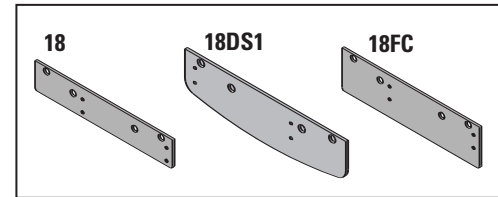
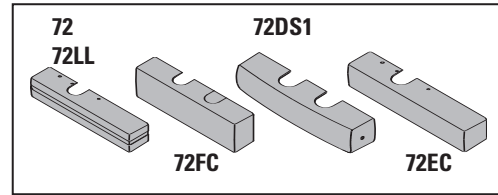
Optional, non-handed, plastic cover provides complete enclosure.

DESIGNER SERIES METAL COVER, 1460-72DS1

Optional, non-handed designer series metal full cover provides complete enclosure with a stylish look. Required for plating and custom powder coat option.

COVER, 1460-72EC

Optional, non-handed Smooth Slim line plastic cover.



INSTALLATION ACCESSORIES

PLATE, 1460-18/1460-18DS1/1460-18FC

Required for hinge side mount where top rail is less than 2 1/2" (64 mm).

Required for top jamb mounting where head frame is less than 1 3/4" (44 mm) or flush ceiling condition exists.

Plate requires minimum 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame.

With full cover, use PLATE, 1460-18FC. With Designer Series metal cover, use PLATE, 1460-18DS1.

PLATE, 1460-18PA/1460-18PADS1/1460-18PAFC

Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop.

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

With full cover, use PLATE, 1460-18PAFC. With Designer Series metal cover, use PLATE, 1460-18PADS1.

CUSH SHOE SUPPORT, 1460-30

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

BLADE STOP SPACER, 1460-61

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

AUXILIARY SHOE, 1460-62A requires a top rail of 7" (178 mm).

Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop.

Special template required.

SOFFIT SHOE, 1460-65

Adapts hinge side shoe to rounded or bull nose trim.

PA SHOE ADAPTER, 1460-418

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

CUSH FLUSH PANEL ADAPTER, 1460-419

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

LCN 1460 SERIES

TABLE OF SIZES Select closer based on width of door.
The spring power of a 1461 cylinder is field adjustable from size 1 through size 6 and is shipped adjusted to size 3.

→ Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH

24"	30"	36"	42"	48"
610mm	762mm	914mm	1067mm	1219mm

	size 3	size 4	size 5	size 6
--	--------	--------	--------	--------

*1461

Minimum
Door
Width

INTERIOR DOOR WIDTH

24"	34"	38"	48"	54"	60"
610mm	864mm	965mm	1219mm	1372mm	1524mm

	size 2	size 3	size 4	size 5	size 6
--	--------	--------	--------	--------	--------

*1461


Minimum
Door
Width

* Adjustable Size 1 thru 6

REDUCED OPENING FORCE 1460 CLOSERS

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	1461	1461	1461
	5.0* lbs.	1461	1461	1461

* Maximum opening force

HOW-TO-ORDER 1460 SERIES CLOSERS

1. SELECT FINISH

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

Closer will be shipped with:

- STANDARD CYLINDER,
- 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)
- Full cover (FC)
- Smooth slim line cover (EC)
- Designer series metal full cover (non-handed)(DS1)

FINISH

- Custom Powder Coat (RAL) _____
(non-handed designer series metal cover required)
- Plated Finish, US _____
(non-handed designer series metal cover required)
- SRI primer

ARM

- Regular w/62PA (Rw/PA)
- Long (LONG)
- Regular w/62A (Rw/62A)
- Hold-Open (H)
- Hold-Open w/62PA (Hw/PA)
- Long Hold-Open(HLONG)
- Heavy Duty (HD)
- Heavy Duty w/62A (HD/62A)
- Heavy Duty w/62PA (HD/PA)
- Heavy Duty Long (HDL)
- EDA (optional -62G or -145)
- HEDA (specify right or left hand), (optional
-62G or -145)
- Cush-N-Stop (CUSH)
- HCush (HCUSH)
- Spring Cush(SCUSH)
- Spring HCush (SHCUSH)

OPTIONAL SCREW PACKS

- TB* w/Self-Reaming and Tapping Screws (TBSRT)
- Wood & Machine Screw (WMS)
- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTORX)

* Specify door thickness if other than 1 3/4".

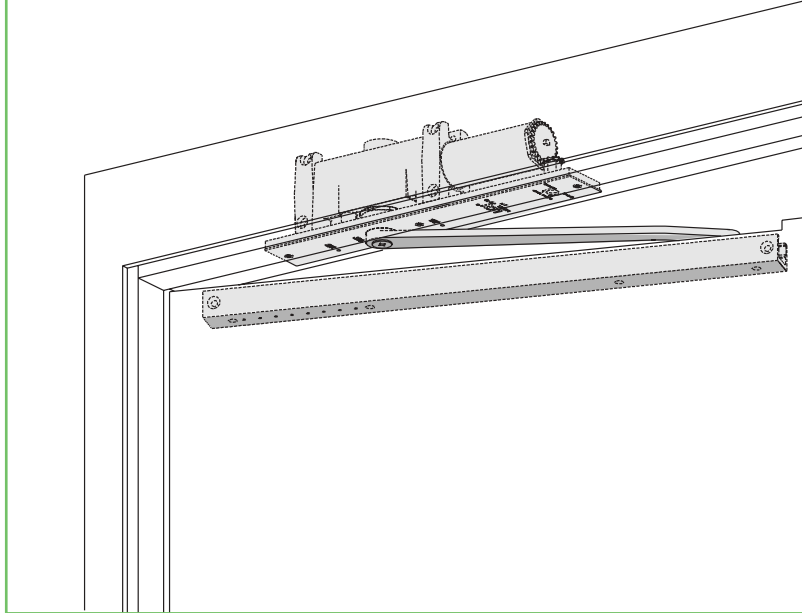
SPECIAL TEMPLATE

- ST- _____

INSTALLATION ACCESSORIES

- Plate, 1460-18
- Plate, 1460-18DS1
- Plate, 1460-18FC
- Plate, 1460-18PA
- Plate, 1460-18PADS1
- Plate, 1460-18PAFC
- CUSH Shoe Support, 1460-30
- Blade Stop Spacer, 1460-61
- Auxiliary Shoe, 1460-62A
- Soffit Shoe, 1460-65
- PA Shoe Adapter, 1460-418
- CUSH Flush Panel Adapter, 1460-419

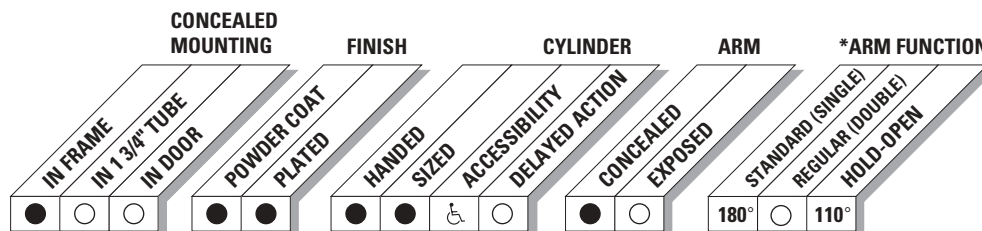
CONCEALED (IN FRAME) MOUNTING



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

The 2010 Series is UL & ULC listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.4, grade 1.

- ▶ Standard 2010 series closer shipped with standard arm, standard track, metal finish plate and wood and machine screw pack. See 2010 Series page 9 for options.
- ▶ Sized cylinders for interior doors to 5'0" and exterior doors to 4'0".
- ▶ Handed for right or left swinging doors.
- ▶ For aluminum, hollow metal, or wood, doors and frames.
- ▶ Aluminum frame requires minimum 4" x 4" (102 mm) tube.
- ▶ Closers to meet ADA requirements. See 2010 Series page 10.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on arm, fasteners and finish plate.
- ▶ Optional SRI primer for installations in corrosive conditions.



● Available
○ 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.

LCN 2010 SERIES

MOUNTING DETAILS

CONCEALED MOUNTING

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

MAXIMUM OPENING

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

Consult factory if door will be held
open at 180°

Offset pivot template allows 110°,
trim permitting.

Limited to 95° when optional
bumper is installed.
Adjustable hold-open points from
75° to 95°, with hold-open track.

Center pivot template allows 120°,
trim permitting.

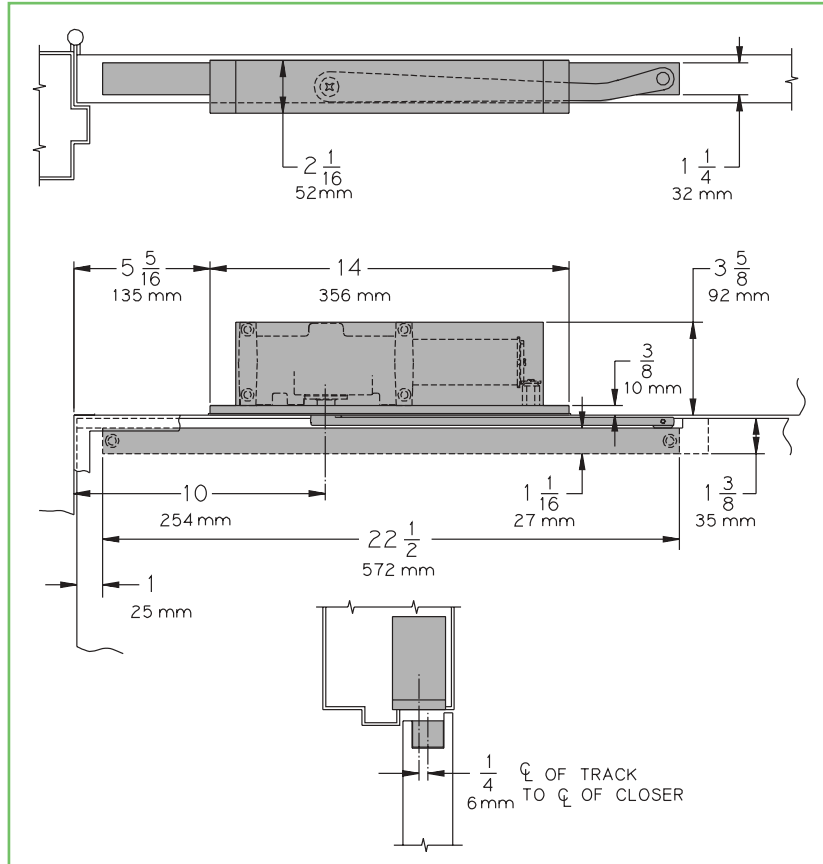
Limited to 95° when optional
bumper is installed.
Adjustable hold-open points from
75° to 95°, with hold-open track.

Options

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

Special Templates

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

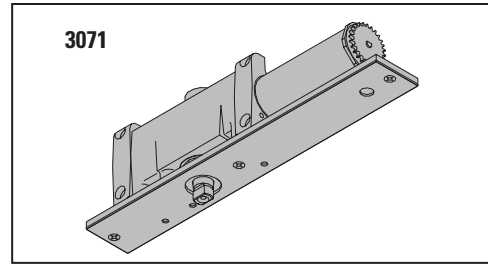


- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended where a door cannot swing 180°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- ▶ **Top Rail** 1 3/8" (35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

CYLINDERS

CYLINDER, 2010-3071

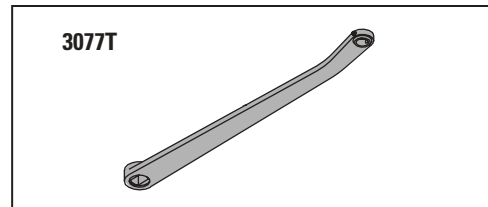
Standard, handed, cast iron cylinder assembly with mounting plate. For various applications see "Table of Sizes" on 2010 Series page 10.



ARM

STANDARD ARM, 2010-3077T

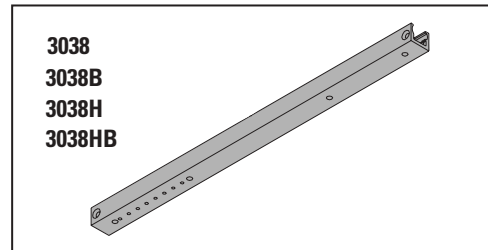
Handed arm.
Track roller not included with arm.



TRACKS

STANDARD TRACK, 2010-3038

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

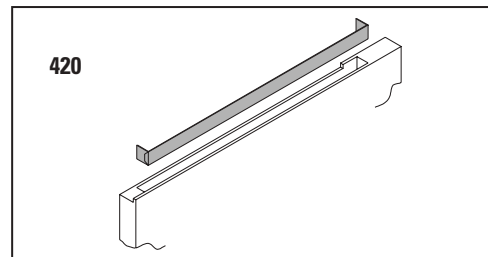


STANDARD TRACK with BUMPER, 2010-3038B

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

HOLD-OPEN TRACK, 2010-3038H

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



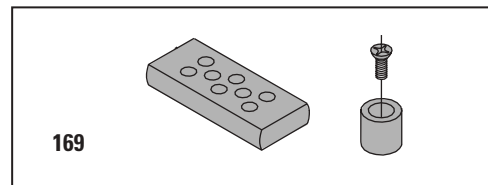
HOLD-OPEN TRACK with BUMPER, 2010-3038HB

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

INSTALLATION ACCESSORIES

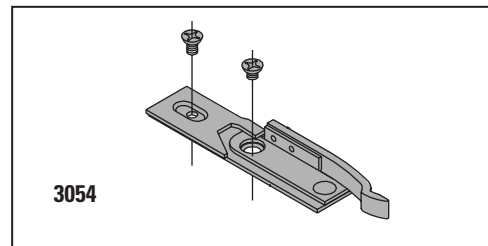
FIRE SHIELD, 2010-420

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



TRACK BUMPER, 2010-169

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

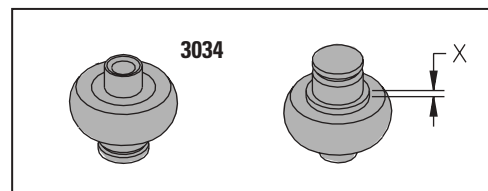


HOLD-OPEN CLIP, 2010-3054

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

TRACK ROLLER, 2010-3034

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

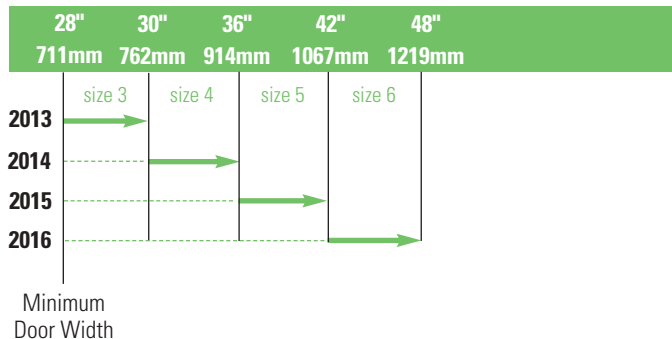


LCN 2010 SERIES

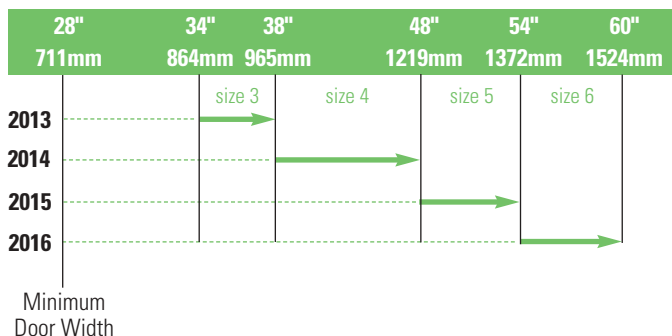
TABLE OF SIZES Select closer based on width of door.
 2010 Series cylinders available in size 1, 3, 4, 5, or 6.
 Closing power of all 2010 Series closers may be increased 15%.
 Specify next higher size closer where strong drafts exist.

→ Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH




INTERIOR DOOR WIDTH



REDUCED OPENING FORCE 2010 CLOSERS

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

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

* Maximum opening force

HOW-TO-ORDER 2010 SERIES CLOSERS

1. SELECT CYLINDER SIZE

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

2. SPECIFY HAND

- RH
- LH

3. SPECIFY FINISH

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

Closer will be shipped with:

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

CLOSER OPTIONS

TRACK

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

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____
- SRI primer

SCREW PACK

- TORX Machine Screw (TORX)

INSTALLATION ACCESSORIES

- Fire Shield, 2010-420

SPECIAL TEMPLATE

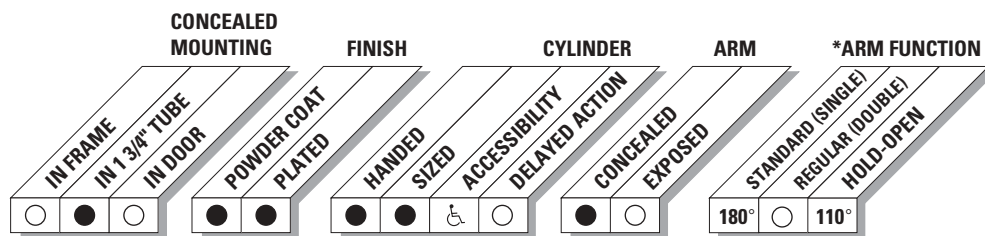
- ST- _____



The concealed 2030 Series PACER® is a heavy duty closer designed to fit in a narrow, minimum 1 3/4" aluminum transom. The single lever arm and roller assembly provide smooth, quiet door control and the choice of finishes and track functions meet virtually all architectural requirements.

The 2030 Series is UL &ULC listed for self-closing doors, without hold-open. Tested and certified under ANSI Standard A156.4, grade 1.

- ▶ Standard 2030 series closer shipped with standard arm, standard track, mounting/finish plate, and wood and machine screw pack. See 2030 Series page 13 & 14 for options.
- ▶ Sized cylinders for interior doors to 4'6" and exterior doors to 3'6".
- ▶ Handed for right or left swinging doors.
- ▶ Aluminum frame requires minimum 1 3/4" (44 mm) x 4" (102 mm) tube.
- ▶ Closers to meet ADA requirements. See 2030 Series page 15.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on arm, fasteners and finish plate.



- Available
- Not available

Closer available with less than 5.0 lbs. opening force on 36" door.
 *Maximum opening/hold-open point with standard template. See individual closer series for degrees of opening per installation.

LCN 2030 SERIES

MOUNTING DETAILS

CONCEALED MOUNTING

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

MAXIMUM OPENING

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

Consult factory if door will be held open at 180°

Offset pivot template allows 115°, trim permitting.
Limited to 95° when optional bumper is installed.
Adjustable hold-open points from 75° to 95°, with hold-open track.

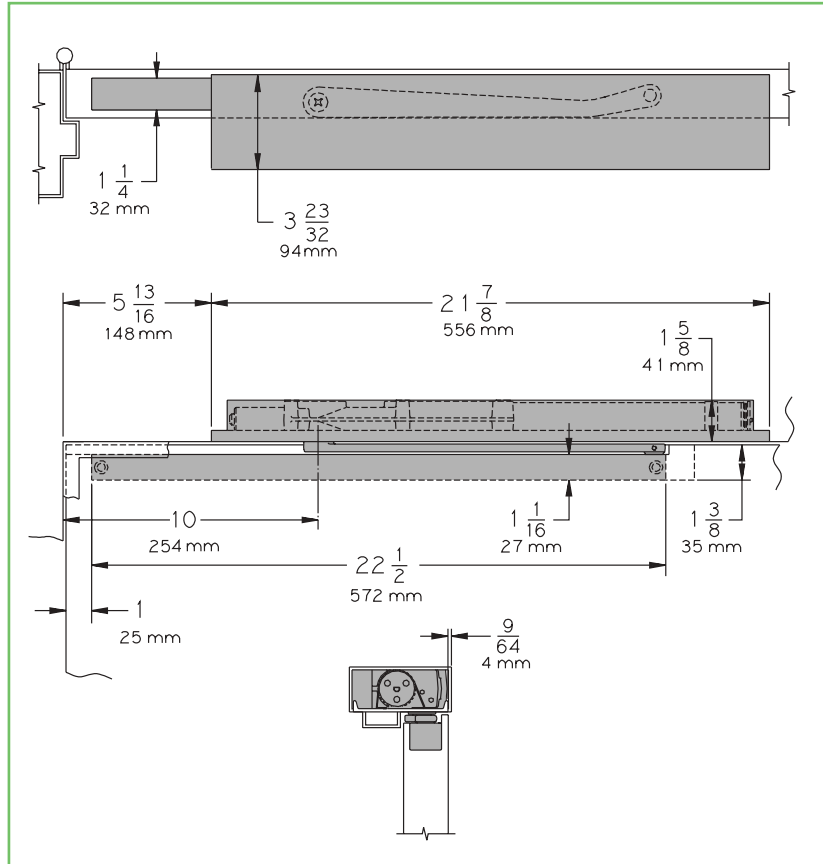
Center pivot template allows 120°, trim permitting.
Limited to 100° when optional bumper is installed.
Adjustable hold-open points from 85° to 100°, with hold-open track.

Options

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

Special Templates

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

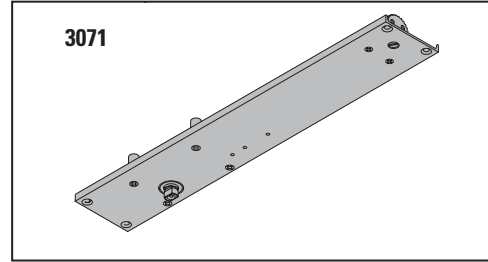


- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended where a door cannot swing 180°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- ▶ **Top Rail** 1 3/8" (35 mm) mortise required.
With Fire Shield, 1 13/32" (36 mm) mortise required.
5/16" (8 mm) cutout required at top of the door, stop face only.
- ▶ **Door Thickness** 1 3/4" (44 mm) minimum.
- ▶ **Hollow Metal Frame** Consult factory for installation instructions.
- ▶ **Wood Frame** installation simplified by WOOD MOUNTING CLIP SET 2030-416 for center pivoted or 2030-417 for offset pivoted and butt hung installations. Consult factory for preparation details.

CYLINDERS

CYLINDER, 2030-3071

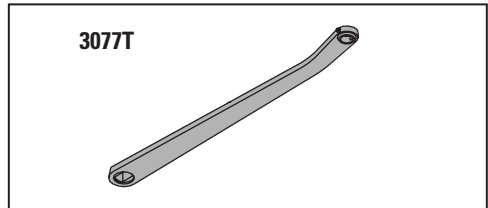
Standard, handed, cast iron cylinder assembly with mounting plate. For various applications see "Table of Sizes" on 2030 Series page 15



ARM

STANDARD ARM, 2030-3077T

Handed arm.
Track roller not included with arm.



TRACKS

STANDARD TRACK, 2030-3038

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

STANDARD TRACK with BUMPER, 2030-3038B

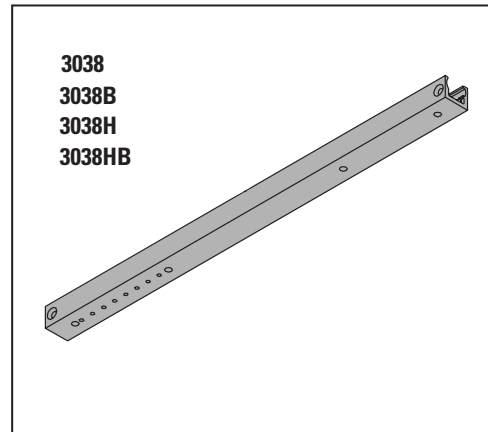
Optional, non hold-open, non-handed track with bumper.
Will accept hold-open clip.

HOLD-OPEN TRACK, 2030-3038H

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

HOLD-OPEN TRACK with BUMPER, 2030-3038HB

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

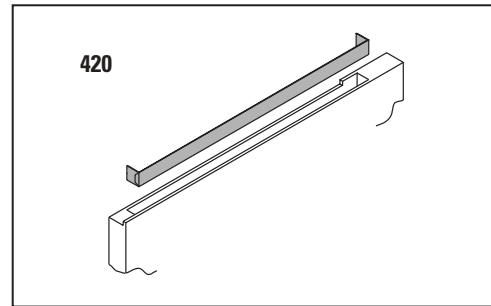


LCN 2030 SERIES

INSTALLATION ACCESSORIES

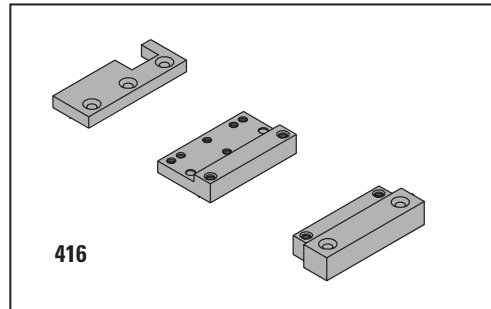
FIRE SHIELD, 2030-420

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



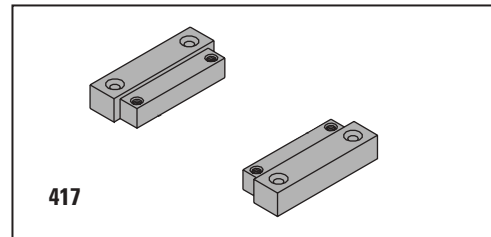
WOOD MOUNTING CLIP SET, 2030-416

Simplifies mounting center pivoted 2030 closer in wood frame. Includes latch stile clip, hinge stile clip, and cover. For use with Ives Series center pivots. Consult factory for special template.



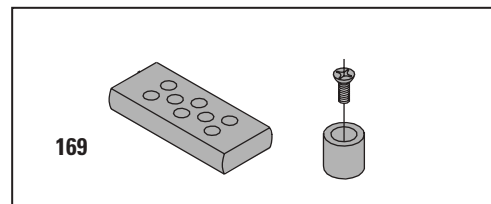
WOOD MOUNTING CLIP SET, 2030-417

Simplifies mounting offset pivoted or butt hung 2030 closer in wood frame. Includes two clips. For use with offset pivots.



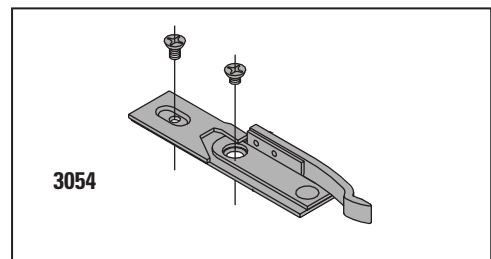
TRACK BUMPER, 2030-169

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



HOLD-OPEN CLIP, 2030-3054

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



TRACK ROLLER, 2030-3034

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

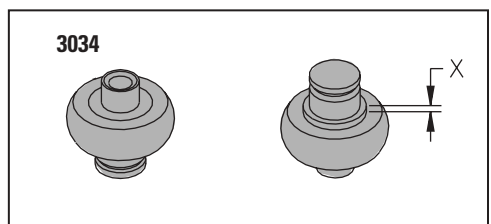
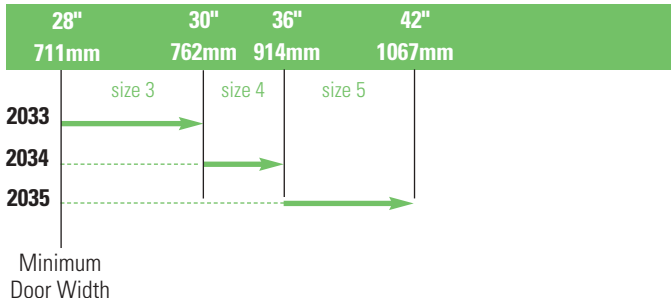


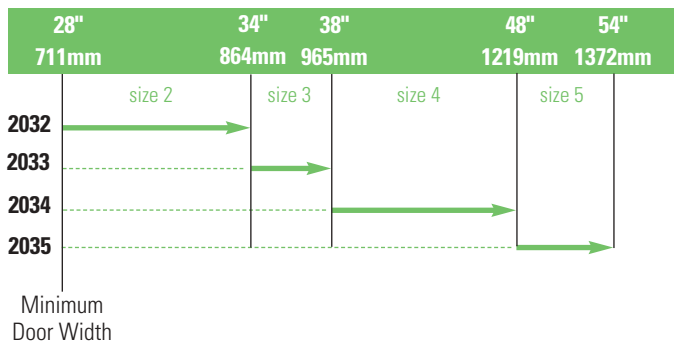
TABLE OF SIZES Select closer based on width of door.
 2030 Series cylinders available in size 1, 2, 3, 4, or 5.
 Closing power of all 2030 Series closers may be increased 35%.
 Specify next higher size closer where strong drafts exist.

→ Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH




INTERIOR DOOR WIDTH



REDUCED OPENING FORCE 2030 CLOSERS

CAUTION ! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	2033	2033	2034
	5.0* lbs.	2031	2032	2032

* Maximum opening force

**HOW-TO-ORDER
2030 SERIES CLOSERS**

1. SELECT CYLINDER SIZE

- 2031(ADA)
- 2032
- 2033
- 2034
- 2035

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

CLOSER OPTIONS

TRACK

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

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

SCREW PACK

- TORX Machine Screw (TORX)

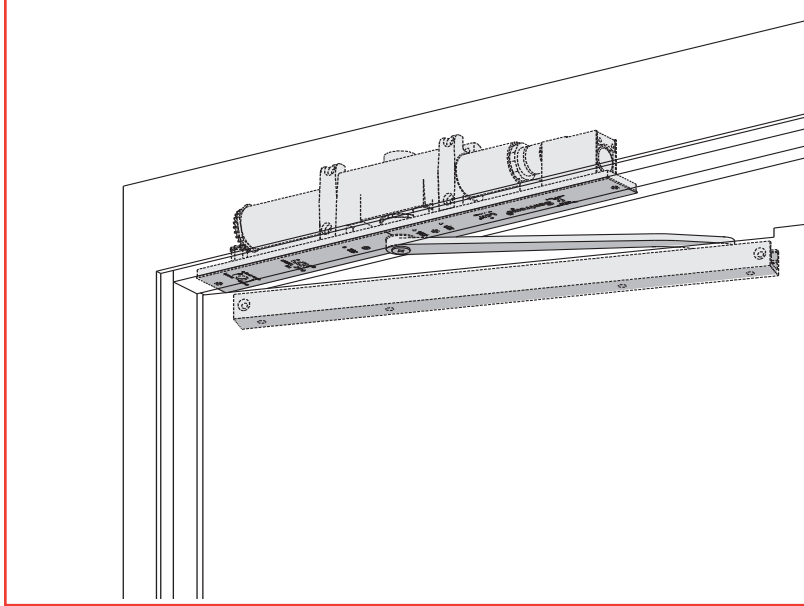
INSTALLATION ACCESSORIES

- Fire Shield, 2030-420
- Wood Clip Set, 2030-416
- Wood Clip Set, 2030-417

SPECIAL TEMPLATE

- ST- _____

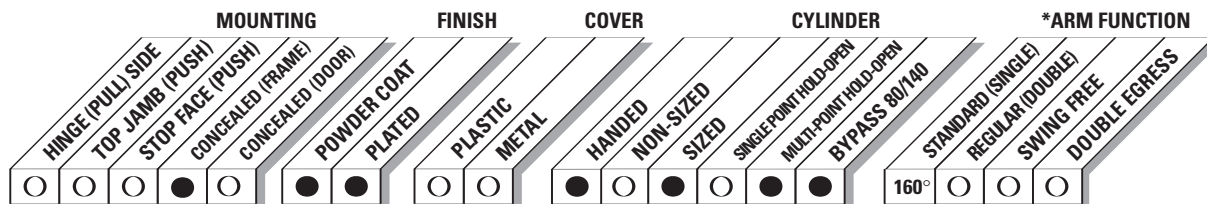
CONCEALED (IN FRAME) MOUNTING



The 2310ME SENTRONIC® is a concealed heavy duty, electrically controlled closer/holder designed to provide infinitely adjustable hold-open for fire and smoke barrier doors. Door is held open until current interruption releases mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, cylinder functions, and installation accessories meet virtually all life safety requirements.

The 2310ME Series is UL & cUL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

- ▶ Standard 2310ME series closer shipped with either 24V or 120V cylinder (please specify), two piece metal finish plate, standard arm, track, and wood and machine screw pack. See 2310ME Series page 25 for options.
- ▶ Sized cylinders for interior doors to 4'0".
- ▶ Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted.
- ▶ Handed for right or left swinging door.
- ▶ Built-in "On/Off" switch controls hold-open function.
- ▶ Interfaces with fire alarm systems. Consult factory.
- ▶ Standard or optional custom powder coated finish.
- ▶ Optional plated finish on arm, fasteners and finish plate.



● Available
○ Not available

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

LCN 2310ME SERIES

MOUNTING DETAILS

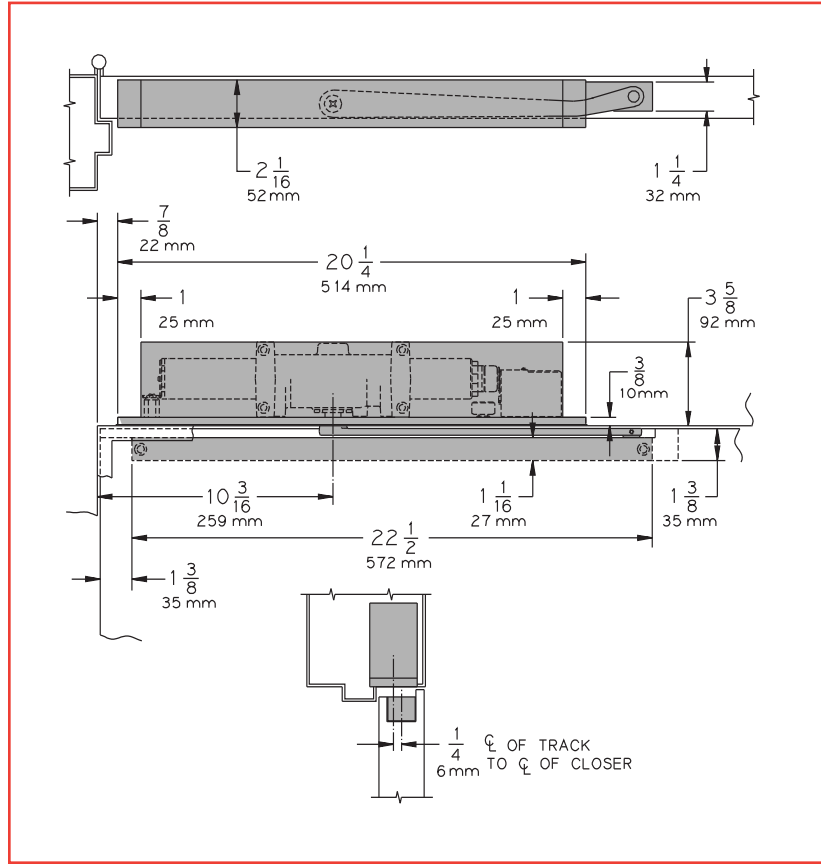
CONCEALED MOUNTING

For interior smoke barrier and labeled fire doors.

MAXIMUM OPENING

Templating allows 180°.

Infinite hold-open points up to 160°.



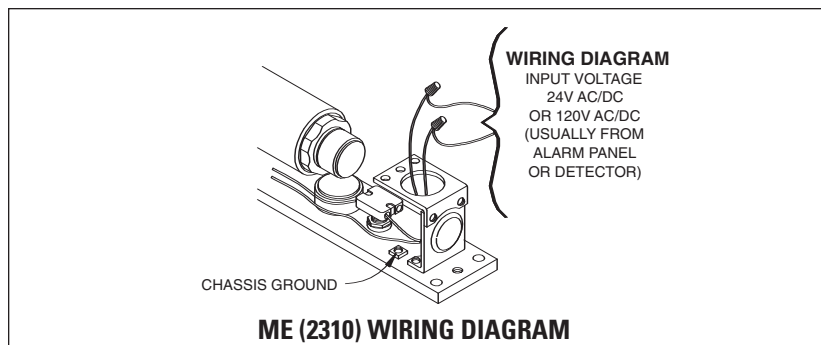
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Top Rail** $1 \frac{3}{8}$ " (35 mm) mortise required.
 $\frac{5}{16}$ " (8 mm) cutout required at top of door, stop face only.
- ▶ **Door Thickness** $1 \frac{3}{4}$ " (44 mm) minimum.
- ▶ **Door Width** 2'4" (711 mm) minimum.
- ▶ **Hollow Metal Frame** Requires minimum 4" (102 mm) x 4" frame. Consult factory or template for preparation details.
- ▶ **Bypass** (suffix "B80" or "B140") eliminates hold-open function up to a specified point of the doors swing.
B80 cylinder from 0° to 80°.
B140 cylinder from 0° to 140°.
- ▶ **Wiring Diagram**

Options

- ▶ Hold-open bypass.
- ▶ 24V or 120 volt input, please specify.

Special Templates

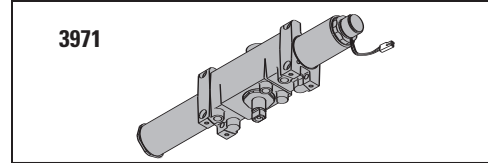
Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.



CYLINDER

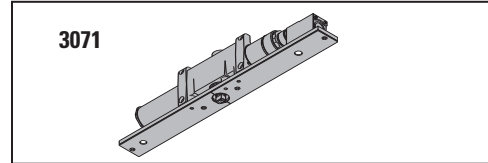
ME CYLINDER, 2310ME-3971

Standard, handed cast iron cylinder assembly. 24V holding solenoid (**24**) or 120V holding solenoid (**120**), please specify. For various applications see "Table of Sizes" on 2310ME Series page 26.



ME CYLINDER, 2310ME-3071

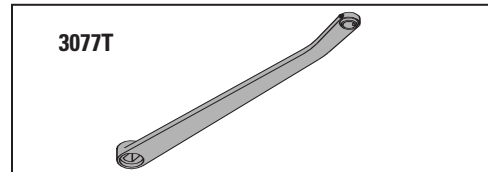
Standard, handed cylinder and mounting plate assembly. "On/Off" switch assembly controls hold-open function. Circuitry accepts either AC or DC input. 24V holding solenoid (**24**) or 120V holding solenoid (**120**), please specify. For various applications see "Table of Sizes" on 2310ME Series page 26.



ARM

STANDARD ARM, 2310ME-3077T

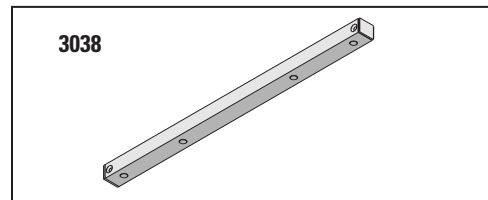
Handed arm.



TRACK

STANDARD TRACK, 2310ME-3038

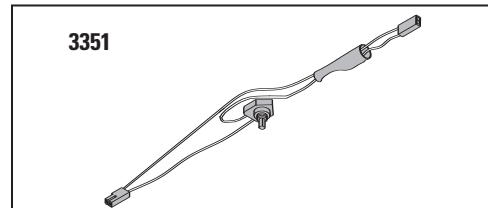
Standard, non-handed track.



SWITCH

SWITCH, 2310ME-3351

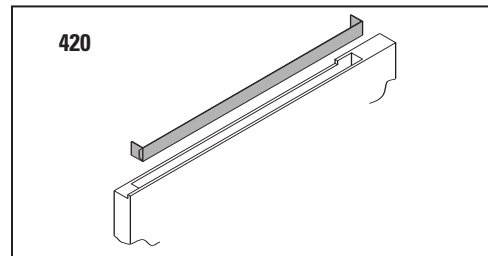
"On/Off" switch assembly provides continuous hold-open function. Available as 24V or 120V, please specify.



INSTALLATION ACCESSORIES

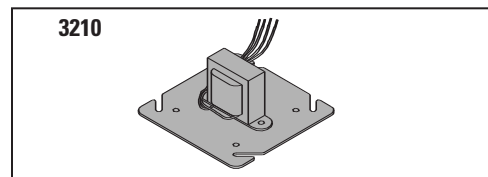
FIRE SHIELD, 2310ME-420

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



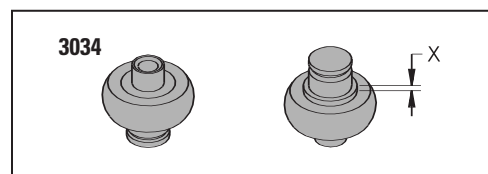
TRANSFORMER, 4040SE-3210

Reduces line voltage from 120V to 24V AC. Mounted on plate for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others).



TRACK ROLLER, 2310ME-3034

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

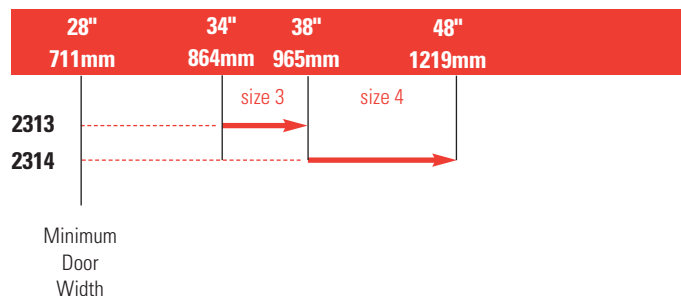


LCN 2310ME SERIES

TABLE OF SIZES Select closer based on width of door.
Sized 2310ME series cylinders available in size 3 or 4.
Closing power of all 2310ME Series closers may be increased 15%.

Indicates recommended range of door width for closer size.

INTERIOR DOOR WIDTH



HOW-TO-ORDER 2310ME SERIES CLOSERS

1. SELECT CYLINDER SIZE.

- 2313ME
- 2314ME

2. SPECIFY HAND.

- RH
- LH

3. VOLTAGE

- 24V AC/DC
- 120V AC/DC

4. SPECIFY FINISH.

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

Closer will be shipped with:

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

CLOSER OPTIONS

CYLINDER FUNCTION

- Bypass 80° (B80)
- Bypass 140° (B140)

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

SCREW PACK

- TORX Machine Screw (TORX)

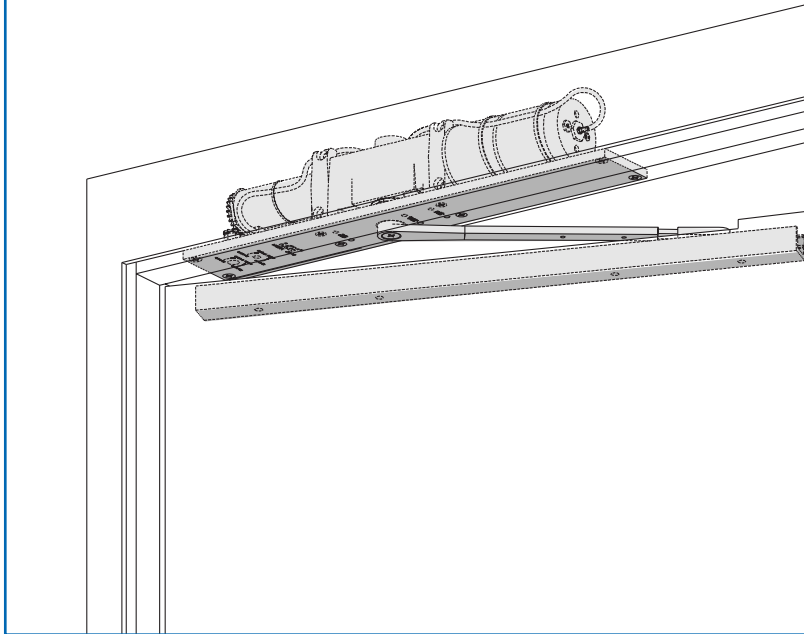
INSTALLATION ACCESSORIES

- Fire Shield, 2310ME-420
- Transformer, 4040SE-3210

SPECIAL TEMPLATE

- ST- _____

CONCEALED (IN FRAME) MOUNTING



The 2610 AUTO-EQUALIZER™ is LCN's pneumatically powered MULTI-DOOR solution. This low-energy power operator provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

- ▶ Ideal for multi-door applications since cost per door leaf decrease significantly as the number of door leaves increases.
- ▶ Standard 2610 series closer shipped with single lever (standard) arm, mounting/finish plate, standard track and wood and machine screw pack. See 2610 Series page 169 for options.
- ▶ Meets ADA requirements.
- ▶ Sized cylinders for interior doors to 4'0" and exterior doors to 3'0".
- ▶ Handed for right or left swinging doors.
- ▶ Requires additional system components. See CONTROL BOX pages 184-186 and ACTUATORS & ACCESSORIES, pages 192-195.
- ▶ Standard or optional custom powder coated finish.
- ▶ Optional plated finish on arm, fasteners, and mounting/finish plate.

- ▶ **Multi-Door Solution**
- ▶ **Utilizes a 10 Million Cycle Heavy Duty Door Closer**
- ▶ **Quiet, Efficient & Reliable**
- ▶ **Requires Control Boxes with integral compressor or control box using auxiliary air supply.**
- ▶ **No Guard Rails/Safety Mats Required**

The 2610 Series is UL listed with standard arm for self-closing doors and meets the provisions of ANSI Standard A117.1, A156.19 and the Americans with Disabilities Act.

MOUNTING				FINISH		COVER		CYLINDER			*ARM FUNCTION							
TOP JAMB (PULL SIDE)	TOP JAMB (PUSH SIDE)	PARALLEL ARM	CONCEALED	POWDER COAT	PLATED	PLASTIC	METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY*	POWER OPERATOR	HOLD-OPEN	90°	STANDARD (SINGLE)	REGULAR (DOUBLE)	EXTRA DUTY ARM	CUSH-N-STOP	SPRING CUSH
○	○	○	●	●	●	○	●	○	○	♿	●	○	○	○	○	○	○	○

- AVAILABLE
- NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* See individual series for maximum manual opening.

LCN 2610 SERIES

MOUNTING DETAILS

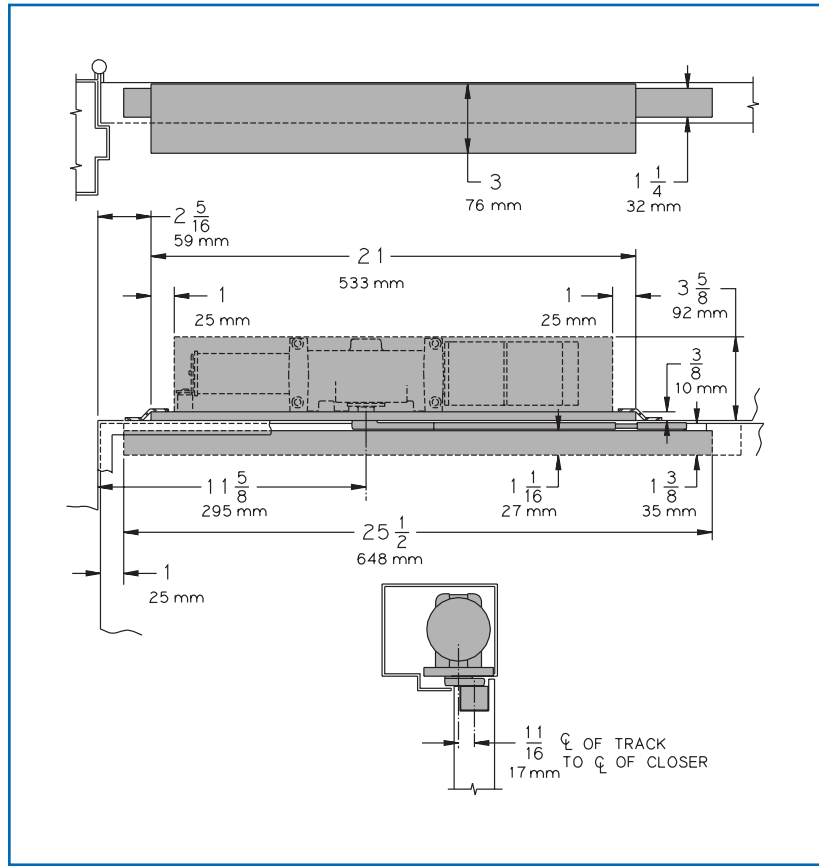
CONCEALED MOUNTING

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

MAXIMUM OPENING

Butt hinge template allows 90° power
opening and 160° manual opening.

**Consult factory for all pivot
mounted installations.**



- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop is recommended.**
- ▶ **Head Frame** minimum 4" (102 mm) x 4" for hollow metal or aluminum tube construction.
- ▶ **Top Rail** 1 3/8" (35 mm) mortise required.
5/16" (8 mm) cutout required at top of the door, push side only.
- ▶ **System Diagram** See "POWER OPERATORS" section pages 164-165 for typical system wiring, and page 186 for electrical and pneumatic data.

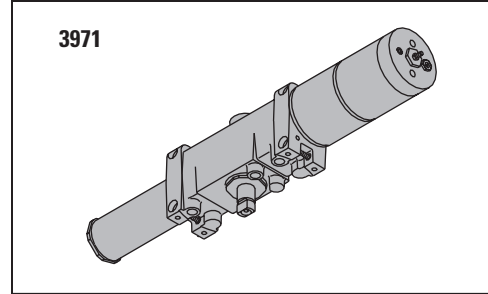
Special Templates

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

CYLINDERS

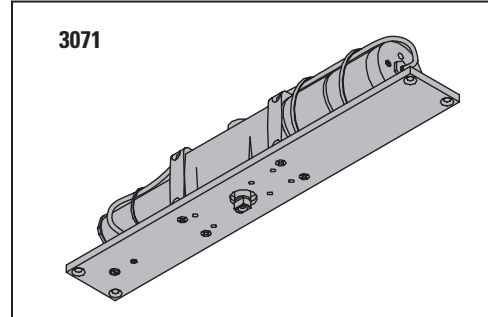
CYLINDER ONLY, 2610-3971

Standard, handed, cast iron cylinder.



CYLINDER ASSEMBLY, 2610-3071

Standard, handed, cast iron cylinder and mounting plate.

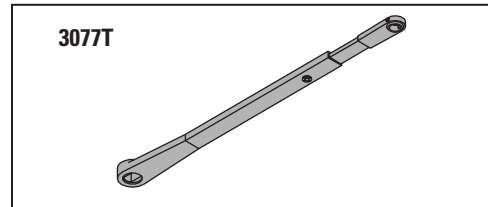


ARMS

STANDARD ARM, 2610-3077T

Handed arm.

Track roller not included with arm.

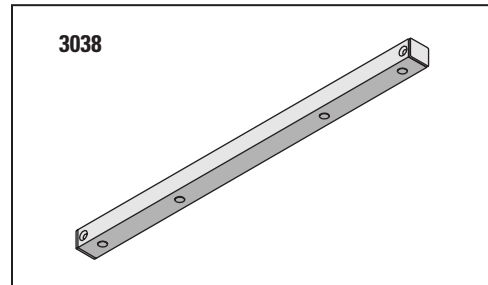


TRACK

STANDARD TRACK, 2610-3038

Standard non-handed track.

Will not accept hold-open clip or bumper assembly.

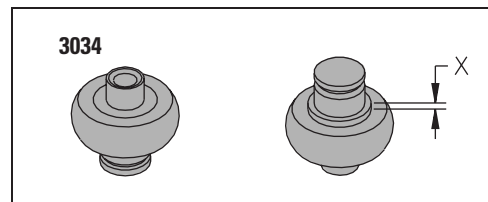


INSTALLATION ACCESSORIES

TRACK ROLLER, 2610-3034

Quiet, low friction roller assembly.

Shoulder dimension "X" = 1/16" (1 mm).



LCN 2610 SERIES

TABLE OF SIZES

Select closer based on width of door.

Sized 2610 series cylinders available in size 3 or 4.

Closing power of all 2610 Series closers may be increased 15%.

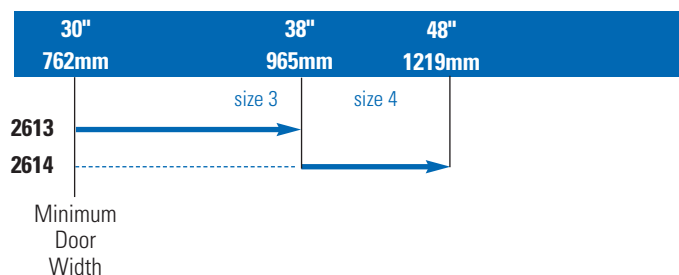
→ Indicates recommended range of door width for closer size.

NOTE: Minimum door width 30" (762 mm).

EXTERIOR (and VESTIBULE) DOOR WIDTH



INTERIOR DOOR WIDTH



HOW-TO-ORDER 2610 SERIES CLOSERS

1. SELECT CYLINDER SIZE.

- 2613
- 2614

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

CLOSER OPTIONS

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

SCREW PACK

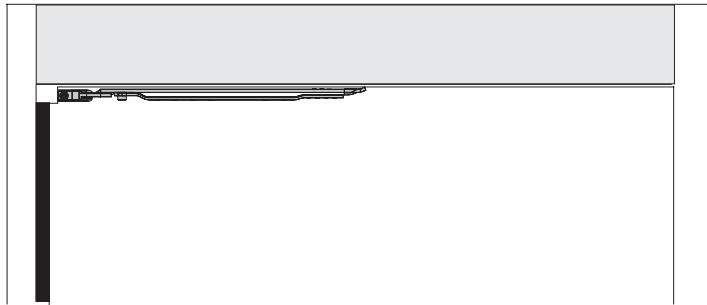
- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)

*Specify door thickness if other than 1 3/4".

SPECIAL TEMPLATE

- ST-_____

OPERATOR MOUNTS
SINGLE DOOR, OVERHEAD CONCEALED
***CENTER PIVOT**
OFFSET PIVOT/BUTT HINGE



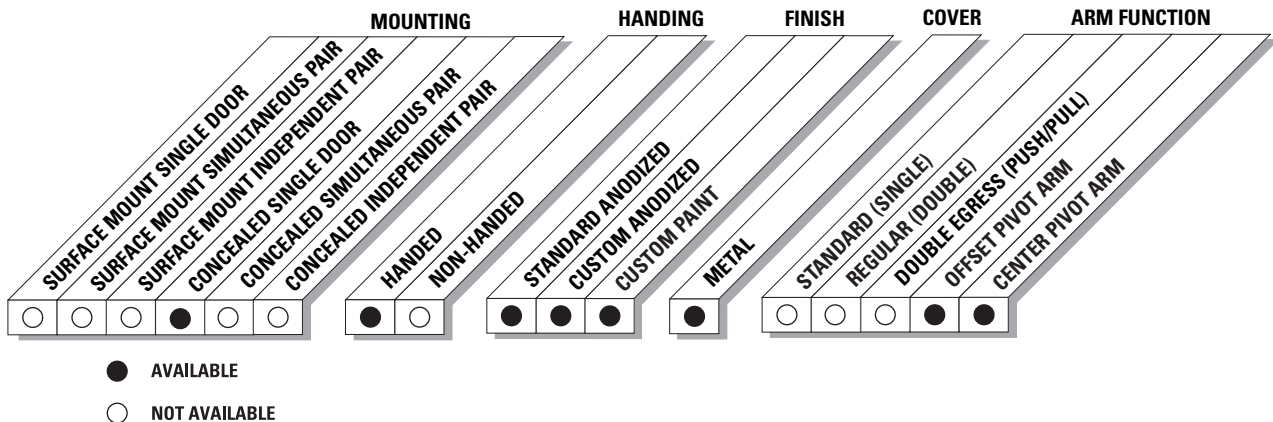
*CENTER PIVOT arm shown

The 2810 SENIOR SWING® by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING® operator when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

- ▶ **Push 'N Go** permits non-switch activation
- ▶ **Power Boost** provides additional latching force
- ▶ **Electromechanical unit with microprocessor control**
- ▶ **Fast and easy installation**
- ▶ **Tested internally to over ten million cycles**
- ▶ **Meets International Building Code requirements and ANSI A156.19**
- ▶ **UL approved for fire doors**

- ▶ 2810 series operator is shipped with motor gearbox, control box, arm, bottom pivot, header, and mounting hardware.
- ▶ Single door, overhead concealed.
- ▶ Meets ADA, requirements (power mode only).
- ▶ Handed product.
- ▶ 36" header length is standard. Specify length 30" to 49" max.
- ▶ Double door header available up to 98", specify length 49" to 98" max. Consult factory regarding this option.
- ▶ Positive mechanical stop or panic breakaway stop available.
- ▶ Adjustable hold-open period of 2 to 30 seconds in automatic or manual mode.

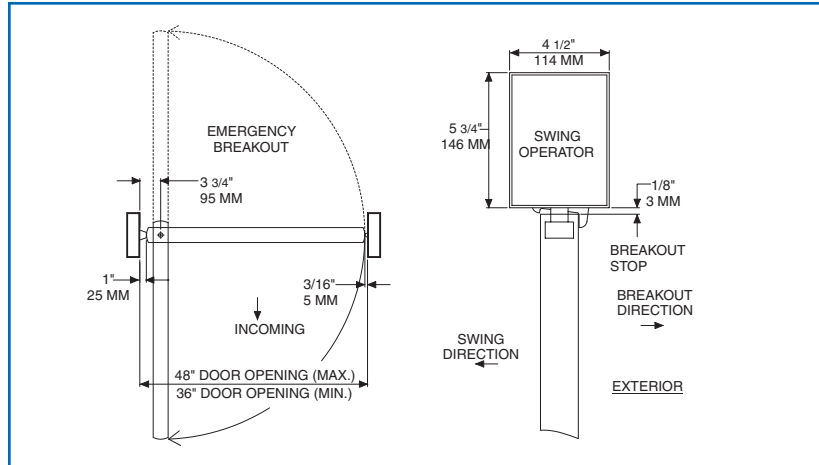
2810 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 2810 Series is UL listed for fire-rated applications. The 2810 Series also meets the provisions of the Americans with Disabilities Act.



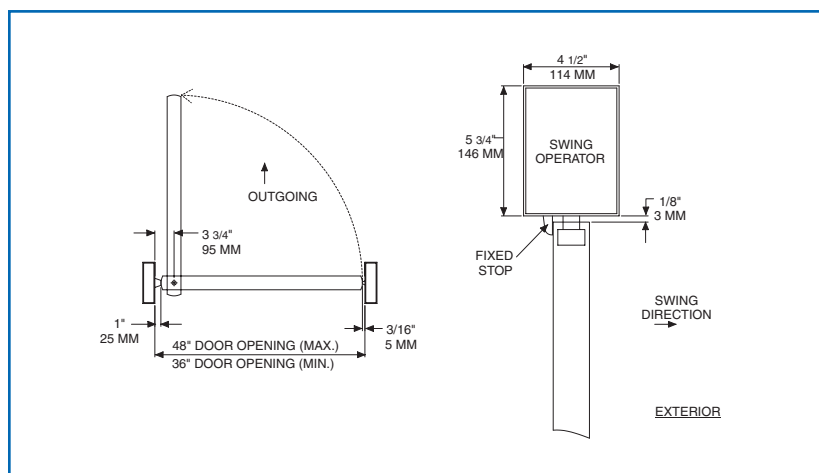
LCN 2810 SERIES

MOUNTING DETAILS

CONCEALED SINGLE DOOR (CENTER PIVOT, EMERGENCY BREAKOUT, PULL) MOUNTING



CONCEALED SINGLE DOOR (CENTER PIVOT, FIXED STOP, PUSH) MOUNTING



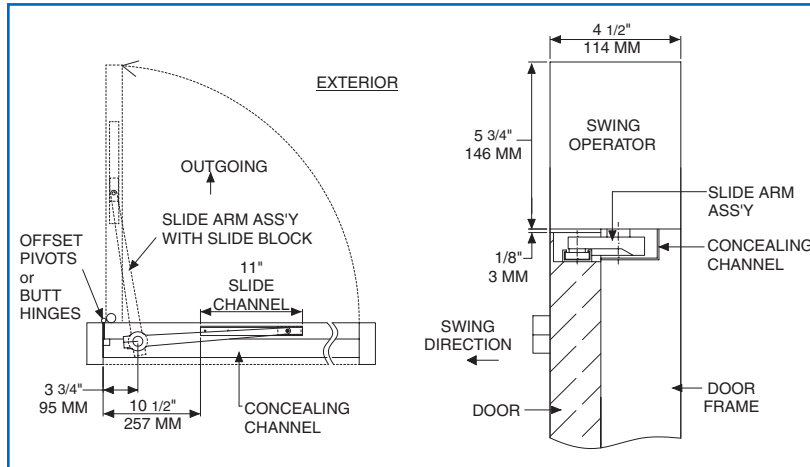
MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

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

- ▶ **Head Frame** minimum 36" (L) x 5 3/4" (H) x 4 1/2" (W) " (914 mm x 146 mm x 114 mm).
- ▶ **Top Rail** minimum 2" (51 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **Door Stop** required for each door panel.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.



CONCEALED SINGLE DOOR (OFFSET PIVOT OR BUTT HINGE, SLIDE ARM, PUSH) MOUNTING

- ▶ **Head Frame** minimum 36" (L) x 5 3/4" (H) x 4 1/2" (W) " (914 mm x 146 mm x 114 mm).
- ▶ **Top Rail** minimum 2" (51 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **Door Stop** required for each door panel.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.

MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

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

LCN 2810 SERIES

MOTOR GEARBOX

MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 2810-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.

MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 2810-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.

MOUNTING BRACKET

MOUNTING BRACKET – 3 3/4", 2810-375

Motor gearbox mounting bracket for 3 3/4" center, offset pivot, butt hinge installations. Front bracket.

MOUNTING BRACKET – 2 3/4", 2810-275

Motor gearbox mounting bracket for 2 3/4" center pivot installations. Front bracket.

REAR MOUNT BRACKET, 2810-3018

Motor gearbox mounting bracket. Rear bracket.

CONTROL BOXES

CONTROL BOX- SENIOR SWING, 2810-3462

Electronic controlling device for Senior Swing.

HEADERS

Header, 2810-72HL

Standard, mounting header. Single door, single operator. Specify length 30" to 49" maximum.

Header, 2810-72DD

Standard, mounting header. Double door, single operator. Specify length 49" to 98" maximum.

END CAPS

HEADER END CAPS, 2810-334

End cap with openings for wiring.

ARMS

CENTER PIVOT ARM, 2810-3077CP

(CENTER PIVOT INSTALLATIONS ONLY)

Used with overhead concealed operators and center pivoted doors.

OFFSET PIVOT ARM, 2810-3077OP

(OFFSET PIVOT OR BUTT HUNG INSTALLATIONS ONLY)

Handed arm. Used with overhead concealed operators.

CHANNELS

CONCEALING CHANNEL, 2810-3072

Used to conceal arm in overhead concealed applications. For offset pivot installations only. If ordering separately specify length and hand.

SLIDE CHANNEL, 2810-3038

(OFFSET PIVOT or BUTT HINGE INSTALLATIONS ONLY)

Mounts in concealing channel. Allows arm to slide.

INSTALLATION ACCESSORIES

DOOR STOP BREAKAWAY, 2810-384B

Allows in swinging door to swing out in case of emergency (Pull installations). For center pivoted installations only.

DOOR STOP FIXED, 2810-384F

Prevents out swinging door from swinging in (Push installations). For center pivoted installations only.

FILLER PLATE BLANK, 2810-12

Completes length of header box.

SPINDLE PLATE – 2 3/4", 2810-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot/butt hinge installations.

SPINDLE PLATE – 3 3/4", 2810-11B

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 3 3/4" center pivot installations.

PIVOT BODY, 2810-107

Bottom pivot body for center pivoted installations.

PIVOT POST, 2810-110

Connects pivot body to bottom pivot plate for center pivoted installations.

BOTTOM PIVOT PLATE, 2810-117

Applied to floor for center pivoted installations.

BOTTOM PIVOT ASSEMBLY, 2810-3107

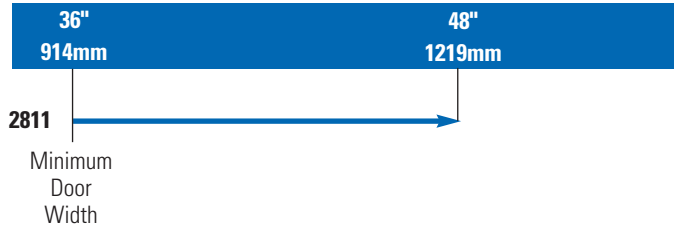
Includes pivot body, pivot post and bottom pivot plate. For overhead concealed, center pivoted installations.

LCN 2810 SERIES

TABLE OF SIZES

→ Indicates recommended range of door width for operator.
Note: For all Senior Swing Series
Single Door - Width per leaf 36" minimum, 48" maximum

DOOR WIDTH



HOW-TO-ORDER 2810 SERIES OPERATORS

1. SELECT INSTALLATION TYPE

- 2811

2. SPECIFY HAND

- RH
- LH

3. SPECIFY FINISH.

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

- STANDARD MOTOR GEARBOX (SF)
 - STANDARD CONTROL BOX (SC)
 - 36" HEADER (36HL)
 - STANDARD (CENTER PIVOTED) ARM (3077CP)
 - 2 3/4" PIVOT POINT
 - WOOD and MACHINE SCREW PACK
- Unless options listed below are selected.

OPERATOR OPTIONS

HEADER

- Extra Length Header (HL___) (Specify length 36" to 49")
- Double Door Header (DD___) (Specify length 49" to 98")

PIVOT POINT

- 3 3/4", available with center pivot arm only, with use of finger guards. (Consult factory for ST)

ARM

- Standard (Offset pivoted) Arm (3077OP)
(Available with 3 3/4" pivot point only.)

STOPS*

- Positive Mechanical Stop (POS)
- Panic Breakaway Stop (BKY)

*Available with Center Pivoted installations only.

FINISH

- Custom Anodized Finish _____
- Custom Painted Finish _____

SPECIAL TEMPLATE

- ST-_____

OPERATOR MOUNTS
SIMULTANEOUS PAIR, OVERHEAD CONCEALED
***CENTER PIVOT**
OFFSET PIVOT/BUTT HINGE



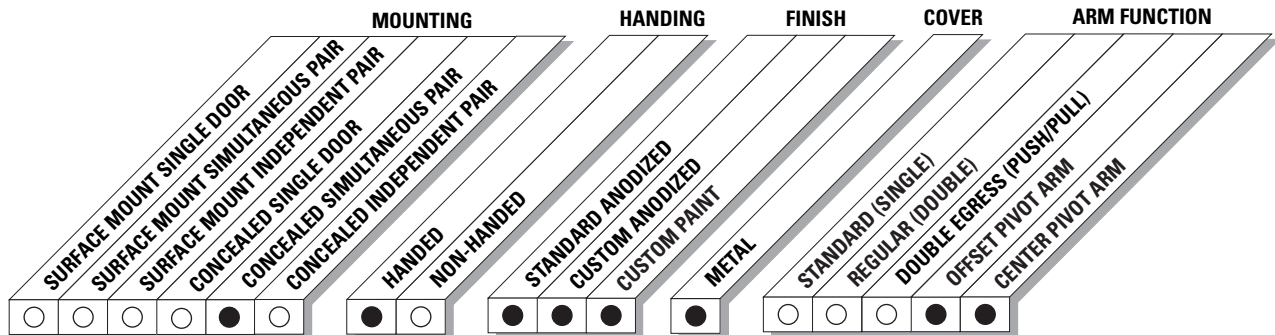
*CENTER PIVOT arm shown

The 2850 SENIOR SWING® by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING® operator when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

- ▶ **Push 'N Go permits non-switch activation**
- ▶ **Power Boost provides additional latching force**
- ▶ **Electromechanical unit with microprocessor control**
- ▶ **Fast and easy installation**
- ▶ **Tested internally to over ten million cycles**
- ▶ **Meets International Building Code requirements and ANSI A156.19**
- ▶ **UL approved for fire doors**

- ▶ 2850 series operator is shipped with motor gearbox, control box, arm, bottom pivot, header, and mounting hardware.
- ▶ Simultaneous pair, overhead concealed.
- ▶ Meets ADA, requirements (power mode only).
- ▶ Handed product.
- ▶ 72" header length is standard. Specify other length 60" to 98" max. Consult factory regarding this option.
- ▶ Positive mechanical stop or panic breakaway stop available.
- ▶ Adjustable hold-open period of 2 to 30 seconds in automatic or manual mode.

2850 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 2850 Series is UL listed for fire-rated applications. The 2850 Series also meets the provisions of the Americans with Disabilities Act.

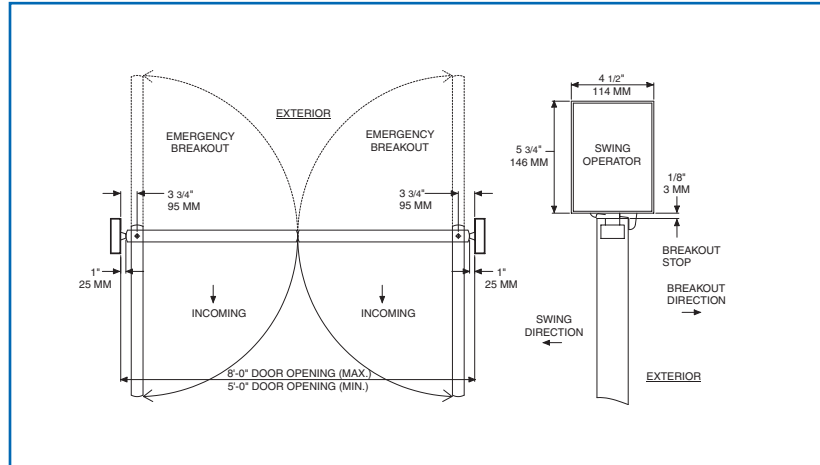


● AVAILABLE
 ○ NOT AVAILABLE

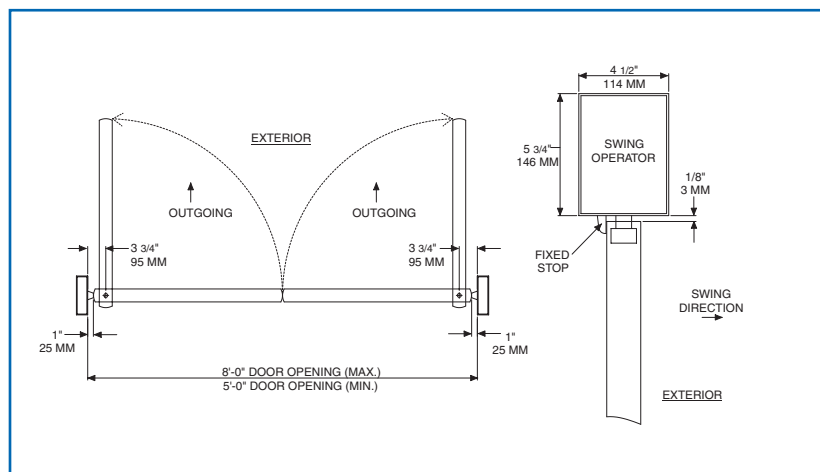
LCN 2850 SERIES

MOUNTING DETAILS

CONCEALED SIMULTANEOUS PAIR (CENTER PIVOT, EMERGENCY BREAK OUT, PULL) MOUNTING



CONCEALED SIMULTANEOUS PAIR (CENTER PIVOT, FIXED STOP, PUSH) MOUNTING



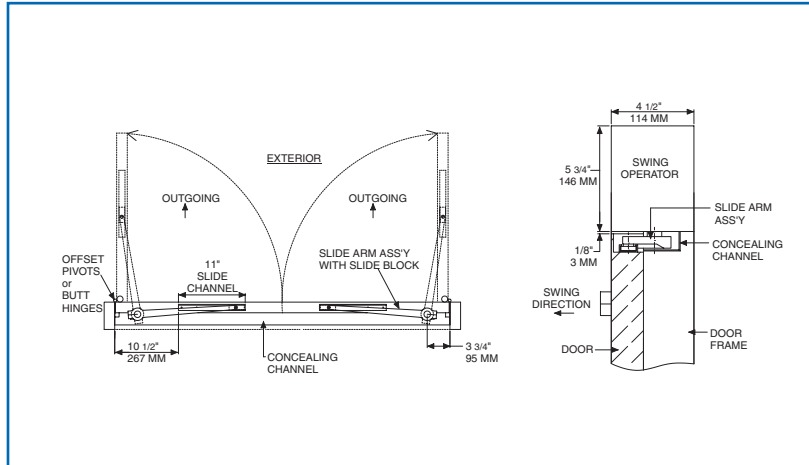
MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

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

- ▶ **Head Frame** minimum 60" (L) x 5 3/4" (H) x 4 1/2" (W) " (1524 mm x 146 mm x 114 mm).
- ▶ **Top Rail** minimum 2" (51 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **Door Stop** required for each door panel.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.



CONCEALED SIMULTANEOUS PAIR (OFFSET PIVOT/BUTT HINGE, PUSH) MOUNTING

- ▶ **Head Frame** minimum 60" (L) x 5 3/4" (H) x 4 1/2" (W) " (1524 mm x 146 mm x 114 mm).
- ▶ **Top Rail** minimum 2" (51 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **Door Stop** required for each door panel.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements

MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

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

LCN 2850 SERIES

MOTOR GEARBOX

MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 2850-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.

MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 2850-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.

MOUNTING BRACKET

MOUNTING BRACKET – 3 3/4", 2850-375

Motor gearbox mounting bracket for 3 3/4" center, offset pivot, butt hinge installations. Front bracket.

MOUNTING BRACKET – 2 3/4", 2850-275

Motor gearbox mounting bracket for 2 3/4" center pivot installations. Front bracket.

REAR MOUNT BRACKET, 2850-3018

Motor gearbox mounting bracket. Rear bracket.

CONTROL BOXES

CONTROL BOX- SENIOR SWING, 2850-3462

Electronic controlling device for Senior Swing.

COMPANION CABLE, 2850-982

Cable that allows one control box to run two motor gearboxes. For use with Senior Swing.

HEADERS

HEADER, 2850-72HL

Standard, mounting header. Pair door, two operators. Specify length 60" to 98" maximum.

END CAPS

HEADER END CAPS, 2850-334

End cap with openings for wiring.

ARMS

CENTER PIVOT ARM, 2810-3077CP

(CENTER PIVOT INSTALLATIONS ONLY)

Used with overhead concealed operators and center pivoted doors.

OFFSET PIVOT ARM, 2810-3077OP

(OFFSET PIVOT OR BUTT HUNG INSTALLATIONS ONLY)

Handed arm. Used with overhead concealed operators.

CHANNELS

CONCEALING CHANNEL, 2850-3072

Used to conceal arm in overhead concealed applications. For offset pivot installations only. If ordering separately specify length and hand.

SLIDE CHANNEL, 2810-3038

(OFFSET PIVOT or BUTT HINGE INSTALLATIONS ONLY)

Mounts in concealing channel. Allows arm to slide.

INSTALLATION ACCESSORIES

DOOR STOP BREAKAWAY, 2850-384B

Allows in swinging door to swing out in case of emergency (Pull installations). For center pivoted installations only.

DOOR STOP FIXED, 2850-384F

Prevents out swinging door from swinging in (Push installations). For center pivoted installations only.

FILLER PLATE BLANK, 2850-12

Completes length of header box.

SPINDLE PLATE – 2 3/4", 2850-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot/butt hinge installations.

SPINDLE PLATE – 3 3/4", 2850-11B

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 3 3/4" center pivot installations.

PIVOT BODY, 2850-107

Bottom pivot body for center pivoted installations.

PIVOT POST, 2850-110

Connects pivot body to bottom pivot plate for center pivoted installations.

BOTTOM PIVOT PLATE, 2850-117

Applied to floor for center pivoted installations.

BOTTOM PIVOT ASSEMBLY, 2850-3107

Includes pivot body, pivot post and bottom pivot plate. For overhead concealed, center pivoted installations.

LCN 2850 SERIES

TABLE OF SIZES

→ Indicates recommended range of door width for operator.
Note: For all Senior Swing Series
Simultaneous Pair – Width per leaf 30" minimum to 48" maximum

DOOR WIDTH



HOW-TO-ORDER 2850 SERIES OPERATORS

1. SELECT INSTALLATION TYPE

- 2853

2. SPECIFY FINISH.

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

- STANDARD MOTOR GEARBOX (SF) (1 LH & 1 RH)
 - STANDARD CONTROL BOX (SC)
 - COMPANION CABLE
 - 72" HEADER (72HL)
 - STANDARD (CENTER PIVOTED) ARM (3077CP) (2 ea)
 - 2 3/4" PIVOT POINT
 - WOOD and MACHINE SCREW PACK
- Unless options listed below are selected.

OPERATOR OPTIONS

HEADER

- 72HL__ (Specify length 60" to 98")

PIVOT POINT

- 3 3/4", available with center pivot arm, with use of finger guards. (Consult factory for ST)

ARM

- Standard (Offset pivoted) Arm (3077OP)
(Available with 3 3/4" pivot point only.)

STOPS*

- Pair Positive Mechanical Stop (POS)
- Pair Panic Breakaway Stop (BKY)

*Available with Center Pivoted installations only.

FINISH

- Custom Anodized Finish _____
- Custom Painted Finish _____

SPECIAL TEMPLATE

- ST-_____

OPERATOR MOUNTS
INDEPENDENT PAIR, OVERHEAD CONCEALED
***CENTER PIVOT**
OFFSET PIVOT/BUTT HINGE



*CENTER PIVOT arm shown

The 2860 SENIOR SWING® by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING® operator when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

- ▶ **Push 'N Go** permits non-switch activation
- ▶ **Power Boost** provides additional latching force
- ▶ **Electromechanical unit** with microprocessor control
- ▶ **Fast and easy installation**
- ▶ **Tested internally** to over ten million cycles
- ▶ **Meets International Building Code requirements and ANSI A156.19**
- ▶ **UL approved** for fire doors

- ▶ 2860 series operator is shipped with motor gearbox, control boxes, bottom pivots, arms, header, and mounting hardware.
- ▶ Independent pair of doors, overhead concealed.
- ▶ Meets ADA, requirements (power mode only).
- ▶ Handed product.
- ▶ 72" header length is standard. Specify other length 60" to 98" max. Consult factory regarding this option.
- ▶ Positive mechanical stop or panic breakaway stop available.
- ▶ Adjustable hold-open period of 2 to 30 seconds in automatic or manual mode.

2860 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 2860 Series is UL listed for fire-rated applications. The 2860 Series also meets the provisions of the Americans with Disabilities Act.

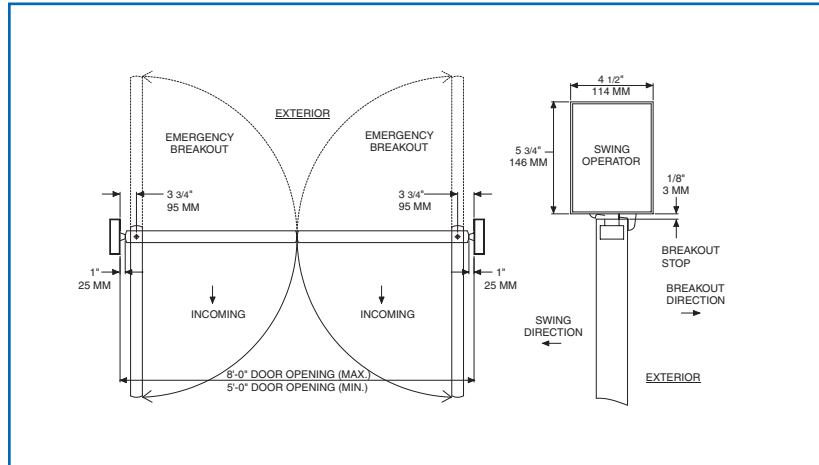
MOUNTING						HANDING			FINISH	COVER		ARM FUNCTION			
SURFACE MOUNT SINGLE DOOR	SURFACE MOUNT SIMULTANEOUS PAIR	SURFACE MOUNT INDEPENDENT PAIR	CONCEALED SINGLE DOOR	CONCEALED SIMULTANEOUS PAIR	CONCEALED INDEPENDENT PAIR	HANDED	NON-HANDED	STANDARD ANODIZED	CUSTOM ANODIZED	CUSTOM PAINT	METAL	STANDARD (SINGLE)	REGULAR (DOUBLE)	DOUBLE EGRESS (PUSH/PULL)	CENTER PIVOT ARM
○	○	○	○	○	●	●	○	●	●	●	○	○	○	●	●

● AVAILABLE
 ○ NOT AVAILABLE

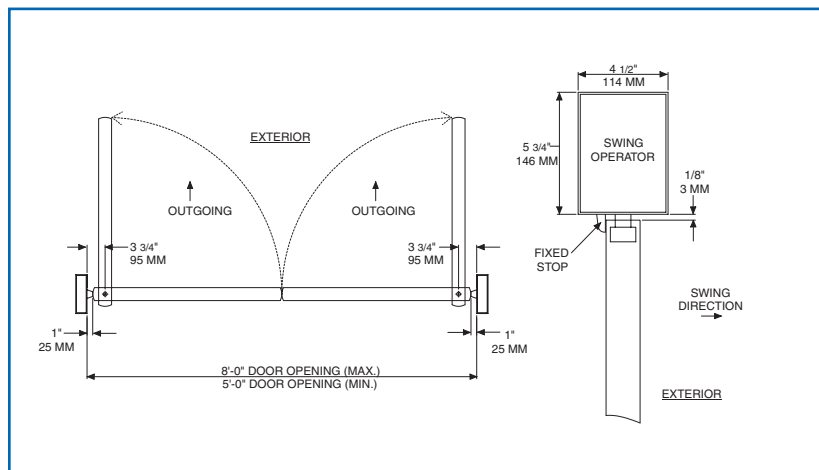
LCN 2860 SERIES

MOUNTING DETAILS

CONCEALED INDEPENDENT PAIR (CENTER PIVOT, EMERGENCY BREAK OUT, PULL) MOUNTING



CONCEALED INDEPENDENT PAIR (CENTER PIVOT, FIXED STOP, PUSH) MOUNTING



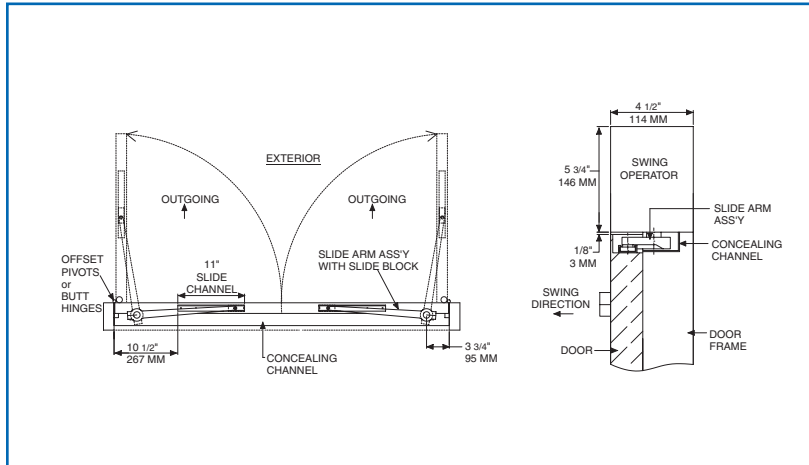
MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

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

- ▶ **Head Frame** minimum 60" (L) x 5 3/4" (H) x 4 1/2" (W) " (1524 mm x 146 mm x 114 mm).
- ▶ **Top Rail** minimum 2" (51 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **Door Stop** required for each door panel.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements



CONCEALED INDEPENDENT PAIR (OFFSET PIVOT/BUTT HINGE, PUSH) MOUNTING

- ▶ **Head Frame** minimum 60" (L) x 5 3/4" (H) x 4 1/2" (W) " (1524 mm x 146 mm x 114 mm).
- ▶ **Top Rail** minimum 2" (51 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **Door Stop** required for each door panel.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements

MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

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

LCN 2860 SERIES

MOTOR GEARBOX

MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 2860-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.

MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 2860-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.

MOUNTING BRACKET

MOUNTING BRACKET – 3 3/4", 2860-375

Motor gearbox mounting bracket for 3 3/4" center, offset pivot, butt hinge installations. Front bracket.

MOUNTING BRACKET – 2 3/4", 2860-275

Motor gearbox mounting bracket for 2 3/4" center pivot installations. Front bracket.

REAR MOUNT BRACKET, 2860-3018

Motor gearbox mounting bracket. Rear bracket.

CONTROL BOXES

CONTROL BOX- SENIOR SWING, 2860-3462

Electronic controlling device for Senior Swing.

HEADERS

HEADER, 2860-72HL

Standard, mounting header. Pair door, two operators. Specify length 60" to 98" maximum.

END CAPS

HEADER END CAPS, 2860-334

End cap with openings for wiring.

ARMS

CENTER PIVOT ARM, 2810-3077CP

(CENTER PIVOT INSTALLATIONS ONLY)

Used with overhead concealed operators and center pivoted doors.

OFFSET PIVOT ARM, 2810-3077OP

(OFFSET PIVOT OR BUTT HUNG INSTALLATIONS ONLY)

Handed arm. Used with overhead concealed operators.

CHANNELS

CONCEALING CHANNEL, 2860-3072

Used to conceal arm in overhead concealed applications. For offset pivot installations only. If ordering separately specify length and hand.

SLIDE CHANNEL, 2810-3038

(OFFSET PIVOT or BUTT HINGE INSTALLATIONS ONLY)

Mounts in concealing channel. Allows arm to slide.

INSTALLATION ACCESSORIES

DOOR STOP BREAKAWAY, 2860-384B

Allows in swinging door to swing out in case of emergency (Pull installations). For center pivoted installations only.

DOOR STOP FIXED, 2860-384F

Prevents out swinging door from swinging in (Push installations). For center pivoted installations only.

FILLER PLATE BLANK, 2860-12

Completes length of header box.

SPINDLE PLATE – 2 3/4", 2860-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot/butt hinge installations.

SPINDLE PLATE – 3 3/4", 2860-11B

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 3 3/4" center pivot installations.

PIVOT BODY, 2860-107

Bottom pivot body for center pivoted installations.

PIVOT POST, 2860-110

Connects pivot body to bottom pivot plate for center pivoted installations.

BOTTOM PIVOT PLATE, 2860-117

Applied to floor for center pivoted installations.

BOTTOM PIVOT ASSEMBLY, 2860-3107

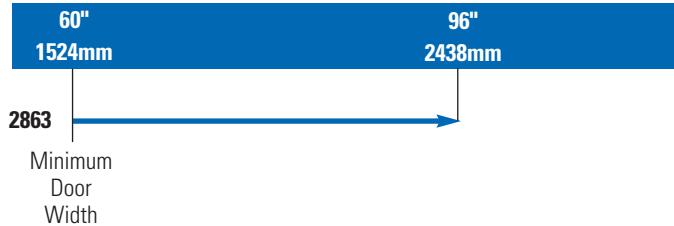
Includes pivot body, pivot post and bottom pivot plate. For overhead concealed, center pivoted installations.

LCN 2860 SERIES

TABLE OF SIZES

→ Indicates recommended range of door width for operator.
Note: For all Senior Swing Series
Independent Pair – Width per leaf 30" minimum to 48" maximum

DOOR WIDTH



HOW-TO-ORDER 2860 SERIES OPERATORS

1. SELECT INSTALLATION TYPE

- 2863

2. SPECIFY FINISH.

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

-STANDARD MOTOR GEARBOX (SF) (1 LH & 1 RH)
-STANDARD CONTROL BOX (SC) (2 ea)
-72" HEADER (72HL)
-STANDARD (CENTER PIVOTED) ARM (3077CP) (2 ea.)
-2 3/4" PIVOT POINT
-WOOD and MACHINE SCREW PACK
Unless options listed below are selected.

OPERATOR OPTIONS

MOTOR GEARBOX

- Reduced Force Motor Gearbox (RF) (2 ea)

HEADER

- 72HL__ (Specify length 60" to 98")

PIVOT POINT

- 3 3/4", available with center pivot arm, with use of finger guards. *(Consult factory for ST)*

ARM

- Standard (Offset pivoted) Arm (3077OP)
(Available with 3 3/4" pivot point only.)

STOPS*

- Pair Positive Mechanical Stop (POS)
- Pair Panic Breakaway Stop (BKY)

**Available with Center Pivoted installations only.*

FINISH

- Custom Anodized Finish _____
- Custom Painted Finish _____

SPECIAL TEMPLATE

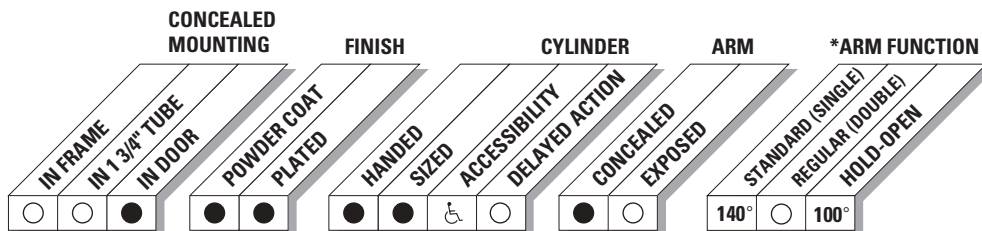
- ST-_____



The concealed 3130 is designed to mount in a 1 3/4" interior door. The single lever arm and roller assembly provides complete concealment and the choice of finishes and track functions meet virtually all architectural requirements.

The 3130 Series is UL and ULC listed without hold-open for self-closing doors. Tested and certified under ANSI Standard A156.4, grade one.

- ▶ Standard 3130 series closer shipped with standard arm, standard track and wood and machine screw pack. See 3130 Series page 23 for options.
- ▶ Sized cylinders for interior doors to 3'2".
- ▶ Handed for right or left swinging doors.
- ▶ Closers to meet ADA requirements. See 3130 Series page 24.
- ▶ Standard or optional custom powder coated finish.
- ▶ Optional plated finish on arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ Consult factory for installation with pivots.



- Available
- Not available

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

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

LCN 3130 SERIES

MOUNTING DETAILS

CONCEALED MOUNTING

For interior doors.

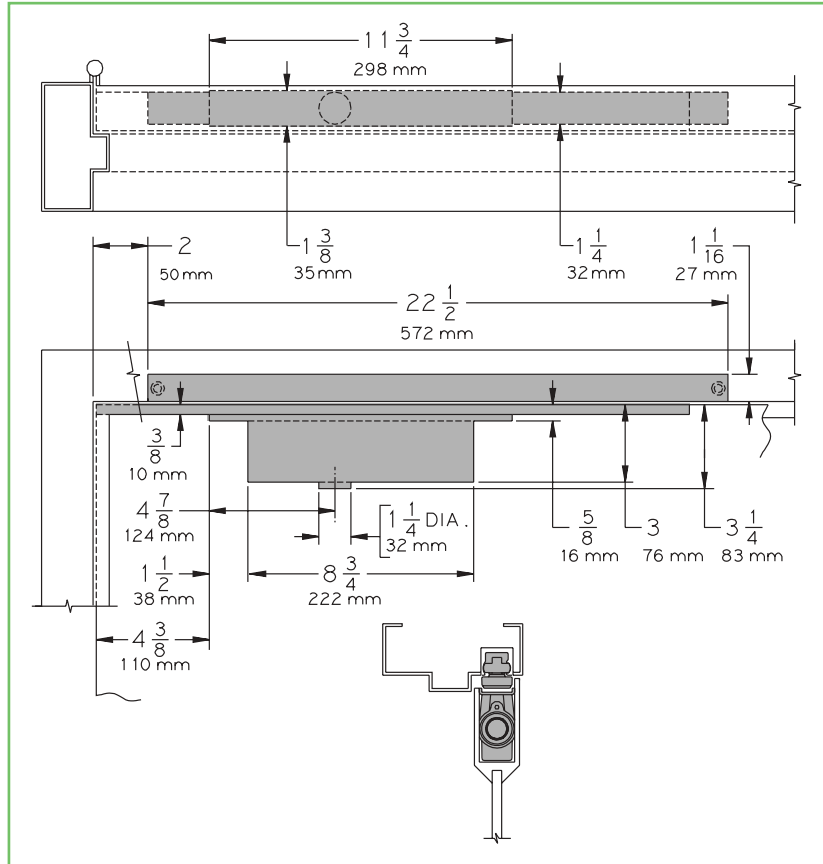
Single acting cylinder and standard arm in top rail of door.

Concealed track in head frame.

MAXIMUM OPENING

Templating allows 140°, trim permitting. 100° with optional bumper installed.

Adjustable hold-open points from 85° to 100°, with hold-open 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 140°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- ▶ **Top Rail** minimum 4" (102 mm) required.
- ▶ **Door Thickness** 1 3/4" (44 mm) minimum. Please consult the door manufacturer to assure that the door integrity and warranty is maintained after installing the 3130 Series door closer in a 1 3/4" thick wood door.
- ▶ **Door Width** 2'2" (660 mm) minimum.

OPTIONS

- ▶ Standard track with Bumper
- ▶ Hold-open track
- ▶ Hold-open track with Bumper
- ▶ Consult factory for installations with pivots.

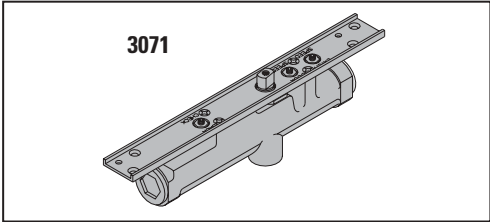
SPECIAL TEMPLATES

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

CYLINDERS

CYLINDER, 3130-3071

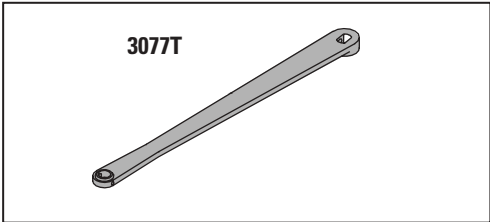
Standard, handed, cast iron cylinder assembly with mounting plate. For various applications see "Table of Sizes" on 3130 Series page 24.



ARMS

STANDARD ARM, 3130-3077T

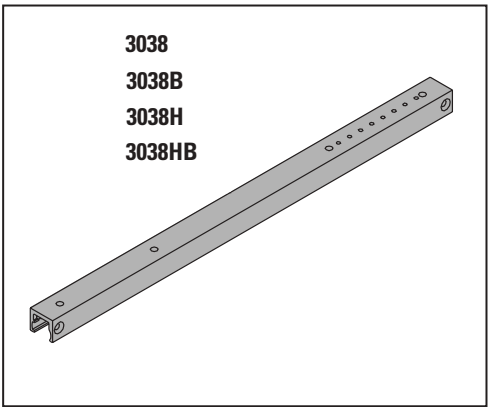
Handed arm.
Track roller not included with arm.



TRACKS

STANDARD TRACK, 3130-3038

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



STANDARD TRACK with BUMPER, 3130-3038B

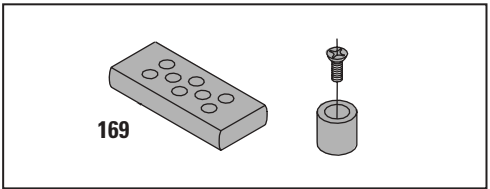
Optional, non hold-open, non-handed track with bumper.
Will accept hold-open clip.

HOLD-OPEN TRACK, 3130-3038H

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

HOLD-OPEN TRACK with BUMPER, 3130-3038HB

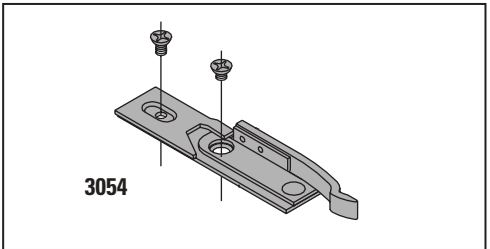
Optional, non-handed hold-open track with bumper.



INSTALLATION ACCESSORIES

TRACK BUMPER, 3130-169

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

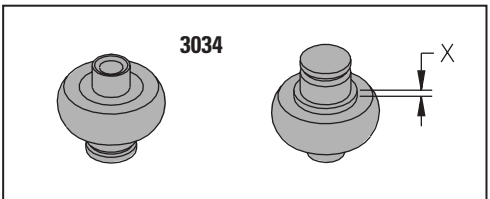


HOLD-OPEN CLIP, 3130-3054

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

TRACK ROLLER, 3130-3034

Quiet, low friction roller assembly.
Shoulder dimension "X" = 1/8" (2mm).

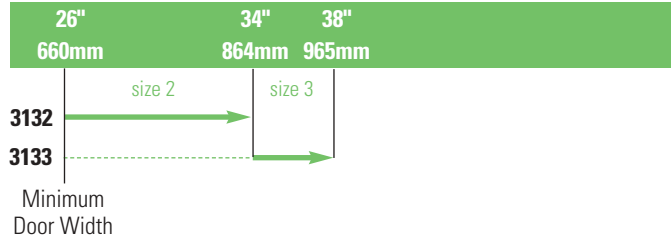


LCN 3130 SERIES

TABLE OF SIZES Select closer based on width of door.
 3130 Series cylinders available in size 1, 2, or 3.
 Closing power of 3130 Series closers is not adjustable.

→ Indicates recommended range of door width for closer size.

INTERIOR DOOR WIDTH



HOW-TO-ORDER 3130 SERIES CLOSERS

1. SELECT CYLINDER SIZE

- 3131 (ADA)
- 3132
- 3133

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

CLOSER OPTIONS

TRACK

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

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____
- SRI primer

SCREW PACK

- TORX Machine Screw

SPECIAL TEMPLATE

- ST- _____

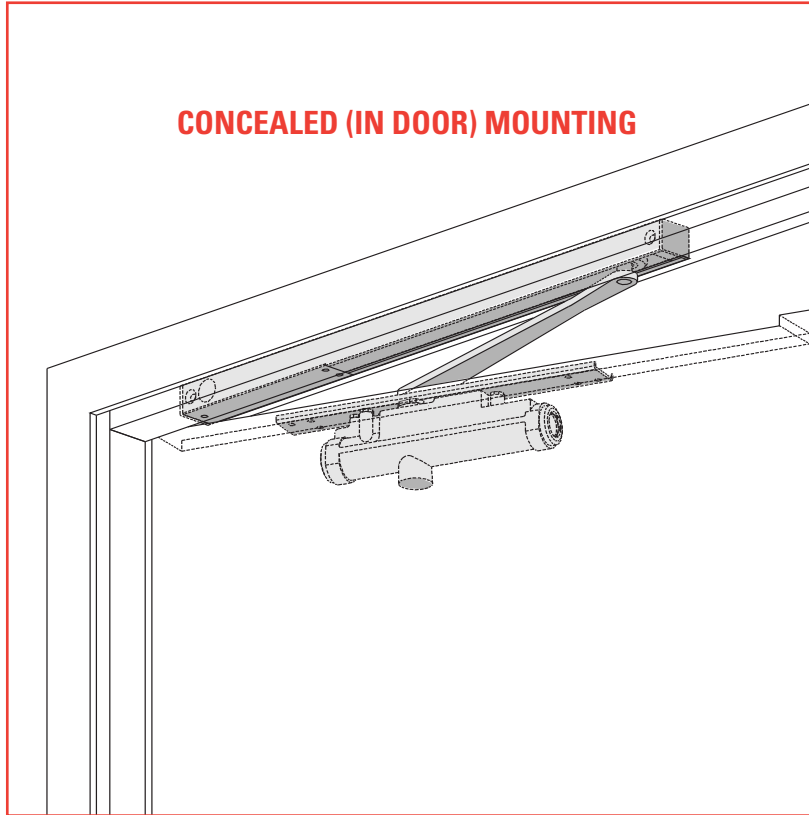
REDUCED OPENING FORCE 3130 CLOSERS

CAUTION ! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	3131	3131	3132

* Maximum opening force



The 3130SE SENTRONIC® is a concealed in the door, closer/holder designed to provide single point hold-open for fire and smoke barrier doors. Door is held open until current interruption releases the holding mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors.

The 3130SE and SEL Series is UL listed for metal smoke barrier or labeled fire doors.

- ▶ Standard 3130SE series closer shipped with a standard arm, 24V or 120V SE track (please specify), track roller, and wood and machine screw pack. See 3130SE Series page 15 for options.
- ▶ Sized cylinders for interior doors to 4'0".
- ▶ Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted.
- ▶ Handed for right or left swinging door.
- ▶ Interfaces with fire alarm systems. Consult factory.
- ▶ Standard or optional custom powder coated finish.
- ▶ Optional plated finish on arm and fasteners.

Door and frame manufacturer must have preparation included in their UL procedures. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

MOUNTING					FINISH		COVER		CYLINDER			*ARM FUNCTION						
HINGE (PULL SIDE)	TOP JAMB (PUSH)	STOP FACE (PUSH)	CONCEALED (FRAME)	CONCEALED (DOOR)	POWDER COAT	PLATED	PLASTIC	METAL	HANDED	NON-SIZED	SIZED	SINGLE POINT HOLD-OPEN	MULTI-POINT HOLD-OPEN	BYPASS 80/140	STANDARD (SINGLE)	REGULAR (DOUBLE)	SWING FREE	DOUBLE EGRESS
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

● Available
○ Not available

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

LCN 3130SE SERIES

MOUNTING DETAILS

CONCEALED MOUNTING

For interior smoke barrier and labeled fire doors.

MAXIMUM OPENING

Templating allows 110°.

Hold-open points between 85° and 110° in approximately 3° increments.

SEL arm and track locate hold-open at 110°, 120° and 130°.

SE, SEL ELECTRICAL OPTIONS

These track assemblies require a single power circuit for the holding solenoid.

SE or SEL holding solenoid is either 24V or 120V input, please specify.

An optional 4040SE-3210 TRANSFORMER reduces 120V AC line voltage to 24V AC.

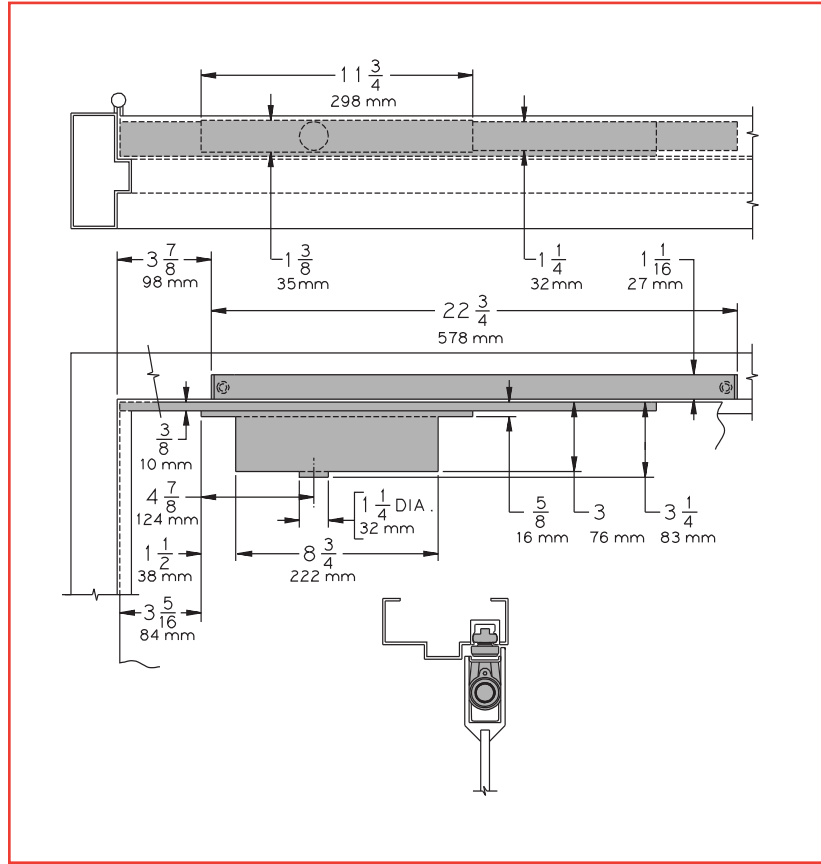
Circuitry accepts either AC or DC input.

Options

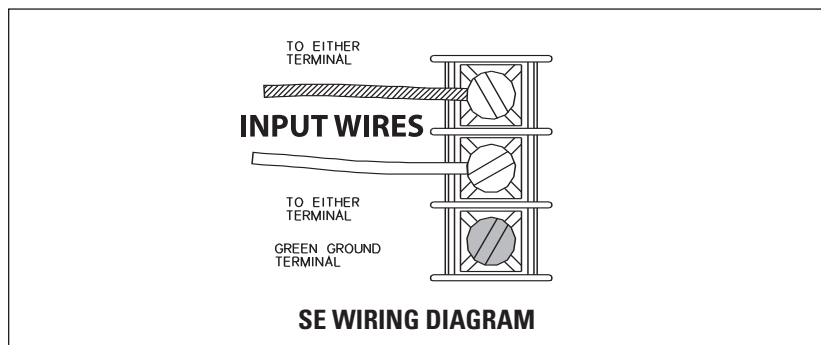
- ▶ Long (SEL) track and arm.
- ▶ 24V or 120V input, please specify.

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. Consult factory for pivot hung installations.
- ▶ **Auxiliary Stop** is recommended at hold-open point.
- ▶ **Top Rail** minimum 4" (102 mm).
- ▶ **Door Thickness** 1 3/4" (44 mm) minimum. Please consult the door manufacturer to assure that the door integrity and warranty is maintained after installing the 3130SE series door closer in 1 3/4" (44 mm) thickness wood doors.
- ▶ **Door Width** 2'4" (711 mm) minimum for single door with SE. 2'8" (813 mm) minimum for door with SEL.
- ▶ **Wiring Diagram**



CYLINDER

SE CYLINDER, 3130SE-3071

Standard, handed cast iron cylinder assembly.

For various applications see "Table of Sizes" on 3130SE Series page 16.

ARM

STANDARD ARM, 3130SE-3077T

Handed arm. Arm adjustable to select hold-open point.

LONG ARM, 3130SEL-3077T

Optional, solid arm provides hold-open point from 110° to 130°, determined by track templating.

Used with SEL TRACK 3130SEL-3038 only.

TRACKS

SE TRACK, 3130SE-3038

Standard, non-handed track.

Circuitry accepts either AC or DC input.

24V holding solenoid (**24**) or

120V holding solenoid (**120**), please specify.

SEL TRACK, 3130SEL-3038

Optional, long non-handed track.

Used with LONG ARM, 3130SEL-3077T, only.

Circuitry accepts either AC or DC input.

24V holding solenoid (**24**) or

120V holding solenoid (**120**), please specify.

SWITCH

TEST SWITCH, 3130SE-3436

INSTALLATION ACCESSORIES

CONDUIT QUICK-CONNECTOR, 3130SE-81

Two piece connector for use with 1/2" conduit.

See page 21 for illustration.

TRACK ROLLER, 3130SE-3034

Quiet, low friction roller assembly.

Shoulder dimension "X" = 1/8" (3 mm).

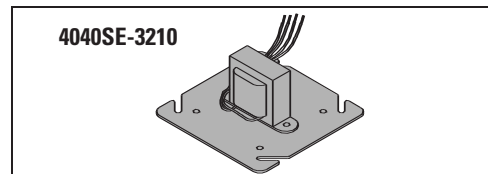
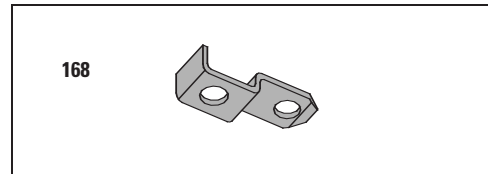
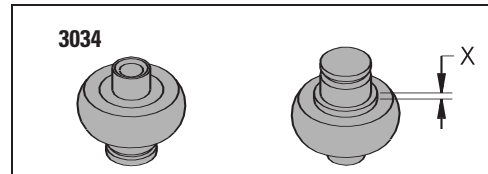
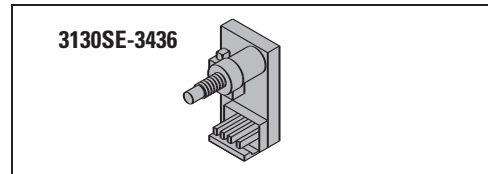
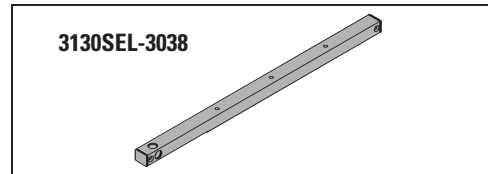
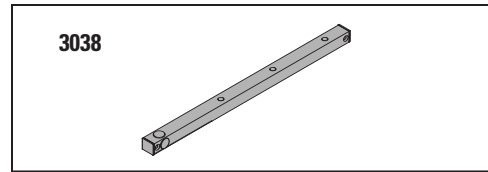
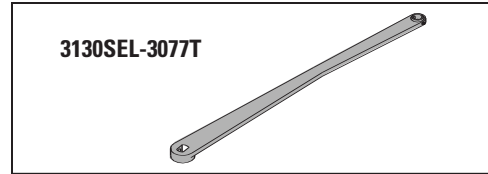
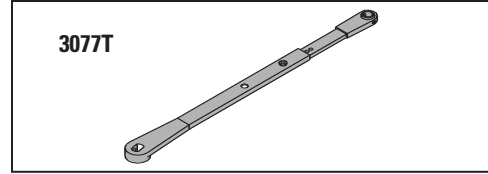
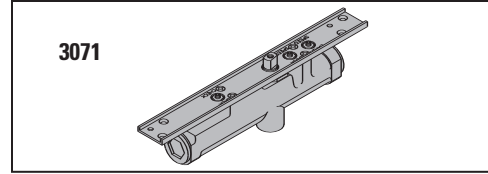
TRACK SLIDER, 3130SE-168

Alloy metal slider for use in SE series tracks only.

TRANSFORMER, 4040SE-3210

Reduces line voltage from 120V to 24V AC.

Mounted on plate for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others).



LCN 3130SE SERIES

TABLE OF SIZES

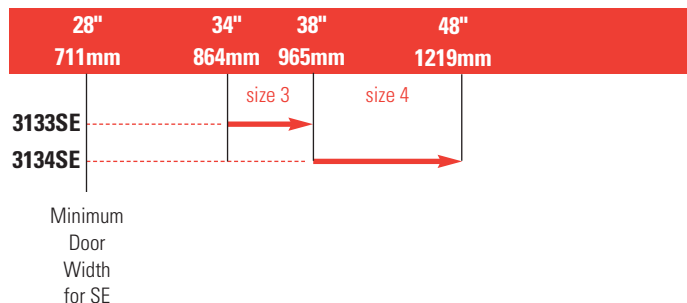
Select closer based on width of door.
Sized 3130SE series cylinders available in size 3 or 4.
Closing power of all 3130SE Series closers is not adjustable.

→ Indicates recommended range of door width for closer size.

Note: For SE, minimum door width 28" (711mm).

For SEL, minimum door width 32" (813mm).

INTERIOR DOOR WIDTH



HOW-TO-ORDER 3130SE SERIES CLOSERS

1. SELECT CYLINDER SIZE.

- 3133SE
- 3134SE

2. SPECIFY HAND.

- RH
- LH

3. SELECT TRACK.

- SE
- SEL (requires long arm)

4. VOLTAGE

- 24V AC/DC
- 120V AC/DC

5. SPECIFY FINISH.

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

Closer will be shipped with:

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

CLOSER OPTIONS

ARM

- Long Arm* (LONG)
* use with SEL track only

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

SCREW PACK

- TORX Machine Screw (TORX)

INSTALLATION ACCESSORIES

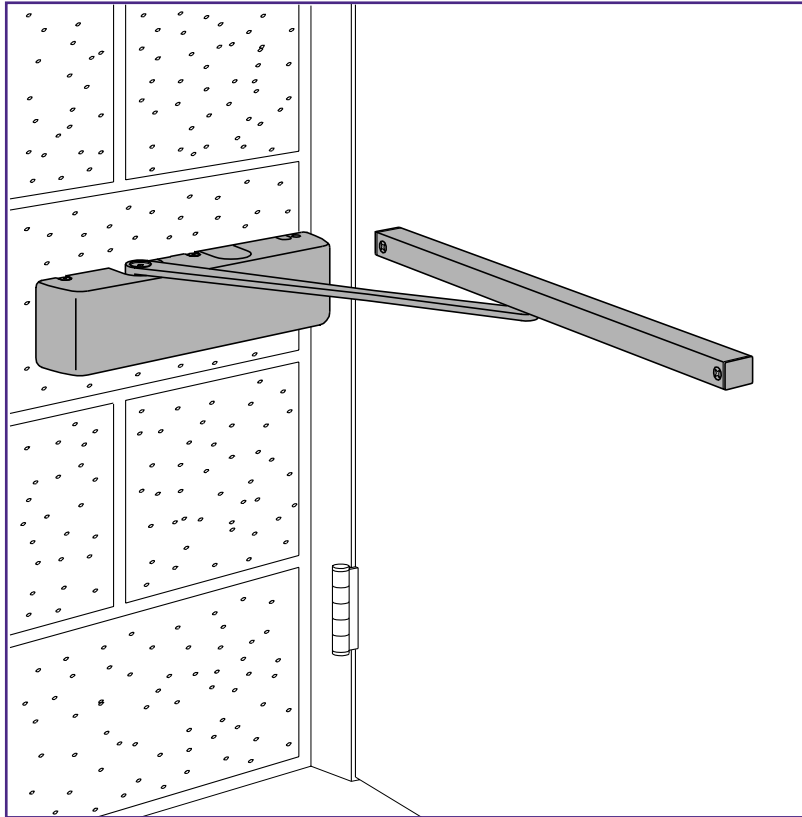
- Transformer, 4040SE-3210

SPECIAL TEMPLATE

- ST- _____

LCN 4000T SERIES

FEATURES



The 4000T is a heavy duty, single lever (track) arm closer mounted in a wall pocket to reliably control fire and smoke barrier doors with maximum swing of 90°. The 4000T closer is designed for use with a SEM 7850 wall magnet holding the door open at 90°. When the wall magnet releases, the closer quietly and firmly closes the door.

The 4000T Series is UL and ULC listed with a standard arm for self-closing doors. Tested and certified under ANSI Standard A156.4, grade one.

- ▶ 4000T series closer shipped with standard arm, regular track (non-hold-open), track roller, standard non-metallic cover, and wood and machine screw pack. See 4000T-3 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 custom powder coat finish on cover, arm and fasteners.
- ▶ Optional plated finish on cover, arm and fasteners.
- ▶ SRI primer for installations in corrosive conditions.

MOUNTING			FINISH		COVER		CYLINDER			ARM FUNCTION*								
HINGE SIDE	TOP JAMB	PARALLEL ARM	POWDER COAT	PLATED	NON-METALLIC	METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAY ACTION	AVB	REGULAR	HOLD-OPEN	FUSIBLE LINK	EXTRA DUTY	CUSH-N-STOP	WARRANTY	MAINTENANCE
●	○	○	●	●	●	●	○	○	○	○	○	90°	○	○	○	○	10yr	NR

● Available
○ Not available

* Maximum opening/hold-open point with standard template.
NR = No periodic maintenance required.

LCN 4000T SERIES

MOUNTING DETAILS

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).

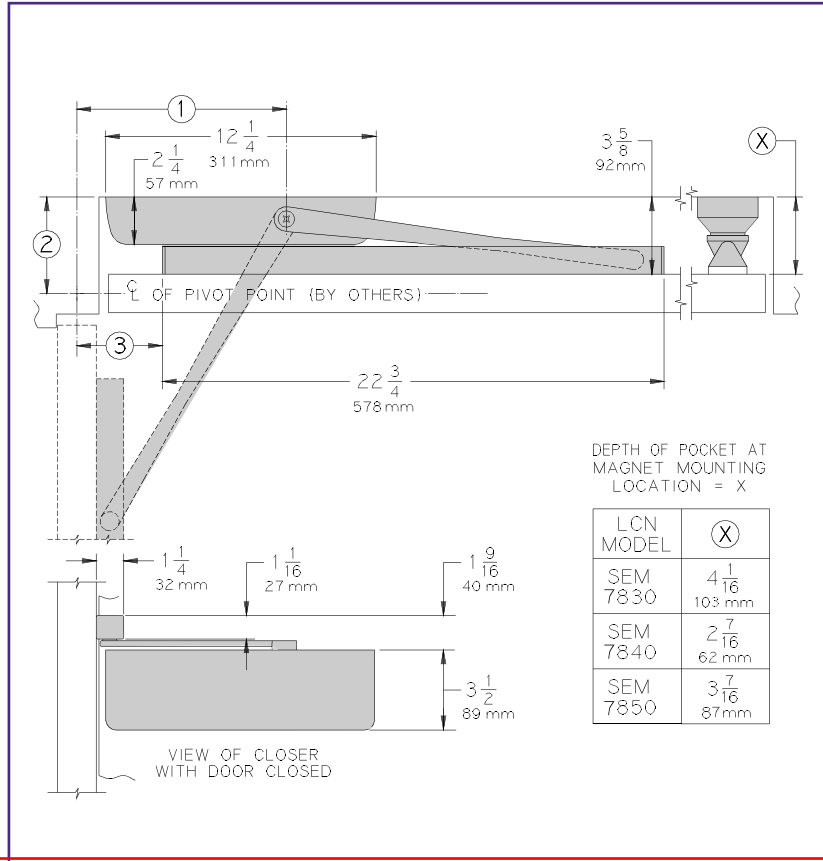
For center pivot, 4 5/8" (117mm).

Options

- ▶ Metal cover.

Special Templates

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

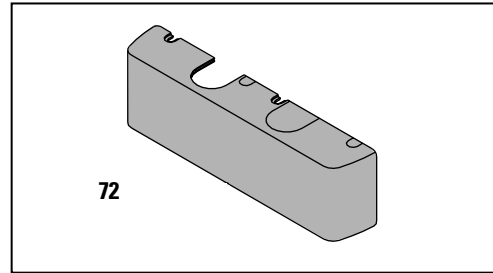


- ▶ **Butt Hinges, Pocket Pivot, Total Door Hinge** or **Center Pivot** are door mounting options.
- ▶ **Butt Hinges** should not exceed 5" (127 mm).
- ▶ **Pocket Depth** of 3 5/8" (92 mm) required between door and closer mounting location. This dimension is measured from the cylinder mounting surface 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.

COVERS

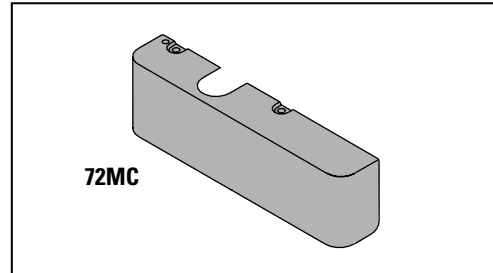
COVER, 4000T-72

Standard, non-handed non-metallic cover.



METAL COVER, 4000T-72MC

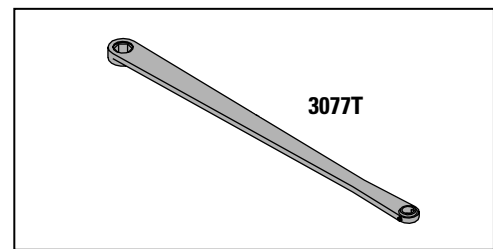
Optional, handed cover. Required for plated finishes.



ARM

STANDARD ARM, 4000-3077T

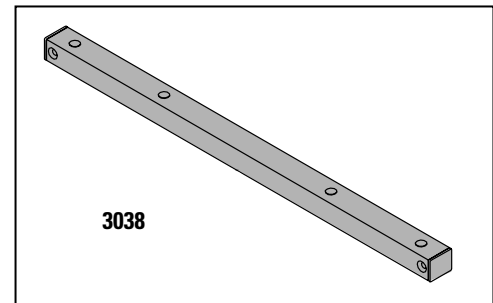
Standard, non-handed arm.



TRACK

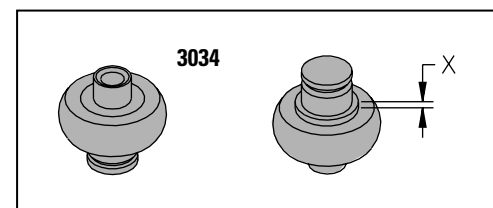
REGULAR TRACK, 4000T-3038

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).



LCN 4000T SERIES

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

	28" 711mm	34" 868mm	38" 965mm	48" 1219mm
4003T		size 3 →		
4004T			size 4 →	
Minimum Door Width				

HOW-TO-ORDER 4000T SERIES CLOSERS

1. SELECT CYLINDER SIZE

- 4003T
- 4004T

2. SELECT FINISH

- Standard Powder Coat _____
Aluminum, Statuary, Light Bronze, Tan,
- Brass, Black, Dark Bronze
- Custom Powder Coat _____
- Plated Finish, US _____
(optional metal cover will be furnished)
- SRI primer

Closer will be shipped with:

- STANDARD COVER,
 - STANDARD ARM,
 - TRACK ROLLER,
 - REGULAR TRACK, and
 - WOOD and MACHINE SCREW PACK,
- unless options below are selected.

CLOSER OPTIONS

COVER

- Metal

SCREW PACK

- TB* and Machine Screw
- TB*, Wood & Machine Screw
- TORX Machine Screw
- TB* & TORX Machine Screw

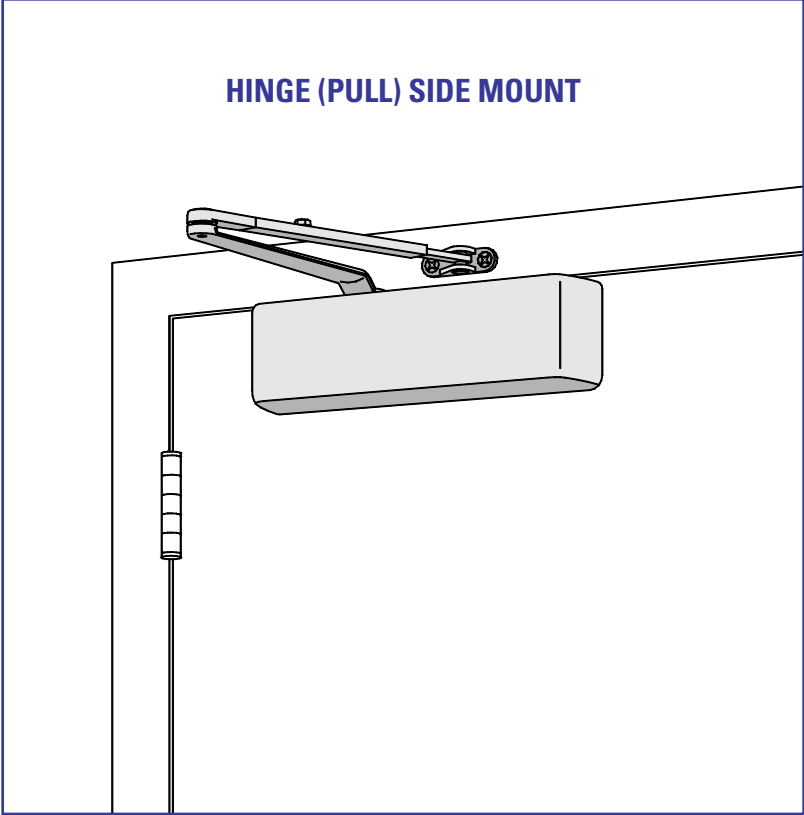
* Specify door thickness if other than 1 3/4".

SPECIAL TEMPLATE

- ST- _____

LCN 4010 SERIES

FEATURES



The 4010 SMOOTHIE® 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 & ULC Listed

- ▶ Standard 4010 series closer 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 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 cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ The 4010 Series is UL and ULC listed with regular or fusible link arms for self-closing doors.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.



MOUNTING					FINISH		COVER		CYLINDER				**ARM FUNCTION									
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	EDA/HEDA	CUSH/H/CUSH	SCUSH/S/CUSH	
●	○	○	○	○	●	●	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○

● Available
○ 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

LCN 4010 SERIES

MOUNTING DETAILS

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°.

(A) = 4 3/16" (106 mm)

(B) = 10 3/16" (259 mm)

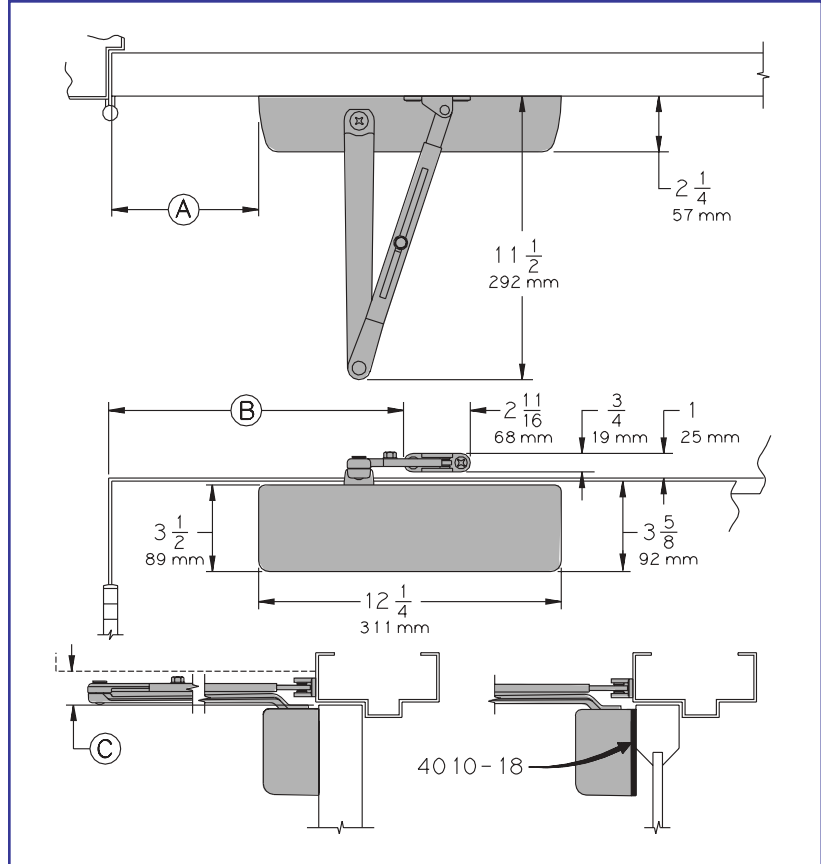
Hold-open points up to maximum opening with hold-open arm.

Arm Clearance above door.

Regular arm requires (C) = 1 1/16" (27 mm).

Hold-open arm requires (C) = 1 3/8" (35 mm).

Fusible link arm requires (C) = 1 5/8" (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.

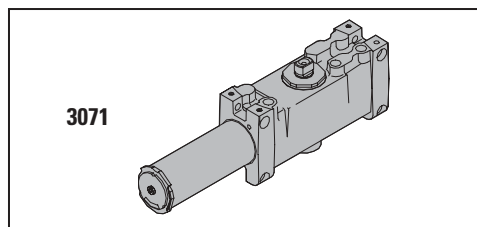
Special Templates

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

CYLINDERS

CYLINDER, 4010-3071

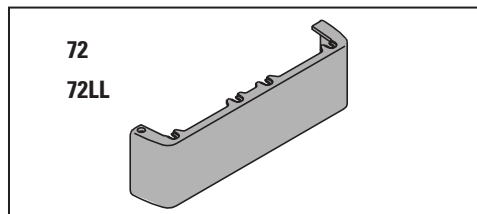
Standard, handed cast iron cylinder assembly.
For various applications see "Table of Sizes" on 4010 Series page 7.



COVERS

COVER, 4010-72

Standard, non-handed plastic cover.

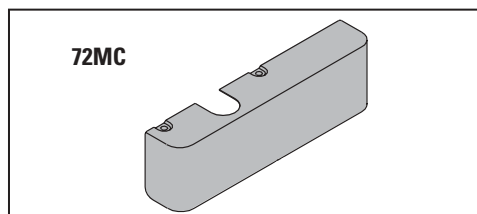


LEAD LINED COVER, 4010-72LL

Optional non-handed cover.

METAL COVER, 4010-72MC

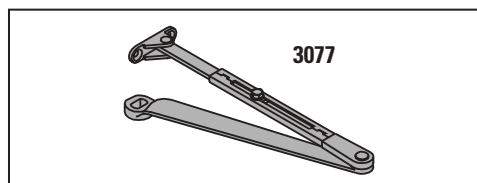
Optional, handed cover. Required for plated finishes and custom powder coat finishes.



ARMS

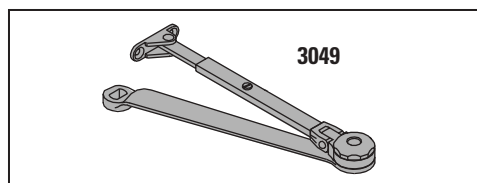
REGULAR ARM, 4010-3077

Non-handed arm.



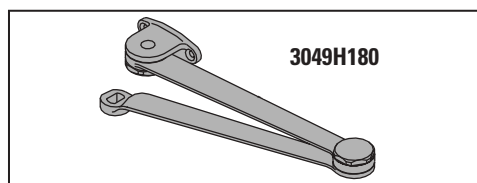
HOLD-OPEN ARM, 4010-3049

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



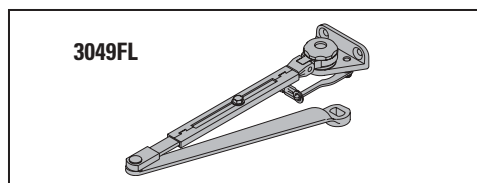
HOLD-OPEN H180 ARM, 4010-3049H180

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.
Optional link releases at 135° F.
1/8" (3 mm) maximum reveal.



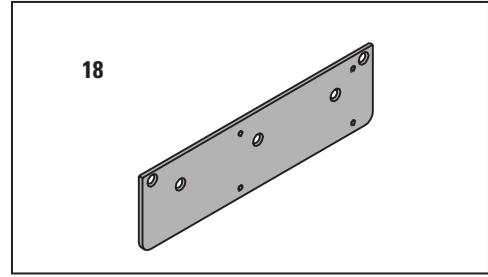
LCN 4010 SERIES

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.



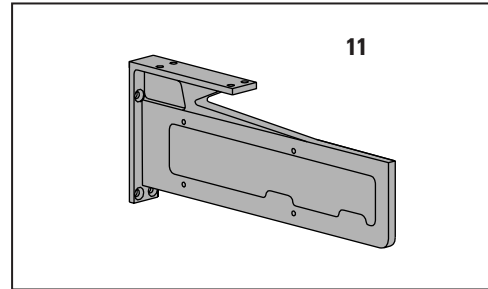
CORNER BRACKET, 4010-11

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

Allows 180° 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.



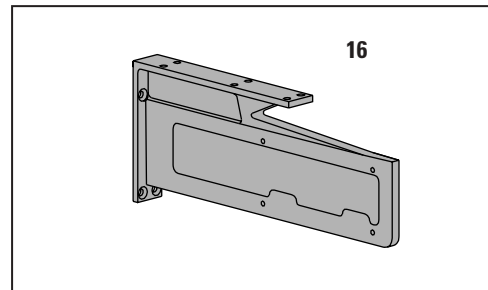
CORNER BRACKET, 4010-16

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.



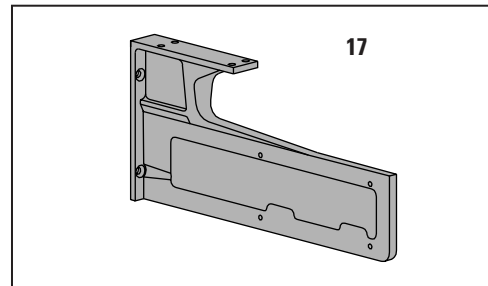
CORNER BRACKET, 4010-17

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.

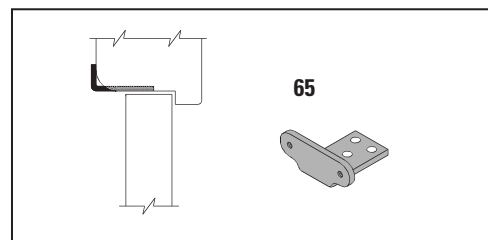
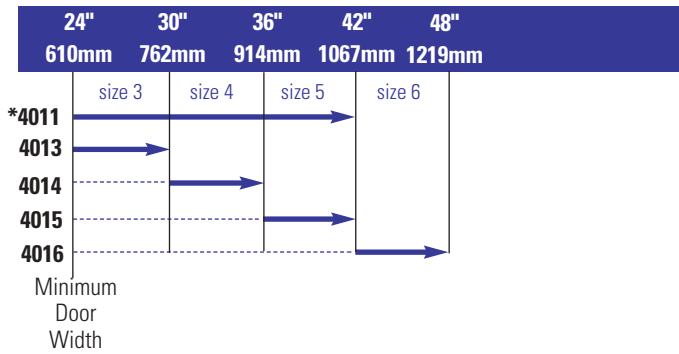


TABLE OF SIZES

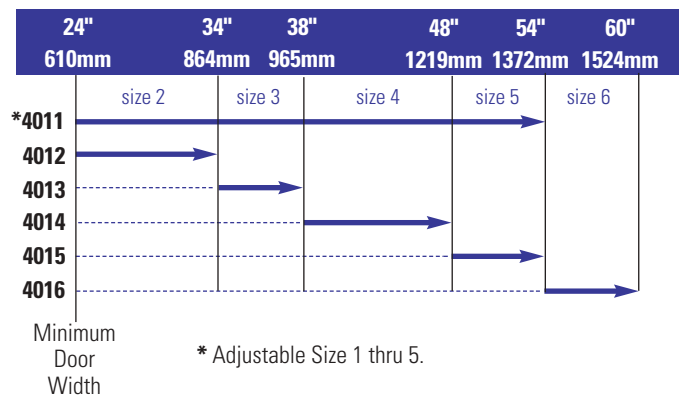
Select closer based on width of door.
 The spring power of non-sized 4011 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3.
 Sized 4010 series cylinders available in size 2, 3, 4, 5, or 6.
 Closing power of all 4010 Series closers may be increased 50%.
 Specify next higher 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



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"
	8.5* lbs.	4011	4011	4011
	5.0* lbs.	4011	4011	4011

* Maximum opening force

HOW-TO-ORDER 4010 SERIES CLOSERS

1. SELECT CYLINDER SIZE

- 4011 (adjustable from size 1 to 5)
- 4012
- 4013
- 4014
- 4015
- 4016 (DEL not available)

2. SPECIFY HAND

- RH
- LH

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

- Hold-Open (H)
- H180 Hold-Open (H180) (bracket mount only)
- Fusible Link, 165° F*(FL)
* Optional link releases at 135° F

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".

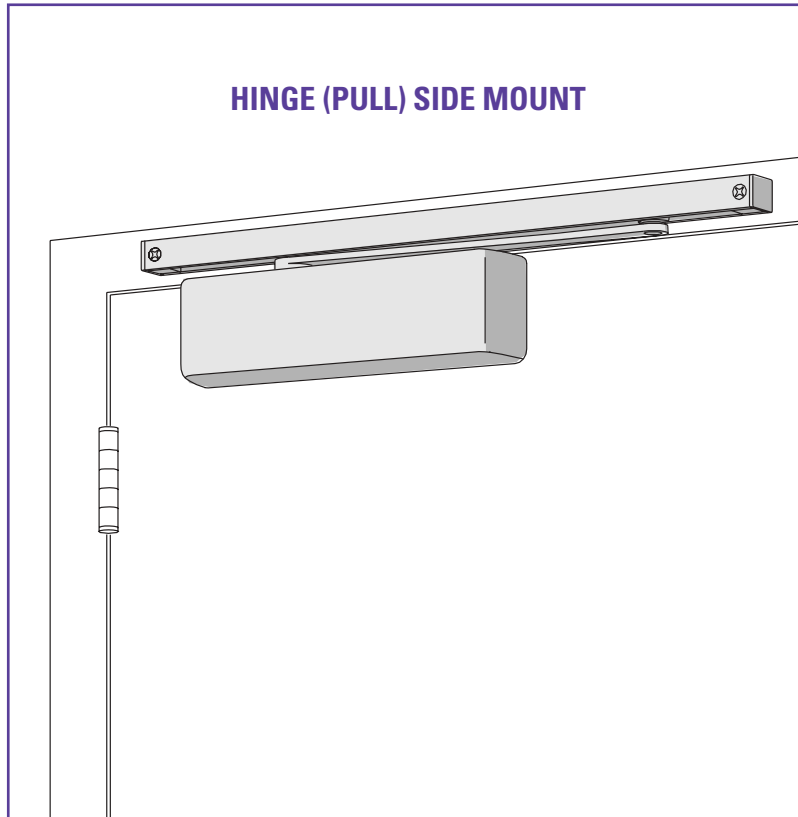
INSTALLATION ACCESSORIES

- Plate, 4010-18
- Bracket, 4010-11
- Bracket, 4010-16
- Bracket, 4010-17
- Soffit Shoe, 4010-65

SPECIAL TEMPLATE

- ST- _____

LCN 4010T SERIES



The 4010T SMOOTHIE® 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 & ULC Listed**

- ▶ Standard 4010T series closer 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 cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ 4010T-DE available for double egress frames. See 4010T Series page 11.
- ▶ The 4010T Series is UL and ULC listed with a standard track for self-closing doors.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.

MOUNTING					FINISH		COVER		CYLINDER			**ARM FUNCTION										
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	ED-A/HEDA	CUSH/H/CUSH	SCUSH/SHCUSH	
●	○	○	○	○	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○

● Available
○ Not available

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

LCN 4010T SERIES

MOUNTING DETAILS

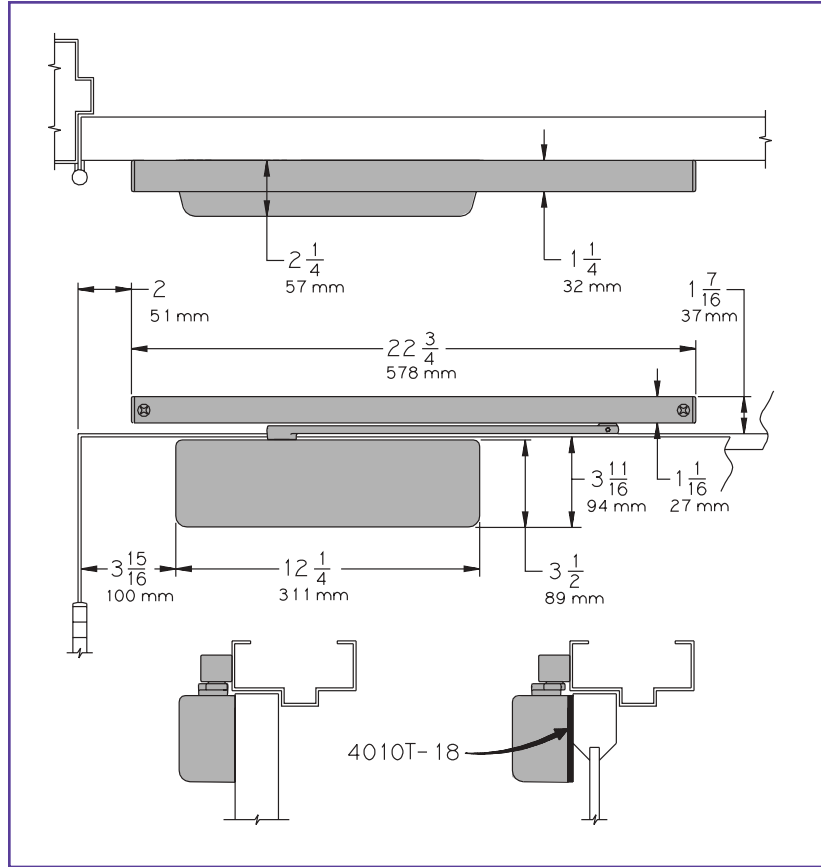
HINGE (PULL) SIDE MOUNTING

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.

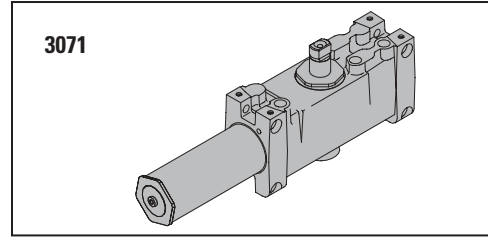
Special Templates

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

CYLINDERS

CYLINDER, 4010T-3071

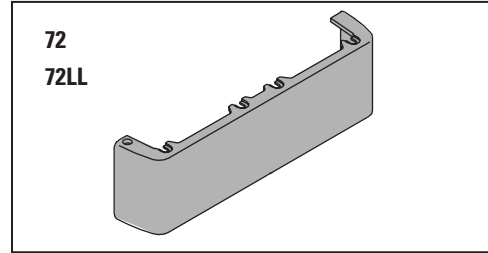
Standard, handed cast iron cylinder assembly.
For various applications see "Table of Sizes" on 4010T Series page 13.



COVERS

COVER, 4010T-72

Standard, non-handed plastic cover.

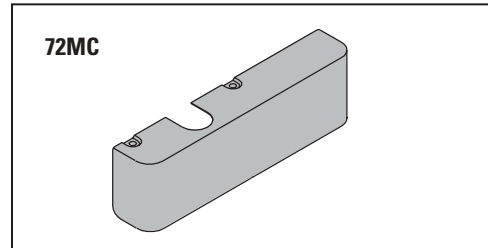


LEAD LINED COVER, 4010T-72LL

Optional, non-handed cover.

METAL COVER, 4010T-72MC

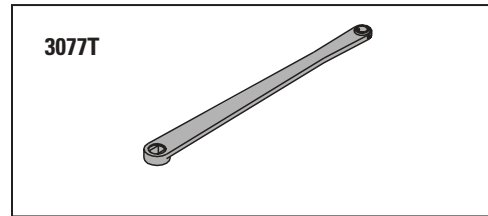
Optional, handed cover. Required for plated finishes and custom powder coat finishes



ARMS

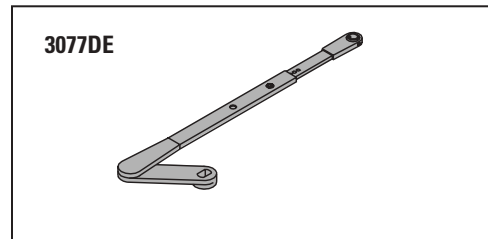
STANDARD ARM, 4010T-3077T

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).



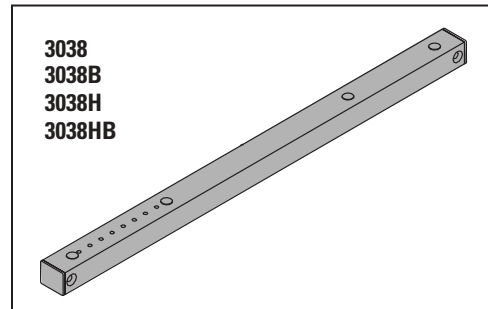
TRACKS

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.

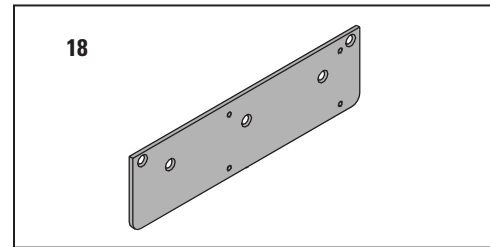
LCN 4010T SERIES

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.

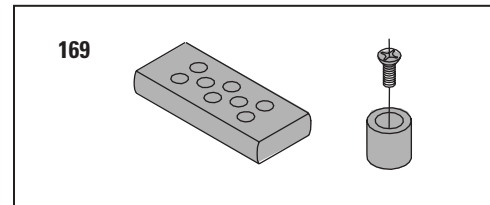


TRACK BUMPER, 4010T-169

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

Limits maximum opening.

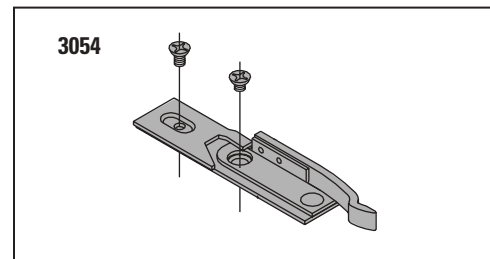
Consists of bumper, bumper post, and mounting screw.



HOLD-OPEN CLIP, 4010T-3054

Mounts in track to provide hold-open function.

Hold-open point controlled by clip location.



TRACK ROLLER, 4010T-3034

Quiet, low friction roller assembly.

Shoulder dimension "X" = 1/16" (2mm).

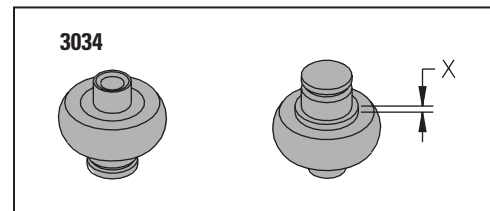


TABLE OF SIZES Select closer based on width of door.
Sized 4010T series cylinders available in size 1,3 or 4.
Closing power of all 4010T Series closers may be increased 15%.

→ Indicates recommended range of door width for closer size.

INTERIOR DOOR WIDTH


	26" 660mm	34" 868mm	38" 965mm	48" 1219mm
4013T	size 1	size 3	size 4	
4014T				
Minimum 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"
	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4011T	4011T	4011T

* Maximum opening force

**HOW-TO-ORDER
4010T SERIES CLOSERS**

1. SPECIFY CYLINDER SIZE

- 4011T (ADA)
- 4013T
- 4014T

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)

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)
- 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 ACCESSORY

- Plate, 4010T-18

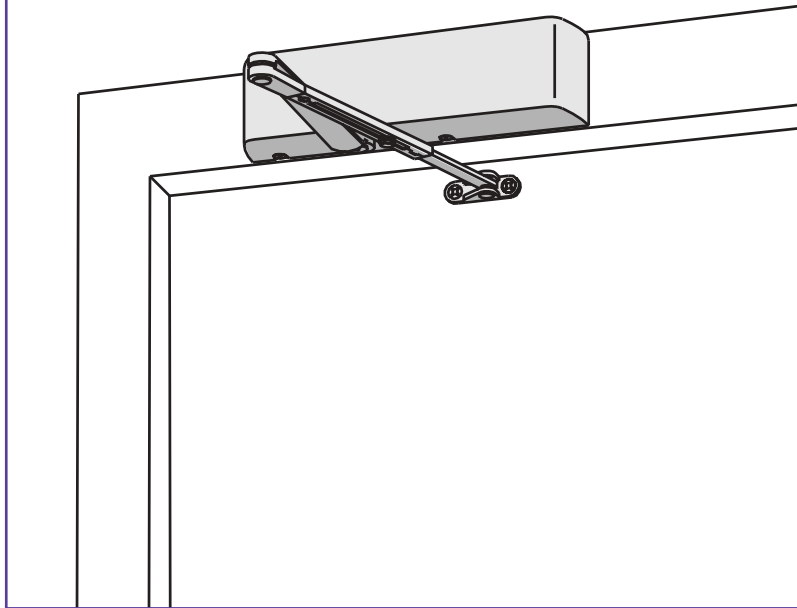
SPECIAL TEMPLATE

- ST- _____

LCN 4020 SERIES

FEATURES

TOP JAMB (PUSH SIDE) MOUNT



The 4020 SMOOTHIE® 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 & ULC Listed

- ▶ Standard 4020 series closer 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 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 cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ The 4020 Series is UL and ULC listed with regular or fusible link arms for self-closing doors.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.



MOUNTING					FINISH			COVER		CYLINDER				**ARM FUNCTION								
HINGE (PULL SIDE)	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	180°	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH
○	○	●	○	○	●	●	●	○	○	●	♿	●	○	○	180°	○	140°	140°	○	○	○	○

● Available
○ 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

LCN 4020 SERIES

MOUNTING DETAILS

TOP JAMB (PUSH SIDE) MOUNTING

MAXIMUM OPENING

Can be templated for

100°,

Ⓐ = 6" (152 mm)

Ⓑ = 12 3/8" (314 mm)

140°,

Ⓐ = 4" (102 mm)

Ⓑ = 10 3/8" (264 mm)

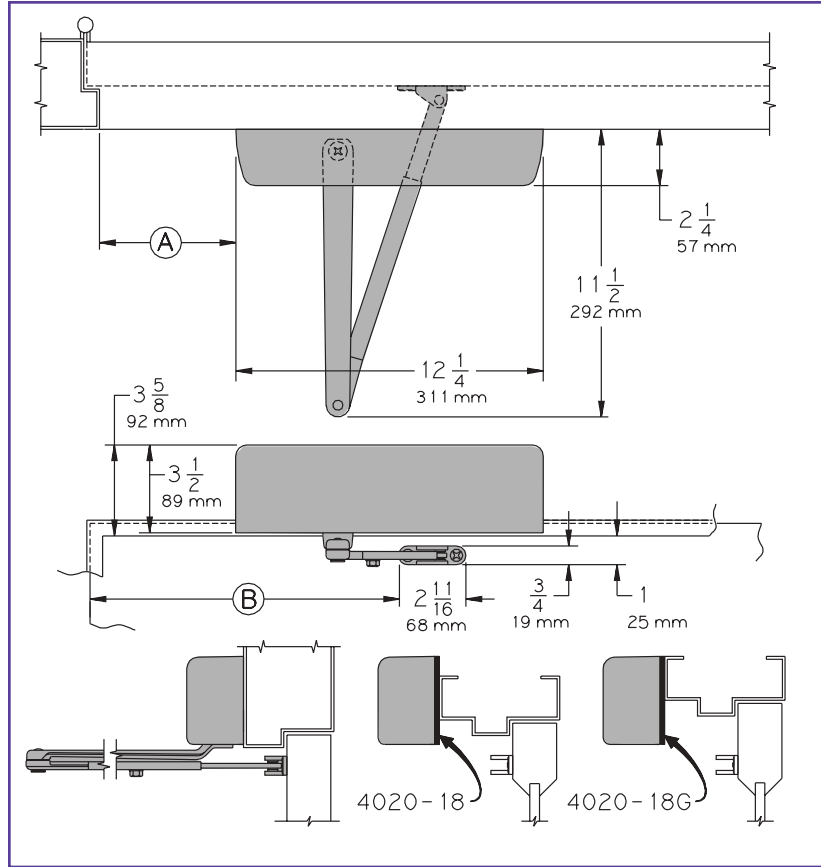
or 180°.

Ⓐ = 2" (51 mm)

Ⓑ = 8 3/8" (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.
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

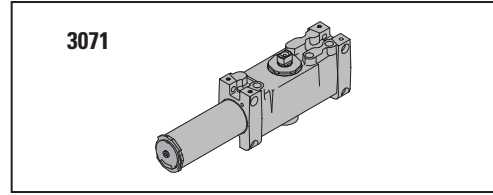
Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.

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

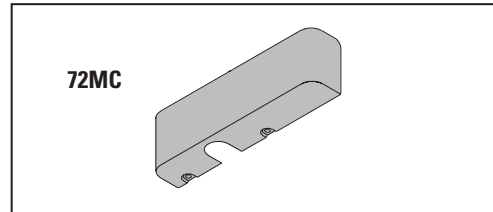
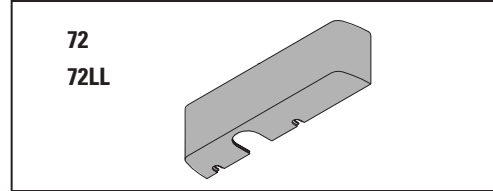
Standard, handed plastic cover.

LEAD LINED COVER, 4020-72LL

Optional handed 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.

HOLD-OPEN ARM, 4020-3049

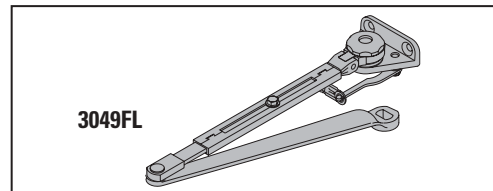
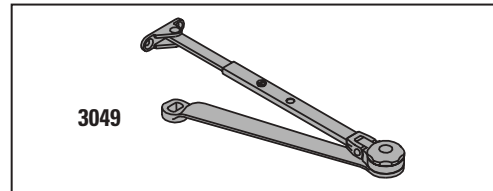
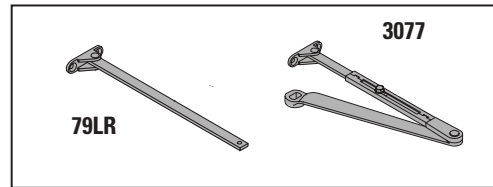
Optional, handed arm provides hold-open function, adjustable at elbow. 5 3/4" (146 mm) maximum reveal, 140° hold open.

FUSIBLE LINK ARM, 4020-3049FL

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

Optional links release at 135° F.

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



INSTALLATION ACCESSORIES

PLATE, 4020-18

Required where head frame is less than 3 7/16" (87 mm).

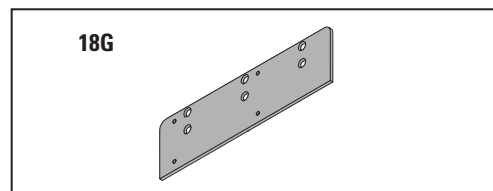
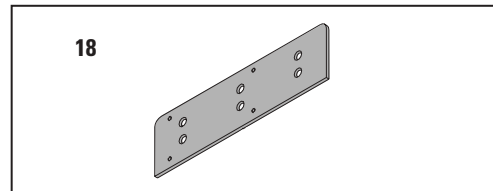
Plate requires minimum 1 3/4" (44 mm) minimum head frame and 2" (51 mm) top rail.

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.

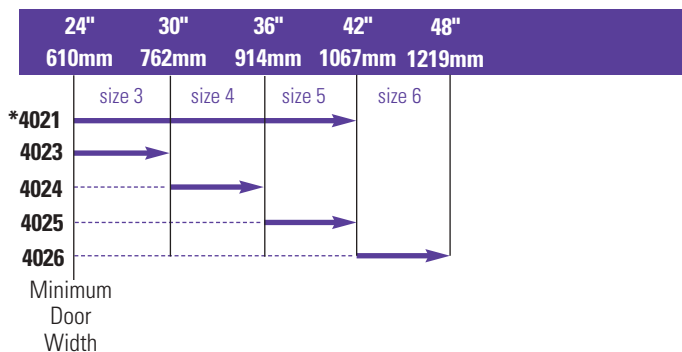


LCN 4020 SERIES

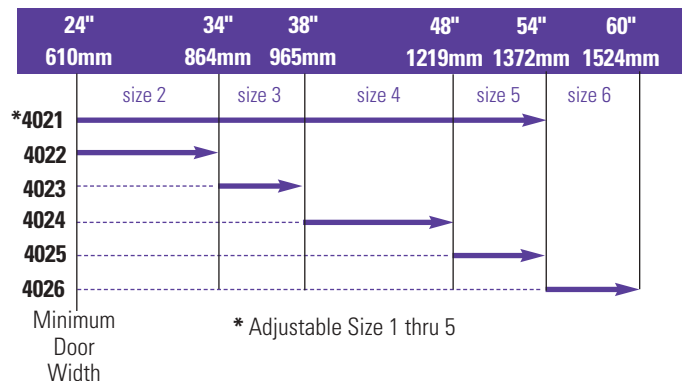
TABLE OF SIZES Select closer based on width of door.
 The spring power of non-sized 4021 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3.
 Sized 4020 series cylinders available in size 2, 3, 4, 5, or 6.
 Closing power of all 4020 Series closers may be increased 50%.
 Specify 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



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"
	8.5* lbs.	4021	4021	4021
	5.0* lbs.	4021	4021	4021

* 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

- RH
- LH

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

- Hold-Open (H)
- Fusible Link, 165° F* (FL)
 * Optional link releases at 135° F.

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, 4020-18G

SPECIAL TEMPLATE

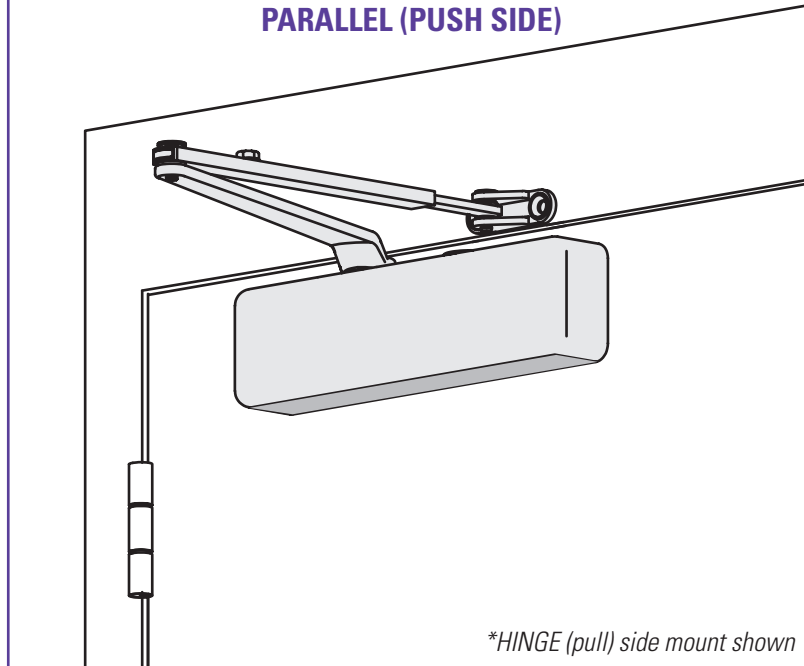
- ST- _____

LCN 4030 SERIES

FEATURES

New Versatile 4031

CLOSER MOUNTS
***HINGE (PULL) SIDE**
TOP JAMB (PUSH SIDE)
PARALLEL (PUSH SIDE)



The 4031 is a cast iron, universal closer designed specifically for doors in moderate traffic conditions. This versatile closer complements the rest of the heavy duty 4000 Series and offers the choice of three mountings and multiple arm options.

- ▶ **Cast Iron**
- ▶ **Forged Steel Main Arm**
- ▶ **Heat Treated Steel Pinion**
- ▶ **All Weather Fluid**
- ▶ **UL & ULC Listed**

- ▶ Standard new 4030 series closer shipped with forged regular arm and wood and 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 cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ The 4030 Series is UL and ULC listed for Self-closing doors without hold-open.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.

MOUNTING					FINISH		COVER		CYLINDER				**ARM FUNCTION								
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH
●	○	●	○	○	●	●	○	●	○	●	●	♿	○	○	180°	○	180°	○	110°	100°	100°

- Available
- Not available

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

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

*** Advanced Variable Backcheck

LCN®

25

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

PHONE 800-526-2400
 FAX 800-248-1460
 www.lcnclosers.com
 11/05

LCN 4030 SERIES

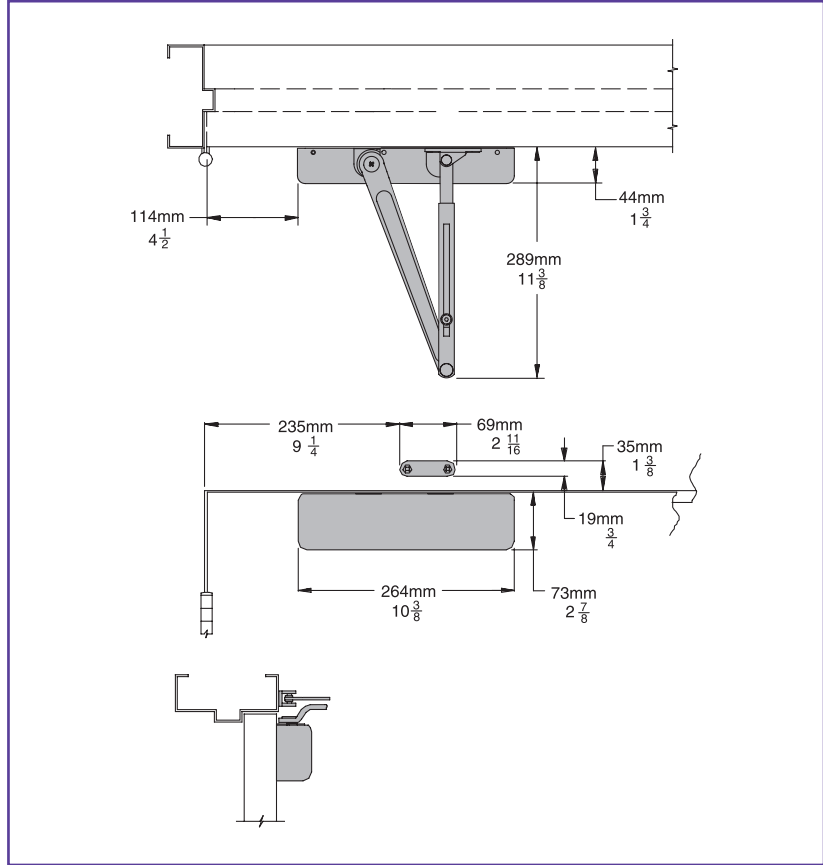
MOUNTING DETAILS

HINGE (PULL) SIDE MOUNTING

MAXIMUM OPENING

Can be templated for 180°.

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



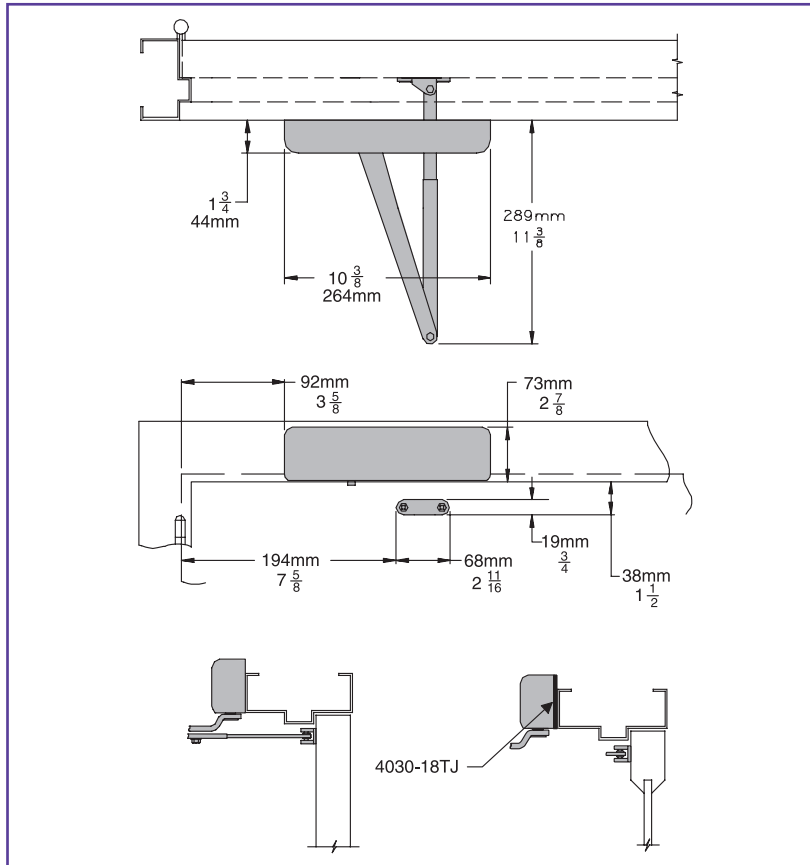
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 180°.
- ▶ **Reveal** should not exceed 3/16" (5 mm) for regular arm or 3/16" (5 mm) for hold-open arm.
- ▶ **Top Rail** requires 2 7/8" (73 mm) minimum.
- ▶ **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

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



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.
- ▶ **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

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

LCN 4030 SERIES

MOUNTING DETAILS

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°.

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 rabbeted 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).

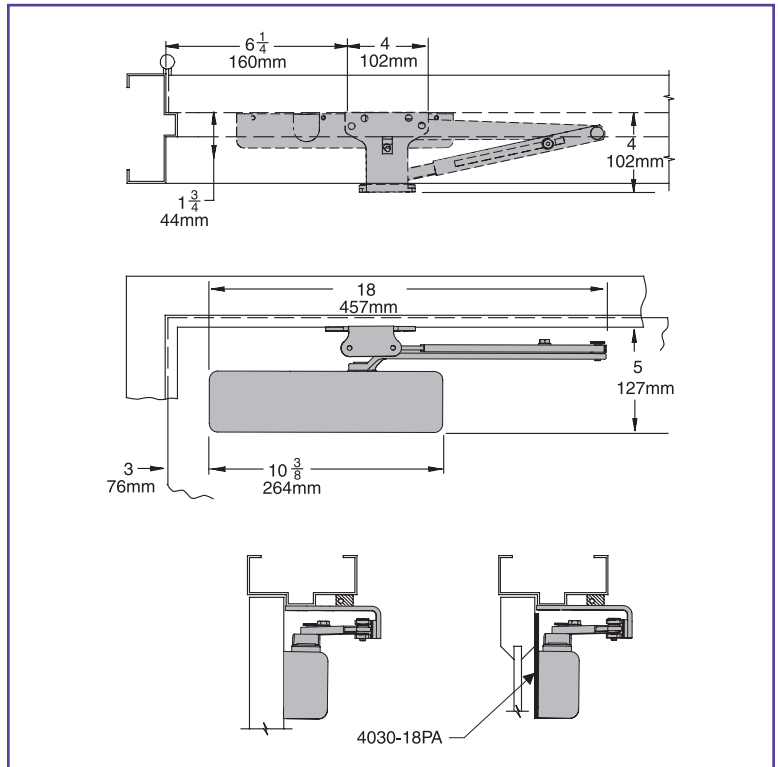
Options

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

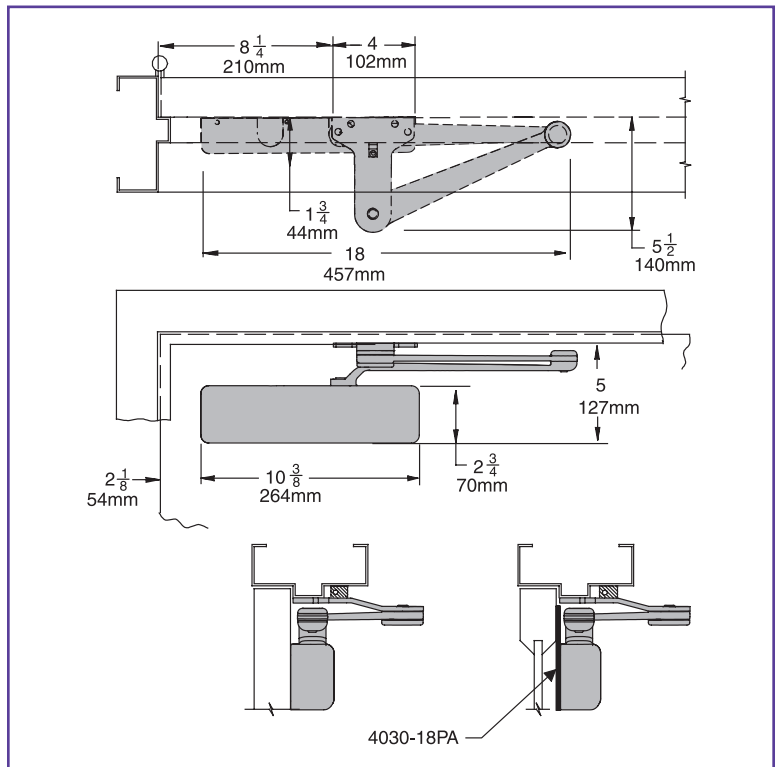
Special Templates

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

4030 PARALLEL ARM MOUNT

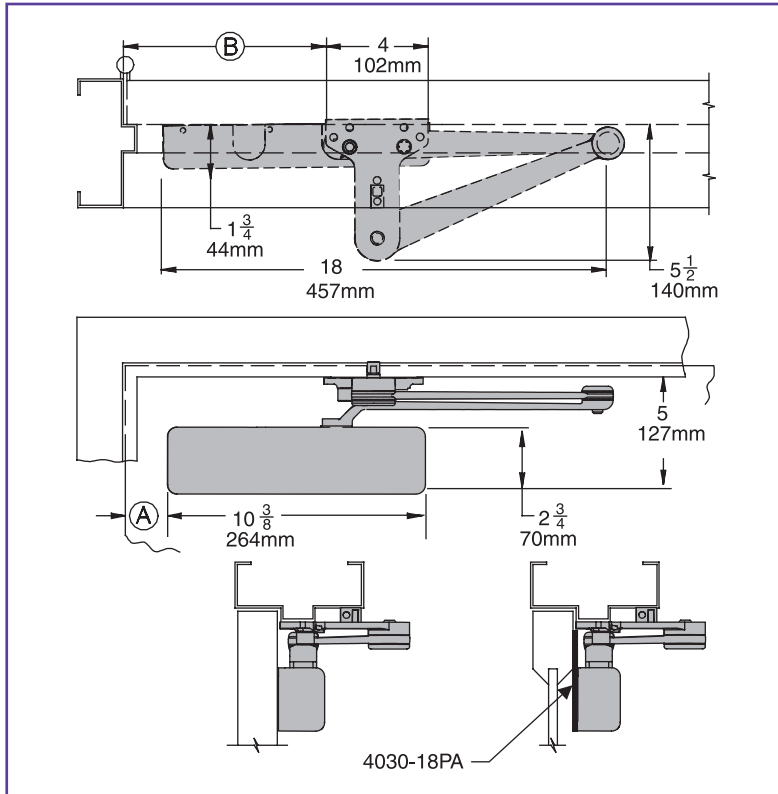


4030 EDA MOUNT



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

4030 CUSH MOUNT



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°,

Ⓐ = 3 5/8" (92 mm)

Ⓑ = 9 3/4" (248 mm)

or 90°,

Ⓐ = 3" (76 mm)

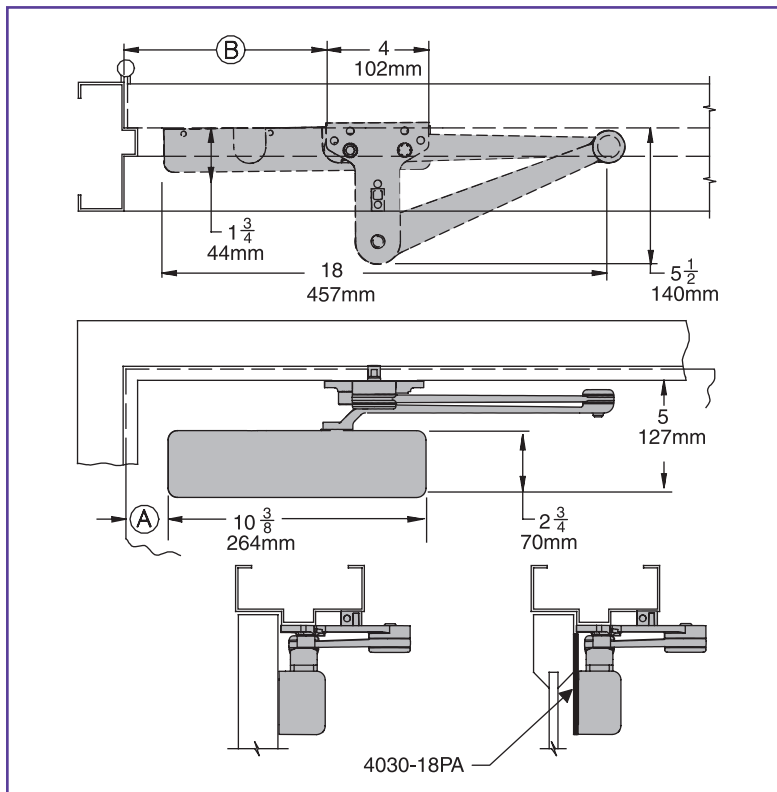
Ⓑ = 9 1/8" (232 mm)

or 100°.

Ⓐ = 1 7/8" (48 mm)

Ⓑ = 8" (203 mm)

4030 SPRING CUSH MOUNT



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 rabbeted requires CUSH FLUSH PANEL ADAPTER, 4030-419.

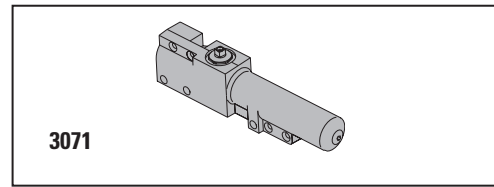
► **CUSH or SPRING CUSH ARM** requires SHOE SUPPORT, 4030-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm).

LCN 4030 SERIES

CYLINDERS

CYLINDER, 4031-3071

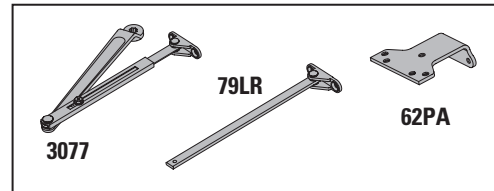
Standard, non-handed cast iron cylinder assembly.



ARMS

REGULAR ARM, 4030-3077

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

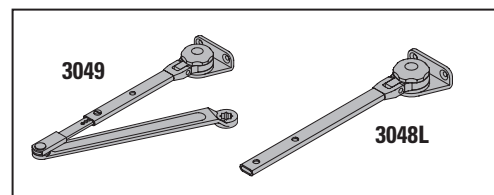


PA SHOE, 4030-62PA

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.

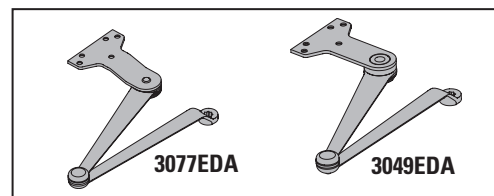


HOLD-OPEN ARM, 4030-3049

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

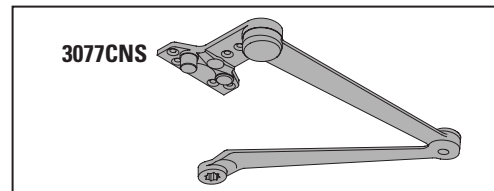
LONG HOLD-OPEN ARM, 4030-3049L

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



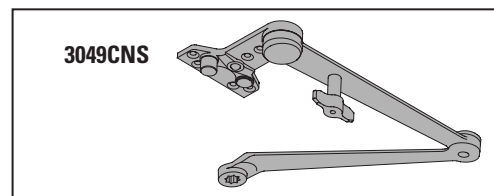
EXTRA DUTY ARM, 4030-3077EDA

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



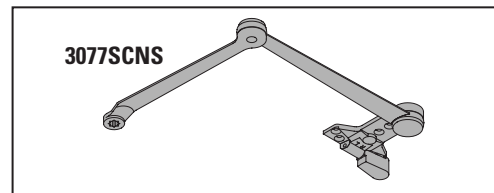
HOLD-OPEN EDA ARM, 4030-3049EDA

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.

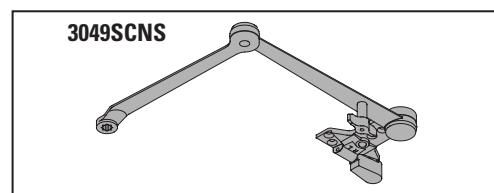


HOLD-OPEN CUSH ARM, 4030-3049CNS

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

SPRING CUSH ARM, 4030-3077SCNS

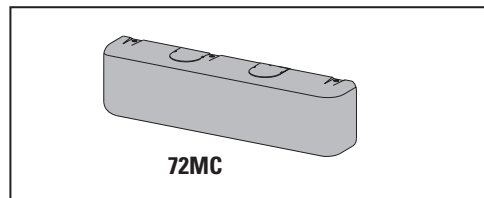
Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe.



COVERS

COVER, 4030-72MC

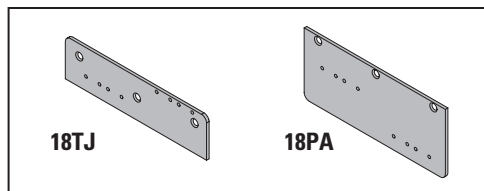
Non-handed metal cover.



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.

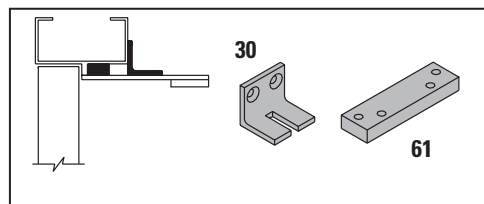


PLATE, 4030-18PA

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).

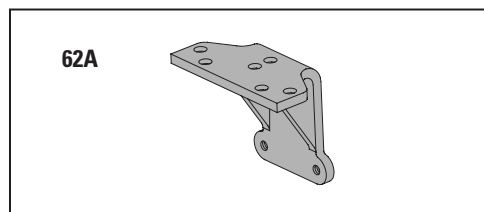


BLADE STOP SPACER, 4030-61

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

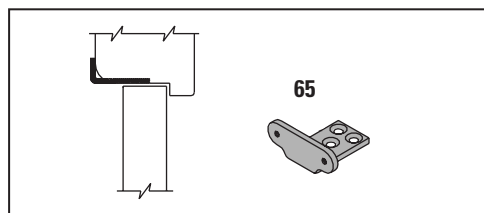
AUXILIARY SHOE, 4030-62A

requires a top rail of 7" (178 mm).
Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop.
Special template required.



SOFFIT SHOE, 4030-65

Adapts hinge side shoe to rounded or bull nose trim.

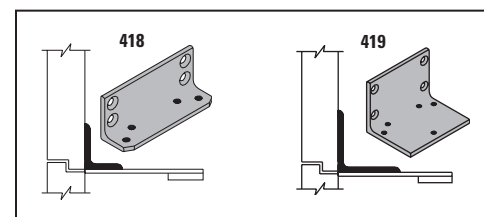


PA SHOE ADAPTER, 4030-418

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

CUSH FLUSH PANEL ADAPTER, 4030-419

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

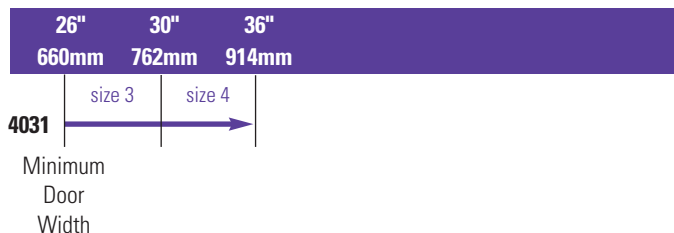


LCN 4030 SERIES

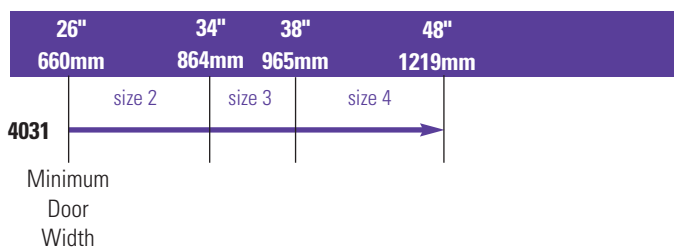
TABLE OF SIZES Non-sized 4031 cylinder is adjustable from sizes 1 to 4 and is shipped set to size 3.

→ Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH




INTERIOR DOOR WIDTH



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"
	8.5* lbs.	4031	4031	4031
	5.0* lbs.	4031	4031	4031

* Maximum opening force

HOW-TO-ORDER 4030 SERIES CLOSERS

1. SELECT FINISH

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

Closer will be shipped with:

- STANDARD CYLINDER,
- STANDARD METAL COVER,
- REGULAR ARM
- Wood and Self-tapping Machine screw pack 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)
 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, 4030-18TJ
 Plate, 4030-18PA
 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

SPECIAL TEMPLATE

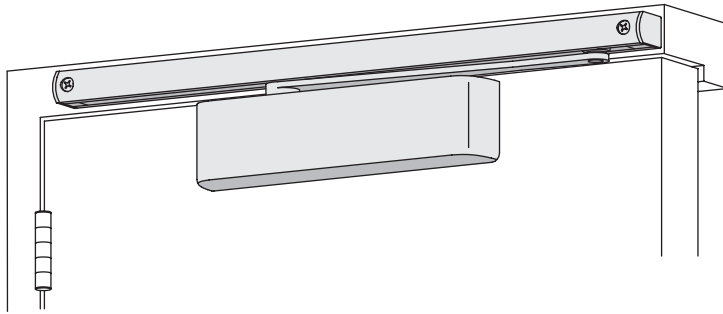
- ST- _____

LCN 4030T SERIES

FEATURES

**New
4031T**

CLOSER MOUNTS
***HINGE (PULL) SIDE**
TOP JAMB (PULL SIDE)
STOP FACE (PUSH SIDE)



**HINGE (pull) side mount shown*

The 4031T is a single lever (track) 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 complements the heavy duty 4000 Series.

- ▶ **Cast Iron**
- ▶ **Heat Treated Steel Pinion**
- ▶ **All Weather Fluid**
- ▶ **UL & ULC Listed**

- ▶ Standard 4031T series closer shipped with a standard arm, metal cover, a standard track and wood and 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 cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ The 4030 Series is UL and ULC listed for Self-closing doors without hold-open.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.

MOUNTING					FINISH		COVER		CYLINDER				**ARM FUNCTION									
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	ED/HEAD	CUSH/H/CUSH	SCUSH/S/CUSH	
●	●	○	○	●	●		○	●	○	●	○	○	○	○	○	○	○	○	○	○	○	○
															180°	180°						

- Available
- Not available

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

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

*** Advanced Variable Backcheck

LCN 4030T SERIES

MOUNTING DETAILS

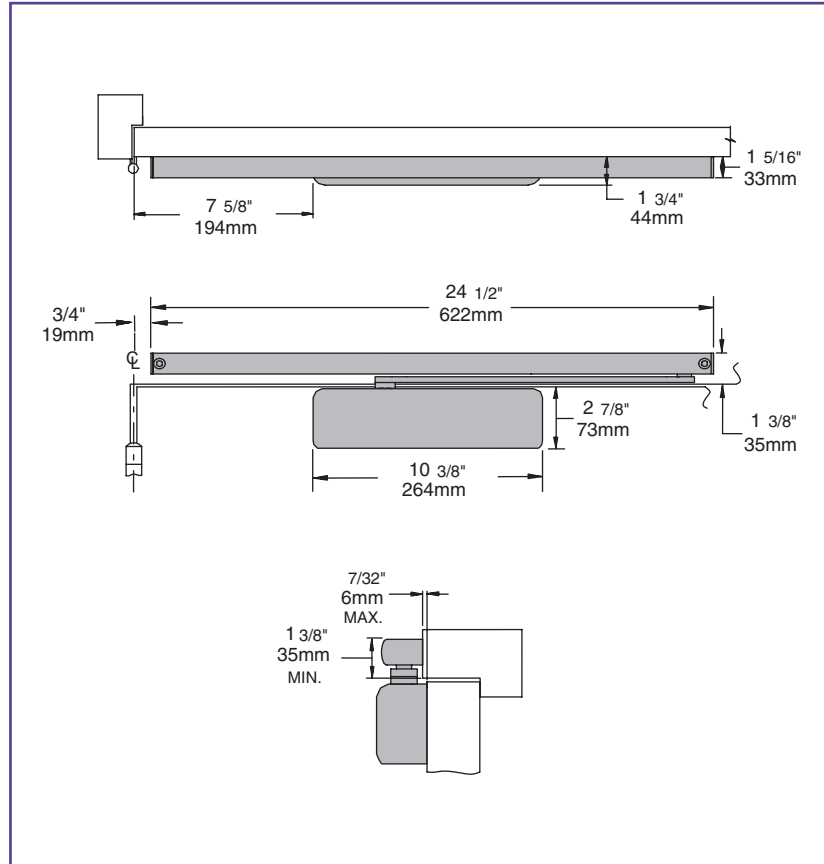
HINGE (PULL) SIDE MOUNTING

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.



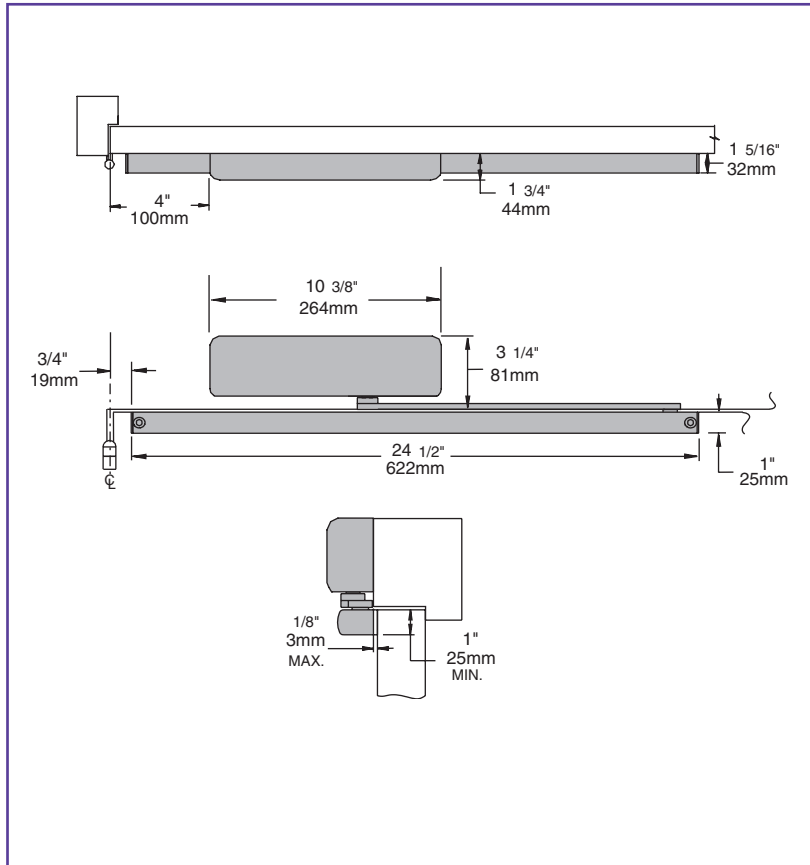
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 180°.
- ▶ **Reveal** should not exceed 7/32" (6 mm).
- ▶ **Top Rail** requires 2 7/8" (73 mm) minimum.
- ▶ **Clearance** of 1 3/4" (44 mm) behind door required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

Options

- ▶ Hold-open track.

Special Templates

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



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

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

LCN 4030T SERIES

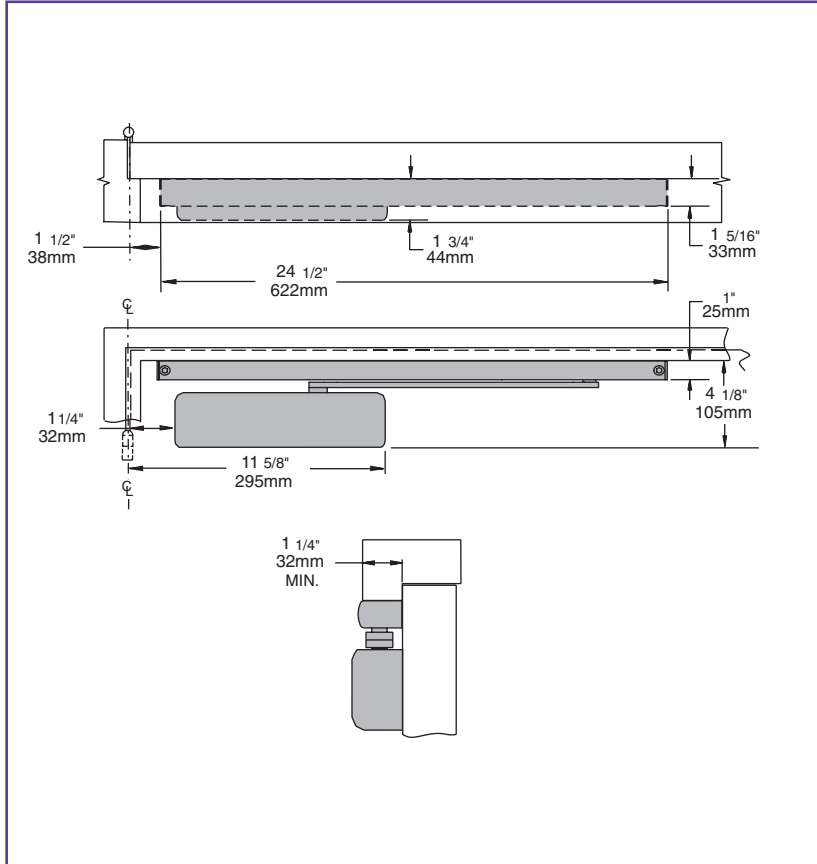
MOUNTING DETAILS

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.

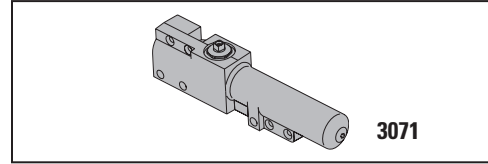
Special Templates

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

CYLINDERS

CYLINDER, 4031T-3071

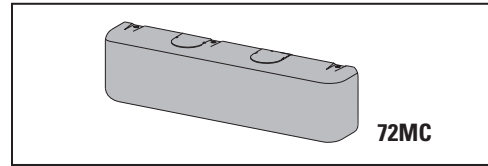
Standard, non-handed cast iron cylinder assembly.



COVERS

COVER, 4030T-72MC

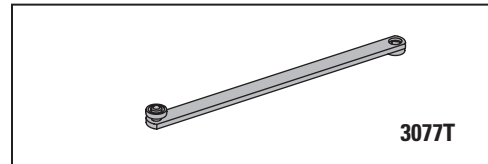
Non-handed metal cover.



ARMS

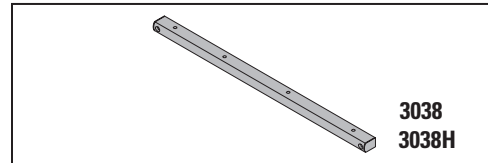
STANDARD ARM, 4030T-3077T

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.

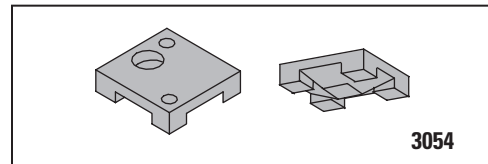


HOLD-OPEN TRACK, 4030T-3038H

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.

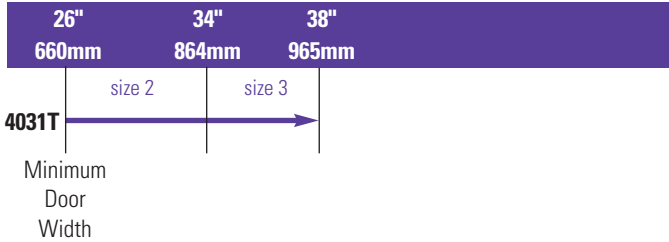


LCN 4030T SERIES

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

→ Indicates recommended range of door width for closer size.

INTERIOR DOOR WIDTH



HOW-TO-ORDER 4030T SERIES CLOSERS

1. SELECT FINISH

- Standard Powder Coat _____
Aluminum, Dark Bronze , Tan, Statuary, 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 _____
- SRI primer


SCREW PACK

- TB*, Wood & Machine Screws (TBWMS)

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.

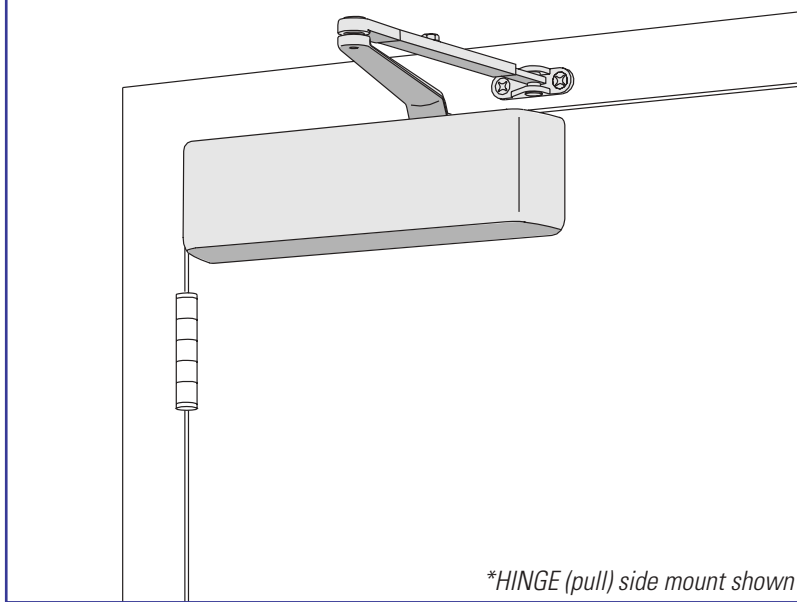
Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4031T	4031T	4031T

* Maximum opening force

LCN 4040 SERIES

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



The 4040 SUPER SMOOTHIE® 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 & ULC Listed**

- ▶ Standard 4040 series closer shipped with regular arm, standard plastic cover, and self reaming and tapping screws. See 4040 Series pages 34 & 35 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 36.
- ▶ 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 ULC listed for self-closing doors without hold-open.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.



MOUNTING					FINISH			COVER			CYLINDER				**ARM FUNCTION						
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	EDA/MEDA	CUSH/HCUSH	SCUSH/SHCUSH
●	○	●	●	○	●	●	●	●	●	●	●	♿	●	○	120°	○	120°	○	180°	110°	110°

● Available
 ○ 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

LCN 4040 SERIES

MOUNTING DETAILS

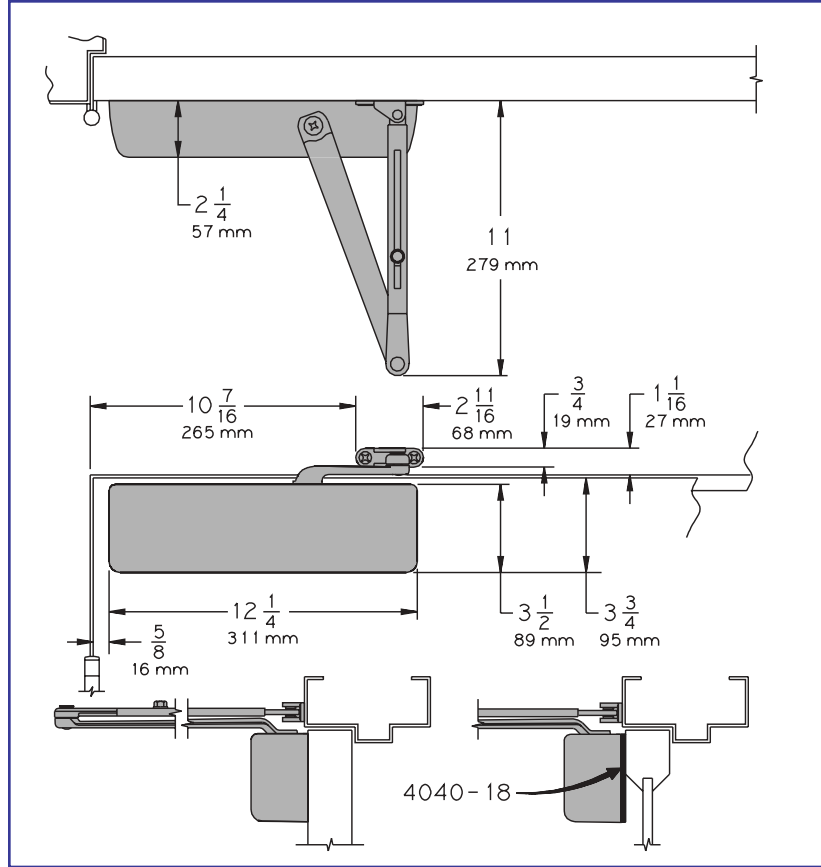
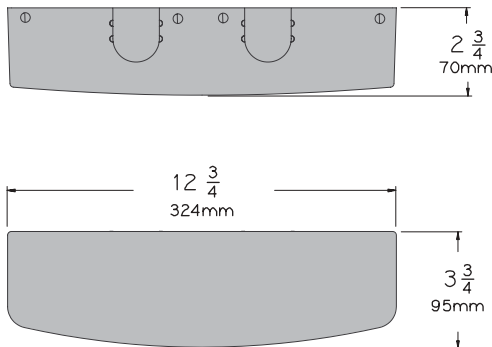
HINGE (PULL) SIDE MOUNTING

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



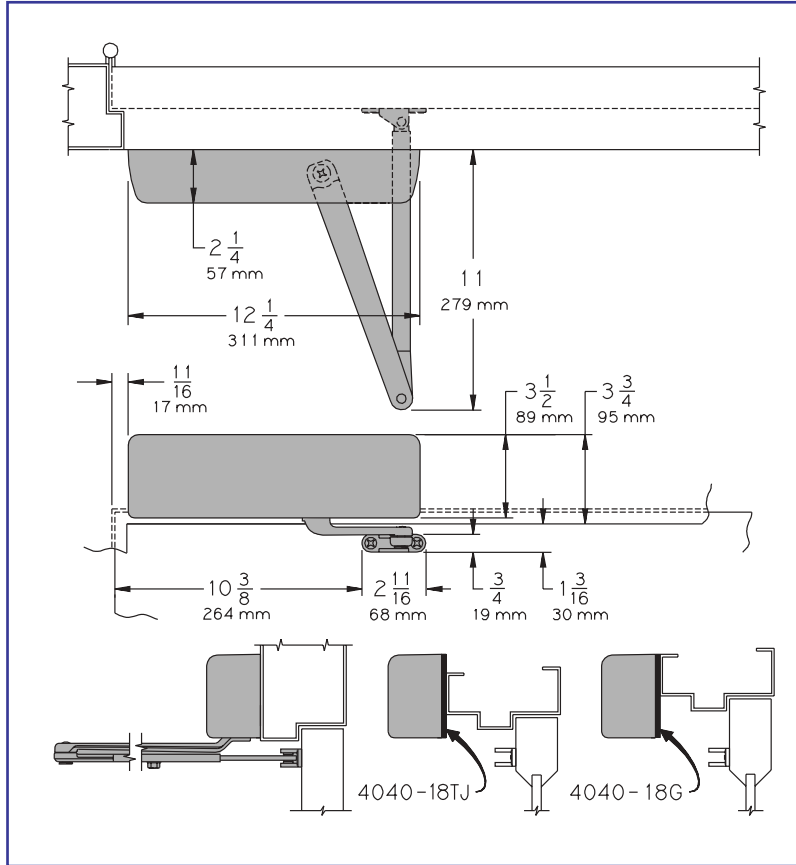
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing beyond 120°.
- ▶ **Reveal** should not exceed 3/4" (19 mm) for regular arm or hold-open arm.
- ▶ **Top Rail** less than 3 3/4" (95 mm) requires PLATE, 4040-18. 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** 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

- ▶ 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.



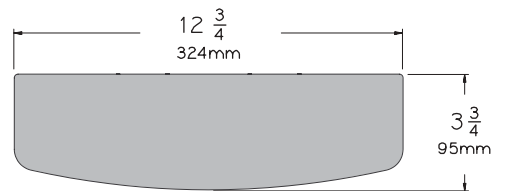
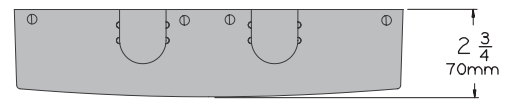
TOP JAMB (PUSH SIDE) MOUNTING

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** Add suffix "DEL" to selected cylinder (eg. 4041 DEL). Delays closing from 120° to 80°. Delay time adjustable up to approximately 1 minute.

Options

- ▶ Delayed action cylinder.
- ▶ Long arm, extra long arm, hold-open 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.

LCN 4040 SERIES

MOUNTING DETAILS

PARALLEL ARM (PUSH SIDE) MOUNTING

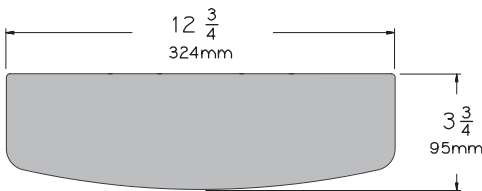
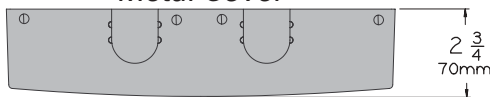
Optional mounting requires PA SHOE, 4040-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (eg. P4041). P4041 closer includes 4040-201 FIFTH HOLE SPACER to support PA SHOE.

MAXIMUM OPENING

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

110° opening/hold-open with CUSH arms.

Optional, Non-handed Designer Series Metal Cover

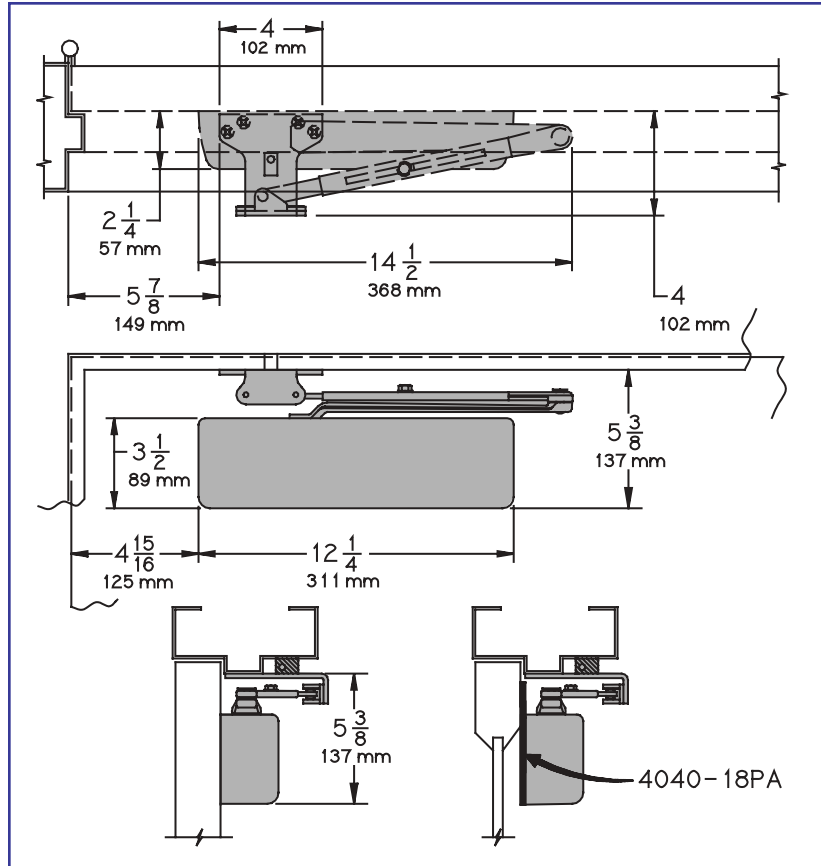


Options

- ▶ Delayed 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.

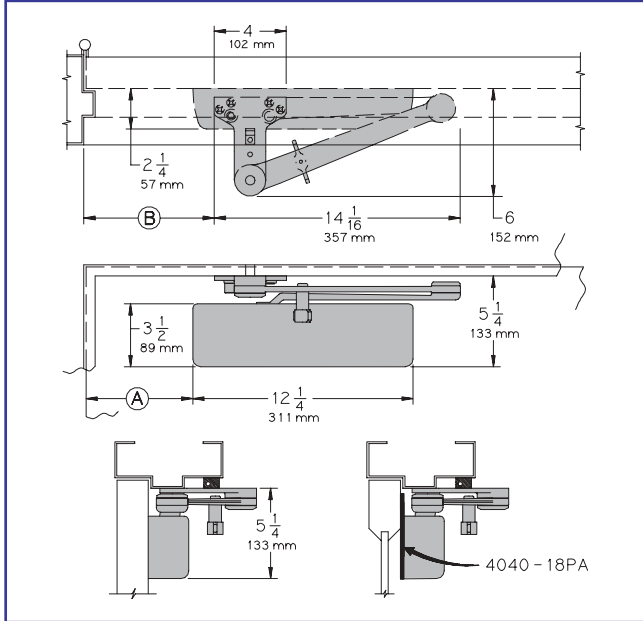


4040 REGULAR or HOLD-OPEN MOUNT

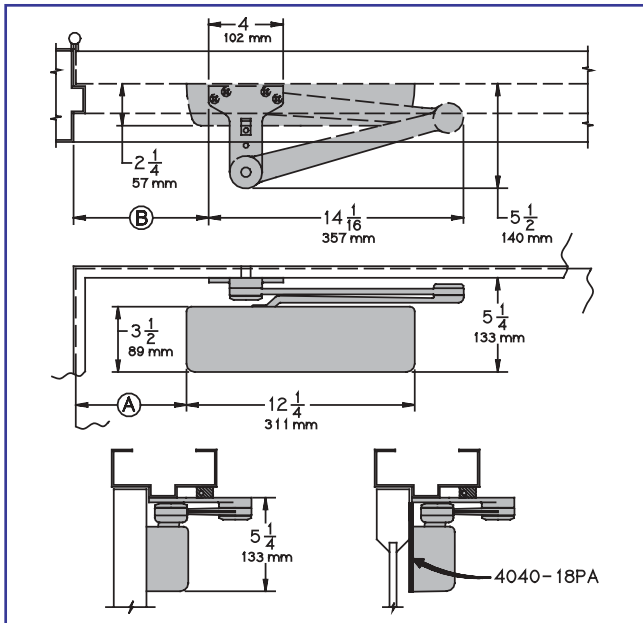
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point, where the door cannot swing 180°, or where CUSH-N-STOP arm is not used.
- ▶ **Clearance** for 4040-62PA shoe is 4" (102 mm) from door face. EDA shoe projects 5 1/2" (140 mm) from door 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 rabbeted requires PA SHOE ADAPTER, 4040-418.
- ▶ **Stop Width** minimum 1" (25 mm). CUSH arm requires minimum 1 1/2" (38 mm).
- ▶ **Blade Stop** clearance requires 1/2" (13mm) BLADE STOP SPACER, 4040-61.
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. P4041 DEL). Delays time adjustable up to approximately 1 minute.

LCN 4040 SERIES

4040 EDA MOUNT



4040 CUSH MOUNT



- ▶ **Clearance** for 4040-62EDA is 5 1/2" (140 mm) from door face. 6" (152 mm) for CUSH.
- ▶ **Head Frame** flush or rabbeted requires CUSH FLUSH PANEL ADAPTER, 4040-419.
- ▶ **CUSH ARM** requires SHOE SUPPORT, 4040-30 for fifth screw anchorage for narrow frames.
- ▶ **Delayed Action** 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 one minute.

Mounting details are the same as 4040 REGULAR or HOLD-OPEN except as listed below. 4040 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°,

Ⓐ = 6 3/8" (162 mm)

Ⓑ = 7 3/4" (197 mm)

or 180°.

Ⓐ = 2 7/8" (73 mm)

Ⓑ = 4 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°,

Ⓐ = 7 15/16" (202 mm)

Ⓑ = 9 1/8" (232 mm)

90°,

Ⓐ = 7 3/16" (183 mm)

Ⓑ = 8 1/2" (216 mm)

100°,

Ⓐ = 6 1/16" (154 mm)

Ⓑ = 7 1/4" (184 mm)

or 110°.

Ⓐ = 5 1/16" (129 mm)

Ⓑ = 6 3/8" (162 mm)

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

LCN 4040 SERIES

CYLINDERS

CYLINDER, 4041-3071

Standard, non-handed cast iron cylinder assembly.

COVERS

COVER, 4040-72

Standard, non-handed plastic 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 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

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

Optional THICK HUB SHOE, 4040-62G for blade stop clearance.

Optional FLUSH TRANSOM SHOE, 4040-145 for single rabbeted installations. Optional shoes require special templating.

HOLD-OPEN EXTRA DUTY ARM, 4040-3049EDA

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

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

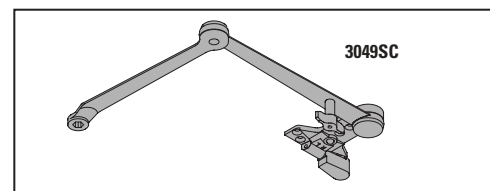
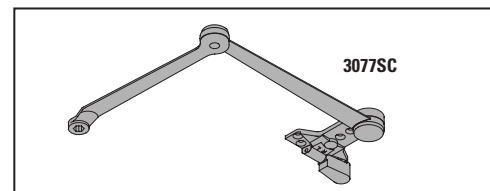
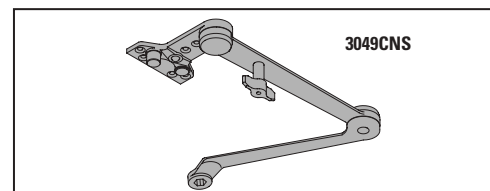
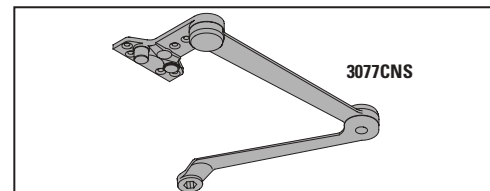
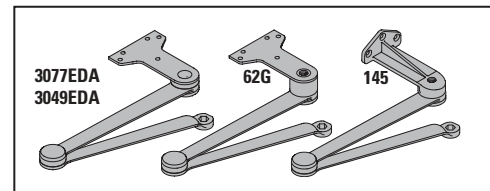
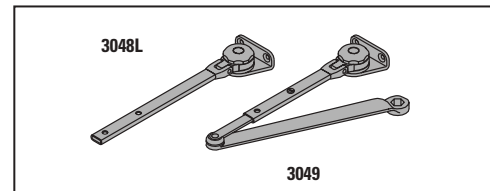
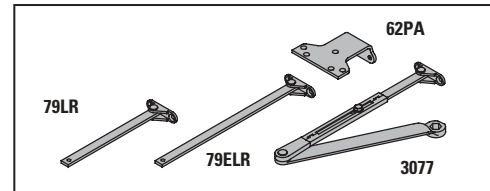
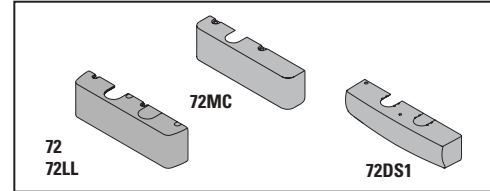
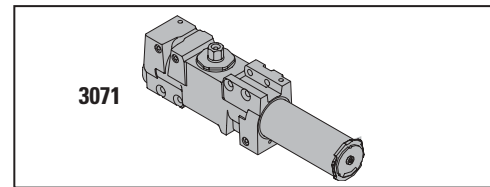
Provides hold-open function with templated stop/hold-open points. Handle controls hold-open function.

SPRING CUSH ARM, 4040-3077SC

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, 4040-3049SC

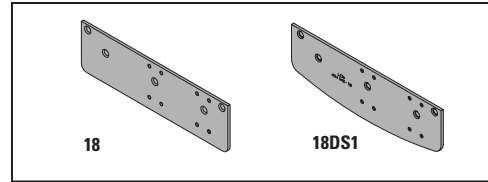
Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Handle controls hold-open function.



INSTALLATION ACCESSORIES

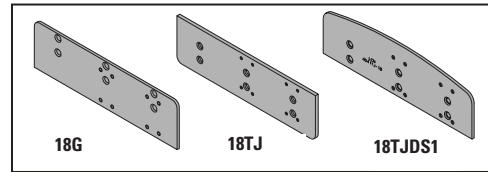
PLATE, 4040-18/4040-18DS1

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



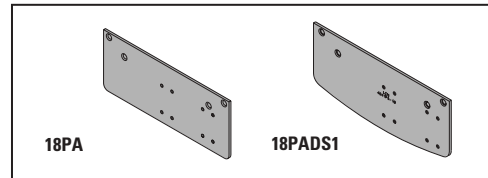
PLATE, 4040-18G

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.



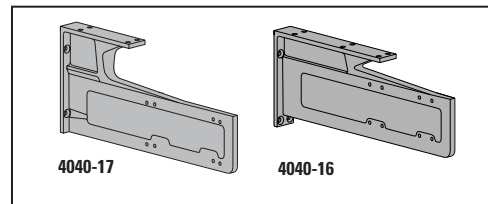
PLATE, 4040-18TJ/4040-18TJDS1

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

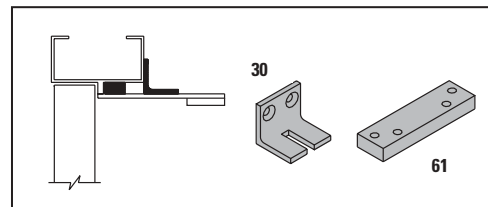


CORNER BRACKET, 4040-17

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

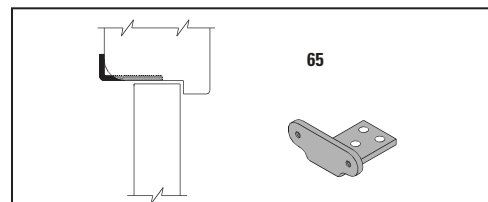
CORNER BRACKET, 4040-16

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).

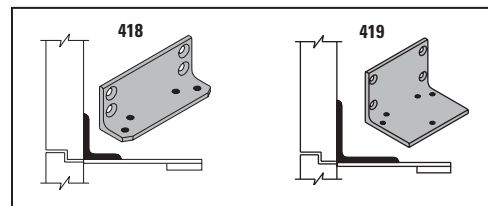
BLADE STOP SPACER, 4040-61 required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop.



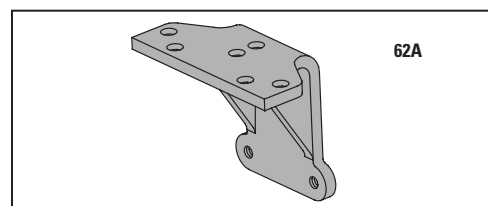
SOFFIT SHOE, 4040-65 adapts hinge side shoe to rounded or bull nose trim.

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

CUSH FLUSH PANEL ADAPTER, 4040-419 provides horizontal mounting surface for CUSH shoe on single rabbetted 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. Special template required.



LCN 4040 SERIES

TABLE OF SIZES

4041 cylinder is 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

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
	size 3	size 4	size 5	size 6	
*4041	→				
Minimum Door Width					


INTERIOR DOOR WIDTH

	24" 610mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm	60" 1524mm
	size 2	size 3	size 4	size 5	size 6	
*4041	→					
Minimum Door Width	* Adjustable Size 1 thru 6					

REDUCED OPENING FORCE 4040 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"
	8.5* lbs.	4041	4041	4041
	5.0* lbs.	4041	4041	4041

* Maximum opening force

HOW-TO-ORDER 4040 SERIES CLOSERS

1. 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 (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 -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)
- 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, 4040-61
- Soffit Shoe, 4040-65
- PA Shoe Adapter, 4040-418
- CUSH Flush Panel Adapter, 4040-419

SPECIAL TEMPLATE

- ST- _____

The LCN logo is displayed in a bold, white, sans-serif font. A registered trademark symbol (®) is positioned to the upper right of the 'N'. The background of the entire page is a close-up photograph of a door closer mechanism, showing a metal arm and a mounting bracket attached to a wooden door frame. The lighting is dramatic, with a blue and purple gradient on the left side and a warm, orange-brown glow on the right side.

LCN®

4040 Snap-on Cover™

Introducing the easy-to-install cover that won't leave you exposed.

Closers without covers are at risk for vandalism, unauthorized adjustment, and compromised performance and security. They're also not very nice to look at. The new 4040 Snap-on Cover will help keep your building looking its best, while protecting your closers from damage and reduced performance. And you can install it in a snap.

The logo for Ingersoll Rand Security Technologies. It features a stylized 'IR' monogram in white, enclosed within a white circular swoosh. To the right of the monogram, the words 'Ingersoll Rand' are written in a bold, white, sans-serif font, and 'Security Technologies' is written below it in a smaller, white, sans-serif font.

IR Ingersoll Rand
Security Technologies



Closers without covers expose you to security risk and compromised performance (left). The new 4040 Snap-on Cover goes on quickly and stays in place securely (right).

We've got you covered.

The new 4040 Snap-on Cover is designed for use with LCN's most popular closer. It snaps on quickly and easily, yet stays securely in place so your closer can look and perform at its best.

Available in all standard LCN finishes

Seamless construction ensures lasting durability

Snap bracket ensures quick, easy installation (patent pending)

Sleek design for use with LCN's most popular closer

No screws required

Snap bracket is non-handed for universal flexibility

The LCN 4040 Snap-on Cover makes your job easier.

Keeping your building looking its best, while also managing safety and security is no small feat. The LCN 4040 Snap-on Cover makes it easier than ever with a sleek, smart design that gets the job done. Fast.

Find out more at www.lcn.ingersollrand.com



4040 XP

ISN'T IT BEAUTIFUL?



We know what you're thinking. It's just a door closer. Well, pardon us, but you're mistaken.

It's the new 4040 XP from LCN®. You see, we took the original 4040, a work of art in its own right, and we made it better. That's right. We took something amazing and made it even, well, amazing. So much more amazing that we had to stick two more letters after it: X and P, as in eXtra Protection.

Yes, my friend, this is the captain of door closers.

With bigger, more robust pinions and bearings, stronger teeth, advanced V-Shield™ sealing technology and a lovely cover, the 4040 XP is as much a masterpiece as it is the roughest, toughest door closer ever designed.

THE XP IN 4040 XP



- Strongest Pinion Ever - At 3/4", It's The Super Hero Of Pinions
- Taller Bearings - 5/8", Real Muscle Against Forced Openings And Closings
- An Overall 44% Increase In Maximum Load Capacity
- Tougher Teeth - Fight Wear And Tear
- V-Shield Seal With 20% Longer Life
- Better Wear Resistance From Sagging Doors And Warped Frames
- XP = eXtra Protection In Real-World Applications

REAL-WORLD QUALITY STANDARDS

The LCN 4040 XP surpassed every test ANSI could think of, so we came up with a few real-world tests of our own.



AWESOME



NOT SO AWESOME

- Backcheck Impact Abuse Test
- Pinion Gear Destructive Test
- Max Force Spring Cycle Test
- Seal Life Cycle Test

So what was the score? The LCN 4040 XP performed better than our industry-standard 4040 closer on every test. And we're not surprised. After all, we designed it to be perfect. So you'll get more than your fair share of real-world, aggressive, heavy-duty cycles out of this closer (and just so you know, fair share means 10 million).

4040 XP AT A GLANCE

- Powder-Coated Finish
- Standard Heavy-Duty EDA Forged Steel Arm
- All-Weather Fluid Reduces Seasonal Adjustments
- Optional SRI Finish For Corrosive Conditions
- Meets ADA Requirements
- Same Hole Pattern As Standard 4040
- Easy-To-Install Peel-And-Stick Template



PUT THIS ON YOUR DOOR AND CLOSE IT

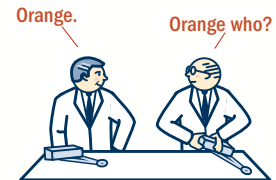
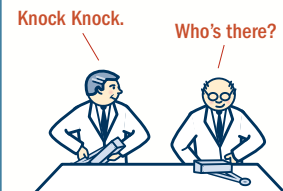
	Sargent 281	Norton 7500	LCN 4040	LCN 4040 XP	XP vs. The Competition
Bearing Type	Full Complement	Caged	Full Complement	Full Complement	33% More Surface Area vs. Caged
Bearing Diameter	13/16"	13/16"	7/8"	1"	23% Bigger
Bearing Length	7/16"	15/32"	1/2"	5/8"	33-43% Longer
Bearing Journal Diameter	5/8"	5/8"	11/16"	3/4"	20% Larger
Seal Type	Buna N	Buna N	Buna N	Advanced V-Shield	20% More Wear

REAL-WORLD APPLICATIONS

The LCN 4040 XP was designed to provide extra protection for doorways that suffer from heavy use and abuse – perimeters and hallways in schools, hospitals and sports arenas, just to name a few. It's perfect for both indoor and outdoor applications, even in extreme situations such as harsh weather or teenagers.



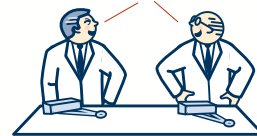
DOOR CONTROL HUMOR



Orange you glad you've got an LCN 4040 XP!



Ha ha ha ha ha ha ha ha!

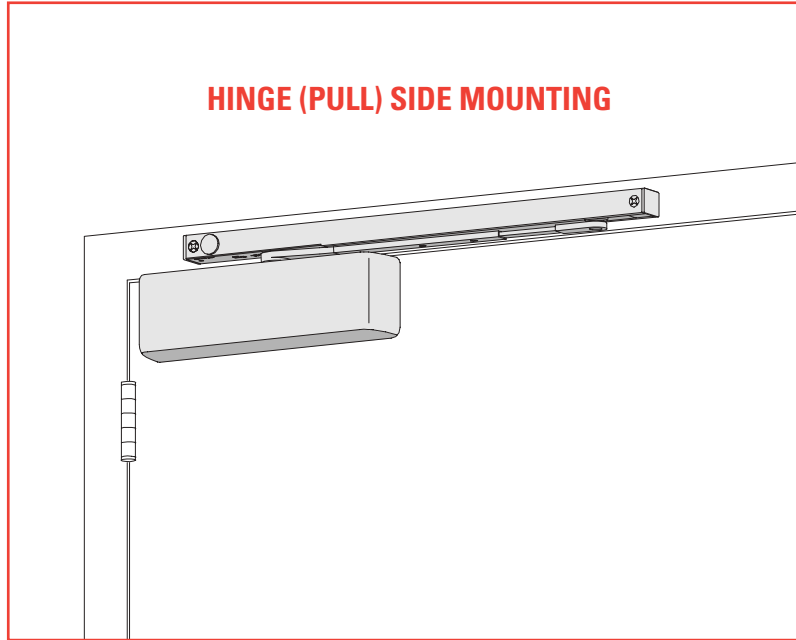


LCN

121 West Railroad Ave.
P.O. Box 100
Princeton IL 61356-0100

ph: 800.526.2400
fax: 800.248.1460

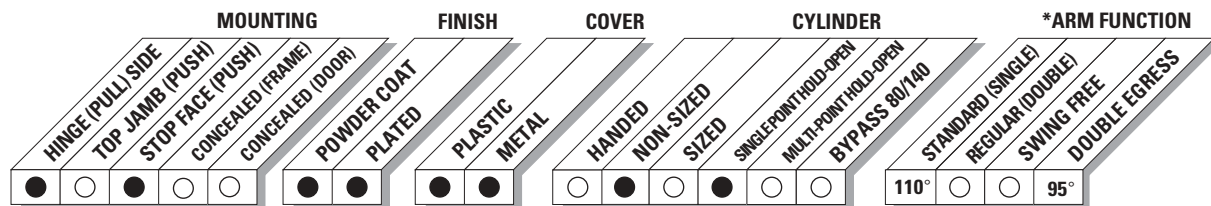
www.lcn.ingersollrand.com



The 4040SE SENTRONIC® is a heavy duty, non-handed, non-sized closer/holder designed to provide single point hold-open for fire and smoke barrier doors. The door is held open until current interruption releases the holding mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, track functions, and installation accessories meet virtually all life safety requirements.

- ▶ Standard 4040SE series closer shipped with a standard arm, 24V or 120V (please specify) SE track, standard cover, and wood and machine screw pack. SEL tracks are optional, see 4040SE Series pages 14 & 15 for options.
- ▶ Non-sized cylinders for interior doors to 4'0".
- ▶ Hold-open force is adjustable.
- ▶ Momentary on/off switch board assembly for testing door release also provides over-voltage protection. Field replaceable.
- ▶ Functions as a full rack and pinion closer when hold-open is not engaged or current is interrupted.
- ▶ Closer mounts on either push or pull side of the door.
- ▶ Non-handed for mounting on either right or left hand door.
- ▶ Concealed or surface wiring.
- ▶ Interfaces with alarm systems. Consult factory for full details.
- ▶ Standard or optional custom powder coated finishes on cover and arm.
- ▶ Optional plated finishes.

The 4040SE and SEL Series is UL listed for smoke barrier or labeled fire doors. ULC listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.



● Available
○ Not available

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

LCN 4040SE SERIES

MOUNTING DETAILS

HINGE (PULL) SIDE MOUNTING

Information applies to 4040 SE unless otherwise specified.

MAXIMUM OPENING

Templating allows 110°.

Hold-open points between 85° and 110° in approximately 3° increments.

Pull side mounting on a double egress frame requires a handed double egress arm.

Maximum hold-open to 95°.

2 11/16" (67 mm) maximum reveal on pull side.

SEL track provides hold-open points between 90° and 120°, in approximately 3° increments.

SE, SEL ELECTRICAL OPTIONS

These track assemblies require a single power circuit for the holding solenoid.

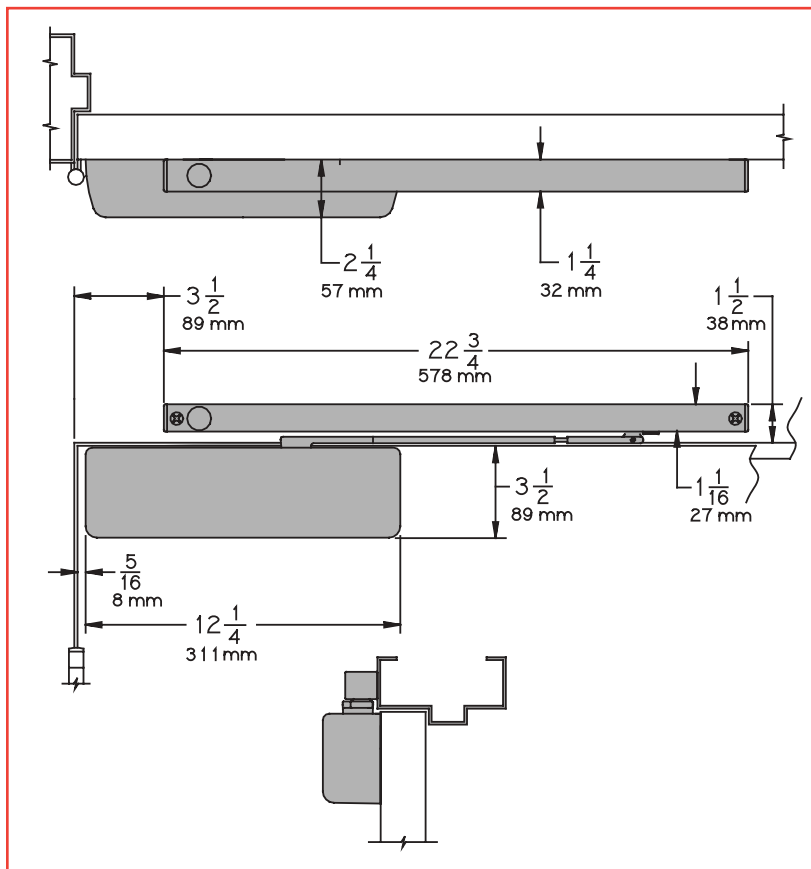
SE or SEL holding solenoid is either 24V or 120V input, please specify. An optional 4040SE-3210 TRANSFORMER reduces 120V AC line voltage to 24V AC. Circuitry accepts either AC or DC input.

Options

- ▶ Long (SEL) track.
- ▶ Handed double egress arm for reveal under 2 11/16" (67 mm).
- ▶ Metal or Lead Lined cover.
- ▶ 24V or 120V input for SE or SEL, please specify.

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.
- ▶ **Swing Clear Hinges** consult factory.
- ▶ **Auxiliary Stop** is recommended at hold-open point.
- ▶ **Reveal** should not exceed 1/8" (3 mm) for standard arm. Should not exceed 2 11/16" (68 mm) for double egress arm.
- ▶ **Top Rail** minimum 3 1/2" (89 mm). Installation with PLATE, 4040SE-18 requires SPECIAL TEMPLATE and 1 3/4" (44 mm) minimum top rail.
- ▶ **Head Frame** requires 2" (51 mm) minimum.
- ▶ **Flush Ceiling** with 2" (51 mm) head frame does not require special templating.
- ▶ **Door Width** 2'4" (711 mm) minimum for single door with SE. 4'8" (1422 mm) minimum for paired doors with SE.
- ▶ **Clearance** of 2 3/8" (60 mm) behind door required for 90° installation.
- ▶ **Wiring Diagram** See "FIRE/LIFE SAFETY" section page 13 for typical wiring and electrical diagram.

LCN 4040SE SERIES

STOP FACE (PUSH SIDE) MOUNTING

Information applies to 4040 SE closers unless otherwise specified.

MAXIMUM OPENING

Templating allows 110°.

Hold-open points between 85° and 110° in approximately 3° increments.

SEL track provides hold-open points between 90° and 120°, in approximately 3° increments.

SE, SEL ELECTRICAL OPTIONS

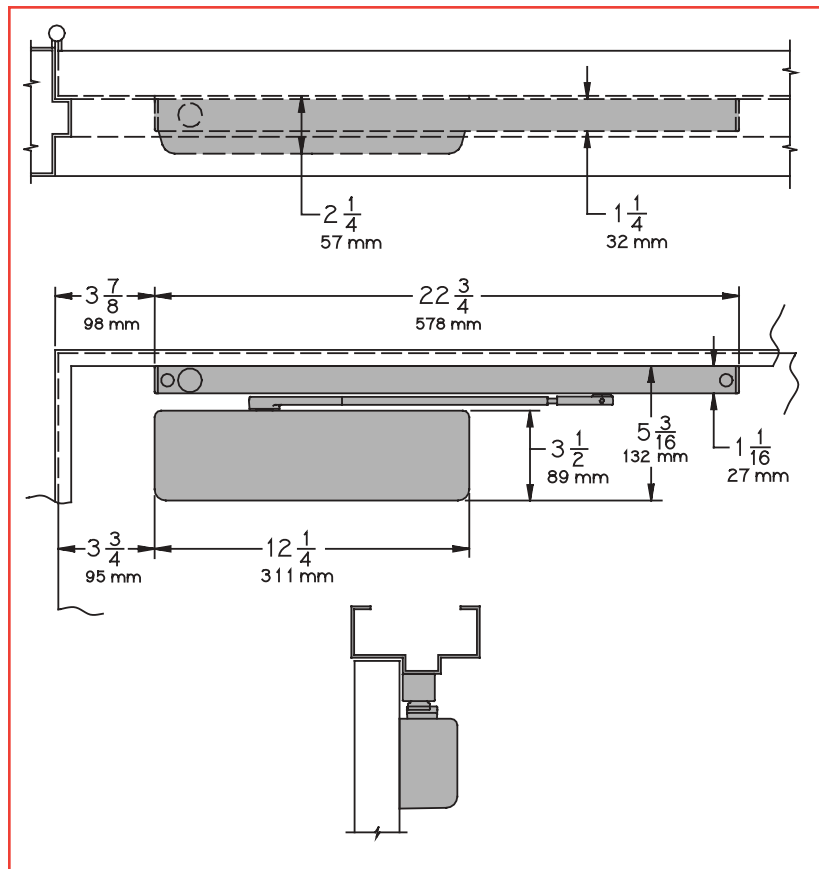
These track assemblies require a single power circuit for the holding solenoid.

SE or SEL holding solenoid is either 24V or 120V input, please specify.

An optional 4040SE-3210

TRANSFORMER reduces 120V AC line voltage to 24V AC.

Circuitry accepts either AC or DC input.



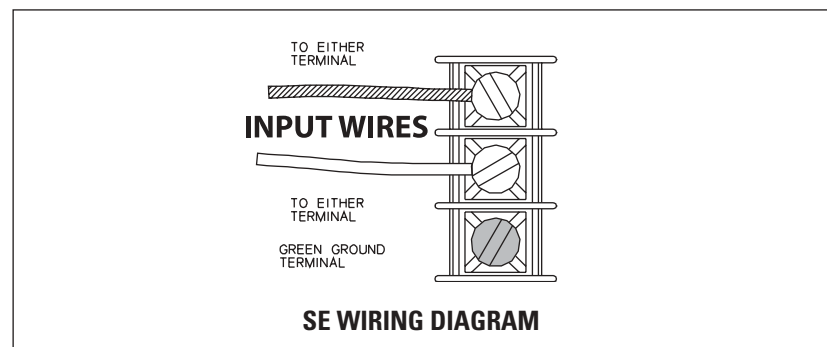
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point.
- ▶ **Top Rail** minimum 5 3/4" (146 mm). Installation with PLATE, 4040SE-18PA requires SPECIAL TEMPLATE and 2" (51 mm) minimum top rail.
- ▶ **Stop Width** 1 1/4" (32 mm) minimum.
- ▶ **Door Width** 2'4" (711 mm) minimum for single door with SE. 4'8" (1422 mm) minimum for paired doors with SE.
- ▶ **Wiring Diagram**

Options

- ▶ Long (SEL) track.
- ▶ Metal or lead lined cover.
- ▶ 24V or 120V input for SE or SEL, please specify.

Special Templates

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

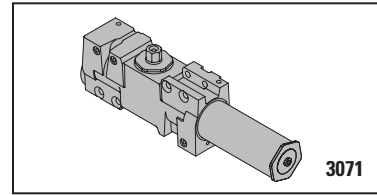


LCN 4040SE SERIES

CYLINDER

CYLINDER, 4040SE-3071

Standard, handed cast iron cylinder assembly.

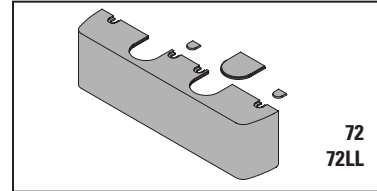


3071

COVERS

COVER, 4040SE-72

Standard, non-handed plastic cover.

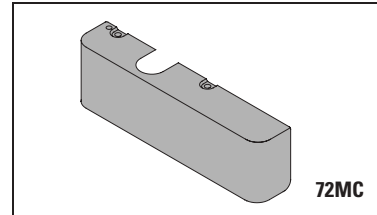
72
72LL

LEAD LINED COVER, 4040SE-72LL

Optional, non-handed cover.

METAL COVER, 4040SE-72MC

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

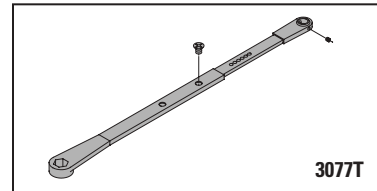


72MC

ARMS

STANDARD ARM, 4040SE-3077T

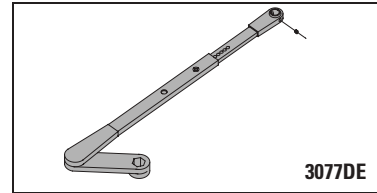
Non-handed arm, adjustable to select hold-open point.



3077T

DOUBLE EGRESS ARM, 4040SE-3077DE

Optional, handed arm for pull side installations on double egress doors and frames. Not required for push side mounting on double egress frames.

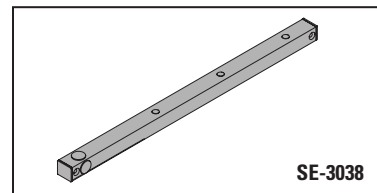


3077DE

TRACKS

SE TRACK, 4040SE-3038

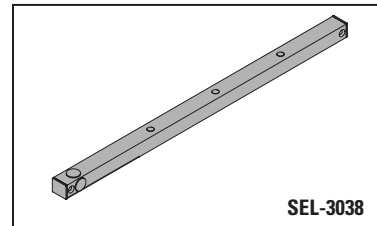
Standard, non-handed track for SE closers. Mounts on either head frame or stop. 24V or 120V AC/DC input for holding solenoid, please specify. Includes test switch assembly with fuse.



SE-3038

SEL TRACK, 4040SEL-3038

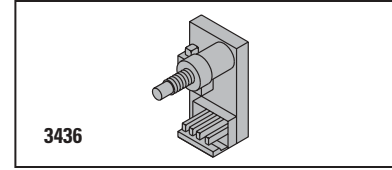
Optional, non-handed long track mounts on either head frame or stop. 24V or 120V AC/DC input standard for holding solenoid, please specify. Includes test switch assembly with fuse.



SEL-3038

SWITCH

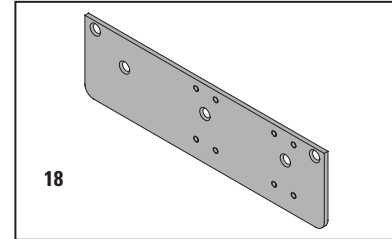
TEST SWITCH, 4040SE-3436



INSTALLATION ACCESSORIES

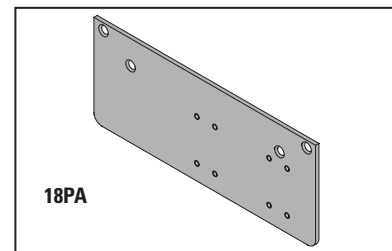
PLATE, 4040SE-18

Required where top rail is less than 3 1/2" (89 mm).
Plate requires minimum 2" (51 mm) top rail.
Plate installations require a SPECIAL TEMPLATE.



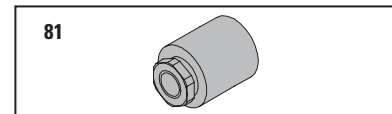
PLATE, 4040SE-18PA

Required where top rail is less than 5 3/4" (146 mm).
Plate requires minimum 2" (51 mm) top rail.
Plate installations require a SPECIAL TEMPLATE.



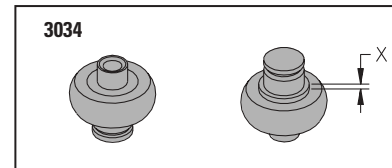
CONDUIT QUICK-CONNECTOR, 4040SE-81

Two piece connector for use with 1/2" conduit.



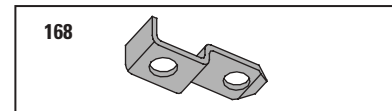
TRACK ROLLER, 4040SE-3034

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



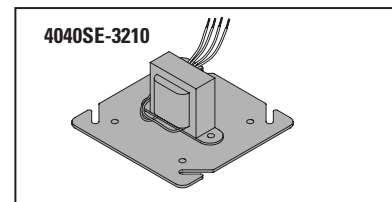
TRACK SLIDER, 4040SE-168

Alloy metal slider for use in SE series tracks only.



TRANSFORMER, 4040SE-3210

Reduces line voltage from 120V to 24V AC.
Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54 mm)
junction box (by others).



LCN 4040SE SERIES

TABLE OF SIZES

4040SE series cylinders accommodate interior doors up to 48" (1219 mm) wide.

Closing power of 4040SE Series closers is adjustable through a range of sizes up to size 4.

Minimum door widths:

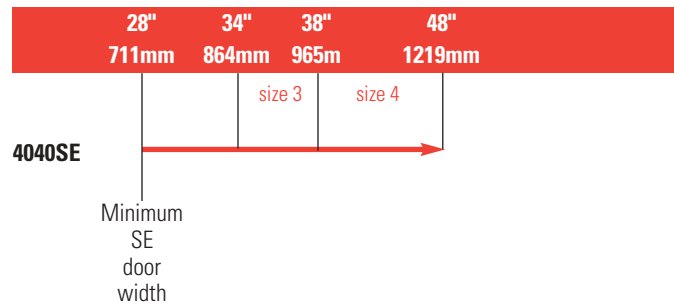
for SE on paired door, min. width 60" (1524 mm).

for SE, minimum door width 28" (711 mm).

for SEL, minimum door width 30" (762 mm).

Details are listed on the MOUNTING DETAILS pages.

INTERIOR DOOR WIDTH



HOW-TO-ORDER 4040SE SERIES CLOSERS

1. SELECT TRACK

- SE
- SEL

2. VOLTAGE

- 24V AC/DC
- 120V AC/DC

3. SPECIFY FINISH.

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

Closer will be shipped with;

- STANDARD CYLINDER,
 - STANDARD COVER,
 - STANDARD ARM,
 - STANDARD TRACK,
 - WOOD & MACHINE SCREW PACK,
- unless options listed below are selected.

CLOSER OPTIONS

COVER

- Metal (MC)
(please specify right or left hand)
- Lead Lined (LL)

FINISHES

- Custom Powder Coat (RAL) _____
(handed metal cover required)
- Plated Finish, US _____
(handed metal cover required)

ARM

- Double Egress (DE)
(please specify right or left hand)

SCREW PACK

- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)

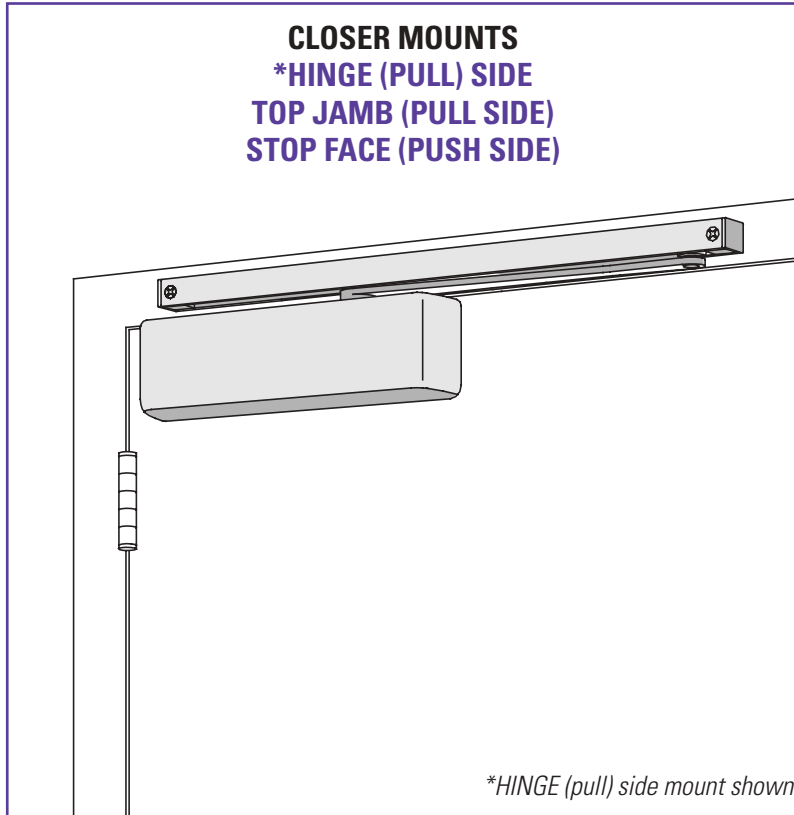
* Specify door thickness if other than 1 3/4".

INSTALLATION ACCESSORIES

- Plate, 4040SE-18
- Plate 4040SE-18PA
- Transformer, 4040SE-3210

SPECIAL TEMPLATE

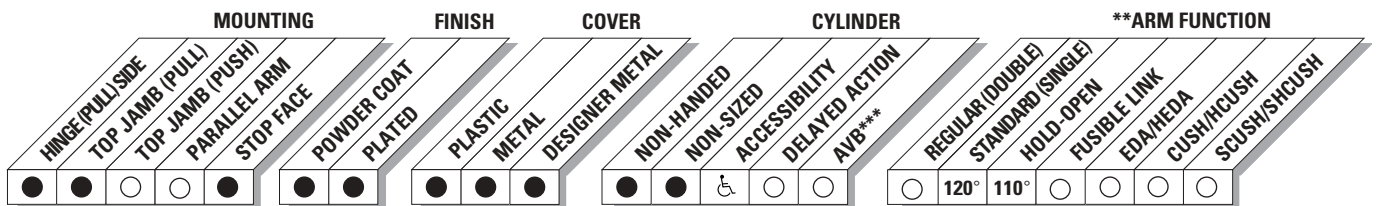
- ST- _____ (if required)



The 4040T SMOOTHIE® 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 & ULC Listed**

- ▶ Standard 4040T series closer shipped with standard arm, standard track, track roller, standard plastic cover, and self reaming and tapping screws. See 4040T Series pages 41 & 42 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 43.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ Consult factory for double egress applications.
- ▶ Optional designer series metal cover
- ▶ The 4040T Series is UL and ULC listed with a standard track for self-closing doors.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.



● Available
○ 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

LCN 4040T SERIES

MOUNTING DETAILS

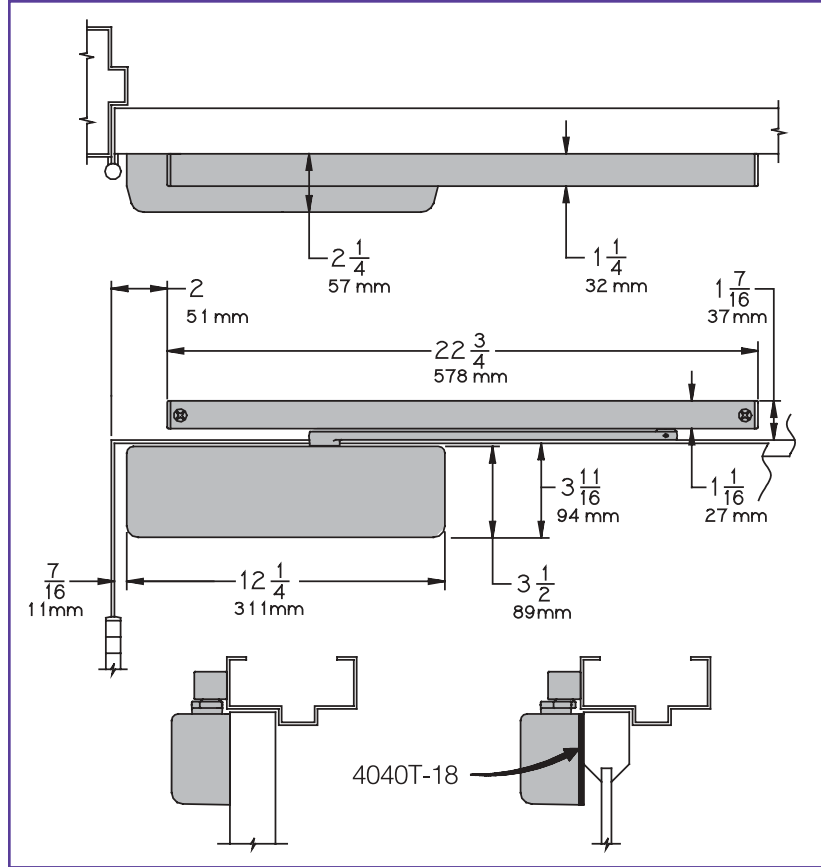
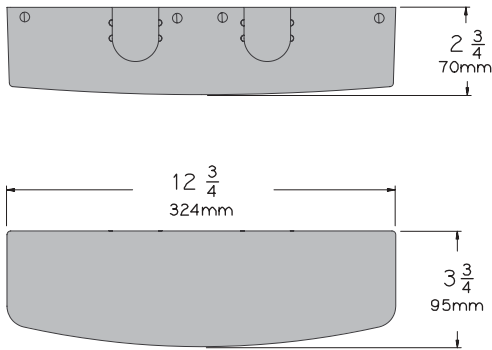
HINGE (PULL) SIDE MOUNTING

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



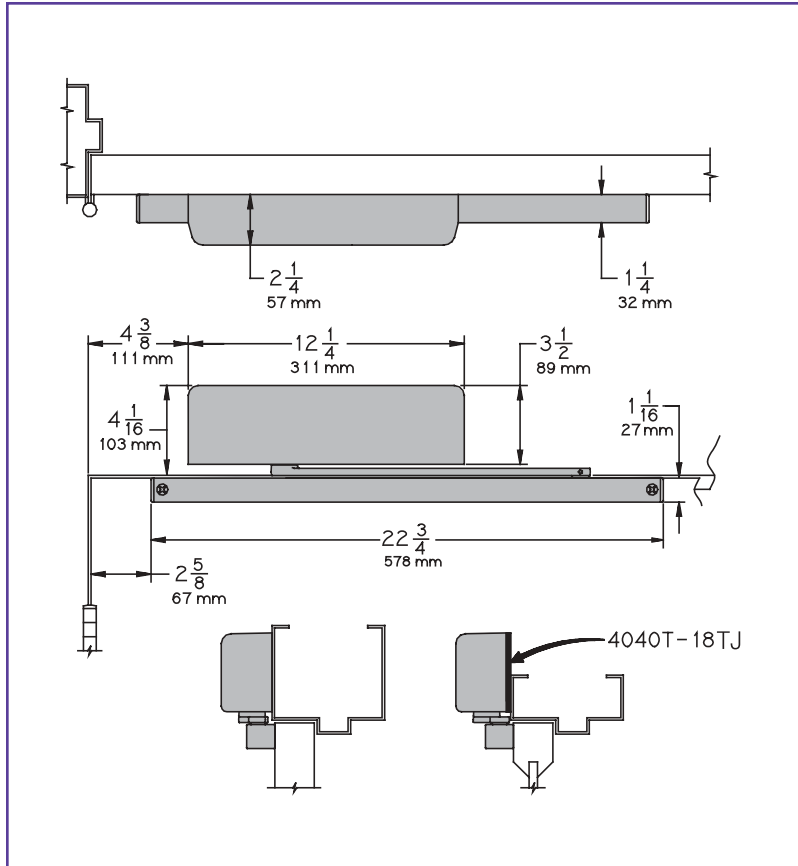
- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 120°. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- ▶ **Reveal** 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.



TOP JAMB (PULL SIDE) MOUNTING

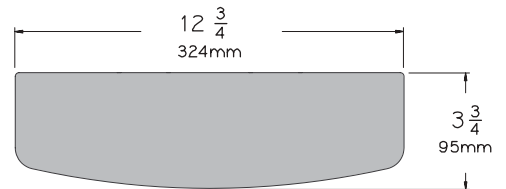
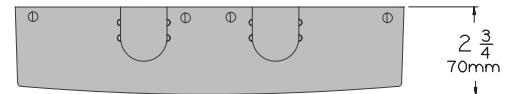
MAXIMUM OPENING

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



- ▶ **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.

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.

LCN 4040T SERIES

MOUNTING DETAILS

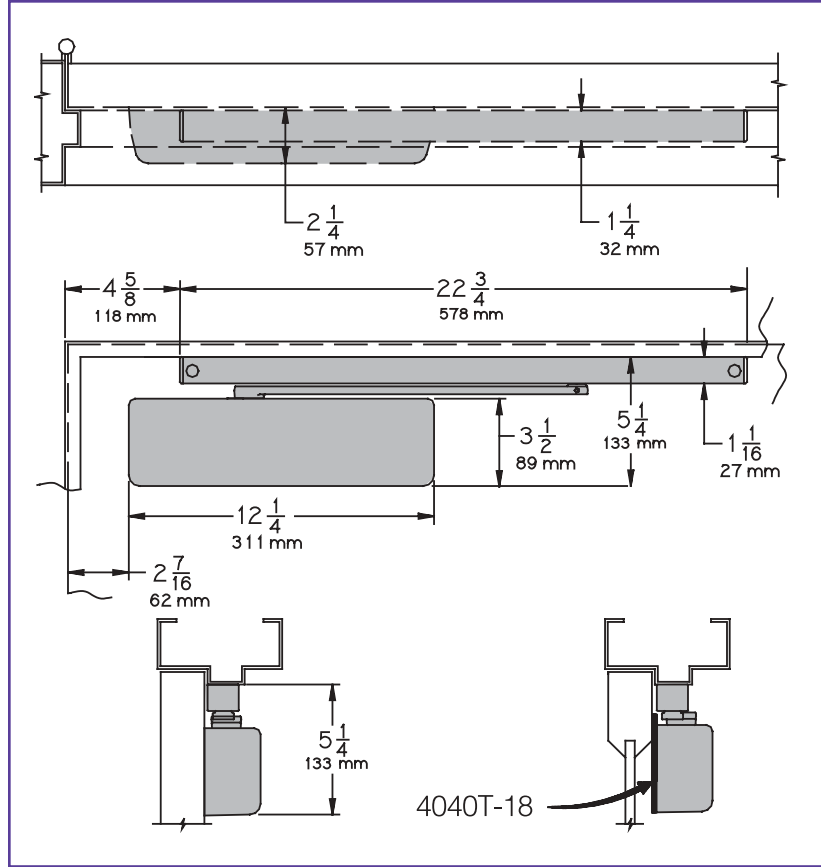
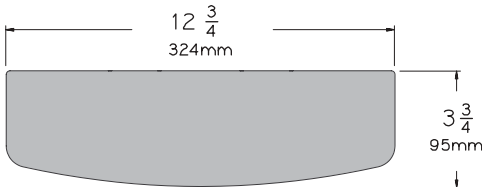
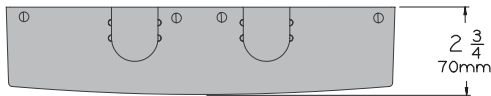
STOP FACE (PUSH SIDE) MOUNTING

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

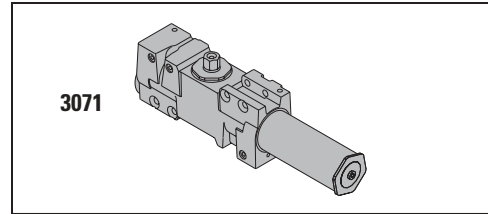
Special Templates

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

CYLINDERS

CYLINDER, 4041T-3071

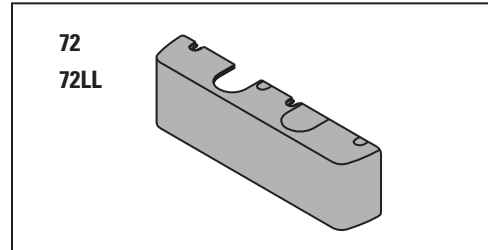
Standard, non-handed cast iron cylinder assembly.



COVERS

COVER, 4040T-72

Standard, non-handed plastic cover.

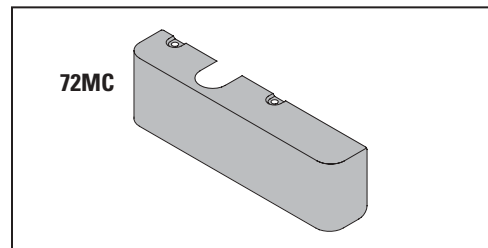


LEAD LINED COVER, 4040T-72LL

Optional, non-handed cover.

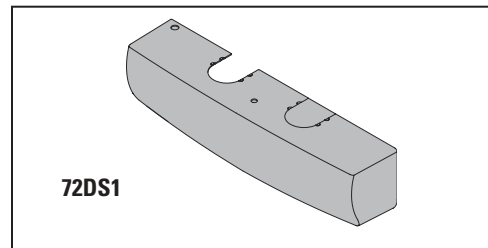
METAL COVER, 4040T-72MC

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.

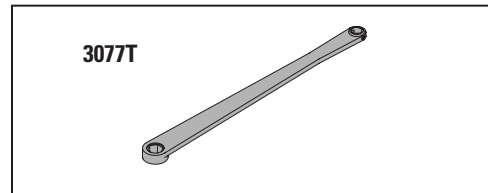


ARMS

STANDARD ARM, 4040T-3077T

Non-handed arm.

Arm does not include track roller.

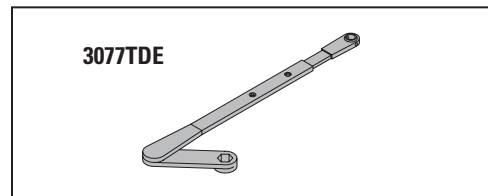


DOUBLE EGRESS ARM, 4040T-3077DE

Optional, handed arm for double egress doors and frames.

Arm does not include track roller.

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



TRACKS

STANDARD TRACK, 4040T-3038

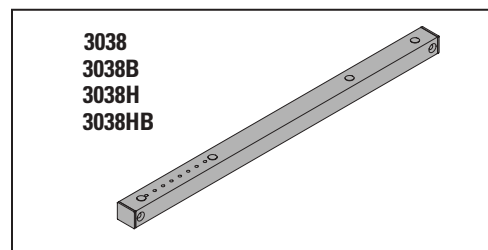
Standard, non hold-open, non-handed track.

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

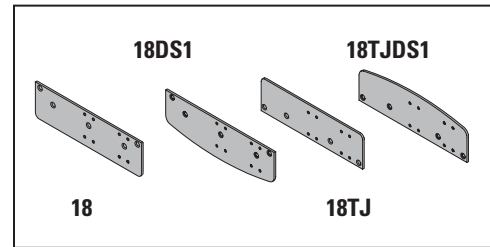
Optional, non-handed track with hold-open clip and bumper assembly installed.

LCN 4040T SERIES

INSTALLATION ACCESSORIES

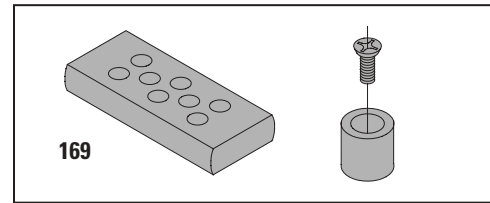
PLATE, 4040T-18TJ/ 4040T-18TJDS1

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.



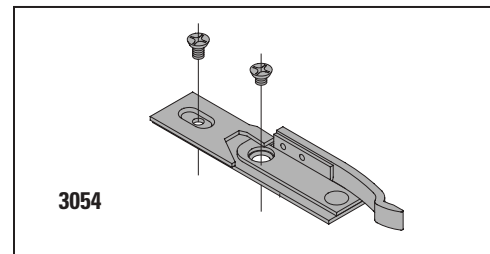
PLATE, 4040T-18/4040T-18DS1

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.



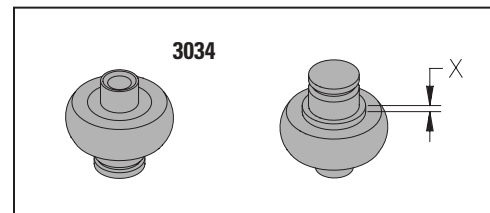
TRACK BUMPER, 4040T-169

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.



TRACK ROLLER, 4040T-3034

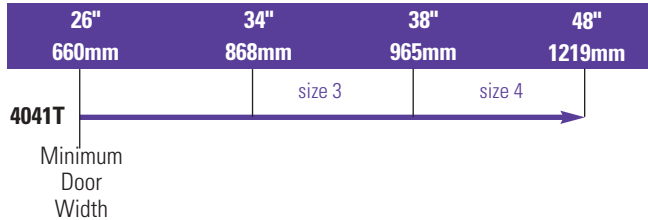
Quiet, low friction roller assembly. Shoulder dimension "X" = 1/8" (3mm).

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"
	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4041T	4041T	4041T

* 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 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

TRACK

- Regular with Bumper (BUMPER)
- Hold-Open (HO)
- Hold-Open with Bumper (HBUMPER)

SPECIFY SCREW PACK

- TB* w/Self-Reaming and Tapping (TBSRT)
 - Wood & Machine Screw (WMS)
 - TB*, Wood & Machine Screw (TBWMS)
 - TORX Machine Screw (TORX)
 - TB* & TORX Machine Screw (TBTRX)
- * Specify door thickness if other than 1 3/4".

INSTALLATION ACCESSORY

- Plate, 4040T-18
- Plate, 4040T-18DS1
- Plate, 4040T-18TJ
- Plate, 4040T-18TJDS1

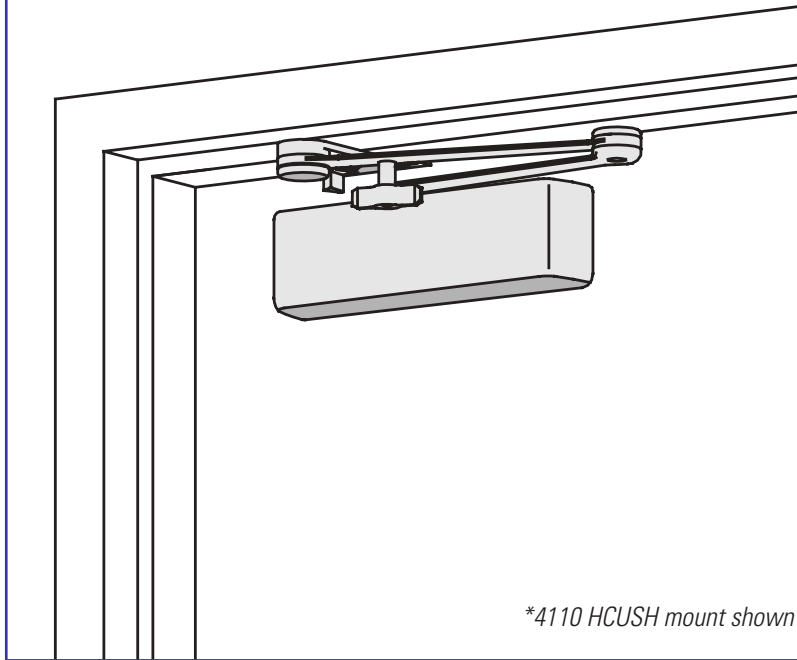
SPECIAL TEMPLATE

- ST- _____

LCN 4110 SERIES

FEATURES

*PARALLEL ARM (PUSH SIDE) MOUNT



The 4110 SMOOTHIE® 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® Fast™ Power Adjust
- ▶ Fast & Accurate Installation
- ▶ UL & ULC Listed

- ▶ Standard 4110 series closer shipped with EXTRA DUTY arm, standard plastic cover, 4110-201 FIFTH SCREW SPACER and self reaming and tapping screws. See 4110 Series pages 47 & 48 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 49.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ The 4110 Series is UL and ULC listed for self-closing doors without hold-open.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.



MOUNTING					FINISH			COVER		CYLINDER				**ARM FUNCTION							
HINGE (PULL SIDE)	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	EDA/HEDA	CUSH/H/CUSH	SCUSH/H/CUSH
○	○	○	●	○	●	●	●	●	○	○	●	♿	●	●	○	○	○	180°	180°	110°	110°

● Available
○ 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

LCN 4110 SERIES

MOUNTING DETAILS

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 1/4" (184 mm)

140°,

(A) = 4 7/16" (113 mm)

(B) = 5 3/4" (146 mm)

or 180°.

(A) = 2 15/16" (75 mm)

(B) = 4 1/4" (108 mm)

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

CUSH arm can be templated for maximum opening at

85°,

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

(B) = 9 5/8" (244 mm)

90°,

(A) = 7 11/16" (195 mm)

(B) = 9" (229 mm)

100°,

(A) = 6 7/16" (164 mm)

(B) = 7 3/4" (197 mm)

or 110°.

(A) = 5 9/16" (141 mm)

(B) = 6 7/8" (175 mm)

Hold-open point at maximum opening with HCUSH arm.

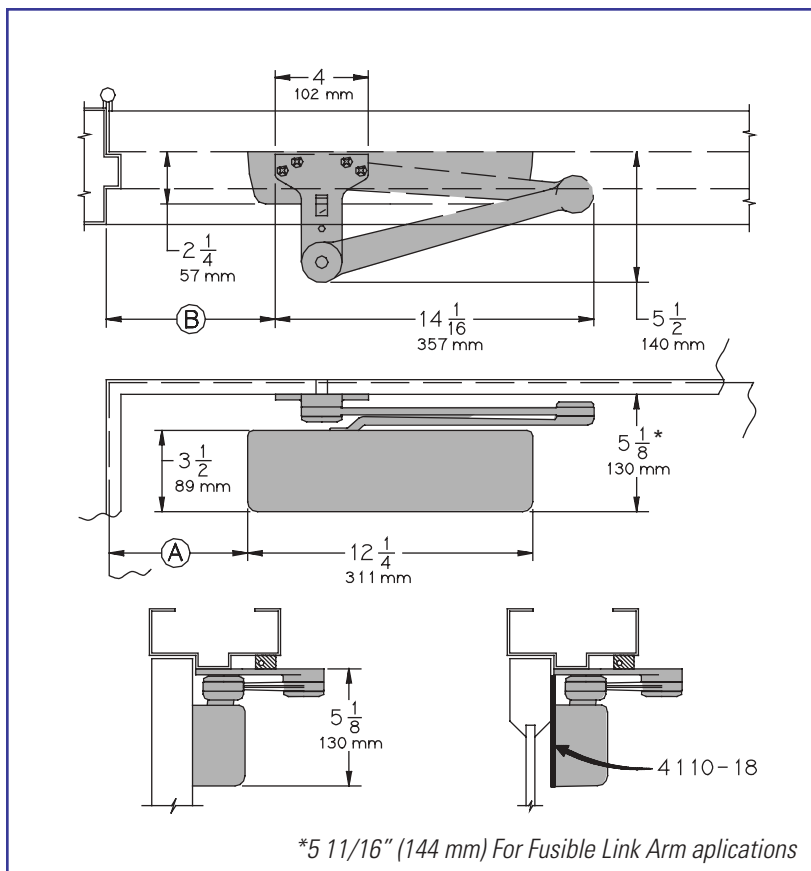
Spring Cush hold-open points are approximately 5° less than templated stop point.

Options

- ▶ 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.

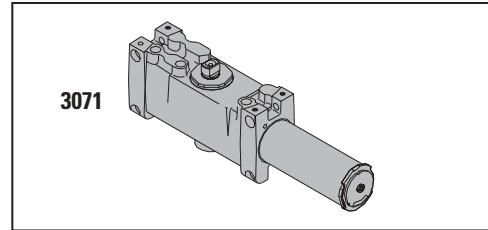


- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point, where a door cannot swing 180°, or where CUSH-N-STOP arm is not used.
- ▶ **Clearance** for EDA, or CUSH shoe is 5 1/2" (140 mm) from door face.
- ▶ **Top Rail** less than 5 1/8" (130 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 rabbeted 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 SHOE SUPPORT, 4110-30 for fifth screw anchorage with CUSH arms.
- ▶ **Delayed Action** Add suffix "DEL" to selected cylinder (eg. 4115 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

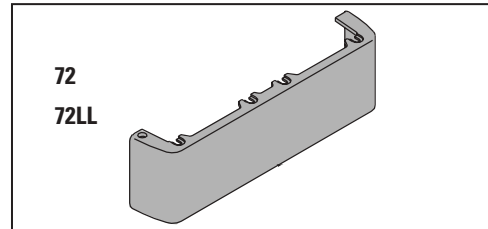
Standard, handed cast iron cylinder assembly.
For various applications see "Table of Sizes" on 4110 Series page 49.



COVERS

COVER, 4110-72

Standard, non-handed plastic cover.

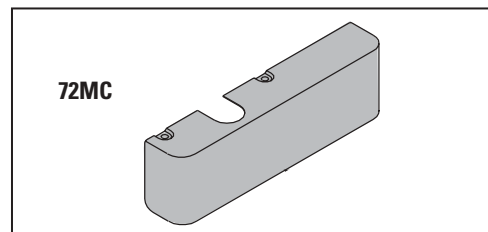


LEAD LINED COVER, 4110-72LL

Optional, non-handed cover.

METAL COVER, 4110-72MC

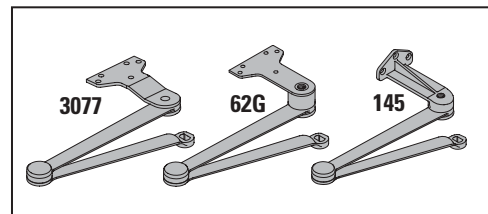
Optional, handed cover. Required for plated finishes and custom powder coat finishes.



ARMS

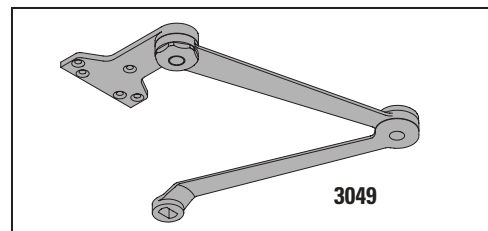
EXTRA DUTY ARM, 4110-3077EDA

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 rabbetted installations. Optional shoes require special templating.



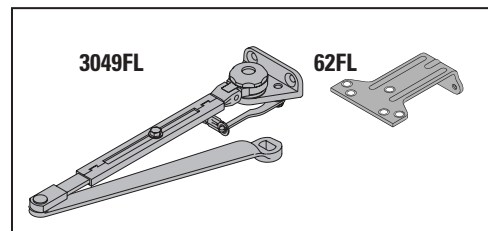
HOLD-OPEN ARM 4110-3049EDA

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



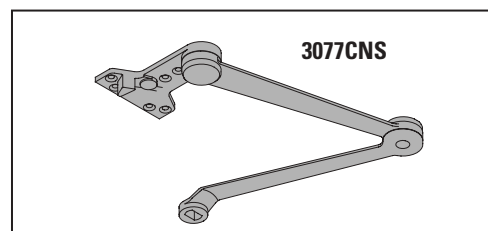
FUSIBLE LINK ARM, 4110-3049FL

Optional, handed arm releases hold-open function adjustable at shoe when exposed to temperatures above 165° F.
Optional link release at 135° F.



CUSH-N-STOP ARM, 4110-3077CNS

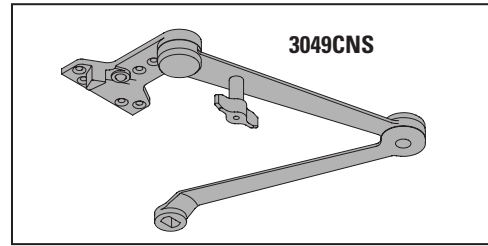
Optional, handed parallel arm features solid forged steel main arm and forearm with built-in stop in soffit shoe.



LCN 4110 SERIES

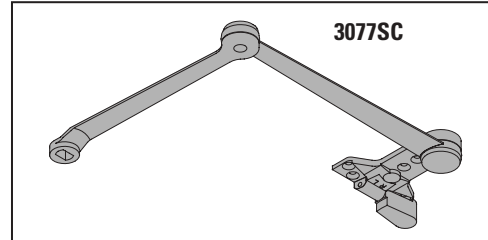
H-CUSH ARM 4110-3049CNS

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



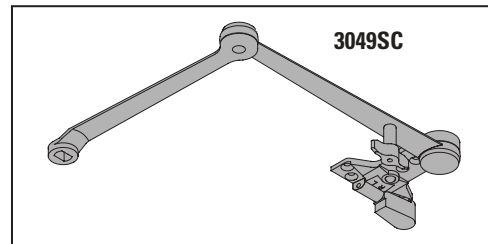
SPRING CUSH ARM, 4110-3077SC

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, 4110-3049SC

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.



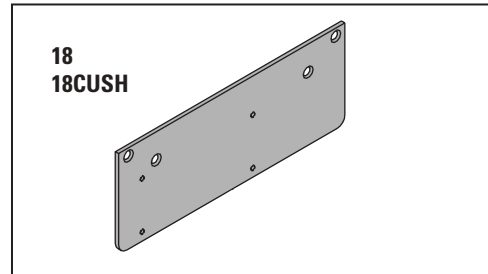
INSTALLATION ACCESSORIES

PLATE, 4110-18, 4110-18CUSH

Required for push side mount where top rail is less than 5 1/8" (130 mm), measured from the stop.

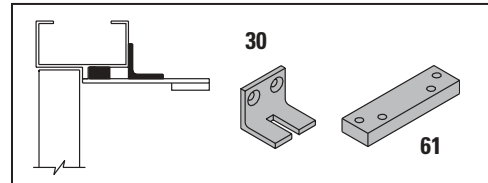
Plate requires minimum 2" (51 mm) minimum top rail.

Plate also used with CUSH Arm installations.



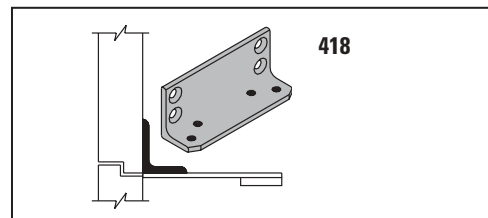
CUSH SHOE SUPPORT, 4110-30

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



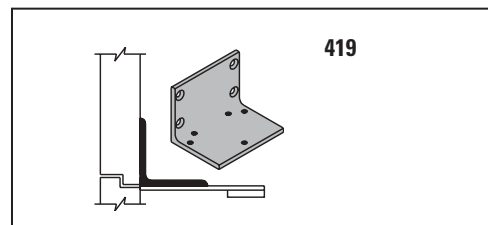
BLADE STOP SPACER, 4110-61

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



PA SHOE ADAPTER, 4110-418

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



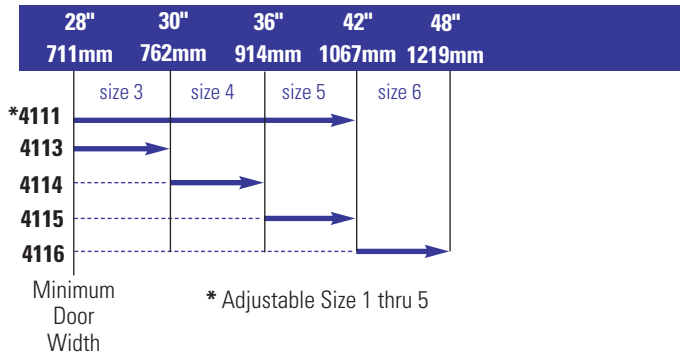
CUSH FLUSH PANEL ADAPTER, 4110-419

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

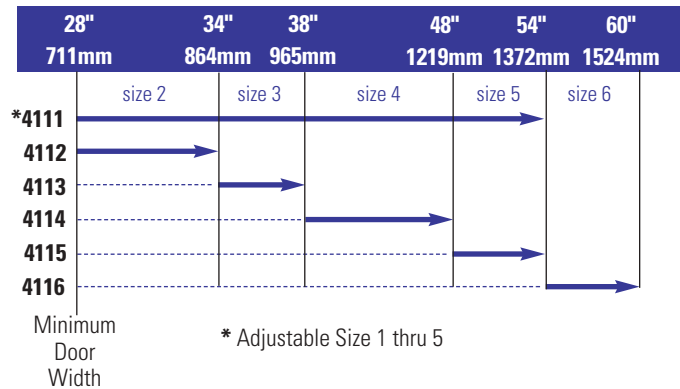
TABLE OF SIZES Select closer based on width of door.
 The spring power of non-sized 4111 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3.
 Sized 4110 series cylinders available in size 2, 3, 4, 5, or 6.
 Closing power of all 4110 Series closers can be increased 50%.
 Specify 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



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"
	8.5* lbs.	4111	4111	4111
	5.0* lbs.	4111	4111	4111

* Maximum opening force

**HOW-TO-ORDER
4110 SERIES CLOSERS**

- 1. SELECT CYLINDER SIZE**
- 4111 (adjustable from size 1 to 5)
 - 4112
 - 4113
 - 4114
 - 4115 (DEL not available)
 - 4116 (DEL or H- CUSH arm not available)

2. SPECIFY HAND

- RH
- LH

3. 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.

4110 CLOSER OPTIONS

CYLINDER

- Delayed Action ((DEL), not available with 4115 or 4116)
- Advanced Variable Backcheck (AVB)

COVER

- Lead Lined (LL)
- Metal (MC)

FINISH

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

SPECIFY ARM

- Hold-Open Extra Duty (HEDA)
- Fusible Link, 165° F* (FL)
 * Optional link releases at 135° F.
- 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)

SCREW PACK

- TB*, Self-Reaming & Tapping (TBSRT)
- Wood & Machine Screw (WMS)
- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)
 * Specify door thickness if other than 1 3/4".

INSTALLATION ACCESSORIES

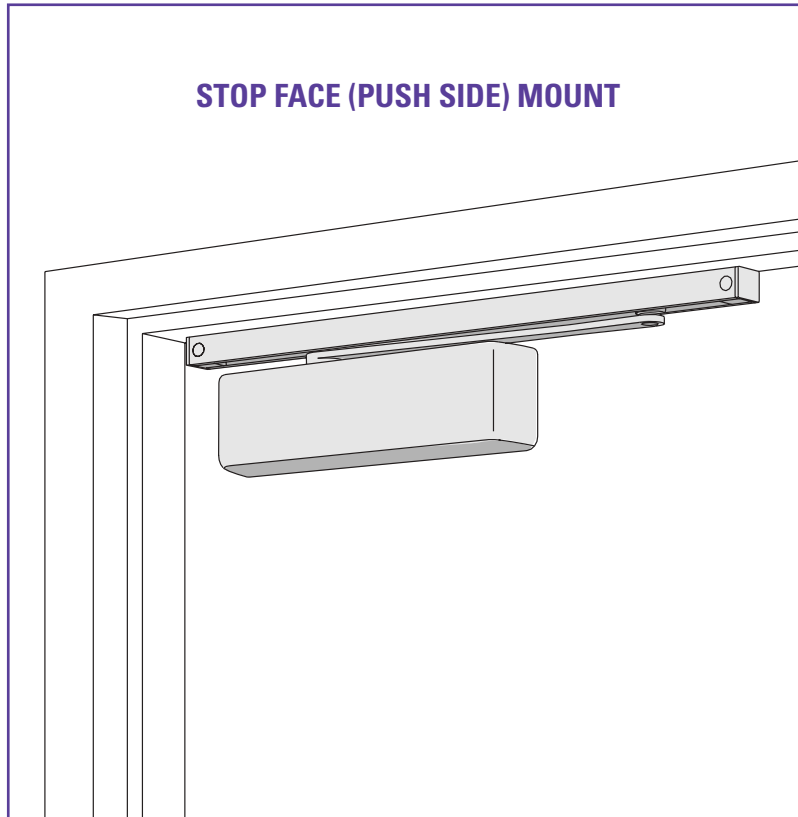
- Plate, 4110-18
- CUSH Shoe Support, 4110-30
- Blade Stop Spacer, 4110-61
- PA Shoe Adapter, 4110-418
- CUSH Flush Panel Adapter, 4110-419

SPECIAL TEMPLATE

- ST- _____

LCN 4110T SERIES

FEATURES



The 4110T SMOOOTHEE® 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 & ULC Listed**

- ▶ Standard 4110T series closer shipped with standard arm, standard track, track roller, standard plastic cover and self reaming and tapping screws. See 4110T Series pages 53 & 54 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 55.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.
- ▶ The 4110T Series is UL and ULC listed with a standard track for self-closing doors.
- ▶ Tested and certified under ANSI Standard A156.4, grade one.

MOUNTING					FINISH			COVER			CYLINDER				**ARM FUNCTION							
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	AVB***	REGULAR (DOUBLE)	STANDARD (SINGLE)	HOLD-OPEN	FUSIBLE LINK	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH	
○	○	○	○	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
															110°	100°						

- Available
- Not available

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

LCN 4110T SERIES

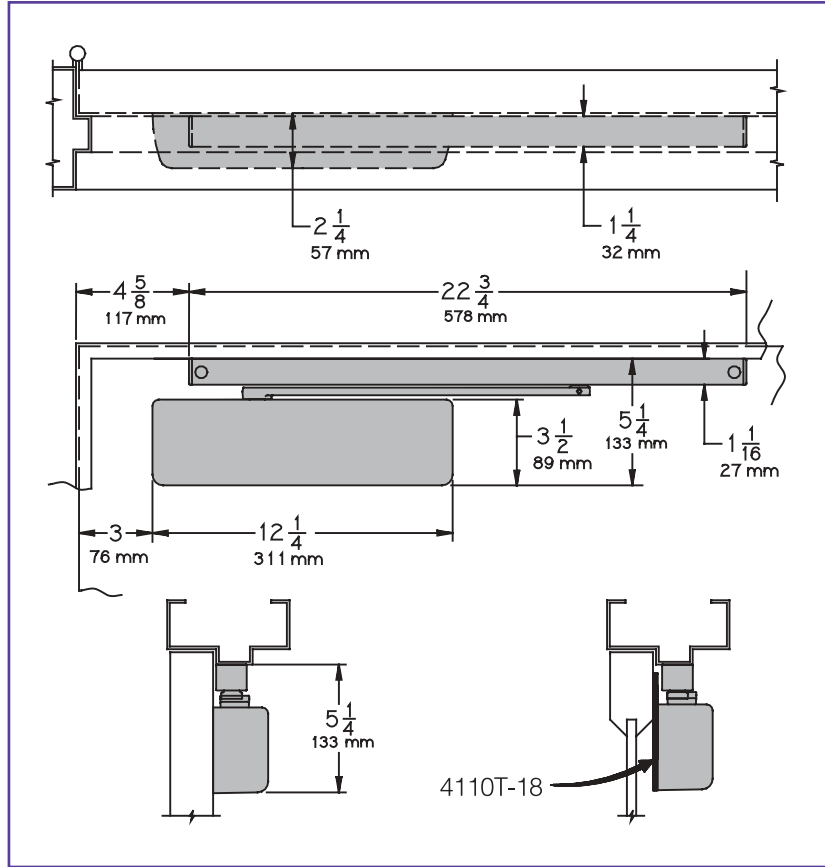
MOUNTING DETAILS

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.

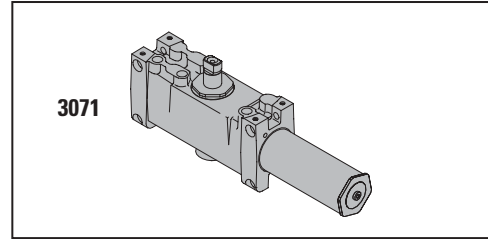
Special Templates

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

CYLINDERS

CYLINDER, 4110T-3071

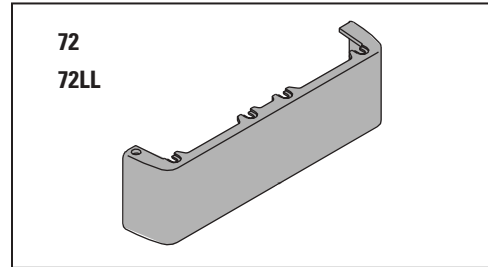
Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4110T Series page 55.



COVERS

COVER, 4110T-72

Standard, non-handed plastic cover.

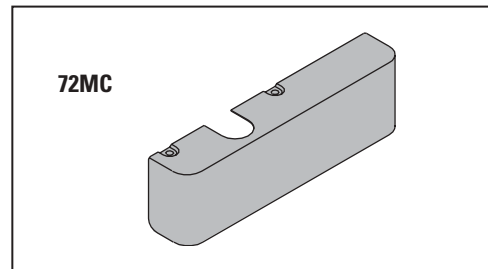


LEAD LINED COVER, 4110T-72LL

Optional non-handed cover.

METAL COVER, 4110T-72MC

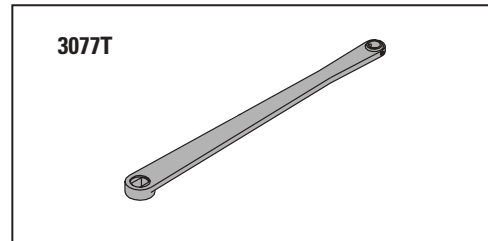
Optional, handed cover. Required for plated finishes and custom powder coat finishes.



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

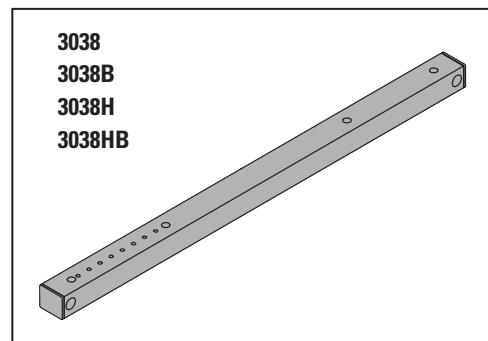
Optional non hold-open, non-handed track with bumper assembly installed.
Will accept hold-open clip.

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.



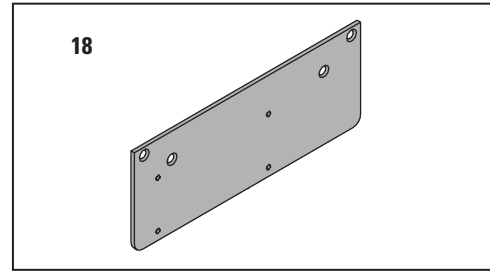
LCN 4110T SERIES

INSTALLATION ACCESSORIES

PLATE, 4110T-18

Required where top rail, when measured from the stop, is less than 5 1/4" (133 mm).

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

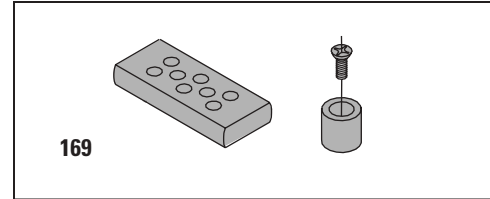


TRACK BUMPER, 4110T-169

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

Limits maximum opening.

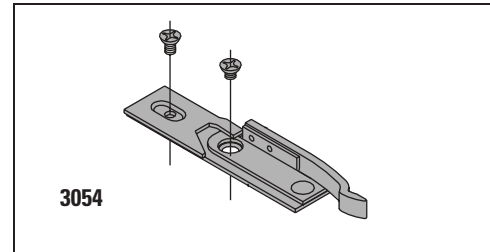
Consists of bumper, bumper post, and mounting screw.



HOLD-OPEN CLIP, 4110T-3054

Mounts in track to provide hold-open function.

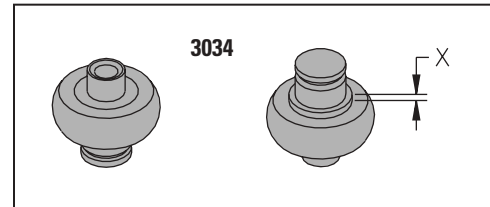
Hold-open point controlled by clip location.



TRACK ROLLER, 4110T-3034

Quiet, low friction roller assembly.

Shoulder dimension "X" = 1/16" (2 mm).

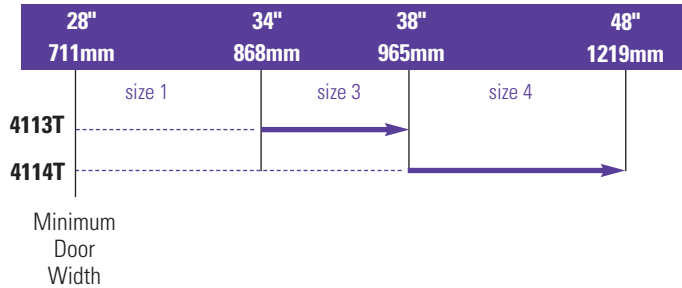


LCN 4110T SERIES

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"
	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4111T	4111T	4111T

* Maximum opening force

HOW-TO-ORDER 4110T SERIES CLOSERS

1. SELECT CYLINDER SIZE

- 4111T (ADA)
- 4113T
- 4114T

2. SPECIFY HAND

- RH
- LH

3. 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.

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

SPECIFY TRACK

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

SPECIFY SCREW PACK

- TB* w/Self-Reaming and Tapping (TBSRT)
- Wood & Machine Screw (WMS)
- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)

* Specify door thickness if other than 1 3/4".

INSTALLATION ACCESSORIES

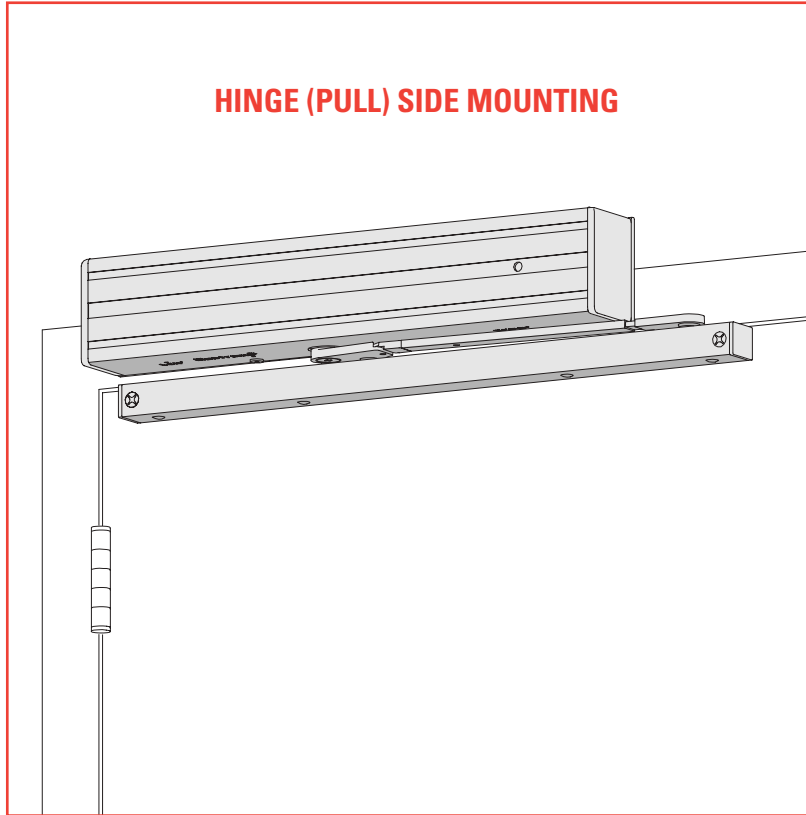
- Plate, 4110T-18

SPECIAL TEMPLATE

- ST- _____

LCN 4310ME SERIES

FEATURES



The 4310ME SENTRONIC® is a heavy duty, electrically controlled closer/holder designed to provide infinitely adjustable hold-open for fire and smoke barrier doors. Door is held open until current interruption releases mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, cylinder functions, and installation accessories meet virtually all life safety requirements.

- ▶ Standard 4310ME series closer shipped with a 24V or 120V cylinder (please specify) on a mounting plate, metal cover, Swing-Free arm, track, track roller, and wood and machine screw pack. See 4310ME Series pages 23 & 24 for options.
- ▶ Sized cylinders for interior doors to 4'0".
- ▶ Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted with Swing-Free arm engaged.
- ▶ Handed for right or left swinging door.
- ▶ Concealed or exposed electrical connections.
- ▶ Built-in "On/Off" switch controls hold-open function.
- ▶ Swing-Free arm allows door to be moved without door closer resistance.
- ▶ Interfaces with fire alarm systems. Consult factory.
- ▶ Standard or optional custom powder coated finish.
- ▶ Optional plated finish on cover, arm, and fasteners.

The 4310ME is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101. An ME provides only the closer/holder function.

MOUNTING					FINISH		COVER		CYLINDER			*ARM FUNCTION		
HINGE (PULL) SIDE	TOP JAMB (PUSH)	STOP FACE (PUSH)	CONCEALED (FRAME)	CONCEALED (DOOR)	POWDER COAT	PLATED	PLASTIC	METAL	HANDED	NON-SIZED	SIZED	SINGLE-POINT HOLD-OPEN	MULTI-POINT HOLD-OPEN	BYPASS 80/140
●	○	○	○	○	●	●	○	●	●	○	○	●	●	○
														160°
														95°

● Available
○ Not available

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

LCN 4310ME SERIES

MOUNTING DETAILS

HINGE (PULL) SIDE MOUNTING

Information applies to ME closer.

MAXIMUM OPENING

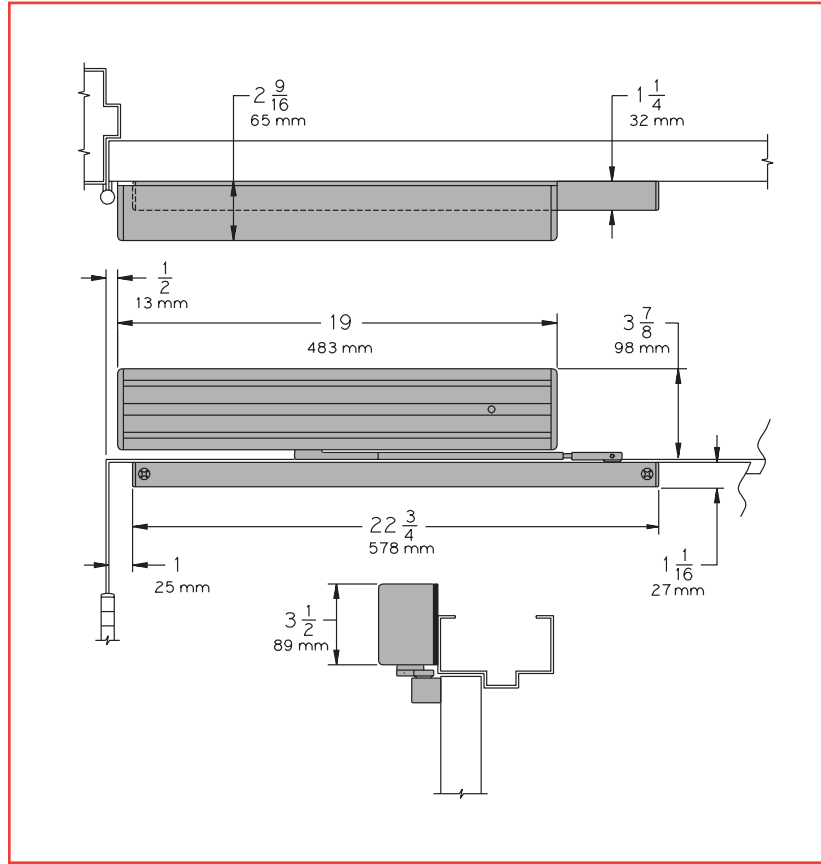
Templating allows 180°.

Infinite hold-open points up to 160°.

Optional double egress arm limited to 95°.

ME ELECTRICAL OPTIONS

These assemblies have a single electrical circuit with a choice of voltages. A separate TRANSFORMER, 4040SE-3210, can be used to reduce line voltage to 24V AC. Circuitry accepts either AC or DC input. 24V holding solenoid (**24**) or 120V holding solenoid (**120**), please specify.



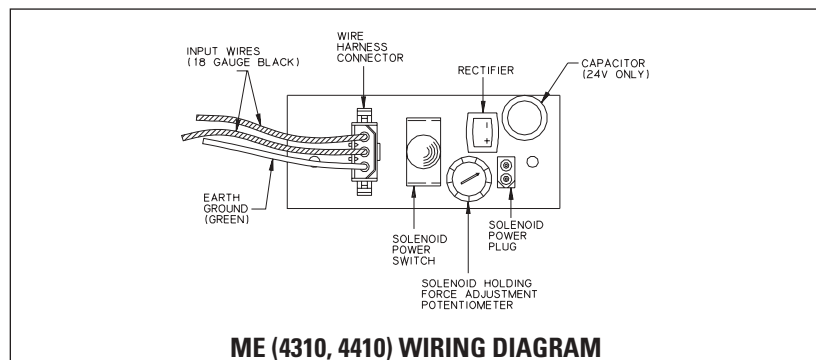
- ▶ **Butt Hinges** should not exceed 4 1/2" (114 mm) in width.
- ▶ **Top Rail** 1 1/16" (27 mm) minimum.
- ▶ **Reveal** should not exceed 1/8" (3 mm) for Swing-Free arm. Should not exceed 2 11/16" (68 mm) for double egress arm.
- ▶ **Head Frame** requires 2" (51 mm) minimum.
- ▶ **Clearance** of 1 1/4" (32 mm) behind door required for installation.
- ▶ **Bypass** (suffix "B80 or B140") eliminates hold-open function up to a specified point of the doors swing. B80 cylinder from 0° to 80°. B140 cylinder from 0° to 140°.
- ▶ **Wiring Diagram**

Options

- ▶ Hold-open bypass.
- ▶ Double egress arm.
- ▶ 24V or 120 volt input, please specify.

Special Templates

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

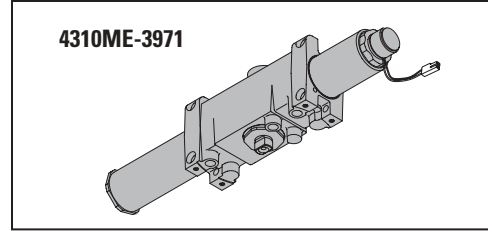


ME (4310, 4410) WIRING DIAGRAM

CYLINDER

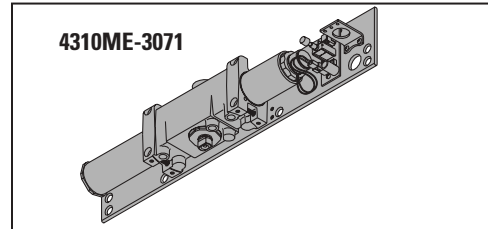
ME CYLINDER, 4310ME-3971

Standard, handed cast iron cylinder assembly. 24V holding solenoid **(24)** or 120V holding solenoid **(120)**, please specify. For various applications see "Table of Sizes" on 4310ME Series page 25.



ME CYLINDER, 4310ME-3071

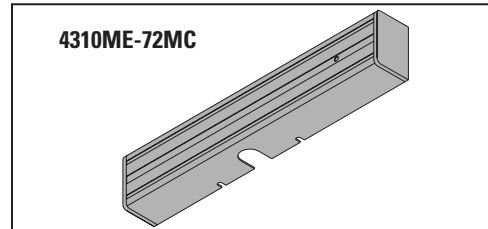
Standard, handed cylinder and mounting plate assembly. "On/Off" switch assembly controls hold-open function. Circuitry accepts either AC or DC input. 24V holding solenoid **(24)** or 120V holding solenoid **(120)**, please specify. For various applications see "Table of Sizes" on 4310ME Series page 25.



COVERS

COVER, 4310ME-72MC

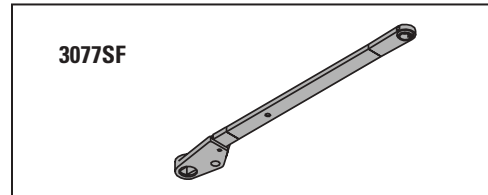
Handed, metal cover.



ARMS

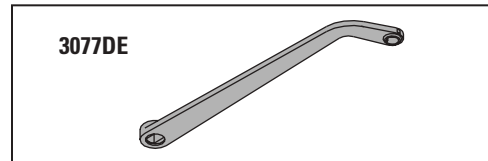
SWING-FREE ARM, 4310ME-3077SF

Handed arm. After door is placed in hold-open, secondary pivot point allows up to 160° swing without door closer resistance.



DOUBLE EGRESS ARM, 4310ME-3077DE

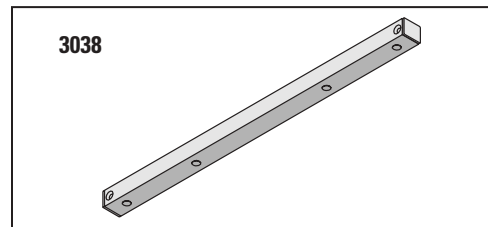
Optional, handed arm for double egress doors and frames. 2 11/16" (68 mm) maximum reveal.



TRACK

TRACK, 4310ME-3038

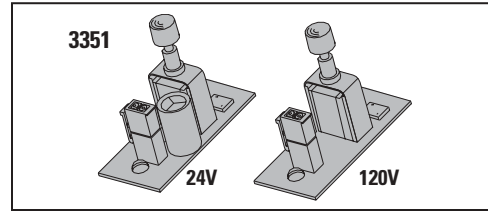
Standard, non-handed track.



SWITCH

SWITCH, 4310ME-3351

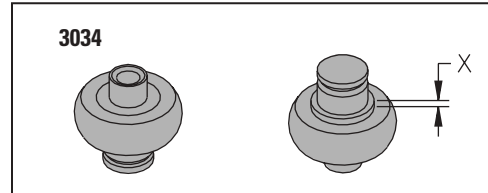
"On/Off" switch assembly provides continuous hold-open function. Available as 24V or 120V, please specify.



INSTALLATION ACCESSORIES

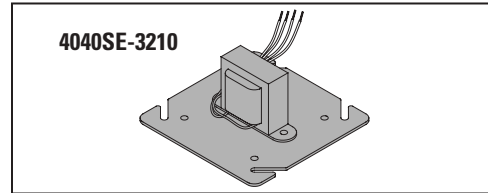
TRACK ROLLER, 4310ME-3034

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



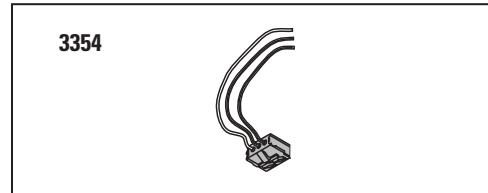
TRANSFORMER, 4040SE-3210

Reduces line voltage from 120V to 24V AC.
Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54mm) junction box (by others).



ME WIRING HARNESS, 4310ME-3354

Three wire harness with 6" (152 mm) leads for field wiring connections.

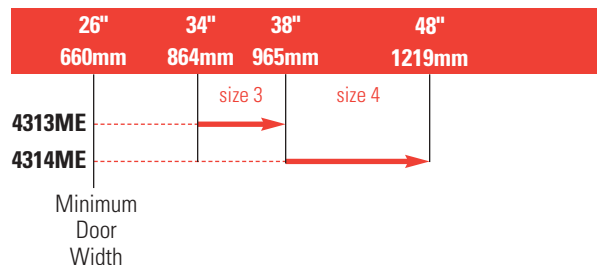


LCN 4310ME SERIES

TABLE OF SIZES Select closer based on width of door.
Sized 4310ME series cylinders available in size 3 or 4.
Closing power of all 4310ME Series closers may be increased 15%.

→ Indicates recommended range of door width for closer size.

INTERIOR DOOR WIDTH



HOW-TO-ORDER 4310ME SERIES CLOSERS

1. SELECT CYLINDER SIZE.

- 4313ME
- 4314ME

2. SPECIFY HAND.

- RH
- LH

3. VOLTAGE

- 24V AC/DC
- 120V AC/DC

4. SPECIFY FINISH.

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

Closer will be shipped with:

- STANDARD COVER,
- SWING-FREE (SF) ARM,
- STANDARD TRACK,
- TRACK ROLLER,
- WOOD & MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

CYLINDER FUNCTION

- Bypass 80° (B80)
- Bypass 140° (B140)

ARM

- Double Egress (DE)

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

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".

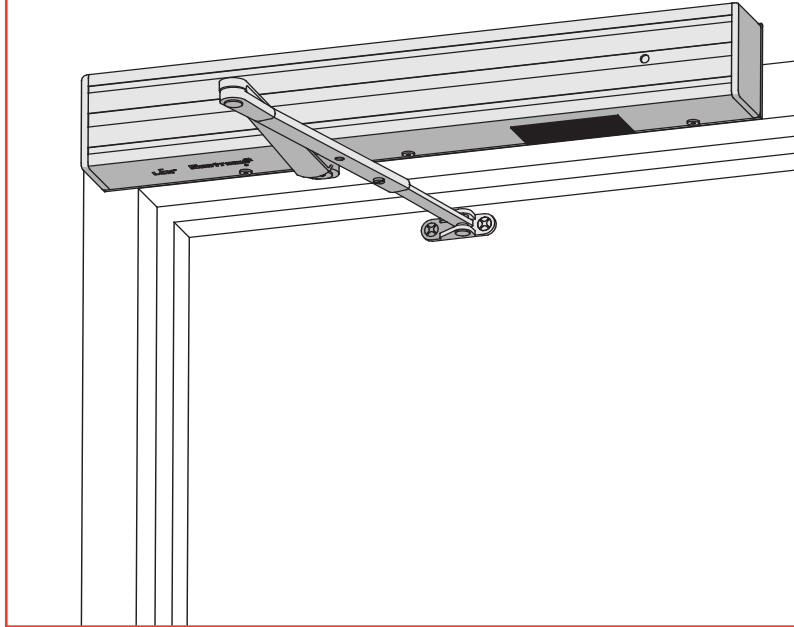
INSTALLATION ACCESSORIES

- Transformer, 4040SE-3210

SPECIAL TEMPLATE

- ST-_____

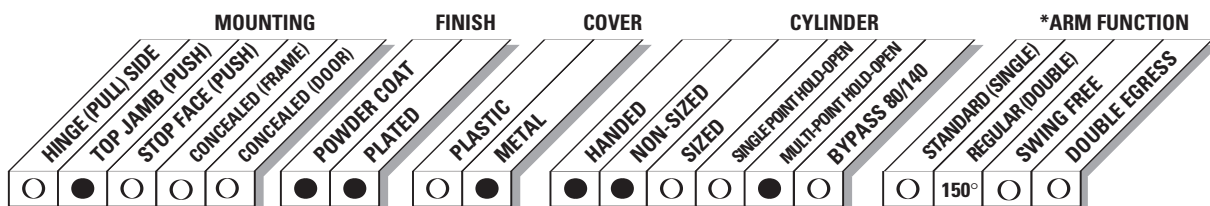
TOP JAMB (PUSH SIDE) MOUNTING



The 4410HSA SENTRONIC® is an electrically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors. Pedestrians, moving through the doorway, trigger the built-in scanner. When the door is opened to 80° or more, the door is electrically held open to minimize wear and tear on applied door hardware. After the last pedestrian in a group passes through the doorway, the system timer releases the hold-open, closing the door under control of the heavy duty closer. Double lever arm closer is specifically designed for push side mounting. Choice of finishes and accessories meet virtually all high traffic installation requirements.

- ▶ Standard 4410HSA series closer shipped with a 24V cylinder, standard cover, regular arm and wood & machine screw pack. See 4410HSA Series page 39 for options.
- ▶ HSA features a scanner activated hold-open function.
- ▶ Hold-open period is adjustable up to 30 seconds.
- ▶ Non-sized cylinders for interior doors to 4'6" or exterior doors to 3'6".
- ▶ Functions as full rack and pinion door closer when current is interrupted or continuous hold-open is not engaged .
- ▶ Handed for right or left swinging door.
- ▶ Concealed or surface wiring. 24V AC/DC input only. 120V AC input requires 4040SE-3210 transformer.
- ▶ Built-in "On/Off" switch provides continuous hold-open function.
- ▶ Standard or optional custom powder coated finish.
- ▶ Optional plated finish on cover, arm and fasteners.

Tested and certified under ANSI Standard A156.4 and A156.15. Conforms to life safety code, NFPA 101.



● Available
○ Not available

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

LCN 4410HSA SERIES

MOUNTING DETAILS

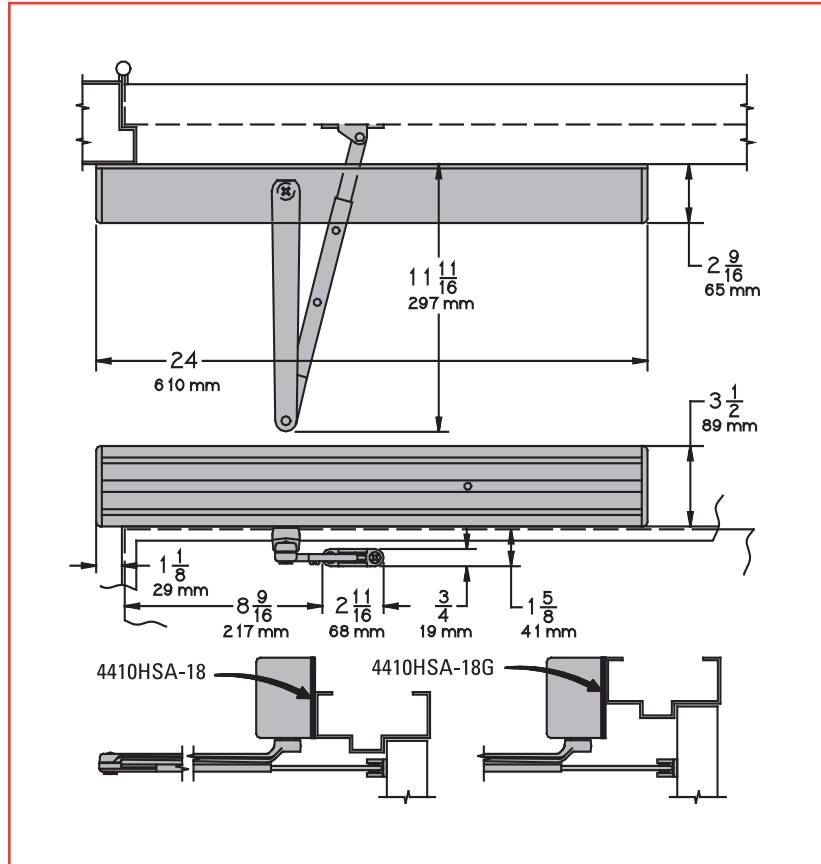
TOP JAMB (PUSH SIDE) MOUNTING

MAXIMUM OPENING

Templating allows 160°.

Infinite hold-open points from 80° up to 150°.

Optional long arm allows 180°, hold-open points up to 170°.



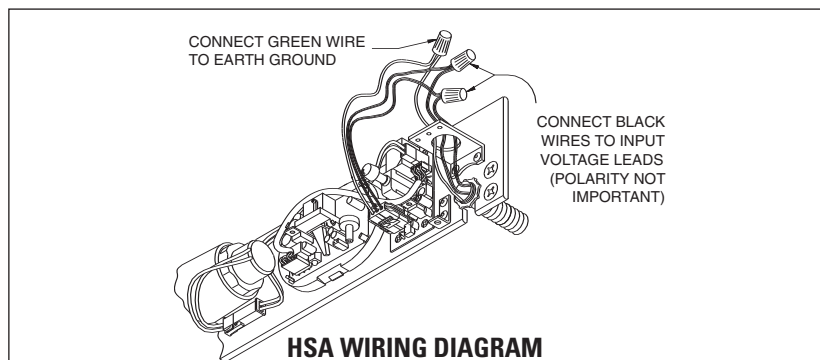
Options

- ▶ Optional long arm allows 180° with hold-open points up to 170°.
- ▶ Optional -18G plate accommodates flush ceiling conditions.
- ▶ 120 volt input requires 4040SE-3210 transformer to change 120V AC to 24V AC.

Special Templates

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

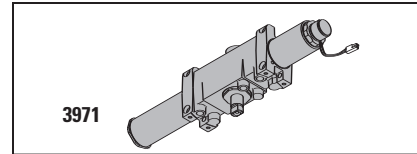
- ▶ **Butt Hinges** should not exceed 4 1/2" (114 mm) in width.
- ▶ **Top Rail** 1 3/4" (44 mm) minimum.
3 3/4" (95 mm) minimum with flush ceiling.
- ▶ **Head Frame** requires 1 1/2" (38mm) minimum.
2" (51 mm) minimum with flush ceiling.
- ▶ **Reveal** 3 7/8" (98 mm) maximum for regular or long arm. For reveals greater than 3 7/8" consult factory.
- ▶ **Wiring Diagram**



CYLINDERS

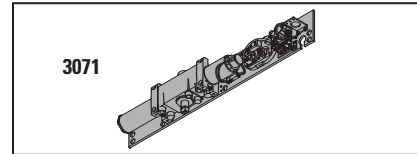
HSA CYLINDER, 4412HSA-3971

Standard, handed cast iron cylinder assembly.
24V AC/DC input only for holding solenoid.



HSA CYLINDER, 4412HSA-3071

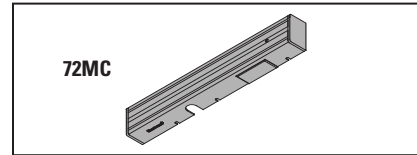
Standard, handed cylinder and mounting plate assembly.
Includes scanner module and system timer module.
"On/Off" switch assembly provides continuous hold-open function.
24V AC/DC input only for holding solenoid and electronics modules.



COVERS

COVER, 4410HSA-72MC

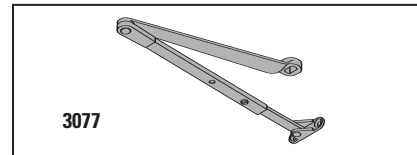
Handed, metal cover.



ARMS

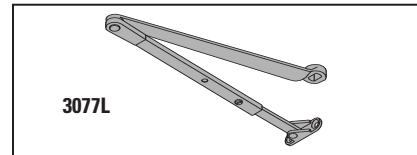
REGULAR ARM, 4410HSA-3077

Non-handed arm.
3 7/8" (98 mm) maximum reveal.



LONG ARM, 4410HSA-3077L

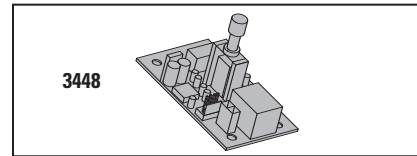
Optional arm for increased opening. 3 7/8" (98 mm) maximum reveal.



SWITCH

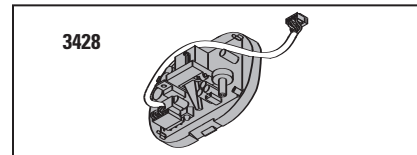
SWITCH, 4410HSA-3448

"On/Off" switch assembly provides continuous hold-open function.



SCANNER

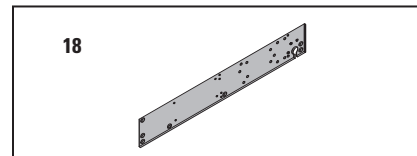
SCANNER MODULE, 4410HSA-3428



INSTALLATION ACCESSORIES

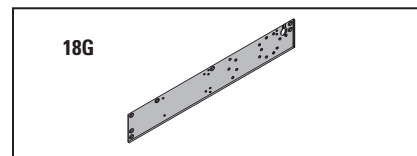
MOUNTING PLATE, 4410HSA-18

Standard mounting plate.



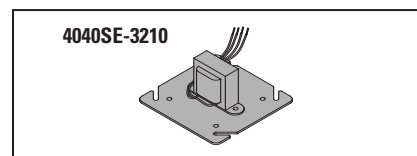
MOUNTING PLATE, 4410HSA-18G

Optional mounting plate substituted on flush ceiling installations.



TRANSFORMER, 4040SE-3210

Reduces line voltage from 120V to 24V AC. Mounted on cover plate
4" (102mm) x 4" x 2 1/8" (54mm) junction box (by others).



LCN 4410HSA SERIES

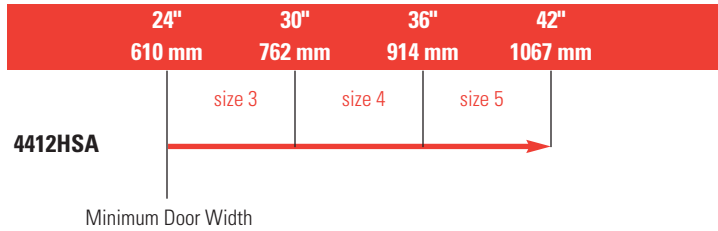
TABLE OF SIZES

Select closer based on width of door.

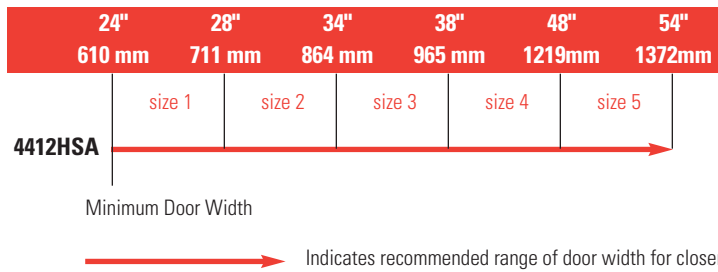
Non-sized 4410HSA series cylinders adjustable from size 1 through size 5 and are shipped set to size 3.

Closing power of 4410HSA Series closers may be increased 50%.

EXTERIOR DOOR WIDTH



INTERIOR DOOR WIDTH



HOW-TO-ORDER 4410HSA SERIES CLOSERS

1. SPECIFY HAND.

- RH
- LH

2. INPUT VOLTAGE

- 24V AC/DC

3. SPECIFY FINISH.

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

Closer will be shipped with:

- 24V AC/DC HSA CYLINDER,
- METAL COVER,
- REGULAR ARM
- WOOD & MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

ARM

- Long Arm (LONG)

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

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".

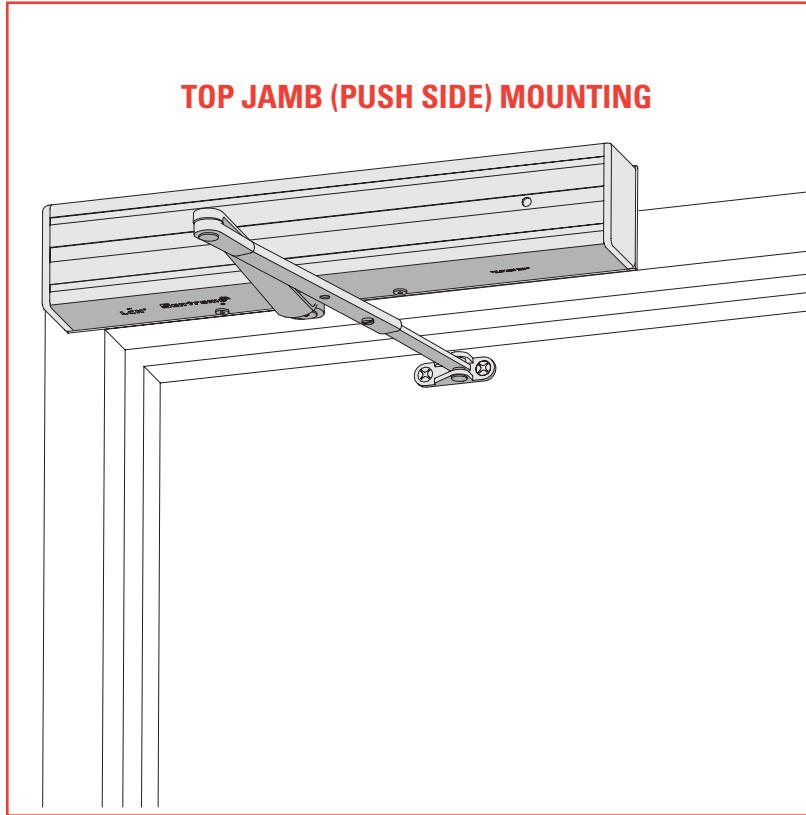
INSTALLATION ACCESSORIES

- Plate, 4410HSA-18G
(substituted for standard mounting plate)
- Transformer, 4040SE-3210

SPECIAL TEMPLATE

- ST- _____ (if required)

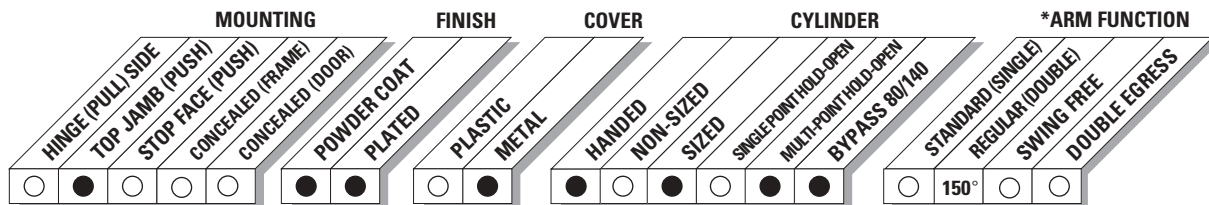
LCN 4410ME SERIES



The 4410ME SENTRONIC® is a heavy duty, electrically controlled closer/holder designed to provide infinitely adjustable hold-open for fire and smoke barrier doors. Door is held open until current interruption releases mechanism and the door closes. Double lever arm closer is specifically designed for interior doors. Choice of finishes, cylinder functions, and installation accessories meet virtually all life safety requirements.

- ▶ Standard 4410ME series closer shipped with a 24V or 120V cylinder (please specify) on a mounting plate, metal cover, regular arm, and wood and machine screw pack. See 4410ME Series pages 29 & 30 for options.
- ▶ Sized cylinders for interior doors to 4'0".
- ▶ Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted.
- ▶ Handed for right or left swinging door.
- ▶ Concealed or exposed electrical connections.
- ▶ Built-in "On/Off" switch controls hold-open function.
- ▶ Interfaces with fire alarm systems. Consult factory.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on cover, arm, and fasteners.

The 4410ME Series is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101. An ME provides only the closer/holder function.



● Available
○ Not available

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

LCN 4410ME SERIES

TOP JAMB (PUSH SIDE) MOUNTING

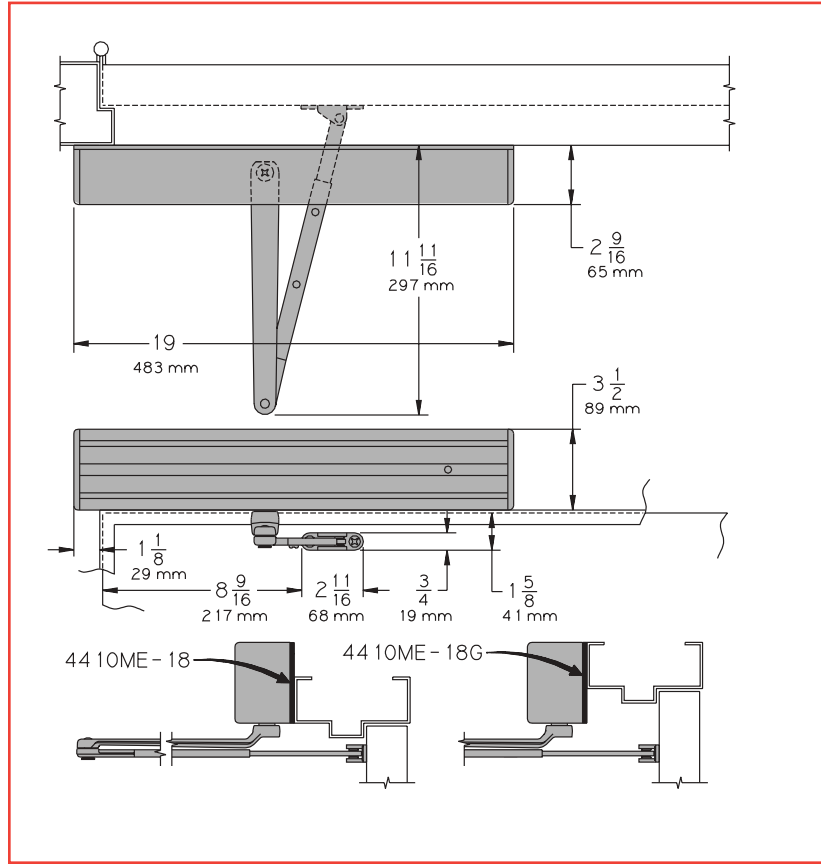
MAXIMUM OPENING

Templating allows 160°, infinite hold-open points up to 150°.

Optional long arm allows 180°, hold-open points up to 170°.

ME ELECTRICAL OPTIONS

These assemblies have a single electrical circuit with a choice of voltages. A separate TRANSFORMER, 4040SE-3210, can be used to reduce line voltage to 24V AC. Circuitry accepts either AC or DC input. 24V holding solenoid (**24**) or 120V holding solenoid (**120**), please specify.



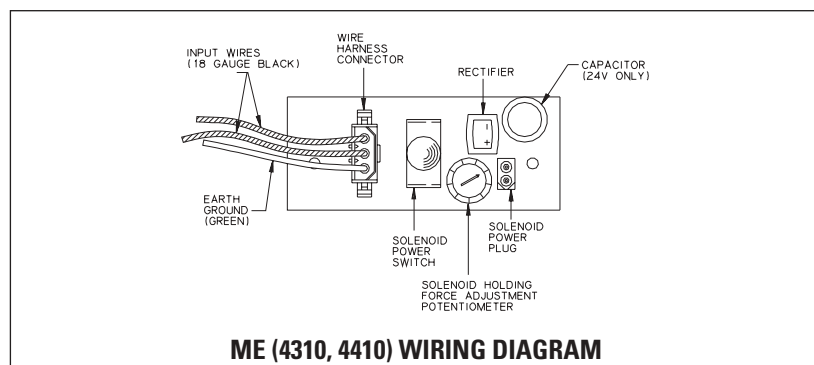
Options

- ▶ Hold-open bypass.
- ▶ Optional long arm allows 180° with hold-open points up to 170°.
- ▶ Optional -18G plate accommodates flush ceiling conditions.
- ▶ 24V or 120V volt input, please specify.

Special Templates

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

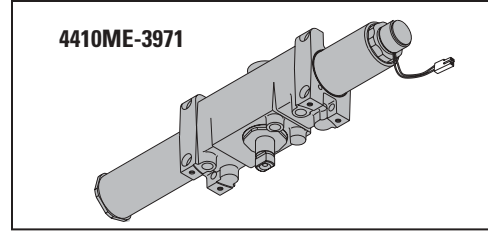
- ▶ **Butt Hinges** should not exceed 4 1/2" (114 mm) in width.
- ▶ **Top Rail** 1 3/4" (44 mm) minimum. 3 3/4" (95mm) minimum with flush ceiling.
- ▶ **Reveal** 3 7/8" (98 mm) maximum regular or long arm. For reveals greater than 3 7/8" consult factory.
- ▶ **Head Frame** requires 1 1/2" (38 mm) minimum. 2" (51 mm) minimum with flush ceiling.
- ▶ **Flush Ceiling** requires PLATE, 4410ME-18G substituted for standard mounting plate.
- ▶ **Bypass** (suffix "B80 or B140") eliminates hold-open function up to a specified point of the doors swing. B80 cylinder from 0° to 80°. B140 cylinder from 0° to 140°.
- ▶ **Wiring Diagram**



CYLINDER

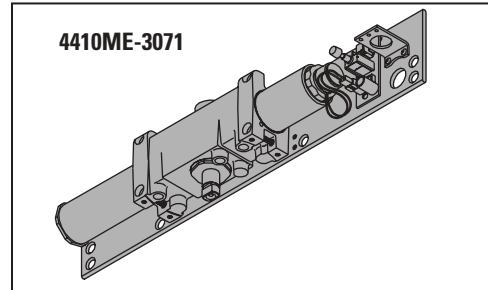
ME CYLINDER, 4410ME-3971

Standard, handed cast iron cylinder assembly. 24V holding solenoid **(24)** or 120V holding solenoid **(120)**, please specify. For various applications see "Table of Sizes" on 4410ME Series page 31.



ME CYLINDER, 4410ME-3071

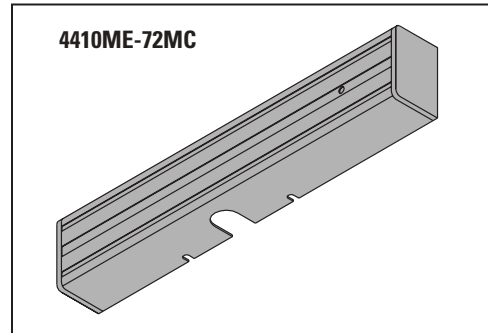
Standard, handed cylinder and mounting plate assembly. "On/Off" switch assembly controls hold-open function. Circuitry accepts either AC or DC input. 24V holding solenoid **(24)** or 120V holding solenoid **(120)**, please specify. For various applications see "Table of Sizes" on 4410ME Series page 31.



COVERS

COVER, 4410ME-72MC

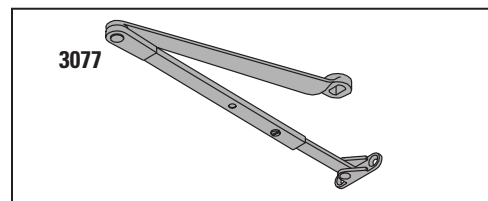
Handed, metal cover.



ARMS

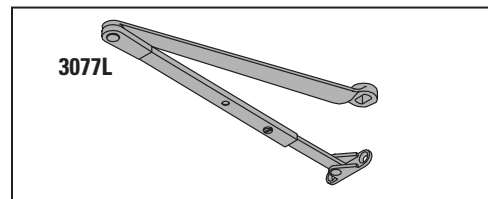
REGULAR ARM, 4410ME-3077

Non-handed arm.
3 7/8" (98 mm) maximum reveal.



LONG ARM, 4410ME-3077L

Optional long ARM for increasing opening to 180°. 3 7/8" (98 mm) maximum reveal.

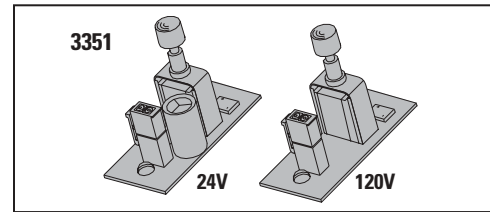


LCN 4410ME SERIES

SWITCH

SWITCH, 4410ME-3351

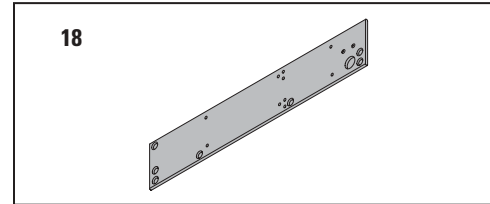
"On/Off" switch assembly provides continuous hold-open function. Available as 24V or 120V, please specify.



INSTALLATION ACCESSORIES

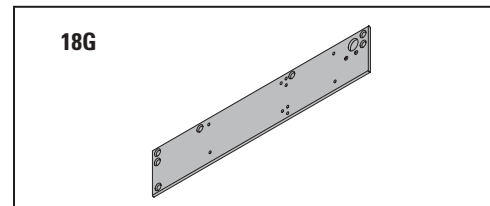
MOUNTING PLATE, 4410ME-18

Standard mounting plate.



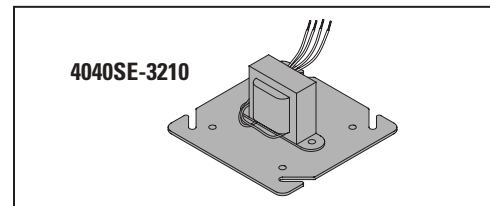
MOUNTING PLATE, 4410ME-18G

Optional mounting plate substituted for standard plate on flush ceiling installations.



TRANSFORMER, 4040SE - 3210

Reduces line voltage from 120V to 24V AC.
Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54 mm)
junction box (by others).



ME WIRING HARNESS, 4410ME-3354

Three wire harness with 6" (152 mm) leads for field wiring connections.

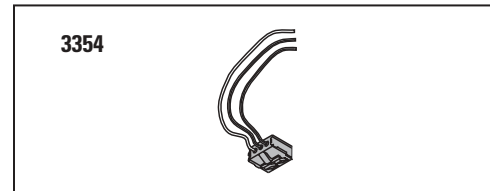
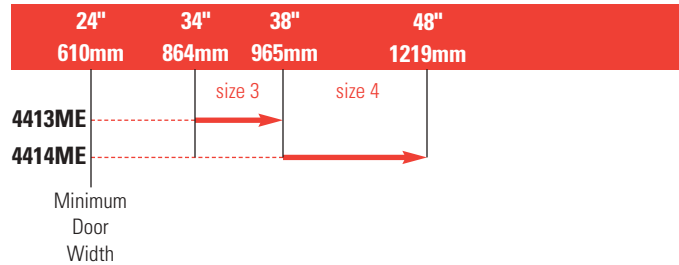


TABLE OF SIZES Select closer based on width of door.
 Sized 4410ME series cylinders available in size 3 or 4.
 Closing power of all 4410ME Series closers may be increased 15%.

→ Indicates recommended range of door width for closer size.

INTERIOR DOOR WIDTH



**HOW-TO-ORDER
 4410ME SERIES CLOSERS**

1. SELECT CYLINDER SIZE.

- 4413ME
- 4414ME

2. SPECIFY HAND.

- RH
- LH

3. VOLTAGE

- 24V AC/DC
- 120V AC/DC

4. SPECIFY FINISH.

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

Closer will be shipped with:

- STANDARD COVER,
 - REGULAR ARM,
 - WOOD & MACHINE SCREW PACK,
- unless options listed below are selected.*

CLOSER OPTIONS

CYLINDER FUNCTION

- Bypass 80° (B80)
- Bypass 140° (B140)

ARM

- Long (LONG)

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

SCREW PACK

- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)

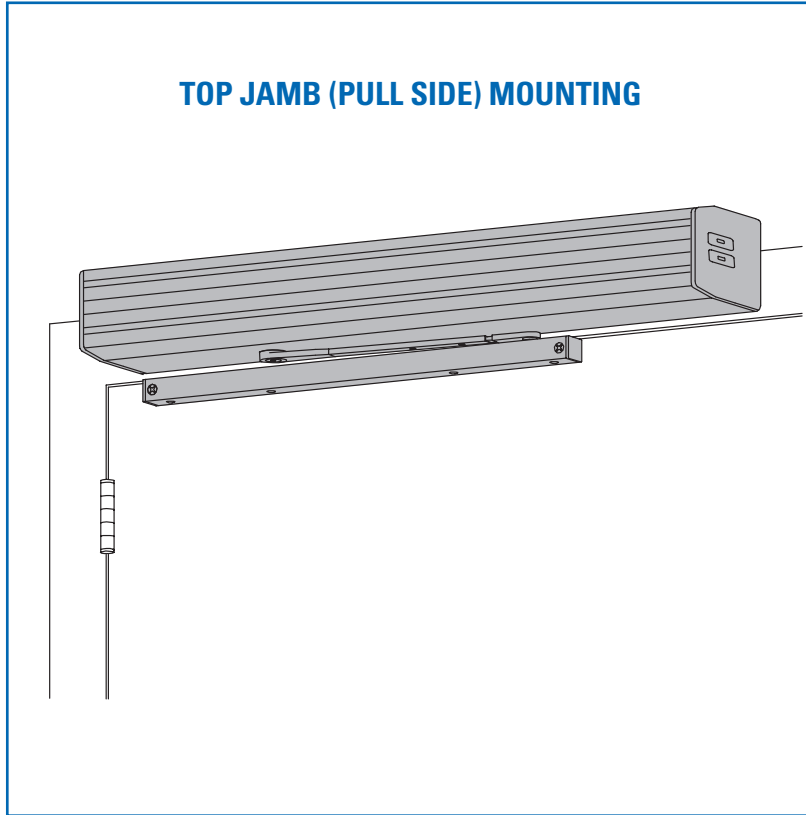
*Specify door thickness if other than 1 3/4".

INSTALLATION ACCESSORIES

- Plate, 4410ME-18G
 (substituted for standard mounting plate.)
- Transformer, 4040SE-3210

SPECIAL TEMPLATE

- ST-_____

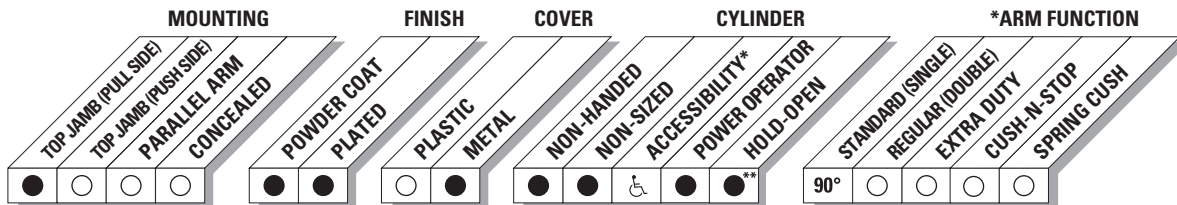


The 4630 AUTO-EQUALIZER™ is LCN's SMART & RELIABLE electrically powered low-energy power operator. It provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally required automatic opening.

- ▶ Standard, top jamb (pull side) mounted 4630 series closer shipped with single lever (standard) arm, metal cover, standard track, and wood and machine screw pack. Actuators available separately, see pages 192-195.
- ▶ Meets ADA, Section 4.13.12 requirements.
- ▶ Non-sized cylinders for interior doors to 4'0" and exterior doors to 3'0".
- ▶ Non-handed for either right or left swinging door.
- ▶ Easily accessible switches provide on/off and continuous hold-open functions. Control module provides all timing and sequential door functions, electric strike controls and adjustments for opening speed and force.
- ▶ Standard or optional custom powder coated finish, end caps are black.
- ▶ Optional plated finish on cover, arm, and fasteners.

- ▶ **NEW Digital Control Suite**
- ▶ **Utilizes a 10 Million Cycle Heavy Duty Door Closer**
- ▶ **On-Board Diagnostics**
- ▶ **On-board Power Supply**
- ▶ **Factory-Default Memory**
- ▶ **Plug-and-Play Connections**
- ▶ **No Destruct Feature**
- ▶ **No Guard Rails or Safety Mats Required**

4630 Series is UL and ULC listed with standard arm for self-closing doors and meets the provisions of ANSI Standards A117.1, A156.19, and the Americans with Disabilities Act.



- AVAILABLE
- NOT AVAILABLE
- ♿ Closer available with less than 5.0 lbs. opening force on 36" door.
- * See individual series for maximum manual opening.
- ** Switch provided for continuous Hold-Open.

LCN 4630 SERIES

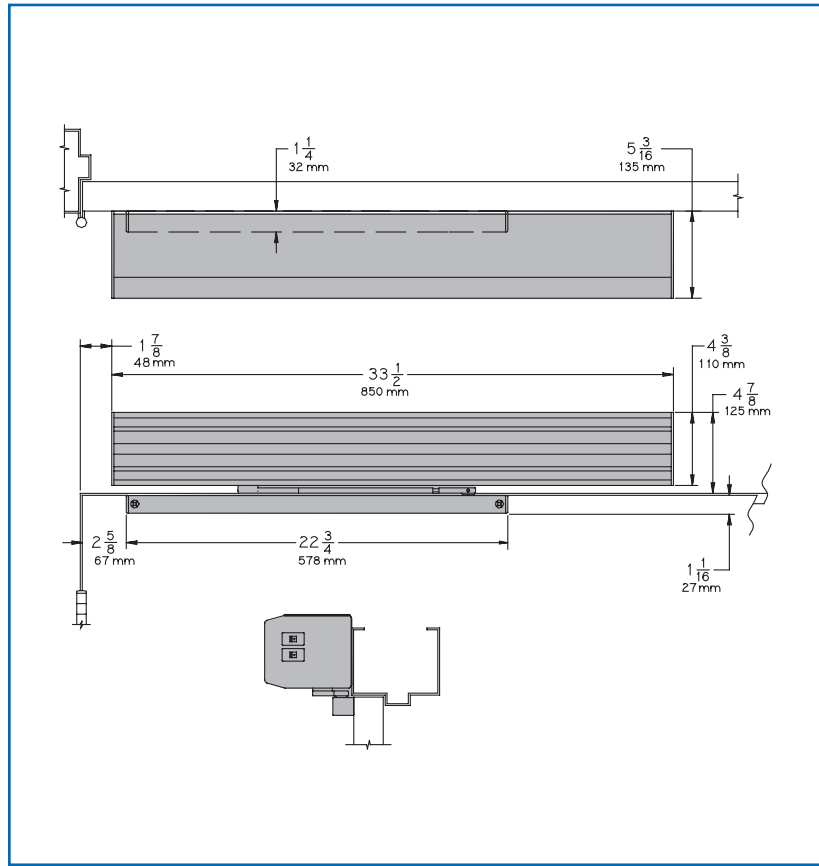
MOUNTING DETAILS

TOP JAMB (PULL SIDE) MOUNTING

MAXIMUM OPENING

Templating allows 90° power opening and 170° manual opening.

Consult factory for all pivot mounted installations.



- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop is recommended.**
- ▶ **Reveal** should not exceed 1/8" (3 mm).
- ▶ **Head Frame** minimum 2" (51 mm).
- ▶ **Top Rail** minimum 1 1/8" (29 mm).
- ▶ **Opening Time and Force** are variable by adjustments to the electronic control module located on the operator assembly. Maximum hold-open time adjustable up to approximately five minutes.
- ▶ **System Diagram** See "POWER OPERATORS" section page 9 for typical system wiring and pages 10-11 for electrical data.

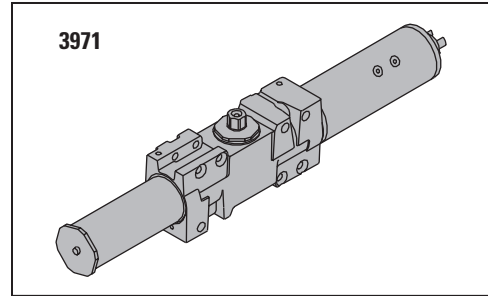
Special Templates

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

CYLINDERS

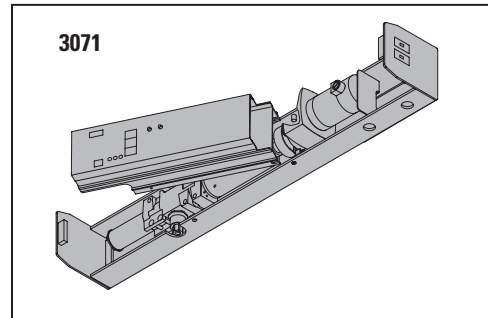
CYLINDER ONLY, 4631-3971

Standard, non-handed, cast iron cylinder.



CYLINDER ASSEMBLY, 4631-3071

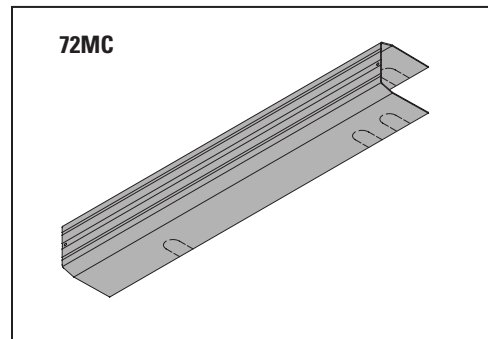
Standard, non-handed, cast iron cylinder and mounting plate. Includes; 4630-3454 Motor Clutch, 4630-3180 I/O Board Assembly and 4630-3462 Controller.



COVERS

COVER, 4630-72MC

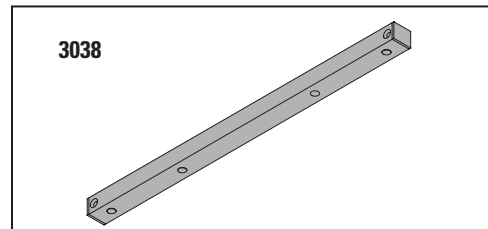
Standard, non-handed metal cover.



TRACKS

STANDARD TRACK, 4630-3038

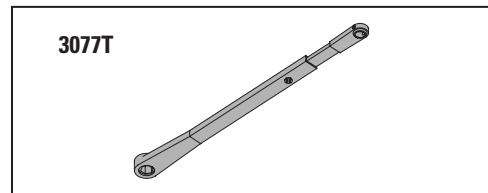
Standard non-handed track.
Will not accept hold-open clip or bumper assembly.



ARMS

STANDARD ARM, 4630-3077T

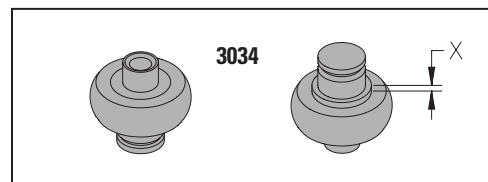
Non-handed arm.
Track roller not included with arm.



INSTALLATION ACCESSORIES

TRACK ROLLER, 4630-3034

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

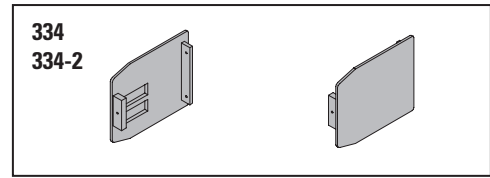


LCN 4630 SERIES

INSTALLATION ACCESSORIES

SWITCH END CAP, 4630-334

End cap (black powder coat only) with cut outs for installing on/off and hold-open switches.

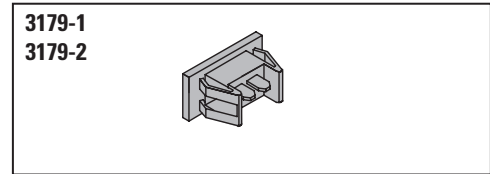


BLANK END CAP, 4630-334-2

Black powder coat only.

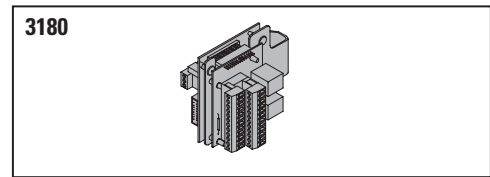
ON/OFF SWITCH ASSEMBLY, 4630-3179-1

Red rocker switch. Plugs into high voltage PC board.



HOLD-OPEN SWITCH ASSEMBLY, 4630-3179-2

Black rocker switch. Plug into low voltage PC board.

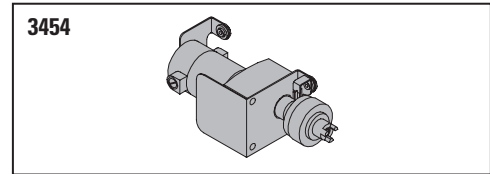


PC BOARD ASSEMBLY, 4630-3180

High and low voltage PC boards connected to mounting bracket.

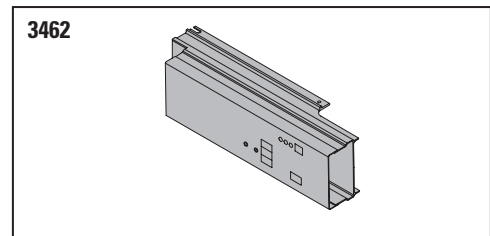
MOTOR/CLUTCH ASSEMBLY, 4630-3454

A geared assembly in an LCN power operator that incorporates a "no destruct" feature.



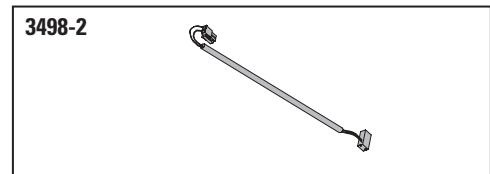
CONTROLLER ASSEMBLY, 4630-3462

Digital controller with built-in 12/24 VDC power supply. Programming and timing functions are adjusted on controller.



AC POWER CABLE, 4630-3498-2

2 wire cable to connect 120 VAC from PC board assembly to controller.



RIBBON CABLE CONNECTOR, 4630-3498-1

16 wire ribbon cable connecting 1-24 pin terminal connectors to controller.

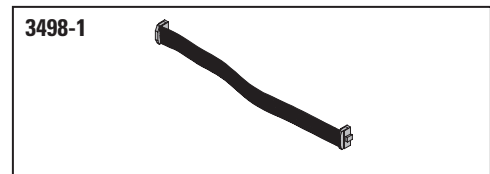


TABLE OF SIZES

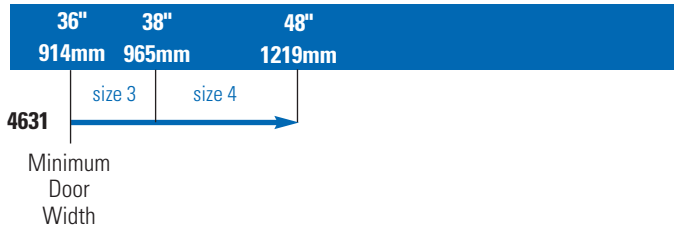
Non-Sized 4630 series cylinder is adjustable from size 1 through size 4 and is shipped set to size 3. Closing power of 4630 Series closers may be increased 50%.

→ Indicates recommended range of door width for closer size.
 Note: Minimum door width 36" (914 mm).

EXTERIOR (and VESTIBULE) DOOR WIDTH



INTERIOR DOOR WIDTH



HOW-TO-ORDER 4630 SERIES CLOSERS

1. SPECIFY FINISH.

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

Closer will be shipped with:

- STANDARD CYLINDER,
- STANDARD METAL COVER,
- STANDARD ARM,
- TRACK ROLLER,
- STANDARD TRACK and
- WOOD and MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

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- _____

TOP JAMB (PUSH SIDE) MOUNTING

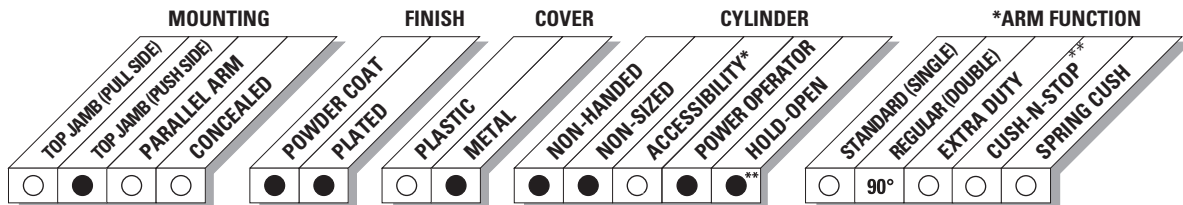


The 4640 AUTO-EQUALIZER™ is LCN's SMART & RELIABLE electrically powered low-energy power operator. It provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

- ▶ Standard, top jamb (push side) mounted 4640 series closer shipped with regular arm, metal cover, and wood and machine screw pack. Actuators available separately, see pages 192-195.
- ▶ Meets ADA, requirements (power mode only).
- ▶ Non-sized cylinders for interior doors to 4'6" and exterior doors to 3'6".
- ▶ Non-handed for either right or left swinging door.
- ▶ Easily accessible switches provide on/off and continuous hold-open functions. Control module provides all timing and sequential door functions, electric strike controls and adjustments for opening speed and force.
- ▶ Standard or optional custom powder coated finish, end caps are black.
- ▶ Optional plated finish on cover, arm, and fasteners.

- ▶ **NEW Digital Control Suite**
- ▶ **Utilizes a 10 Million Cycle Heavy Duty Door Closer**
- ▶ **On-Board Diagnostics**
- ▶ **On-board Power Supply**
- ▶ **Factory-Default Memory**
- ▶ **Plug-and-Play Connections**
- ▶ **No Destruct Feature**
- ▶ **No Guard Rails or Safety Mats Required**

The 4640 Series is UL and ULC listed with regular arm for self-closing doors and meets the provisions of ANSI Standards A117.1, A156.19, and the Americans with Disabilities Act.



- AVAILABLE
- NOT AVAILABLE
- ♿ Closer available with less than 5.0 lbs. opening force on 36" door.
- * See individual series for maximum manual opening.
- ** Switch provided for continuous Hold-Open.

LCN 4640 SERIES

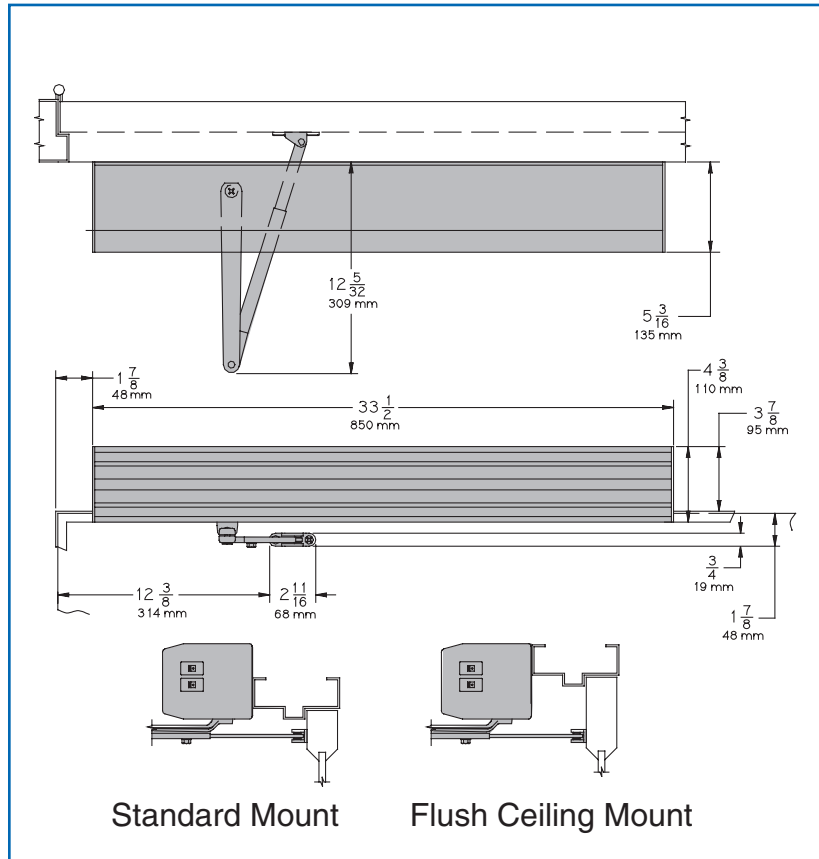
MOUNTING DETAILS

TOP JAMB (PUSH SIDE) MOUNTING

MAXIMUM OPENING

Templating allows 90° power opening and 100° manual opening.

Consult factory for all pivot mounted installations.



- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop is recommended.**
- ▶ **Reveal** of 4 1/2" (114 mm) allows up to 90° power opening and 100° manual opening. 8" (203 mm) allows up to 90° power opening and 100° manual opening with LONG ARM where standard rod and shoe is replaced with optional LONG ROD AND SHOE, 4640-79LR.
- ▶ **Head Frame** minimum 1 3/4" (44 mm). The standard mounting plate is also used to meet flush ceiling conditions.
- ▶ **Top Rail** minimum 1 3/4" (44 mm).
Flush ceiling installation requires 3 3/4" (95 mm) minimum.
- ▶ **Opening Time and Force** are variable by adjustments to the electronic control module located on the operator assembly. Maximum hold-open time adjustable up to approximately five minutes.
- ▶ **System Diagram** See "POWER OPERATORS" section page 9 for typical system wiring and pages 10-11 for electrical data.

Options

- ▶ Long arm.

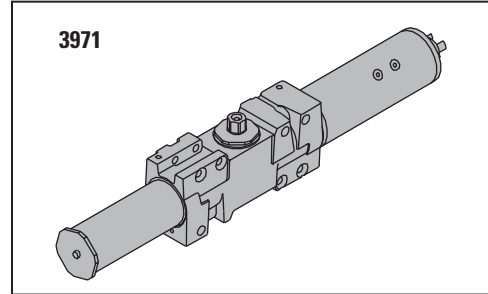
Special Templates

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

CYLINDERS

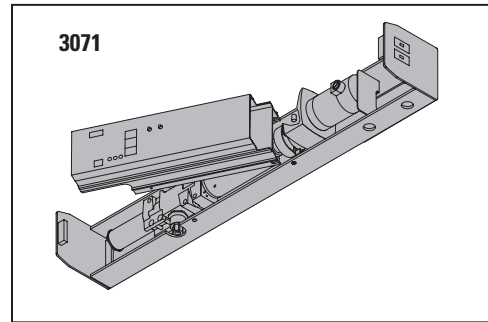
CYLINDER ONLY, 4642-3971

Standard, non-handed, cast iron cylinder.



CYLINDER ASSEMBLY, 4642-3071

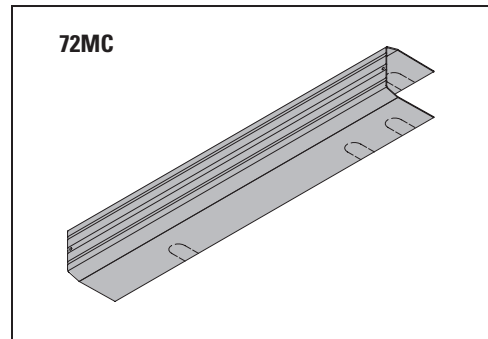
Standard, non-handed, cast iron cylinder and mounting plate. Includes; 4640-3454 Motor Clutch, 4640-3180 I/O Board Assembly and 4640-3462 Controller.



COVERS

COVER, 4640-72MC

Standard, non-handed metal cover.



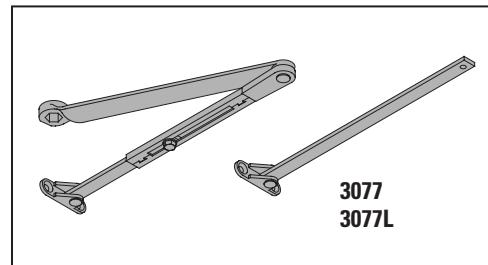
ARMS

REGULAR ARM, 4640-3077

Non-handed arm.

LONG ARM, 4640-3077L

Arm includes LONG ROD AND SHOE, 4640-79LR for deep reveals.

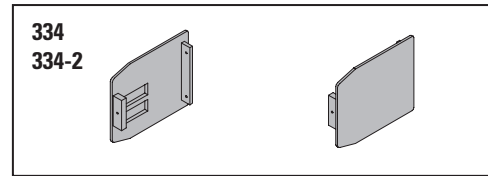


LCN 4640 SERIES

INSTALLATION ACCESSORIES

SWITCH END CAP, 4640-334

End cap (black powder coat only) with cut outs for installing on/off and hold-open switches.

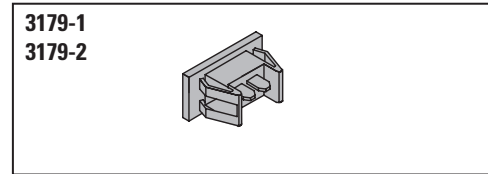


BLANK END CAP, 4640-334-2

Black powder coat only.

ON/OFF SWITCH ASSEMBLY, 4640-3179-1

Red rocker switch. Plugs into high voltage PC board.

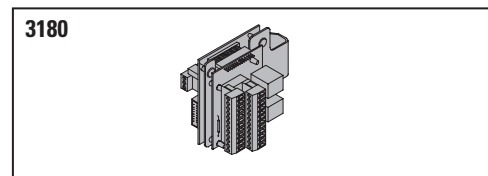


HOLD-OPEN SWITCH ASSEMBLY, 4640-3179-2

Black rocker switch. Plug into low voltage PC board.

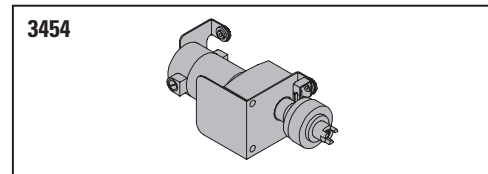
PC BOARD ASSEMBLY, 4640-3180

High and low voltage PC boards connected to mounting bracket.



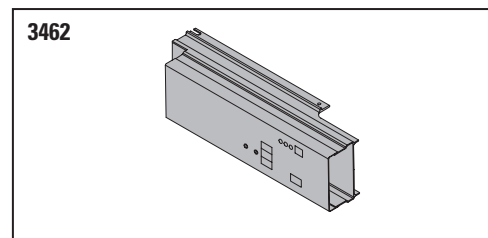
MOTOR/CLUTCH ASSEMBLY, 4640-3454

A geared assembly in an LCN power operator that incorporates a "no destruct" feature.



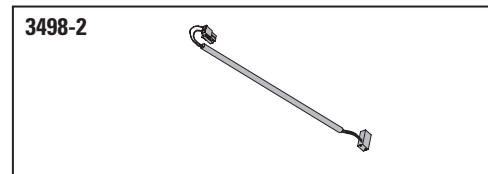
CONTROLLER ASSEMBLY, 4640-3462

Digital controller with built-in 12/24 VDC power supply. Programming and timing functions are adjusted on controller.



AC POWER CABLE, 4640-3498-2

2 wire cable to connect 120 VAC from PC board assembly to controller.



RIBBON CABLE CONNECTOR, 4640-3498-1

16 wire ribbon cable connecting 1-24 pin terminal connectors to controller.

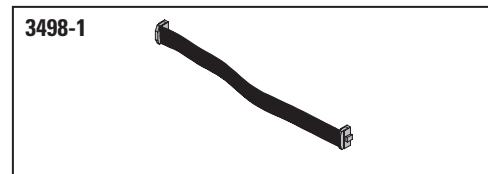


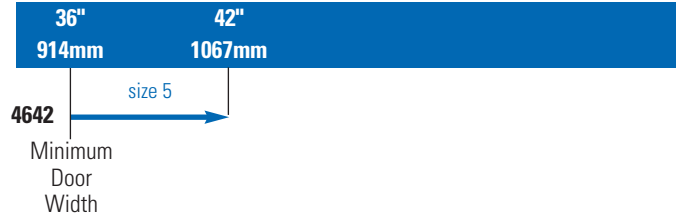
TABLE OF SIZES

Non-sized 4640 series cylinder is adjustable from size 2 through size 5 and is shipped set to size 3. Closing power of 4640 Series closers may be increased 50%.

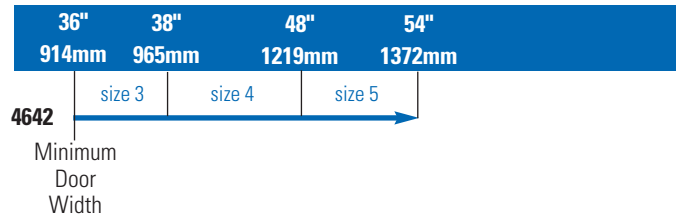
→ Indicates recommended range of door width for closer size.

NOTE: Minimum door width 36" (914 mm)

EXTERIOR (and VESTIBULE) DOOR WIDTH



INTERIOR DOOR WIDTH



HOW-TO-ORDER 4640 SERIES CLOSERS

1. SPECIFY FINISH.

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

Closer will be shipped with:

- STANDARD CYLINDER,
- STANDARD METAL COVER,
- REGULAR ARM, and
- WOOD and MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

ARM

- Long (LONG)

SCREW PACK

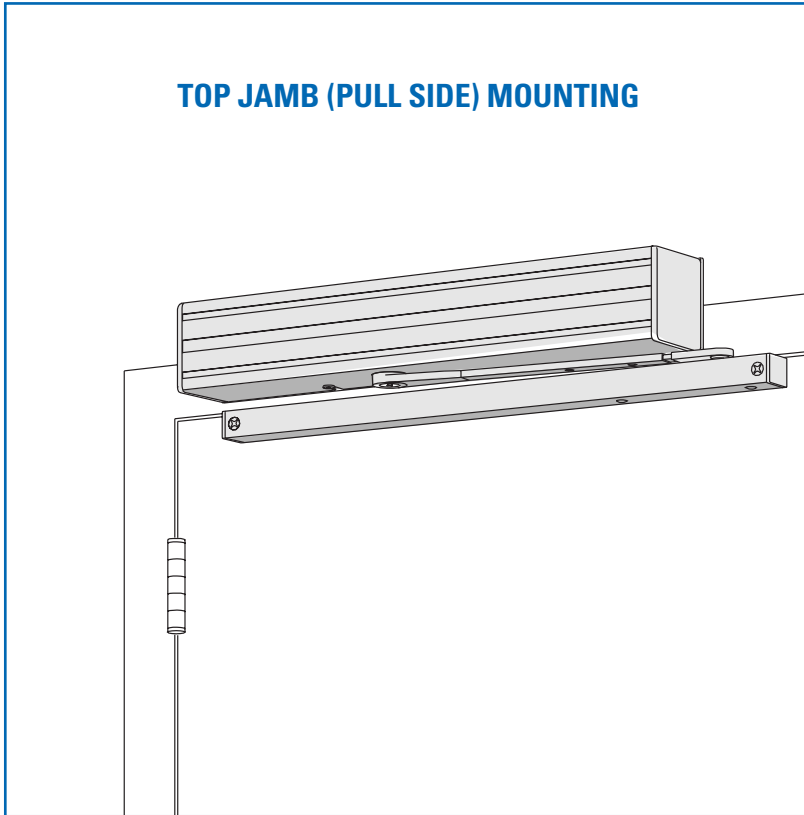
- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)

*Specify door thickness if other than 1 3/4".

SPECIAL TEMPLATE

- ST- _____

TOP JAMB (PULL SIDE) MOUNTING



The 4810 AUTO-EQUALIZER™ is LCN's pneumatically powered MULTI-DOOR solution. This low-energy power operator provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

- ▶ Ideal for multi-door applications since cost per door leaf decrease significantly as the number of door leaves increases.
- ▶ Standard, plate mounted 4810 series closer shipped with single lever (standard) arm, metal cover, standard track, and wood and machine screw pack. See 4810 Series page 173 for options.
- ▶ Meets ADA requirements.
- ▶ Non-sized cylinders for interior doors to 4'0" and exterior doors to 3'0".
- ▶ Non-handed.
- ▶ Requires additional system components. See CONTROL BOX pages 184-186 and ACTUATORS & ACCESSORIES, pages 192-195.
- ▶ Standard or optional custom powder coated finish, end caps are black.
- ▶ Optional plated finish on cover, arm, and fasteners.

- ▶ **Multi-Door Solution**
- ▶ **Utilizes a 10 Million Cycle Heavy Duty Door Closer**
- ▶ **Quiet, Efficient & Reliable**
- ▶ **Requires Control Boxes with integral compressor or control box using auxiliary air supply.**
- ▶ **No Guard Rails/Safety Mats Required**

The 4810 Series is UL and ULC listed with standard arm for self-closing doors and meets the provisions of ANSI Standards A117.1, A156.19, and the Americans with Disabilities Act.

MOUNTING				FINISH		COVER		CYLINDER			*ARM FUNCTION						
TOP JAMB (PULL SIDE)	TOP JAMB (PUSH SIDE)	PARALLEL ARM	CONCEALED	POWDER COAT	PLATED	PLASTIC	METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY*	POWER OPERATOR	HOLD-OPEN	STANDARD (SINGLE)	REGULAR (DOUBLE)	EXTRA DUTY ARM	CUSH-N-STOP	SPRING CUSH
●	○	○	○	●	●	○	●	●	○	○	○	○	90°	○	○	○	○

- Available
- Not available

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* See individual series for maximum manual opening.

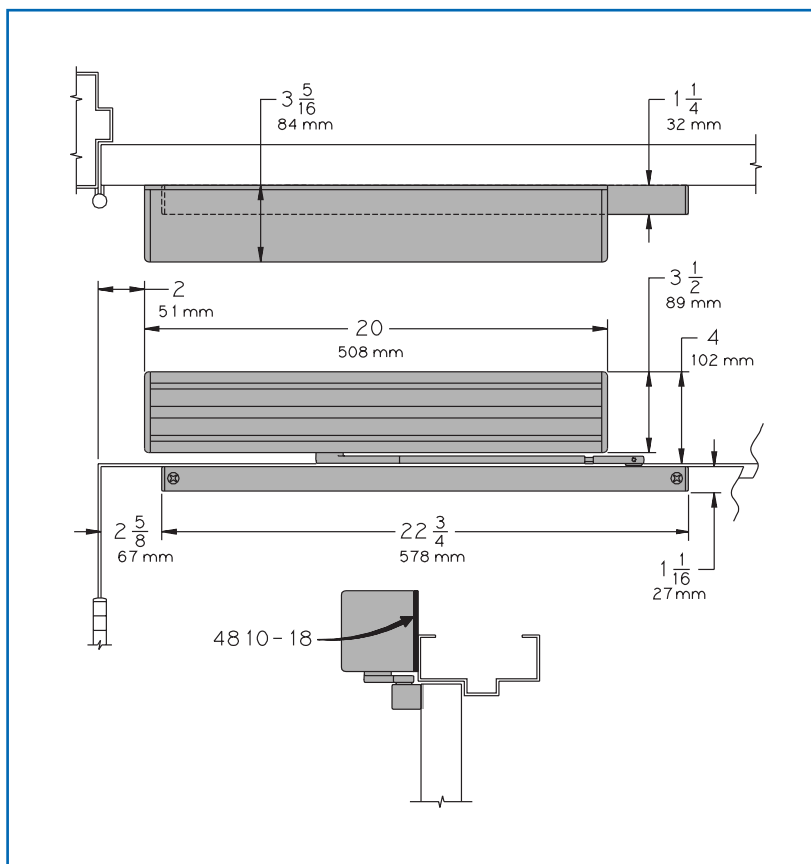
LCN 4810 SERIES

MOUNTING DETAILS

TOP JAMB (PULL SIDE) MOUNTING

MAXIMUM OPENING

Templating allows 90° power opening and 170° manual opening.



- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop is recommended.**
- ▶ **Reveal** should not exceed 1/8" (3 mm).
- ▶ **Head Frame** minimum 2" (51 mm).
- ▶ **Top Rail** minimum 1 1/8" (29 mm).
- ▶ **System Diagram** See "POWER OPERATORS" section pages 164-165 for typical system wiring, and page 186 for electrical and pneumatic data.

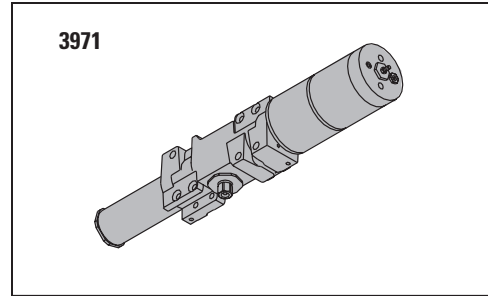
Special Templates

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

CYLINDERS

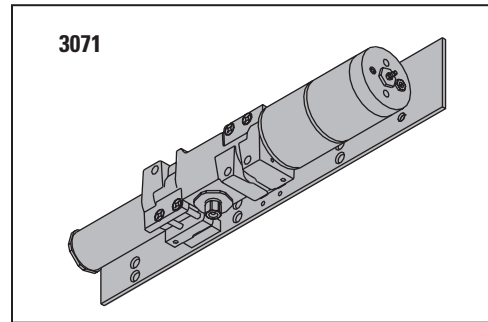
CYLINDER ONLY, 4811-3971

Standard, non-handed, cast iron cylinder.



CYLINDER ASSEMBLY, 4811-3071

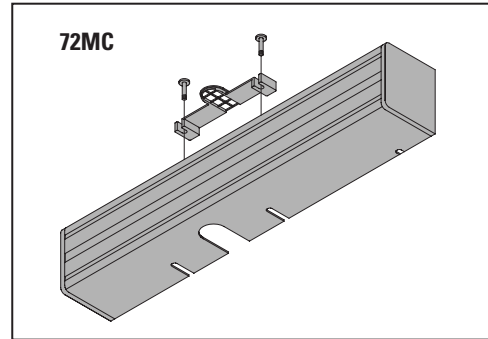
Standard, non-handed, cast iron cylinder and mounting plate.



COVERS

COVER, 4810-72MC

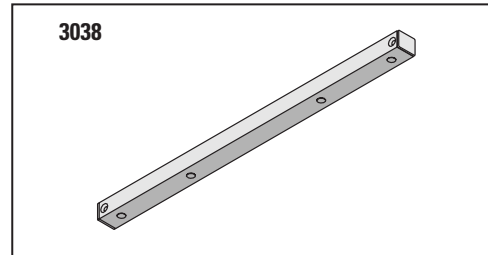
Standard, non-handed metal cover with black end caps.



TRACKS

STANDARD TRACK, 4810-3038

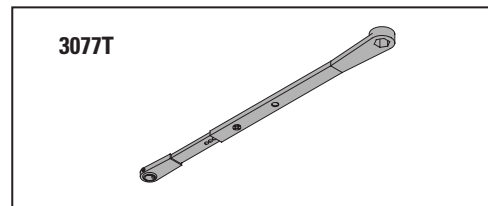
Standard non-handed track.
Will not accept hold-open clip or bumper assembly.



ARMS

STANDARD ARM, 4810-3077T

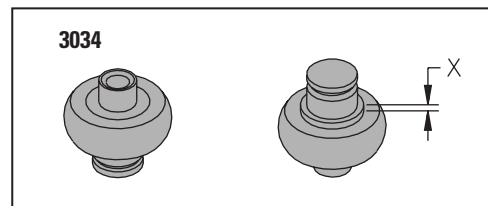
Non-handed arm.
Track roller not included with arm.



INSTALLATION ACCESSORIES

TRACK ROLLER, 4810-3034

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



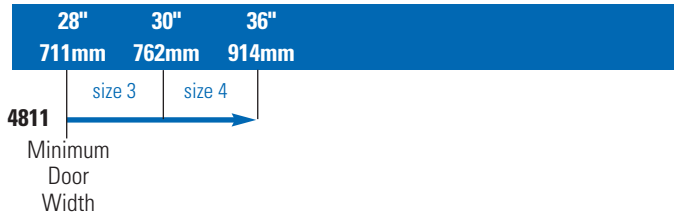
LCN 4810 SERIES

TABLE OF SIZES

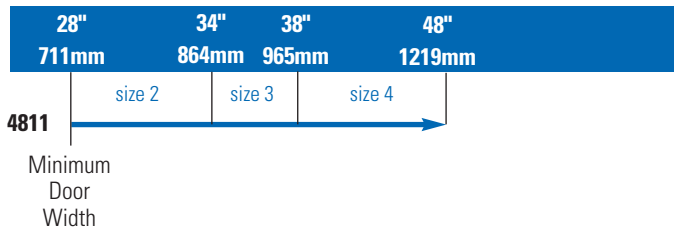
Non-sized 4810 series cylinder is adjustable from size 1 through size 4 and is shipped set to size 3. Closing power of 4810 Series closers may be increased 50%.

→ Indicates recommended range of door width for closer size.
 Note: Minimum door width 28" (711 mm).

EXTERIOR (and VESTIBULE) DOOR WIDTH



INTERIOR DOOR WIDTH



HOW-TO-ORDER 4810 SERIES CLOSERS

1. SPECIFY FINISH.

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

Closer will be shipped with:

- STANDARD CYLINDER,
- STANDARD METAL COVER,
- STANDARD ARM,
- TRACK ROLLER,
- STANDARD TRACK,
- WOOD and MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

SCREW PACK

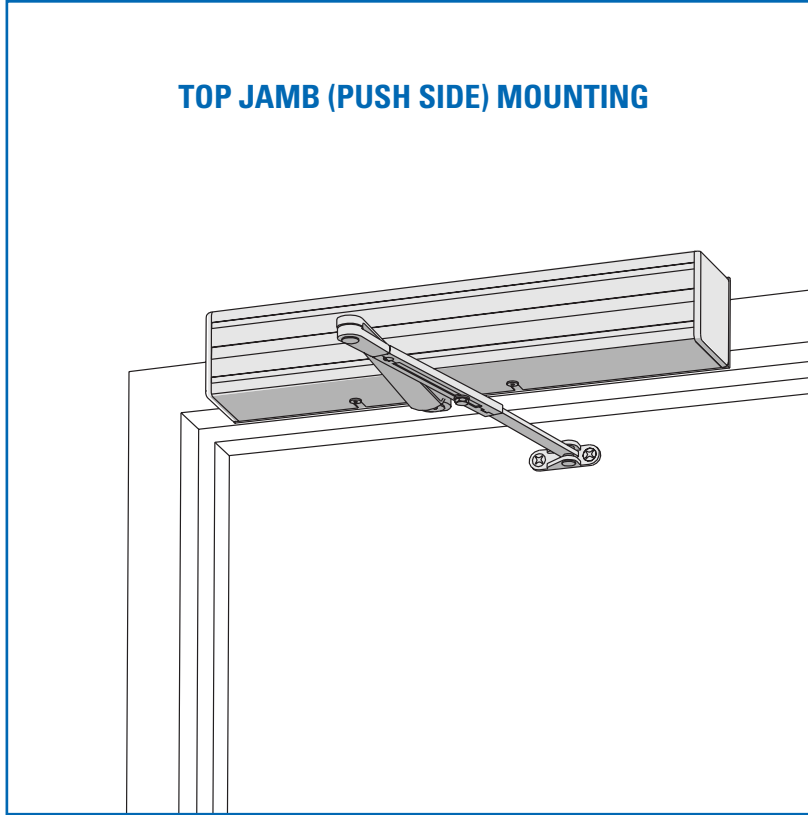
- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)

*Specify door thickness if other than 1 3/4".

SPECIAL TEMPLATE

- ST- _____

TOP JAMB (PUSH SIDE) MOUNTING



The 4820 AUTO-EQUALIZER™ is LCN's pneumatically powered MULTI-DOOR solution. This low-energy power operator provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

- ▶ Ideal for multi-door applications since cost per door leaf decrease significantly as the number of door leaves increases.
- ▶ Standard, plate mounted 4820 series closer shipped with regular arm, metal cover, and wood and machine screw pack. See 4820 Series page 177 for options.
- ▶ Meets ADA requirements (power mode only).
- ▶ Non-sized cylinders for interior doors to 4'6" and exterior doors to 3'6".
- ▶ Non-handed.
- ▶ Requires additional system components. See CONTROL BOX pages 184-186 and ACTUATORS & ACCESSORIES, pages 192-195.
- ▶ Standard or optional custom powder coated finish, end caps are black.
- ▶ Optional plated finish on cover, arm, and fasteners.

- ▶ **Multi-Door Solution**
- ▶ **Utilizes a 10 Million Cycle Heavy Duty Door Closer**
- ▶ **Quiet, Efficient & Reliable**
- ▶ **Requires Control Boxes with integral compressor or control box using auxiliary air supply.**
- ▶ **No Guard Rails/Safety Mats Required**

The 4820 Series is UL and ULC listed with regular arm for self-closing doors and meets the provisions of ANSI Standards A117.1, A156.19, and the Americans with Disabilities Act.

MOUNTING				FINISH		COVER		CYLINDER			*ARM FUNCTION						
○ TOP JAMB (PULL SIDE)	● TOP JAMB (PUSH SIDE)	○ PARALLEL ARM	○ CONCEALED	● POWDER COAT	● PLATED	○ PLASTIC	● METAL	● NON-HANDED	○ NON-SIZED	● ACCESSIBILITY*	○ POWER OPERATOR	○ HOLD-OPEN	○ STANDARD (SINGLE)	○ REGULAR (DOUBLE)	○ EXTRA DUTY	○ CUSH-N-STOP	○ SPRING CUSH

- AVAILABLE
- NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* See individual series for maximum manual opening.

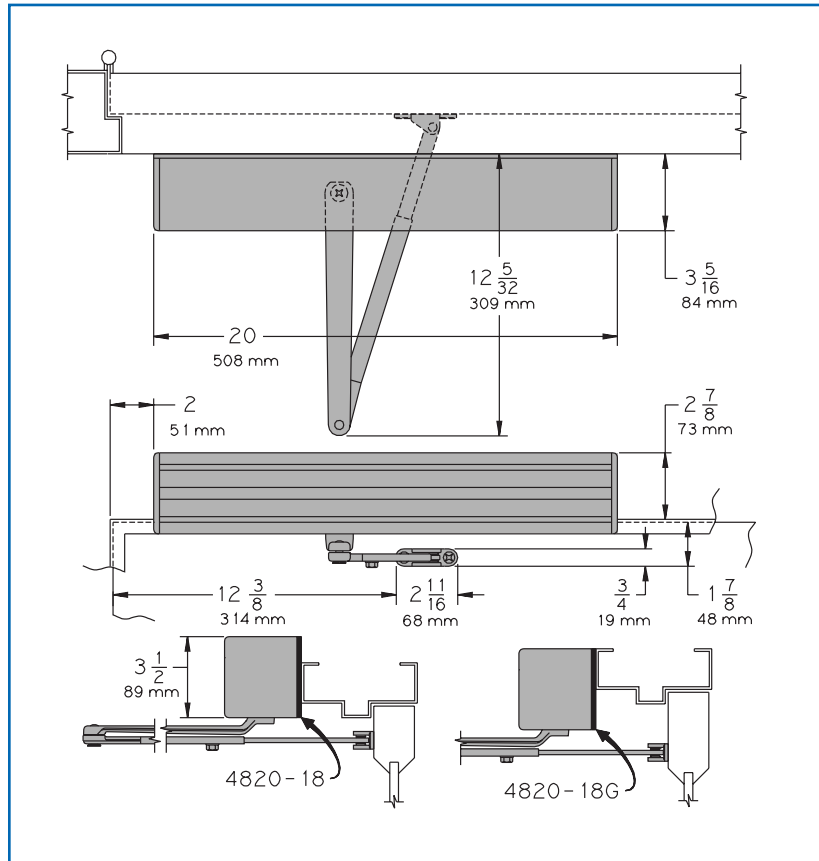
LCN 4820 SERIES

MOUNTING DETAILS

TOP JAMB (PUSH SIDE) MOUNTING

MAXIMUM OPENING

Templating allows 90° power opening and 100° manual opening.



- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop is recommended.**
- ▶ **Reveal** of 4 1/2" (114 mm) allows up to 90° power opening and 100° manual opening. 8" (203 mm) allows up to 90° power opening and 100° manual opening with LONG ARM where standard rod and shoe is replaced with optional LONG ROD AND SHOE, 4820-79LR.
- ▶ **Head Frame** minimum 1 3/4" (44 mm).
With flush ceiling use PLATE, 4820-18G substituted for standard plate.
- ▶ **Top Rail** minimum 1 3/4" (44 mm).
Closer on 4820-18G plate requires 3" (76 mm) minimum.
- ▶ **System Diagram** See "POWER OPERATORS" section pages 164-165 for typical system wiring, and page 186 for electrical and pneumatic data.

Options

- ▶ Long arm.
- ▶ 18G plate.

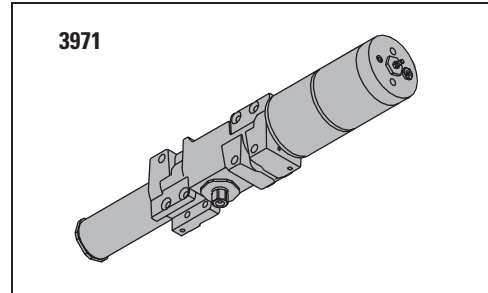
Special Templates

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

CYLINDERS

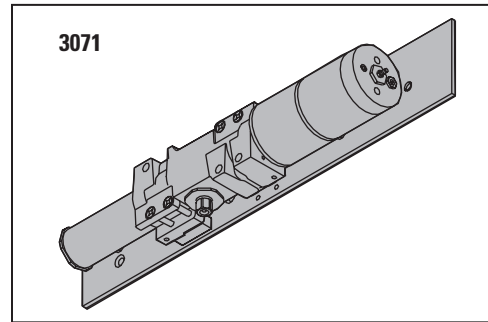
CYLINDER ONLY, 4822-3971

Standard, non-handed, cast iron cylinder.



CYLINDER ASSEMBLY, 4822-3071

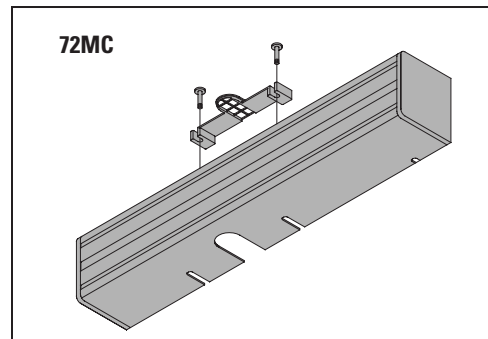
Standard, non-handed, cast iron cylinder. Includes; 4820-18 Mounting Plate or 4820-18G Mounting Plate (must specify).



COVERS

COVER, 4820-72MC

Standard, non-handed metal cover with black end caps.



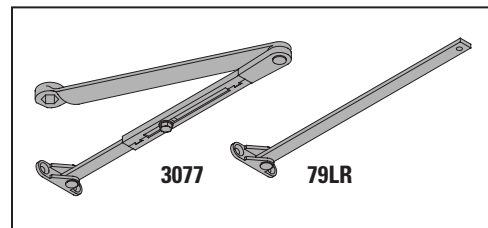
ARMS

REGULAR ARM, 4820-3077

Non-handed arm.

LONG ARM, 4820-3077L

Arm includes LONG ROD AND SHOE, 4820-79LR for deep reveals.



INSTALLATION ACCESSORIES

PLATE, 4820-18

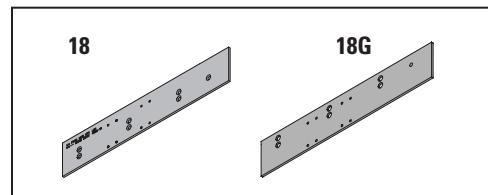
Standard mounting plate.

Plate requires minimum 1 3/4" (44 mm) minimum head frame and 2" (51 mm) top rail.

PLATE, 4820-18G

Replaces standard plate for flush ceiling condition.

Plate requires minimum 1 3/4" (44 mm) minimum head frame and 3" (76 mm) top rail.



LCN 4820 SERIES

TABLE OF SIZES

Non-sized 4820 Series cylinder is adjustable from size 2 through size 5 and is shipped set to size 3. Closing power of 4820 Series closers may be increased 50%.

→ Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm
4822	size 3	size 4	size 5	
Minimum Door Width	→			

INTERIOR DOOR WIDTH

	24" 610mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm
4822	size 2	size 3	size 4	size 5	
Minimum Door Width	→				

HOW-TO-ORDER 4820 SERIES CLOSERS

1. SPECIFY FINISH.

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

Closer will be shipped with:

- STANDARD CYLINDER,
- STANDARD METAL COVER,
- REGULAR ARM,
- WOOD and MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

ARM

- Long (LONG)

SCREW PACK

- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)

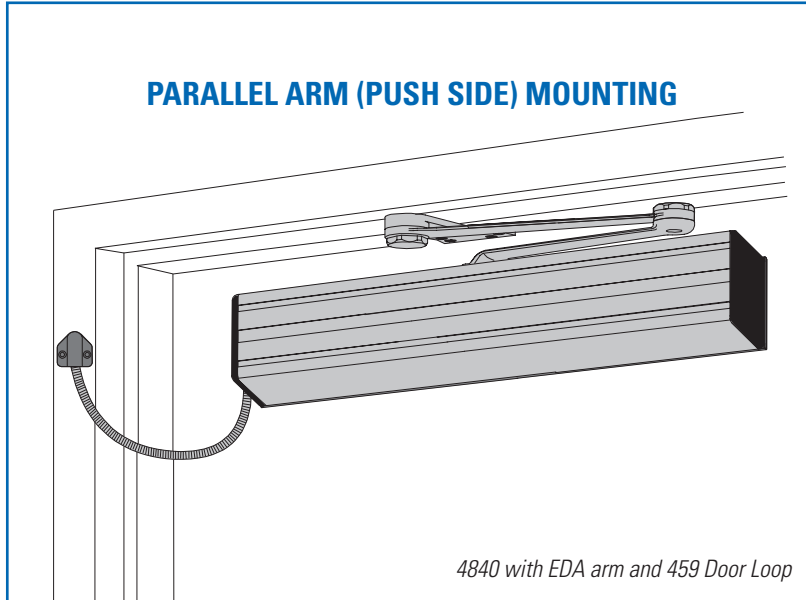
*Specify door thickness if other than 1 3/4".

INSTALLATION ACCESSORIES

- Plate, 4820-18
- Plate, 4820-18G

SPECIAL TEMPLATE

- ST-_____



The 4840 AUTO-EQUALIZER™ is LCN's pneumatically powered MULTI-DOOR solution. This low-energy power operator provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

- ▶ Ideal for multi-door applications since cost per door leaf decrease significantly as the number of door leaves increases.
- ▶ Standard, plate mounted 4840 series closer shipped with EXTRA DUTY arm, metal cover and a wood and machine screw pack. See 4840 Series page 181-182 for options.
- ▶ Meets ADA requirements.
- ▶ Installation requires use of either DOOR LOOP-459 or TRANSFER HINGE- 460, see page 182 in this section for details.
- ▶ Non-sized cylinders for interior doors to 4'6" and exterior doors to 3'6".
- ▶ Non-Handed.
- ▶ Requires additional system components. See CONTROL BOX pages 184-186 and ACTUATORS & ACCESSORIES, pages 192-195.
- ▶ Standard or optional custom powder coated finish, end caps are black.
- ▶ Optional plated finish on cover, arm, and fasteners.

- ▶ **Multi-Door Solution**
- ▶ **Utilizes a 10 Million Cycle Heavy Duty Door Closer**
- ▶ **Quiet, Efficient & Reliable**
- ▶ **Requires Control Boxes with integral compressor or control box using auxiliary air supply.**
- ▶ **No Guard Rails/Safety Mats Required**

The 4840 Series is UL and ULC listed for self-closing doors and meets the provisions of ANSI Standards A117.1,A156.19, and the Americans with Disabilities Act.

MOUNTING				FINISH		COVER		CYLINDER			*ARM FUNCTION						
TOP JAMB (PULL SIDE)	TOP JAMB (PUSH SIDE)	PARALLEL ARM	CONCEALED	POWDER COAT	PLATED	PLASTIC	METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY*	POWER OPERATOR	HOLD-OPEN	STANDARD (SINGLE)	REGULAR (DOUBLE)	EXTRA DUTY	CUSH-N-STOP	SPRING CUSH
○	○	●	○	●	●	○	●	●	○	○	○	○	○	○	○	○	○

- AVAILABLE
- NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* See individual series for maximum manual opening.

LCN 4840 SERIES

MOUNTING DETAILS

PARALLEL ARM (PUSH SIDE) MOUNTING

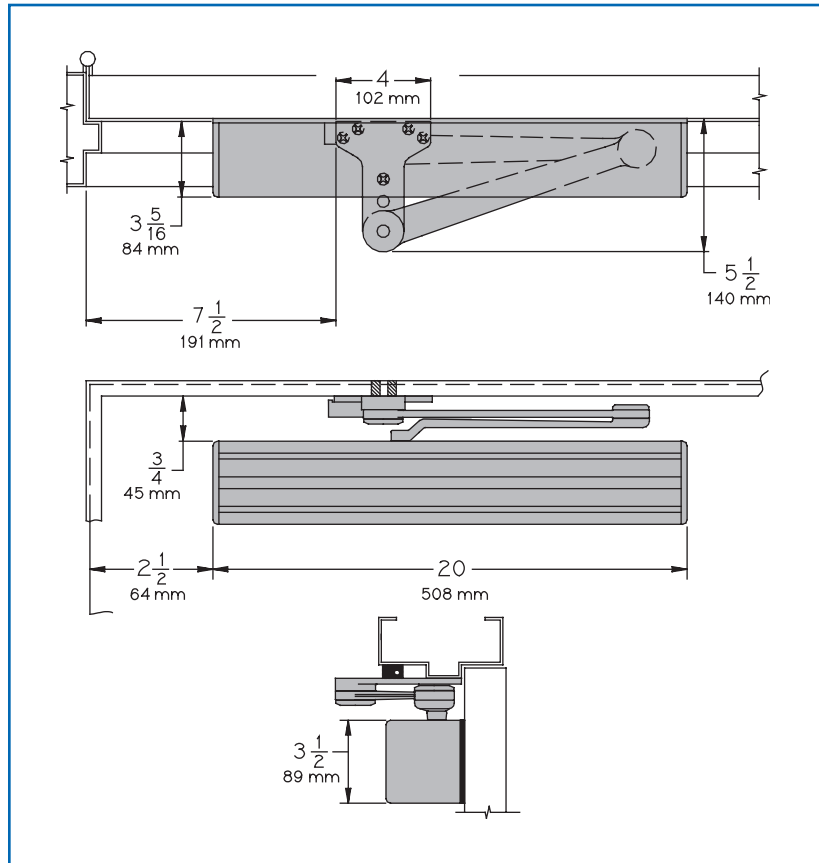
MAXIMUM OPENING

Maximum power opening is 90° with all arms.

Maximum manual opening is 105° with EDA or SPRING CUSH arms.

Maximum manual opening is 100° with CUSH-N-STOP arm.

NOTE: For CUSH-N-STOP or SPRING CUSH arm installations with maximum opening less than listed above, consult factory for Special Template.



Options

- CUSH or SPRING CUSH arms.

Special Templates

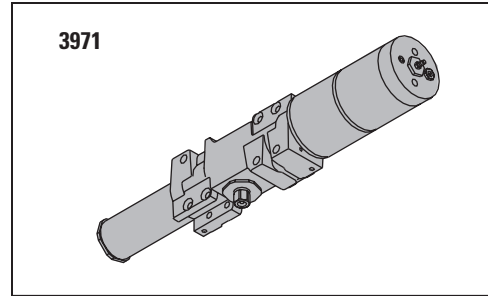
Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Auxiliary Stop** is recommended when CUSH-N-STOP or SPRING CUSH arms are not used.
- ▶ **Clearance** for EDA or CUSH shoes is 5 1/2" (140 mm) from door face.
- ▶ **Top Rail** minimum 4 1/8" (105 mm).
- ▶ **Head Frame** (flush) requires PA SHOE ADAPTER, 4840-418.
- ▶ **Stop Width** minimum 1" (25 mm).
- ▶ **Blade Stop** clearance requires 1/2" (13 mm) BLADE STOP SPACER, 4840-61.
- ▶ **System Diagram** See "POWER OPERATORS" section pages 164-165 for typical system wiring, and page 186 for electrical and pneumatic data.

CYLINDERS

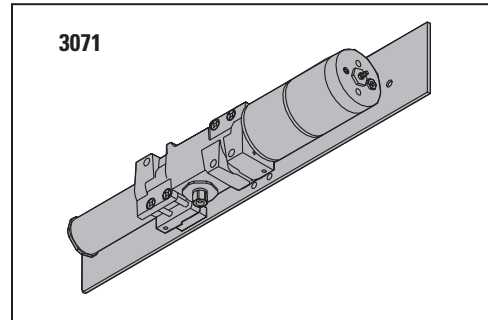
CYLINDER ONLY, 4841-3971

Standard, non-handed, cast iron cylinder.



CYLINDER ASSEMBLY, 4841-3071

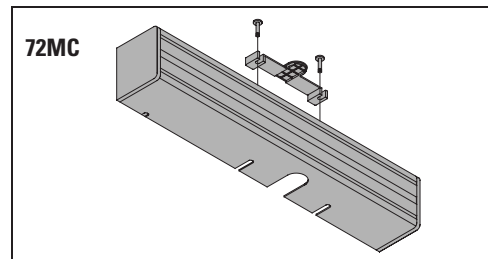
Standard, non-handed, cast iron cylinder and mounting plate.



COVERS

COVER, 4840-72MC

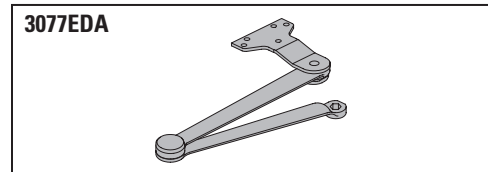
Standard, non-handed metal cover with black end caps.



ARMS

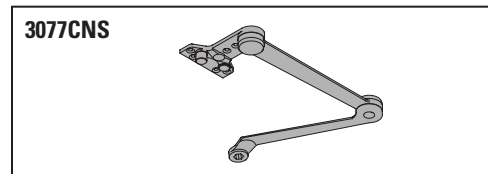
EXTRA DUTY ARM, 4840-3077EDA

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



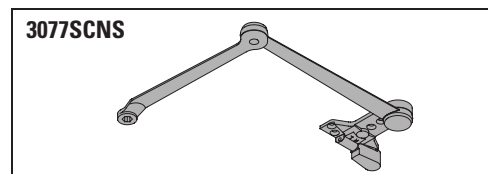
CUSH-N-STOP ARM, 4840-3077CNS

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



SPRING CUSH ARM, 4840-3077SCNS

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

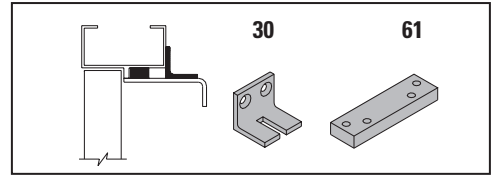


LCN 4840 SERIES

INSTALLATION ACCESSORIES

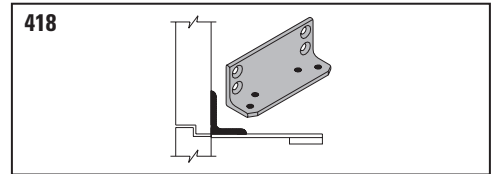
CUSH SHOE SUPPORT, 4840-30

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

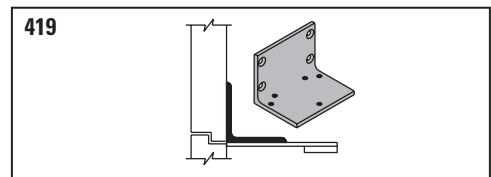


BLADE STOP SPACER, 4840-61

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



PA SHOE ADAPTER, 4840-418 provides horizontal mounting surface for parallel arm shoe on single rabbetted or flush frame.

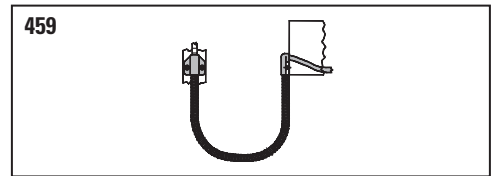


CUSH FLUSH PANEL ADAPTER, 4840-419

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

DOOR LOOP KIT, 4840-459

Surface mounted, flexible metal loop transfers pressurized air via pneumatic tubing from frame to closer end cap. Extra caps allow tubing to run on frame surface or concealed in the frame.



PNEUMATIC TRANSFER HINGE, 4840-460

Transfers pressurized air via pneumatic tubing from frame to door leaf for fully concealed installations. Preparation of a raceway is required from the hinge stile of the door to the top rail for concealment of the pneumatic tubing within the door leaf.

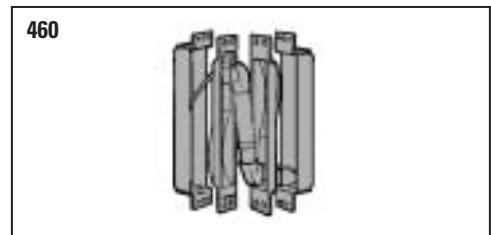


TABLE OF SIZES

Non-sized 4841 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3. Closing power of 4841 closers may be increased 50%.

→ Indicates recommended range of door width for closer size.
Note: Minimum door width 24" (610 mm).

EXTERIOR (and VESTIBULE) DOOR WIDTH

24"	30"	36"	42"
610mm	762mm	914mm	1067 mm

	size 3	size 4	size 5
--	--------	--------	--------

4841

Minimum
Door Width

INTERIOR DOOR WIDTH

24"	34"	38"	48"	54"
610mm	864mm	965mm	1219mm	1372mm

		size 3	size 4	size 5
--	--	--------	--------	--------

4841

Minimum
Door Width

HOW-TO-ORDER 4840 SERIES CLOSERS

1. SPECIFY FINISH.

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

Closer will be shipped with:

- STANDARD CYLINDER,
- STANDARD METAL COVER,
- EXTRA DUTY ARM,
- WOOD and MACHINE SCREW PACK,
unless options listed below are selected.

CLOSER OPTIONS

FINISH

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

ARMS

- CUSH-N-STOP (CUSH)
- SPRING CUSH (SCUSH)

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".

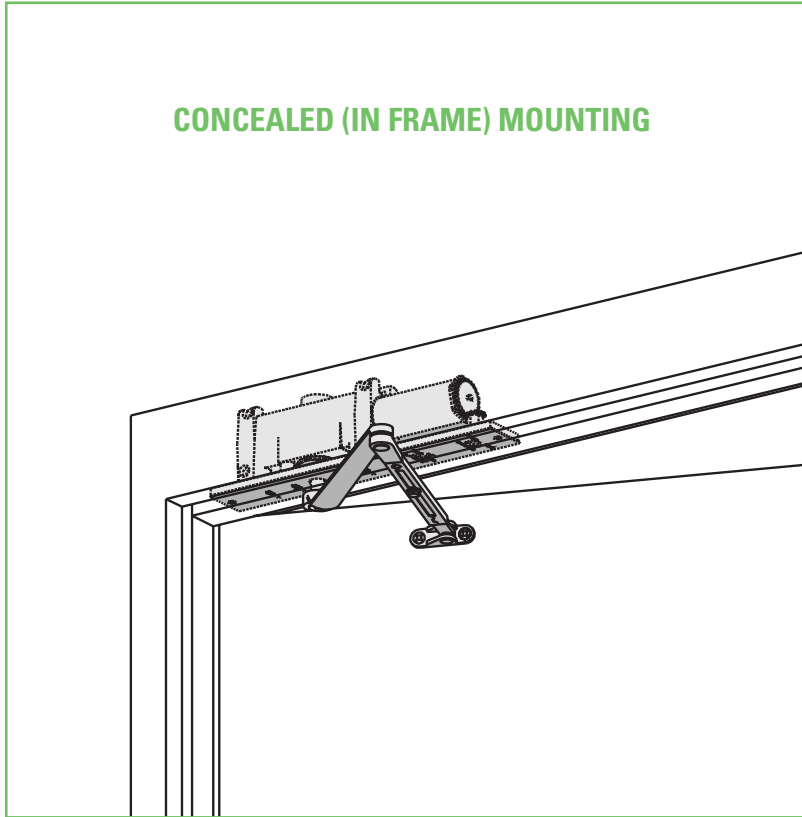
INSTALLATION ACCESSORIES

- Cush Shoe Support, 4840-31
- Blade Stop Spacer, 4840-61
- Cush Flush Panel Adapter, 4840-419
- Door Loop Kit, 4840-459
- Pneumatic Transfer Hinge, 4840-460

SPECIAL TEMPLATE

- ST- _____

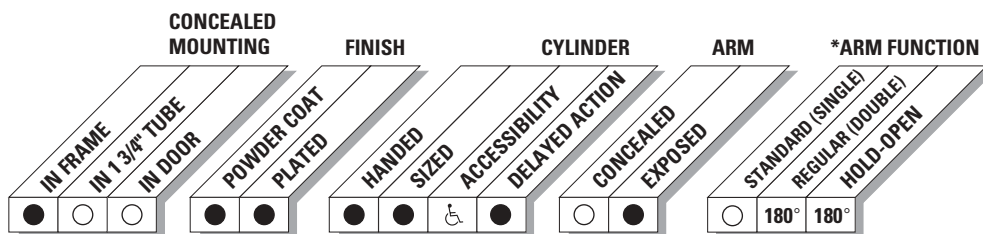
CONCEALED (IN FRAME) MOUNTING



The concealed 5010 Series is a heavy duty closer designed for institutional, high traffic, or other applications exposed to weather or abuse. The double lever arm provides superior door control and a choice of finishes, cylinder functions, and arm functions that meet virtually all architectural requirements.

The 5010 Series is UL listed with regular arms for self-closing doors. Tested and certified under ANSI Standard A156.4.

- ▶ Standard 5010 series closer shipped with regular arm, metal finish plate, and wood and machine screw pack. See 5010 Series page 27 for options.
- ▶ Sized cylinders for interior doors to 5'0" and exterior doors to 4'0".
- ▶ Handed for right or left swinging doors.
- ▶ For hollow metal or wood, door and frame.
- ▶ Aluminum frame requires minimum 4" (102 mm) x 4" tube.
- ▶ Closers to meet ADA requirements. See 5010 Series page 28.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on finish plate, arm, and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.



- Available
- Not available

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

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

LCN 5010 SERIES

MOUNTING DETAILS

CONCEALED MOUNTING

For interior or exterior doors.
Single acting cylinder in head frame.
Exposed arm on push side of door.

MAXIMUM OPENING

Butt hung doors can be templated for 100°,

(A) = 10 3/16" (259 mm)

(B) = 12" (305 mm)

or 180°,

(A) = 5 1/2" (140 mm)

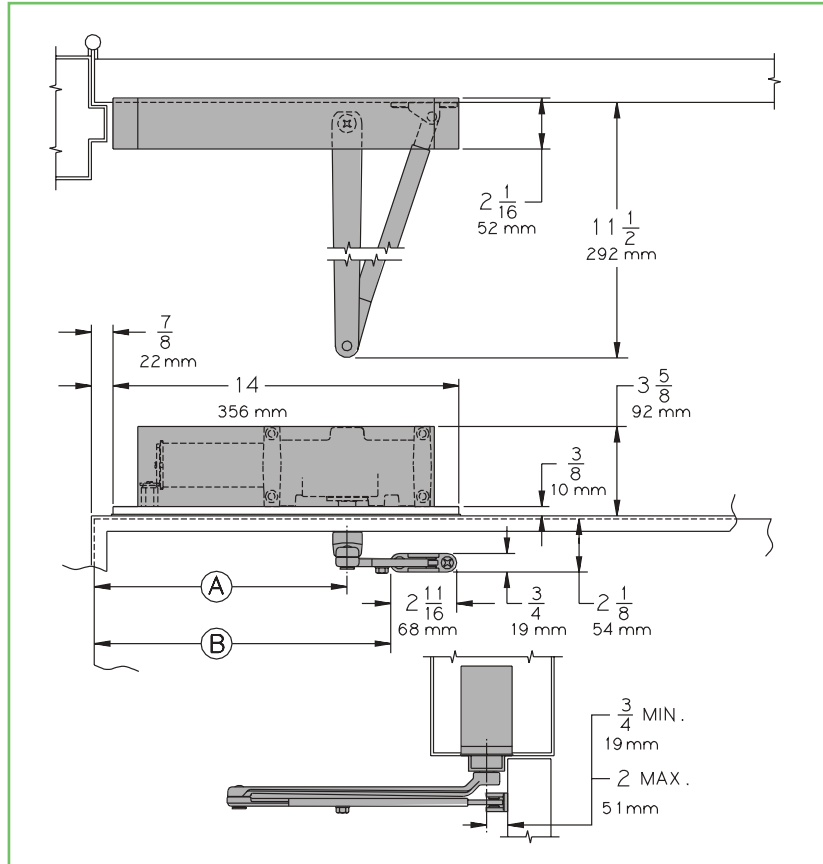
(B) = 7 5/16" (186 mm)

trim permitting.

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

Center pivot mounting restricts opening to 140°.

Offset pivot mounting allows up to 180°, trim permitting.



- ▶ **Butt Hinges** should not exceed 6" (152 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 180°.
- ▶ **Top Rail** minimum 2 1/8" (54 mm) required.
- ▶ **Delay Action** Add suffix "DEL" to selected cylinder (eg. 5014 DEL). Not available with 5016 cylinder. Delays closing from maximum opening to approximately 70°. Delay time adjustable up to approximately 1 minute.

Options

- ▶ Delayed action cylinder.
- ▶ Hold-open, H180 hold-open.

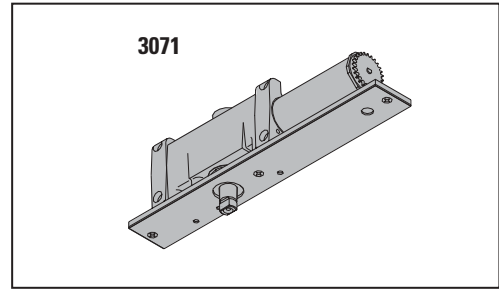
Special Templates

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

CYLINDERS

CYLINDER, 5010-3071

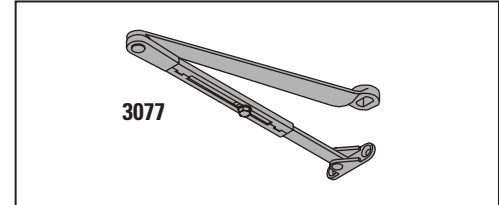
Standard, handed, cast iron cylinder assembly with mounting plate. For various applications see "Table of Sizes" on 5010 Series page 28



ARMS

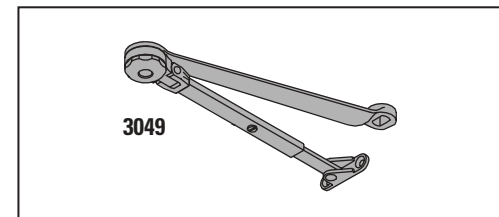
REGULAR ARM, 5010-3077

Non-handed arm.



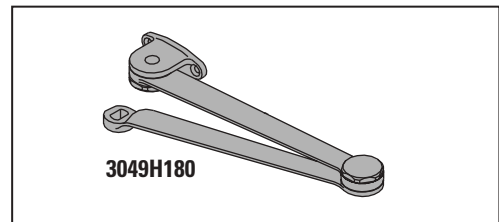
HOLD-OPEN ARM, 5010-3049

Optional, handed arm provides hold-open function for 100° template, adjustable at elbow.



HOLD-OPEN H180 ARM, 5010-3049H180

Optional, handed arm provides hold-open function for 180° template, adjustable at shoe.

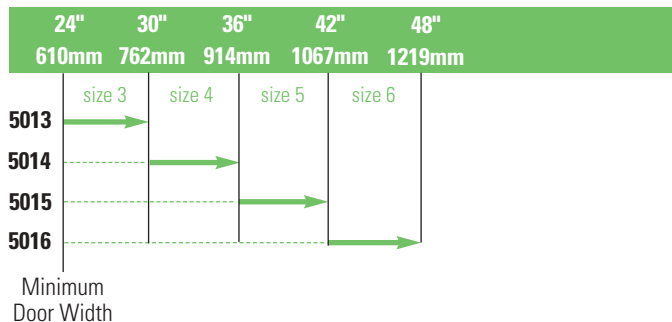


LCN 5010 SERIES

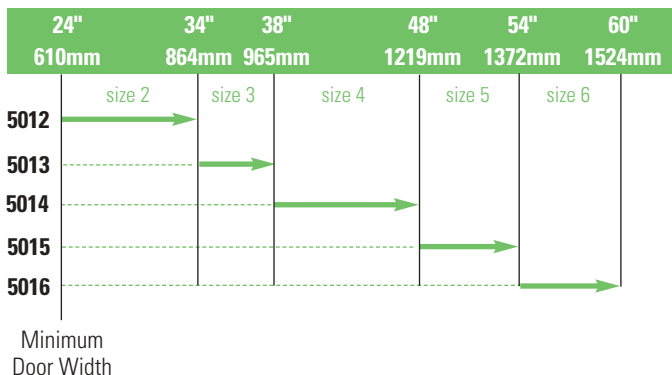
TABLE OF SIZES Select closer based on width of door.
 Series cylinders available in size 1, 2, 3, 4, 5, or 6.
 Closing power of all 5010 Series closers may be increased 50%.
 Specify next higher size closer where strong drafts exist.
 Delayed action not available with 5016 cylinder.

→ Indicates recommended range of door width for closer size.

EXTERIOR (and VESTIBULE) DOOR WIDTH




INTERIOR DOOR WIDTH



REDUCED OPENING FORCE 5010 CLOSERS

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	5012	5013	5013
	5.0* lbs.	5011	5011	5012

* Maximum opening force

**HOW-TO-ORDER
5010 SERIES CLOSERS**

1. SELECT CYLINDER SIZE.

- 5011 (ADA)
- 5012
- 5013
- 5014
- 5015
- 5016 (DEL not available)

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:

- FINISH PLATE,
 - REGULAR ARM,
 - WOOD and MACHINE SCREW PACK,
- unless options listed below are selected.

CLOSER OPTIONS

CYLINDER FUNCTION

- Delayed Action (DEL)

ARM

- Hold-Open (H)
- H180 Hold-Open (H180)

FINISHES

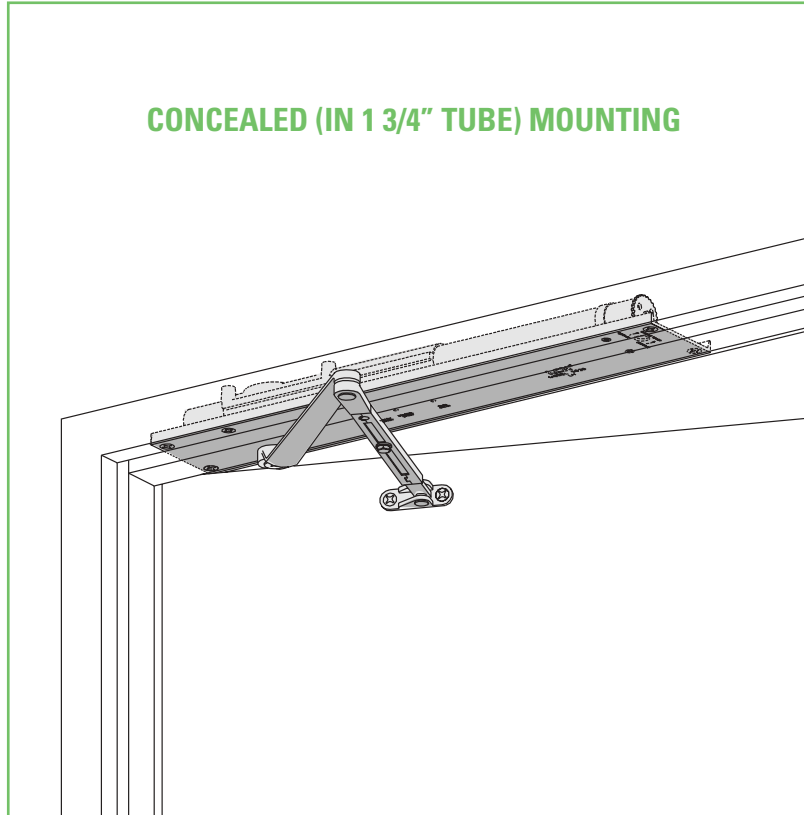
- Custom Powder Coat (RAL) _____
- Plated Finish, US _____
- SRI primer

SCREW PACK

- TORX Machine Screw (TORX)

SPECIAL TEMPLATE

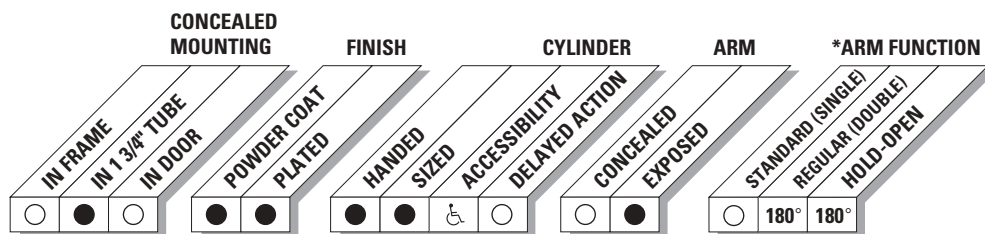
- ST- _____



The concealed 5030 Series PACER® is a heavy duty closer designed to fit in a narrow, minimum 1 3/4" aluminum transom. The double lever arm provides superior door control and the choice of finishes and arm functions meet virtually all architectural requirements.

The 5030 Series is UL listed with regular arms for self-closing doors. Tested and certified under ANSI Standard A156.4.

- ▶ Standard 5030 series closer shipped with regular arm, mounting/finish plate and wood and machine screw pack. See 5030 Series page 31 for options.
- ▶ Sized cylinders for interior doors to 5'0" and exterior doors to 4'0".
- ▶ Handed for right or left swinging doors.
- ▶ Aluminum frame requires minimum 1 3/4" (44 mm) x 4 1/2" (114 mm) tube.
- ▶ Closers to meet ADA requirements. See 5030 Series page 32.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on arm, fasteners and mounting/finish plate.



- Available
- Not available

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

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

LCN 5030 SERIES

MOUNTING DETAILS

CONCEALED MOUNTING

For interior or exterior doors.
Single acting cylinder in head frame.
Exposed arm on push side of door.

MAXIMUM OPENING

Butt hung doors can be templated for 100°,

(A) = 5 13/16" (148 mm)

(B) = 11 13/16" (300 mm)

or 180°,

(A) = 2 1/16" (52 mm)

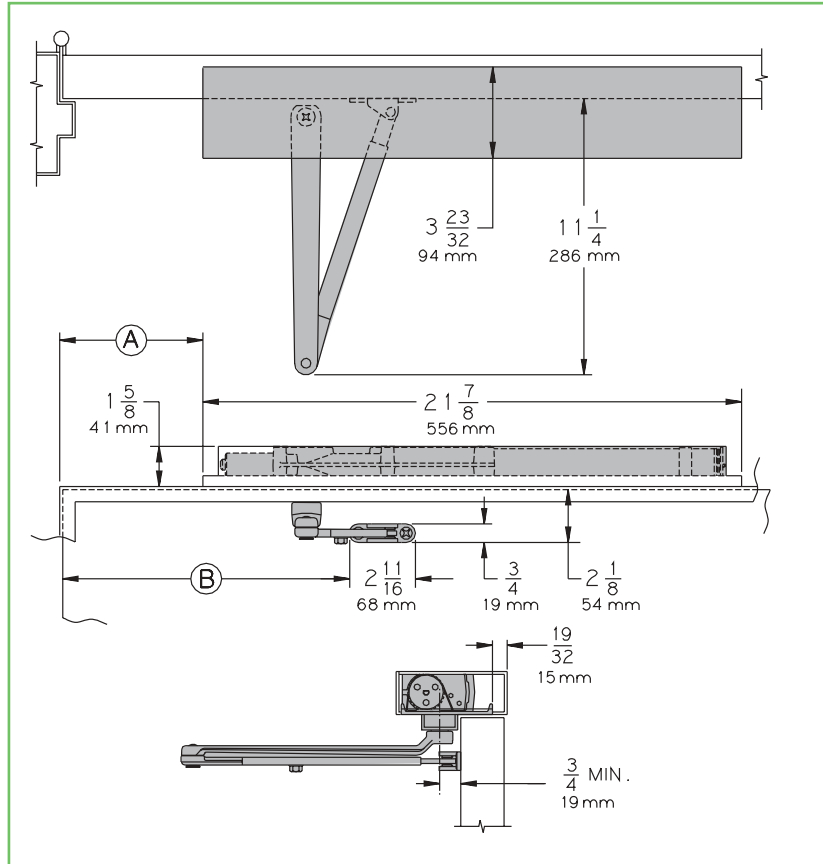
(B) = 8 1/16" (205 mm)

trim permitting.

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

Center pivot mounting restricts opening to 120°.

Offset pivot mounting allows up to 115°, trim permitting.



- ▶ **Butt Hinges** should not exceed 6" (152 mm) in width.
- ▶ **Auxiliary Stop** is recommended at hold-open point or where the door cannot swing 180°.
- ▶ **Wood Frame** installation simplified by WOOD MOUNTING CLIP SET 5030-416 for center pivoted or 5030-417 for offset pivoted and butt hung installations. Consult factory for preparation details.
- ▶ **Top Rail** minimum 2 1/8" (54 mm) required.
- ▶ **Door Thickness** maximum 1 3/4" (44 mm), for doors thicker than 1 3/4" consult factory.

Options

- ▶ Hold-open, H180 hold-open.

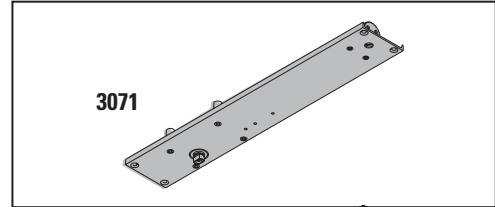
Special Templates

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

CYLINDERS

CYLINDER, 5030-3071

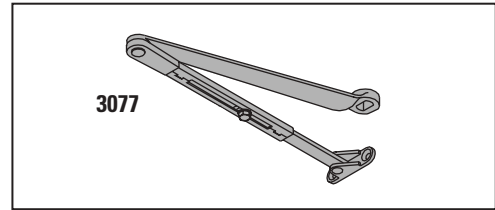
Standard, handed, cast iron cylinder assembly with mounting plate. For various applications see "Table of Sizes" on 5030 Series page 32.



ARMS

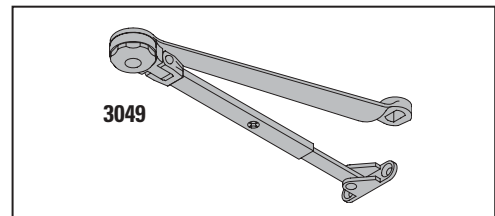
REGULAR ARM, 5030-3077

Non-handed arm.



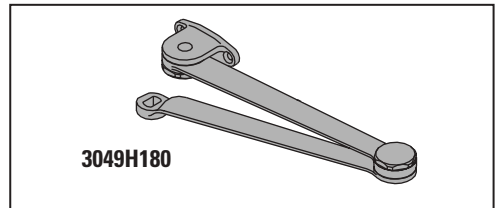
HOLD-OPEN ARM, 5030-3049

Optional, handed arm provides hold-open function for 100° template, adjustable at elbow.



HOLD-OPEN H180 ARM, 5030-3049H180

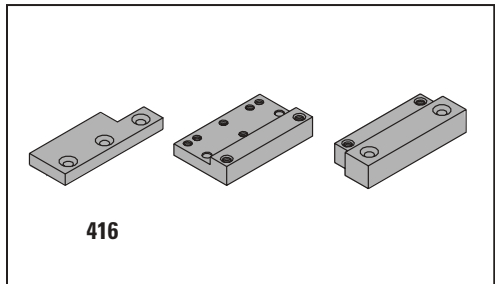
Optional, handed arm provides hold-open function for 180° template, adjustable at shoe.



INSTALLATION ACCESSORIES

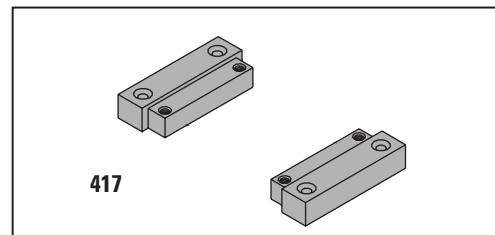
WOOD MOUNTING CLIP SET, 5030-416

Simplifies mounting center pivoted 5030 closer in wood frame. Includes latch stile clip, hinge stile clip, and cover. For use with Ives Series center pivots. Consult factory for special template.



WOOD MOUNTING CLIP SET, 5030-417

Simplifies mounting offset pivoted or butt hung 5030 closer in wood frame. Includes two clips. For use with offset pivots.

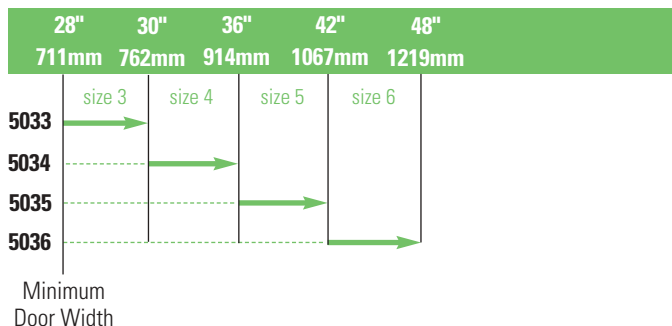


LCN 5030 SERIES

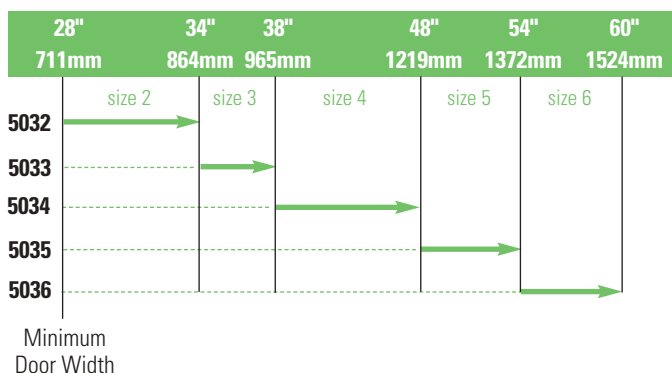
TABLE OF SIZES Select closer based on width of door.
 5030 Series cylinders available in size 1, 2, 3, 4, 5, or 6.
 Closing power of all 5030 Series closers may be increased 50%.
 Specify next higher size closer where strong drafts exist.

→ Indicates recommended range of door width for closer size.
 Note: Minimum door width 28" (711 mm).

EXTERIOR (and VESTIBULE) DOOR WIDTH




INTERIOR DOOR WIDTH



REDUCED OPENING FORCE 5030 CLOSERS

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	5032	5033	5033
	5.0* lbs.	5031	5031	5032

* Maximum opening force

HOW-TO-ORDER 5030 SERIES CLOSERS

1. SELECT CYLINDER SIZE

- 5031 (ADA)
- 5032
- 5033
- 5034
- 5035
- 5036

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:

- REGULAR ARM,
- WOOD and MACHINE SCREW PACK,
 unless options listed below are selected.

CLOSER OPTIONS

ARM

- Hold-Open (H)
- H180 Hold-Open (H180)

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____

SCREW PACK

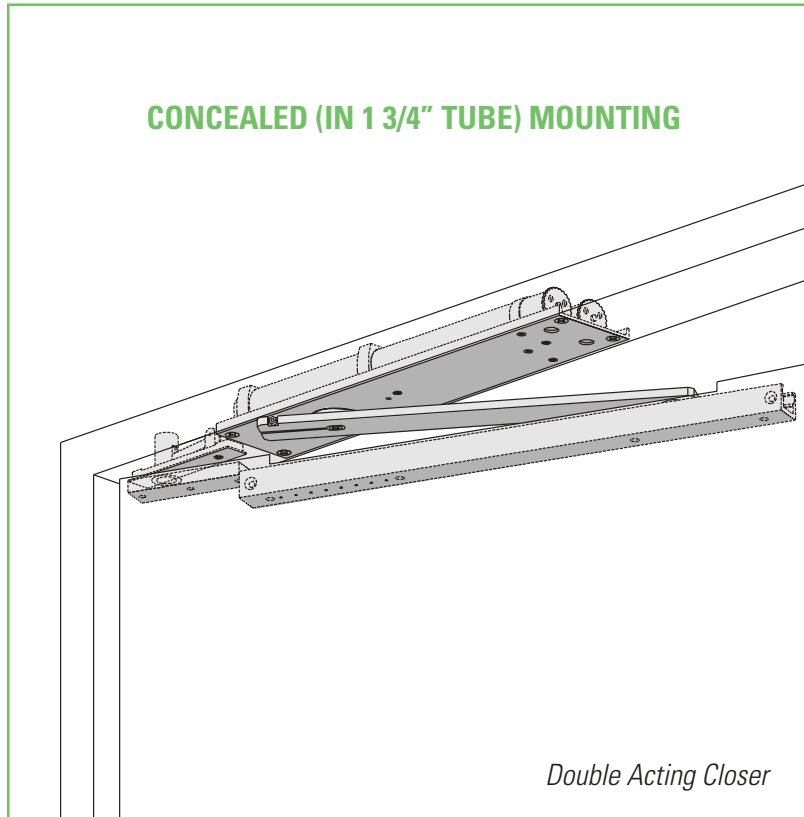
- TORX Machine Screw (TORX)

INSTALLATION ACCESSORIES

- Wood Clip Set, 5030-416
- Wood Clip Set, 5030-417

SPECIAL TEMPLATE

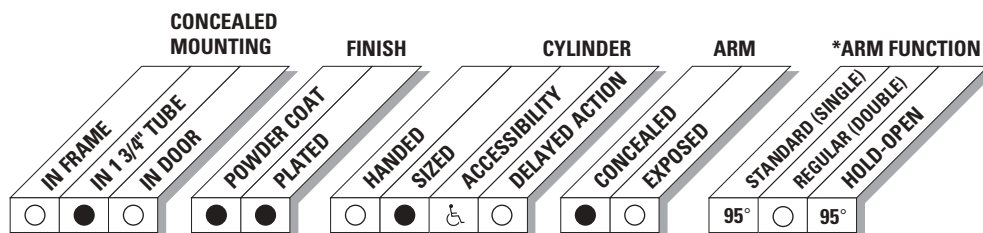
- ST- _____



The concealed 6030 Series PACER® is a heavy duty, double acting closer designed to fit in a narrow, minimum 1 3/4" aluminum transom. The single lever arm and roller assembly provides smooth, quiet door control and the choice of finishes and track functions meet virtually all architectural requirements. Installation at left illustrated with center pivot set (not included).

The 6030 Series is UL listed for self-closing doors, non hold-open. Tested and certified under ANSI Standard A156.4.

- ▶ Standard 6030 series closer shipped with standard arm, standard track with bumper, mounting/finish plate and wood and machine screw pack. See 6030 Series page 35 for options.
- ▶ Sized, double acting cylinders for interior doors to 4'6" and exterior doors to 3'6".
- ▶ Aluminum frame requires minimum 1 3/4" (44 mm) x 4" (102 mm) tube.
- ▶ Closers to meet ADA requirements. See 6030 Series page 36.
- ▶ Adjustment of spring power and latch speed independent for either swing.
- ▶ Backcheck and general speed adjustment are common for both swings.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on arm, fasteners and mounting/finish plate.
- ▶ Optional SRI primer for installations in corrosive conditions.



● Available
○ Not available

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
*Maximum opening/hold-open point with standard template. See individual closer series for degrees of opening per installation.

LCN 6030 SERIES

MOUNTING DETAILS

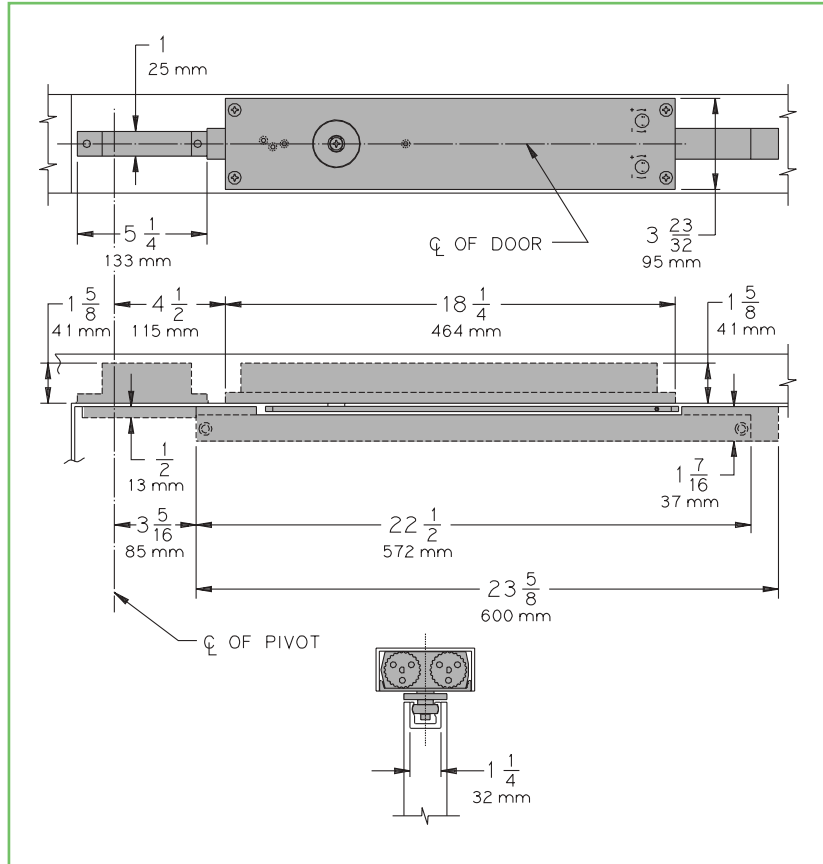
CONCEALED MOUNTING

For interior or exterior doors.
 Double acting cylinder in cased frame.
 Concealed arm and track in door top rail.
 Center pivots only.

MAXIMUM OPENING

Center pivot template allows 95°.

Adjustable hold-open points from 85° to 95°, with hold-open track.



- ▶ **Auxiliary Stop** is recommended where a door cannot swing 95°. Track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
- ▶ **Center Pivot Set**, must be used but ordered separately.
- ▶ **Door Width** 30" (762 mm) minimum with 1 3/4" (44 mm) pivot centers.
- ▶ **Top Rail** 1 7/16" (36 mm) mortise required. 3/8" (10 mm) cutout required at top of the door, both sides.
- ▶ **Door Thickness** 1 3/4" (44 mm) minimum.
- ▶ **Centering Adjustment** provided by eccentric in track roller with 3/4" (19 mm) adjustment to center a 36" (914 mm) door in the opening.
- ▶ **Hollow Metal Frame** Consult factory for installation instructions.
- ▶ **Wood Frame** installation simplified by WOOD MOUNTING CLIP SET, 6030-416. Consult factory for preparation details.

Options

- ▶ Hold-open track with Bumper

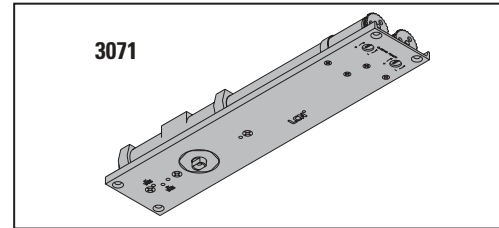
Special Templates

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

CYLINDERS

CYLINDER, 6030-3071

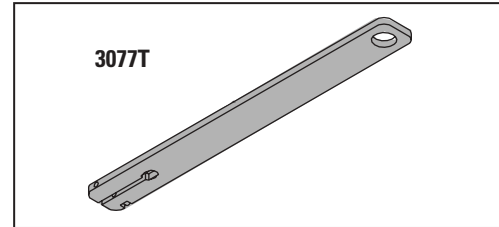
Standard, non-handed, cast iron cylinder assembly with mounting plate. For various applications see "Table of Sizes" on 6030 Series page 36.



ARM

STANDARD ARM, 6030-3077T

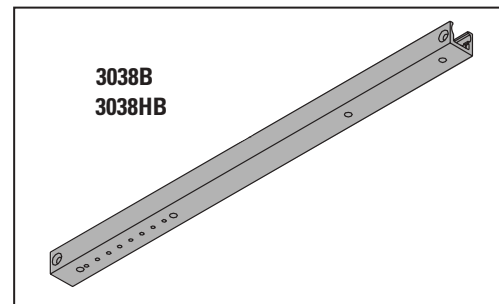
Non-handed 5/16" (8 mm) thick arm. Track roller not included with arm.



TRACKS

STANDARD TRACK with BUMPER, 6030-3038B

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



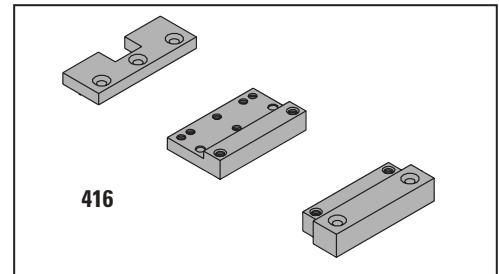
HOLD-OPEN TRACK with BUMPER, 6030-3038HB

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

INSTALLATION ACCESSORIES

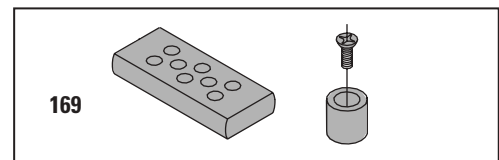
WOOD MOUNTING CLIP SET, 6030-416

Simplifies mounting closer in wood frame. Includes latch stile clip, hinge stile clip, and cover. For use with Ives Series center pivots. Consult factory for special template.



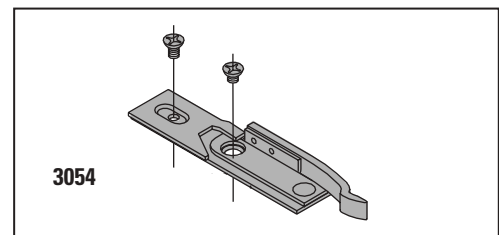
TRACK BUMPER, 6030-169

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



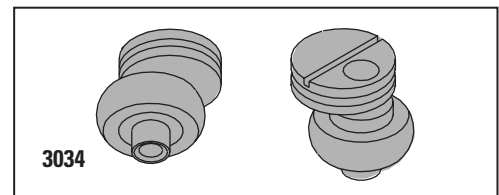
HOLD-OPEN CLIP, 6030-3054

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



TRACK ROLLER, 6030-3034

Quiet, low friction roller assembly includes eccentric with 3/4" (19 mm) adjustment to center 36" (914 mm) door.

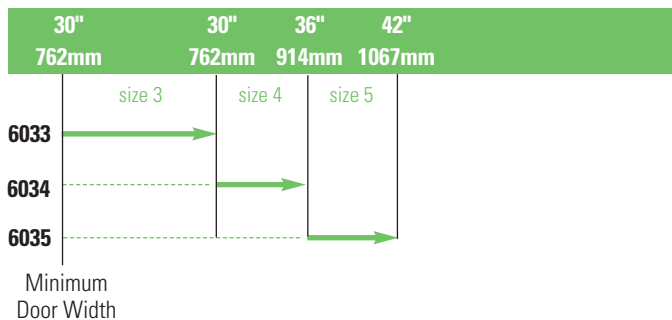


LCN 6030 SERIES

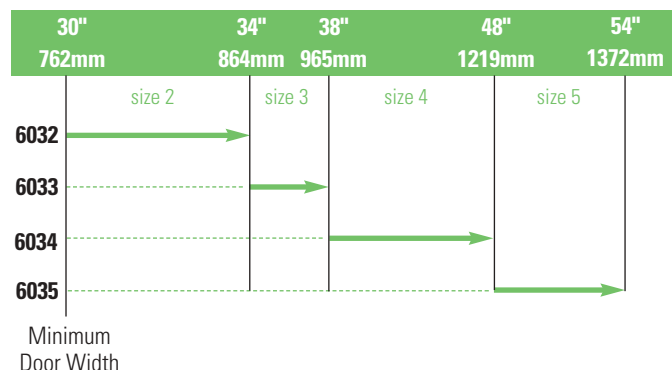
TABLE OF SIZES Select closer based on width of door.
6030 Series cylinders available in size 1, 2, 3, 4, or 5.
Closing power of all 6030 Series closers may be increased 35%.
Specify next higher size closer where strong drafts exist.

→ Indicates recommended range of door width for closer size.
Note: Minimum door width 30" (762 mm).

EXTERIOR (and VESTIBULE) DOOR WIDTH




INTERIOR DOOR WIDTH



REDUCED OPENING FORCE 6030 CLOSERS

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without affecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	6033	6034	6035
	5.0* lbs.	6031	6032	6032

* Maximum opening force

**HOW-TO-ORDER
6030 SERIES CLOSERS**

1. SELECT CYLINDER SIZE

- 6031 (ADA)
- 6032
- 6033
- 6034
- 6035

2. SPECIFY FINISH

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

Closer will be shipped with:

- STANDARD ARM,
 - TRACK ROLLER,
 - STANDARD TRACK with BUMPER,
 - WOOD and MACHINE SCREW PACK,
- unless options listed below are selected.

CLOSER OPTIONS

TRACK

- Hold-open with Bumper (HBUMPER)

FINISHES

- Custom Powder Coat (RAL) _____
- Plated Finish, US _____
- SRI primer

SCREW PACK

- TORX Machine Screw (TORX)

INSTALLATION ACCESSORIES

- Wood Clip Set, 6030-416

SPECIAL TEMPLATE

- ST- _____

LCN 7900 SERIES CONTROL BOX ACCESSORIES

AIR FILTER, -329

Replacement inlet air filter for 7981 or 7982 series control boxes.

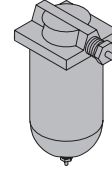
329



AIR FILTER, -329G

Replacement inlet air filter assembly for 7901 or 7902 series control boxes.

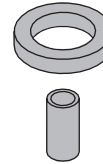
329G



FILTER AND SEAL, -929

Internal filter and seal component to the Air Filter -329G assembly.

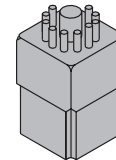
929



RELAY, -390

Single pole, double throw (SPDT) relay only for 7901, 7902, 7981, or 7982 series control boxes.

390 (A & B)
390C



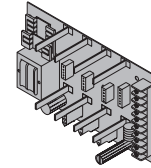
RELAY, -390C

Double pole, double throw (DPDT) relay only for 7949 series blow open control box.

POWER SUPPLY BOARD, -900

Main power supply/input board for the 7901, 7902, 7981, or 7982 series control boxes.

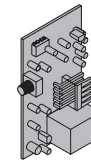
900



TIMER CARD, -903

0 to 30 second timer module. Plugs into the power supply board, -900. 7901 (A slot) series control box requires 1 each. 7902 (A/B slots) and 7981 (P/A slots) series control boxes require 2 each. 7982 (P/A/B slots) series control box requires 3 each.

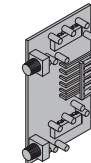
903



SEQUENCER CARD, -3426

Dual, 0 to 30-second sequence timer module for 7902 and 7982 series control boxes. Can be added to a standard 7902 or 7982 series control box to convert to a sequential operation. Sequencer card, -3426 is included when ordering a 7902S or 7982S series control box.

3426



LCN 7900 SERIES CONTROL BOX ACCESSORIES

VALVE ASSEMBLY, -941

Regulator valve assembly for 7901 series control box.

VALVE ASSEMBLY, -942

Regulator valve assembly for 7902 series control box.

VALVE ASSEMBLY, -941C

Regulator valve assembly for 7949 series blow open control box.

SOLENOID VALVE ASSEMBLY, -3299A

Air valve assembly for 7981 series control box or the 'A' circuit valve assembly for the 7982 series control box.

SOLENOID VALVE ASSEMBLY, -3299B

Air valve assembly for the 'B' circuit in the 7982 series control box.

RELAY PACKAGE 'A', -3390A

ES relay assembly for 7901 and 7981 series control boxes or the 'A' circuit ES relay assembly in a 7902 or 7982 series control boxes. Includes -390 relay, base, and wires. Can be added to standard 7901, 7902, 7981, or 7982 series control boxes to convert to ES operation. Relay package, -3390A is included when ordering a 7901ES, 7902ES, 7981ES, or 7982ES series control box.

RELAY PACKAGE 'B', -3390B

ES relay assembly for 'B' circuit in 7902 or 7982 series control boxes. Includes -390 relay, base, and wires. Can be added to standard 7902 or 7982 series control boxes to convert to ES operation.

Relay package, -3390B is included when ordering a 7902ES or 7982ES series control box.

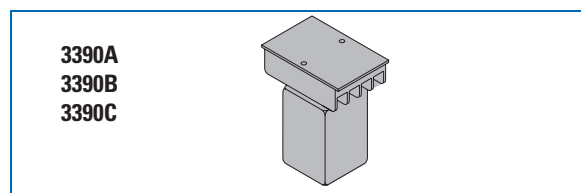
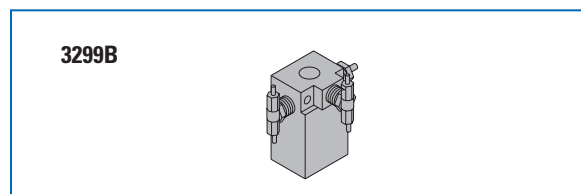
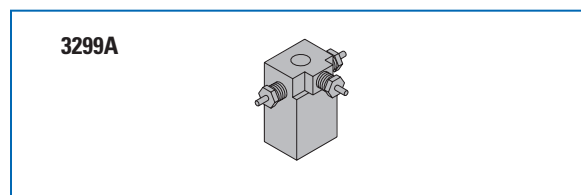
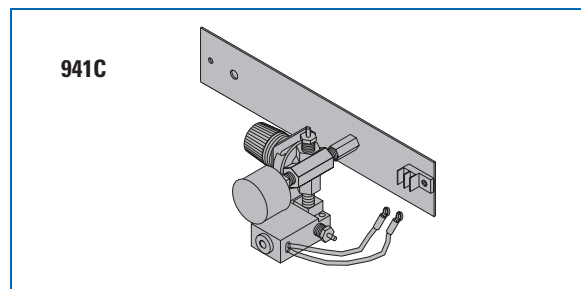
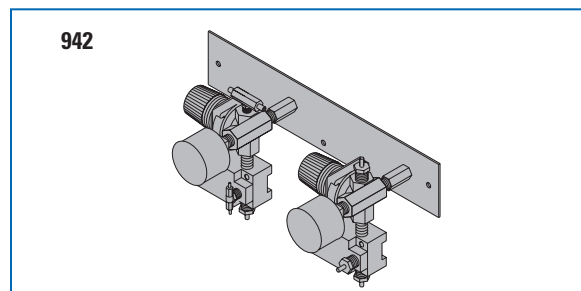
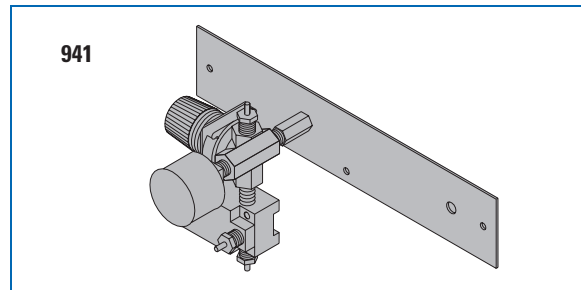
RELAY PACKAGE 'C', -3390C

ES relay assembly in 7949 series blow open control box.

Includes -390C relay, base, and wires.

Can be added to standard 7949 series blow open control box to convert to ES operation.

Relay package, -3390C is included when ordering a 7949ES series control box.



LCN 7900 SERIES CONTROL BOX ACCESSORIES

ISOLATOR, -962

Rubber Isolators for 7981/7982 compressor assembly, -3960.

962



MUFFLER, -293G

Exhaust muffler for 7901, 7902, 7949, 7981, and 7982 series control boxes.

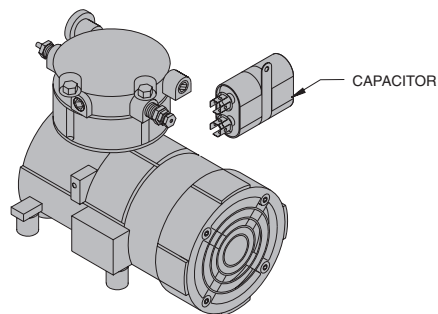
293G



COMPRESSOR ASSEMBLY, -3960

Internal air pump assembly for 7981 or 7982 series control box. Includes starter capacitor, -962 Isolators, and -329 air filter.

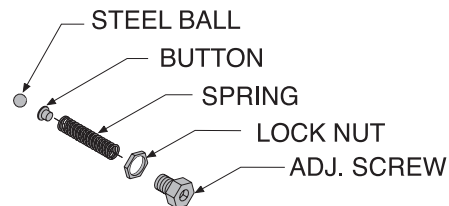
3960



COMPRESSOR SERVICE KIT, -3592

Internal components for pressure release valve on -3960 Compressor Assembly.

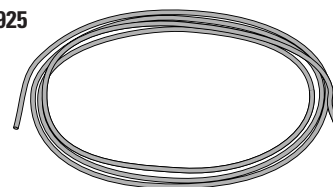
3592



PNEUMATIC TUBING, 7910-925

1/8" (3mm) I.D. flexible pneumatic tubing for use with standard barbed fittings provided on pneumatic control boxes and operators. Order by linear footage required. 7910-925 tubing is not fire-rated. Contact LCN for applications where tubing must run through rated plenums.

7910-925



LCN 7900 SERIES CONTROL BOXES

Control Boxes

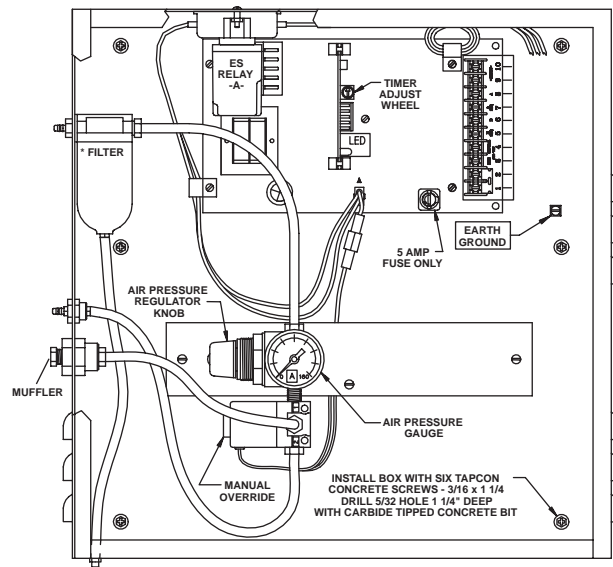
Heavy duty, surface mounted control box contains one or two electrically controlled pneumatic circuits. Air filtration, pneumatic regulation, and system timing is performed by the control box. 7980 series control boxes also contain a built-in air pump to power the system. Each pneumatic circuit can be adjusted for a hold-open time up to 30 seconds. Output air pressure can be adjusted to precisely tailor system to individual door requirements.

Pneumatic connections use standard barbed fittings and 7910-925 tubing from the compressor to the control box to the operator. A package of barbed tee and butt connectors are supplied with each control box to simplify installations. Consult LCN for details.

Other than a semi-annual inspection of the air filter assembly and muffler, no periodic system maintenance is required.

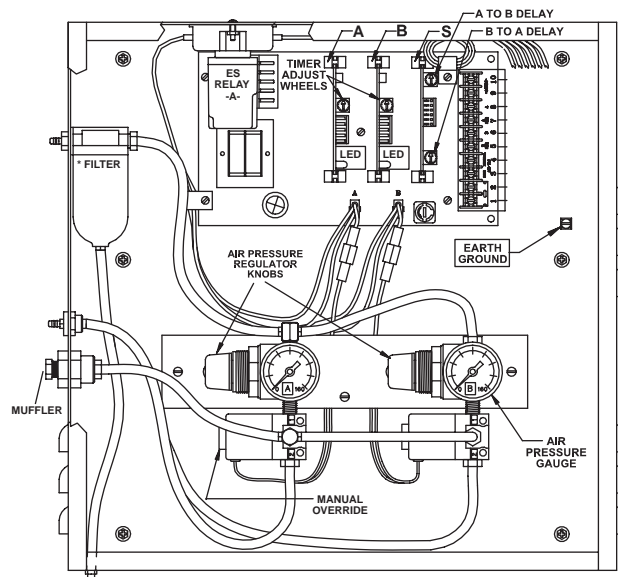
7901 and ES7901 CONTROL BOX

For single door applications or independent control of single door in multiple door systems. Two door leaves can be operated, if they are activated simultaneously. The single pneumatic circuit accepts Normally Open (N.O.) inputs from hardwired or RF (wireless) actuator/receiver combinations. The 7901 control box requires a separate compressor.



7902 and ES7902 CONTROL BOX

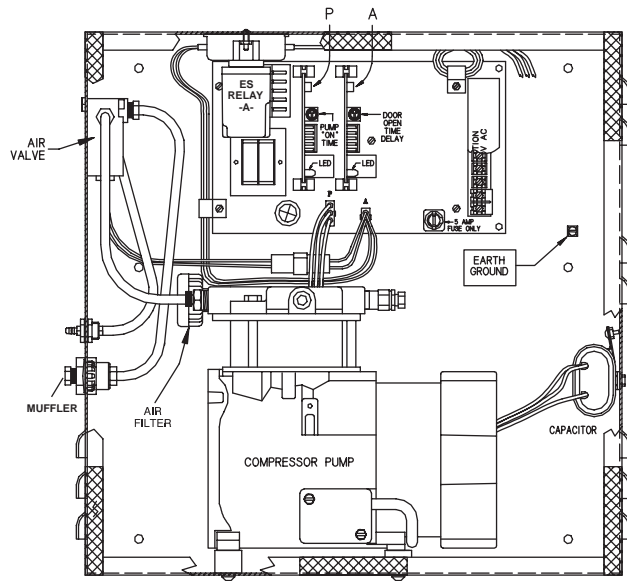
For independent operation of two door or four door leaves, if pairs are actuated simultaneously. Two independent pneumatic circuits accept Normally Open (N.O.) inputs from hardwired or RF (wireless) actuator/receiver combinations. Sequential operation (add suffix "S") is available for 7902. The 7902 control box requires a separate compressor.



LCN 7900 SERIES CONTROL BOXES

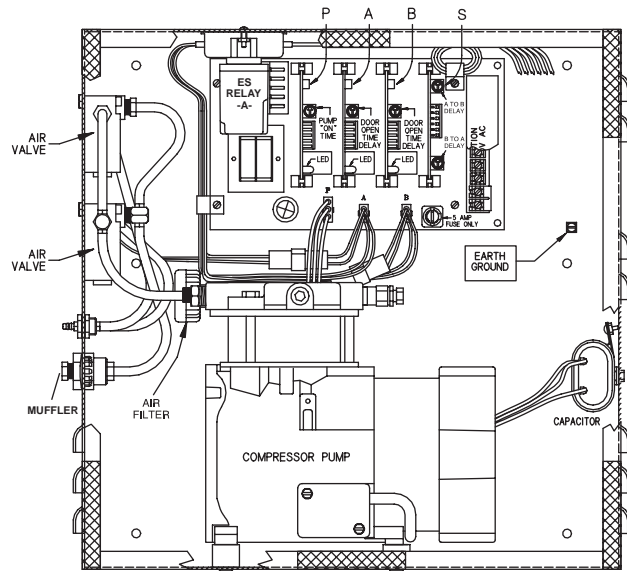
7981 and ES7981 CONTROL BOX

Self-contained control box/compressor combination for single door leaf applications. The single pneumatic circuit accepts Normally Open (N.O.) inputs from hardwired or RF (wireless) actuator/receiver combinations. The 7981 control box does not require a separate compressor.



7982 and ES7982 CONTROL BOX

Self-contained control box/compressor combination for independent or simultaneous operation of two door leaves. Two independent pneumatic circuit accepts Normally Open (N.O.) inputs from hardwired or RF (wireless) actuator/receiver combinations. The 7982 control box does not require a separate compressor. Sequential operation (add suffix "S") is available for 7982 control boxes.



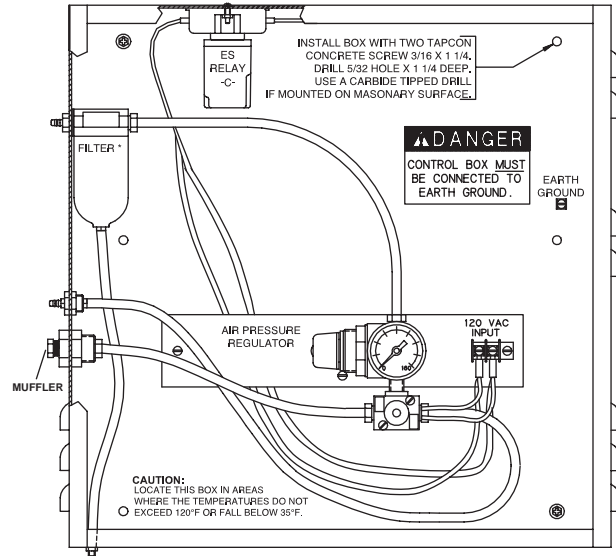
LCN 7900 SERIES CONTROL BOXES

7949 and ES7949 CONTROL BOX

Auxiliary “blow-open” box works with or without 7901 or 7902 and one or two Auto-Equalizers. Controlled by smoke evacuation system, the 7949 open the door(s) to allow fresh air into the building. Normal Auto-Equalizer functions are not available when “blow-open” box is activated.

OPTIONAL “ES” BOXES

Identical in function(s) to the basic box but includes an isolated (SPDT) relay with 1 set of Normally Open (N.O.) and Normally Closed (N.C.) contacts to control an electric strike. The LCN control box cannot power the strike. ES7949 has two sets of isolated (DPDT) contacts. Compressor size recommendations are based on normal usage for the number of operations listed. All LCN supplied auxiliary compressors include an automatic drain feature.



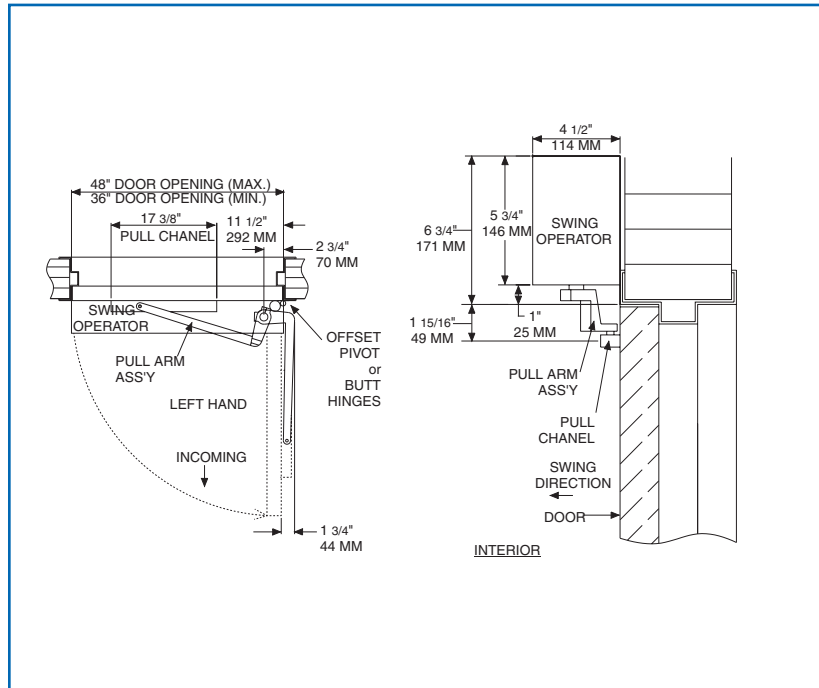
CONTROL BOX INSTALLATION NOTES

1. Locate a 7900 series control box so no more than 100 linear feet of LCN 7910-925 pneumatic tubing is required between the control box and door. Maximum 50 linear feet for a 7980 series.
2. Locate a 7900/7980 series control box where the temperatures do not exceed 120°F or fall below 35°F.
3. 7901, 7902 and 7949 control box input 120V AC @ 1 amp. 7981 and 7982 control boxes input 120V AC @ 5 amp.
4. Output voltage is 12V DC @ 0.25 amp. max.
5. Air pressure input, 80 PSI minimum/100 PSI maximum, required for 7901, 7902 and 7949.
6. Regulated air output up to 80 PSI for Auto-Equalizer.
7. Auto-Equalizers require approximately 0.5 cfm airflow in heavy traffic.
8. All control boxes are 15"x15"x6".

LCN 9530 SERIES

MOUNTING DETAILS

TOP JAMB SINGLE DOOR (OFFSET PIVOT/BUTT HINGE, PULL) MOUNTING



MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Reveal** should not exceed 4" (102 mm).
- ▶ **Head Frame** minimum 1 3/4" (44 mm). Face frame 6 3/4" (171 mm) total operator clearance.
- ▶ **Top Rail** minimum 2 3/4" (70 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.

Special Templates

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

MOTOR GEARBOX

MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 9530-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.

MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 9530-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.

MOUNTING BRACKET

MOUNTING BRACKET – 2 3/4", 9530-275

Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations. Front bracket.

REAR MOUNT BRACKET, 9530-3018

Motor gearbox mounting bracket. Rear bracket.

ANGLED BRACKET, 9530-334-1

Mounting bracket for surface applications.

CONTROL BOXES

CONTROL BOX – SENIOR SWING, 9530-3462

Electronic controlling device for Senior Swing.

HEADERS

Header, 9530-72HL

Standard, mounting header. Single door, single operator. Specify length 30" to 49" maximum.

Header, 9530-72DD

Standard, mounting header. Double door, single operator. Specify length 49" to 98" maximum.

END CAPS

HEADER END CAPS, 9530-334

End cap with openings for wiring.

END DRESS PLATE, 9530-334-2

Metal finish end cap.

TRACKS

TRACK 9530-3038

Standard non-handed track.

TRACK END CAP 9530-73

Black plastic end caps.

ARMS

STANDARD ARM, 9530-3077T

Handed arm. Track roller not included.

LCN 9530 SERIES

ACCESSORIES

INSTALLATION ACCESSORIES

ROLLER, 9530-3034

Quiet low friction roller assembly.

SPINDLE PLATE – 2 3/4", 9530-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot or butt hinge installations.

FILLER PLATE BLANK, 9530-12

Completes length of header box.

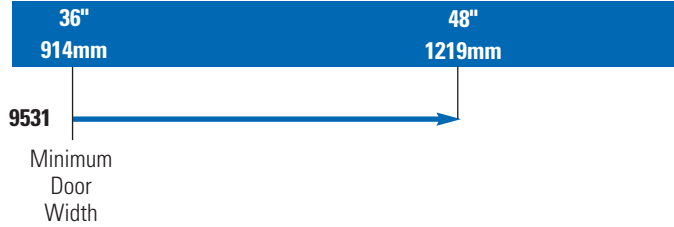
MOUNTING PLATE, 9530-18

Optional mounting plate for standard hollow metal door frames. Specify length 30" to 98" maximum.

TABLE OF SIZES

→ Indicates recommended range of door width for operator.
 Note: For all Senior Swing Series
 Single Door - Width per leaf 36" minimum, 48" maximum

DOOR WIDTH



HOW-TO-ORDER 9530 SERIES OPERATORS

1. SPECIFY HAND

- RH
- LH

2. SPECIFY FINISH.

- Standard Anodized Finish _____
 Aluminum or Dark Bronze

Operator will be shipped with:

- STANDARD MOTOR GEARBOX (SF)
- STANDARD CONTROL BOX (SC)
- 36" HEADER (36HL)
- STANDARD ARM (3077T)
- 2 3/4" PIVOT POINT
- STANDARD TRACK w/TRACK ROLLER
- MACHINE SCREW PACK

Unless options listed below are selected.

OPERATOR OPTIONS

MOTOR GEARBOX

- Reduced Force Motor Gearbox (RF)

HEADER

- Extra Length Header (HL __) (Specify length 36" to 49")
- Double Door Header (DD__) (Specify length 49" to 98")

MOUNTING PLATE

- Plate, ____ (Specify Length 30" to 98")

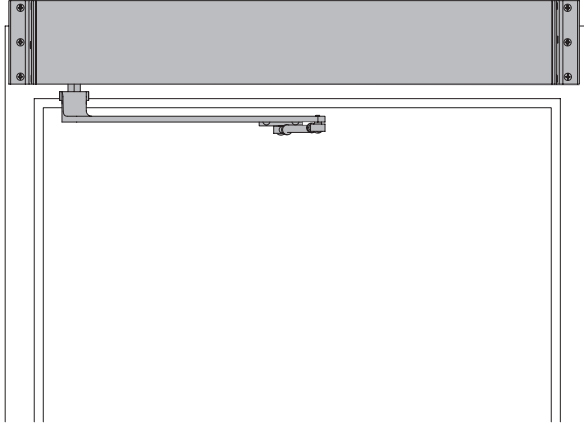
FINISH

- Custom Anodized Finish _____
- Custom Painted Finish _____

SPECIAL TEMPLATE

- ST-_____

SINGLE DOOR, SURFACE MOUNT (PUSH) OFFSET PIVOT/BUTT HINGE



The 9540 SENIOR SWING® by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING® operators when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

- ▶ **Push 'N Go** permits non-switch activation
- ▶ **Power Boost** provides additional latching force
- ▶ **Electromechanical unit with microprocessor control**
- ▶ **Fast and easy installation**
- ▶ **Tested internally to over ten million cycles**
- ▶ **Meets International Building Code requirements and ANSI A156.19**
- ▶ **UL approved for fire doors**

- ▶ 9540 series operator is shipped with motor gearbox, control box, regular arm, header, and mounting hardware.
- ▶ Single door, surface mounted.
- ▶ Meets ADA requirements (power mode only).
- ▶ Handed product.
- ▶ 36" header length is standard. Specify length 30" to 49" max.
- ▶ Double door header available up to 98", specify other length 49" to 98" max. Consult factory regarding this option.
- ▶ Adjustable hold-open period of 2 to 30 seconds in automatic or manual mode.

9540 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 9540 Series is UL listed for fire-rated applications. The 9540 Series also meets the provisions of the Americans with Disabilities Act.

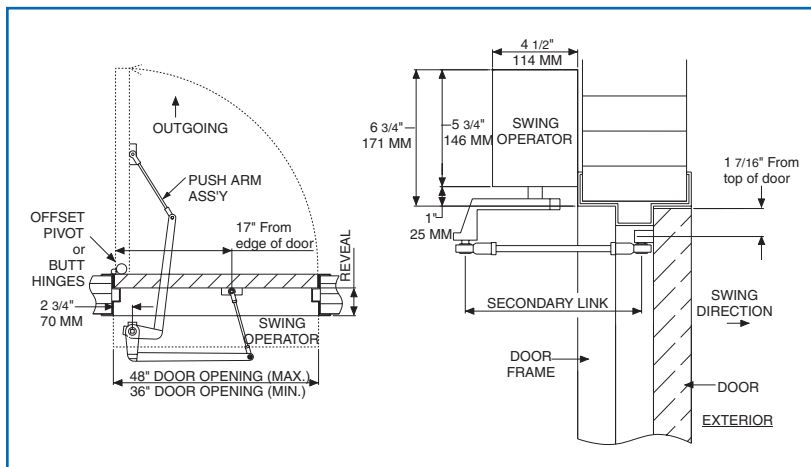
MOUNTING						HANDING			FINISH	COVER		ARM FUNCTION		
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SURFACE MOUNT SINGLE DOOR						STANDARD ANODIZED			METAL	STANDARD (SINGLE)		REGULAR (DOUBLE)		
SURFACE MOUNT SIMULTANEOUS PAIR						CUSTOM ANODIZED				DOUBLE EGRESS (PUSH/PULL)		OFFSET PIVOT ARM		
SURFACE MOUNT INDEPENDENT PAIR						CUSTOM PAINT				CENTER PIVOT ARM				
CONCEALED SINGLE DOOR						NON-HANDED								
CONCEALED SIMULTANEOUS PAIR						HANDED								
CONCEALED INDEPENDENT PAIR														

AVAILABLE
 NOT AVAILABLE

LCN 9540 SERIES

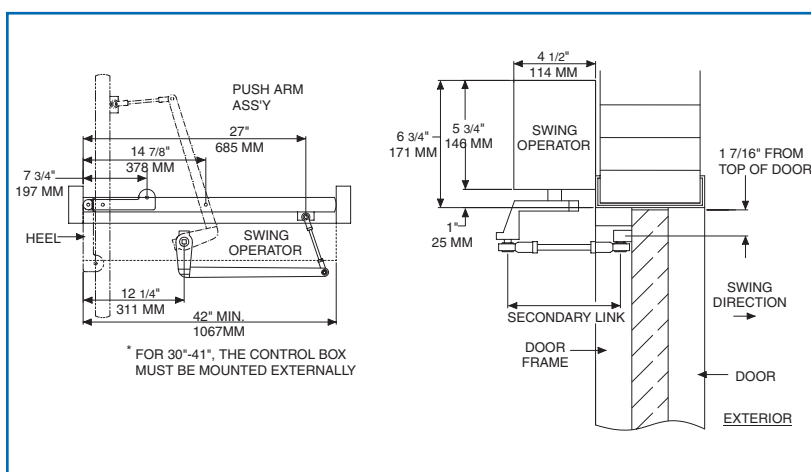
MOUNTING DETAILS

TOP JAMB SINGLE DOOR (OFFSET PIVOT/BUTT HINGE, PUSH) MOUNTING



TOP JAMB SINGLE DOOR (BALANCE DOOR, PUSH) MOUNTING

Consult factory for all balance door installations.



MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

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.
- ▶ **Reveal** for push installations should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM.
- ▶ **Head Frame** minimum 1 3/4" (44 mm). Face frame 6 3/4" (171 mm) total operator clearance.
- ▶ **Top Rail** minimum 2 3/4" (70 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.

MOTOR GEARBOX

MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 9540-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.

MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 9540-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.

MOUNTING BRACKET

MOUNTING BRACKET – 2 3/4", 9540-275

Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations. Front bracket.

REAR MOUNT BRACKET, 9540-3018

Motor gearbox mounting bracket. Rear bracket.

ANGLED BRACKET, 9540-334-1

Mounting bracket for surface applications.

CONTROL BOXES

CONTROL BOX – SENIOR SWING, 9540-3462

Electronic controlling device for Senior Swing.

HEADERS

Header, 9540-72HL

Standard, mounting header. Single door, single operator. Specify length 30" to 49" maximum.

Header, 9540-72DD

Standard, mounting header. Double door, single operator. Specify length 49" to 98" maximum.

END CAPS

HEADER END CAPS, 9540-334

End cap with openings for wiring.

END DRESS PLATE, 9540-334-2

Metal finish end cap.

ARMS

REGULAR ARM, 9540-3077

Handed arm.

LONG ARM, 9540-3077L

Handed long arm.

INDIVIDUAL ARMS COMPONENTS

MAIN ARM, 9540-77

Handed arm attaches to motor gearbox.

LINKAGE ASSEMBLY – 15", 9540-79

Threaded rod attaches to door. Extends from main arm.

LINKAGE ASSEMBLY – 32", 9540-79LR

Threaded long rod attaches to door. Extends from main arm.

LCN 9540 SERIES

ACCESSORIES

INSTALLATION ACCESSORIES

SPINDLE PLATE – 2 3/4", 9540-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot or butt hinge installations.

FILLER PLATE BLANK, 9540-12

Completes length of header box.

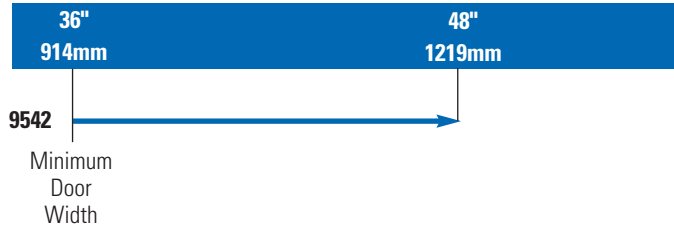
MOUNTING PLATE, 9540-18

Optional mounting plate for standard hollow metal door frames. Specify length 30" to 98 maximum.

TABLE OF SIZES

→ Indicates recommended range of door width for operator.
 Note: For all Senior Swing Series
 Single Door - Width per leaf 36" minimum, 48" maximum

DOOR WIDTH



HOW-TO-ORDER 9540 SERIES OPERATORS

1. SPECIFY HAND

- RH
- LH

2. SPECIFY FINISH.

- Standard Anodized Finish _____
 Aluminum or Dark Bronze

Operator will be shipped with:

- STANDARD MOTOR GEARBOX (SF)
 - STANDARD CONTROL BOX (SC)
 - 36" HEADER (36HL)
 - REGULAR ARM (3077)
 - 2 3/4" PIVOT POINT
 - WOOD and MACHINE SCREW PACK
- Unless options listed below are selected.*

OPERATOR OPTIONS

MOTOR GEARBOX

- Reduced Force Motor Gearbox (RF)

HEADER

- Extra Length Header (HL __) (Specify length 36" to 49")
- Double Door Header (DD__) (Specify length 49" to 98")

MOUNTING PLATE

- Plate, ____ (Specify Length 30" to 98")

ARM

- Long Arm (3077L)

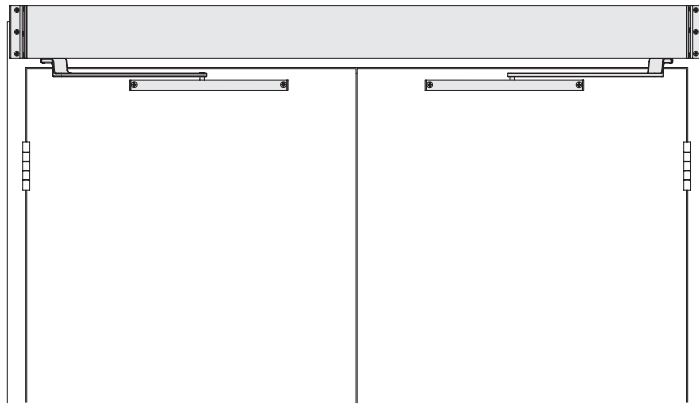
FINISH

- Custom Anodized Finish _____
- Custom Painted Finish _____

SPECIAL TEMPLATE

- ST-_____

OPERATOR MOUNTS
SIMULTANEOUS PAIR, SURFACE MOUNT
***PULL SIDE**
PUSH SIDE
DOUBLE EGRESS



*PULL SIDE mount shown

The 9550 SENIOR SWING® by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING® operators when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

- ▶ **Push 'N Go permits non-switch activation**
- ▶ **Power Boost provides additional latching force**
- ▶ **Electromechanical unit with microprocessor control**
- ▶ **Fast and easy installation**
- ▶ **Tested internally to over ten million cycles**
- ▶ **Meets International Building Code requirements and ANSI A156.19**
- ▶ **UL approved for fire doors**

- ▶ 9550 series operator is shipped with motor gearboxes, control box, arms, header, and mounting hardware.
- ▶ Simultaneous pair, surface mounted.
- ▶ Meets ADA requirements (power mode only).
- ▶ Handed product.
- ▶ Pull, Push or Double Egress applications available.
- ▶ 72" header length is standard. Specify other length 60" to 98". Consult factory regarding this option.
- ▶ Adjustable hold-open period of 2 to 30 seconds in automatic or manual mode.

9550 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 9550 Series is UL listed for fire-rated applications. The 9550 Series also meets the provisions of the Americans with Disabilities Act.

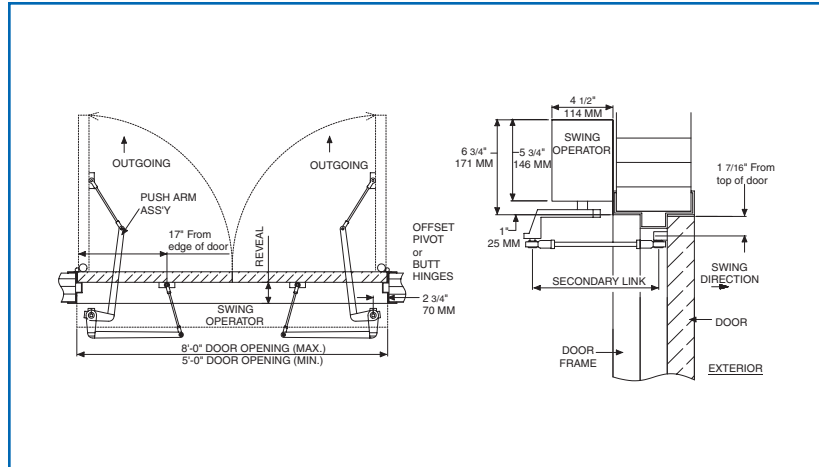
MOUNTING			HANDING			FINISH	COVER		ARM FUNCTION	
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AVAILABLE
 NOT AVAILABLE

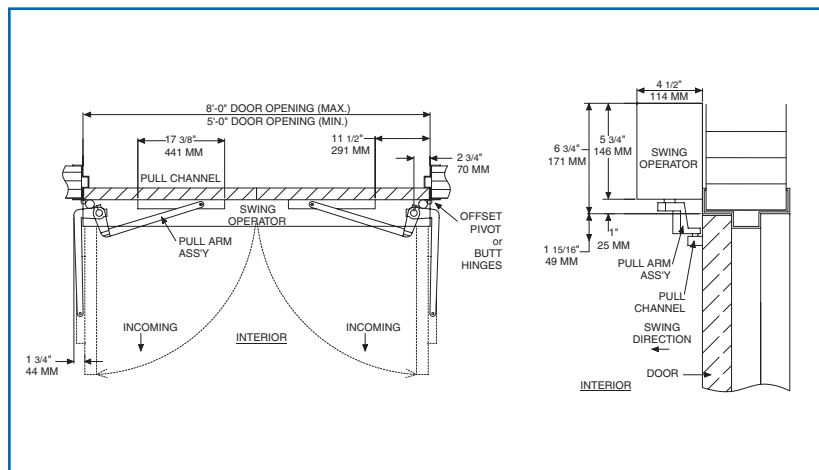
LCN 9550 SERIES

MOUNTING DETAILS

TOP JAMB SIMULTANEOUS PAIR (OFFSET PIVOT/BUTT HINGE, PUSH) MOUNTING



TOP JAMB SIMULTANEOUS PAIR (OFFSET PIVOT/BUTT HINGE, PULL) MOUNTING



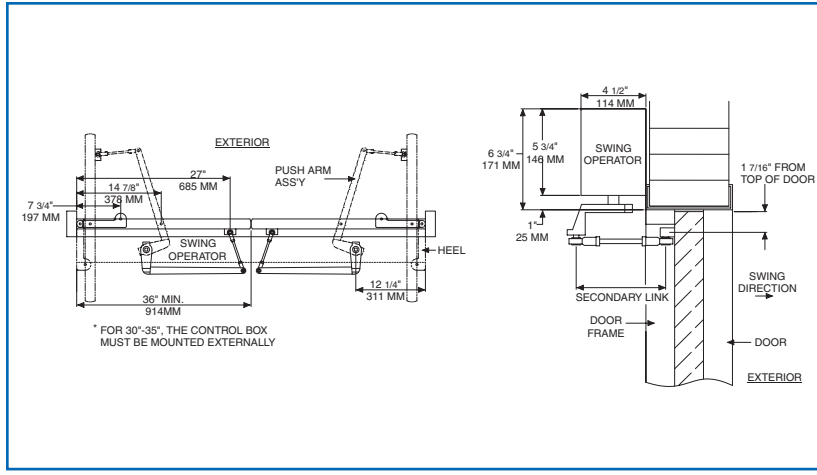
MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

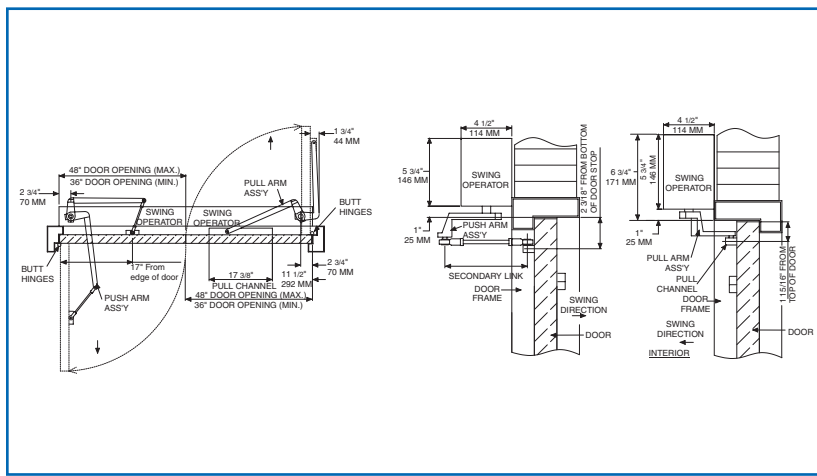
Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Reveal for push** installations should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM.
- ▶ **Reveal for pull** installations should not exceed 4" (102 mm).
- ▶ **Reveal for double egress** installations should not exceed 4" (102 mm).
- ▶ **Head Frame** minimum 1 3/4" (44 mm). Face frame 6 3/4" (171 mm) total operator clearance.
- ▶ **Top Rail** minimum 2 3/4" (70 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.



TOP JAMB SIMULTANEOUS PAIR (BALANCE DOOR, PUSH) MOUNTING

Consult factory for all balance door installations.



TOP JAMB SIMULTANEOUS PAIR (RH DOUBLE EGRESS) MOUNTING

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Reveal for push** installations should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM.
- ▶ **Reveal for pull** installations should not exceed 4" (102 mm).
- ▶ **Reveal for double egress** installations should not exceed 4" (102 mm).
- ▶ **Head Frame** minimum 1 3/4" (44 mm). Face frame 6 3/4" (171 mm) total operator clearance.
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- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.

MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

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

LCN 9550 SERIES

MOTOR GEARBOX

MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 9550-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.

MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 9550-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.

MOUNTING BRACKETS

MOUNTING BRACKET – 2 3/4", 9550-275

Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations. Front bracket.

REAR MOUNT BRACKET, 9550-3018

Motor gearbox mounting bracket. Rear bracket.

ANGLED BRACKET, 9550-334-1

Mounting bracket for surface applications.

CONTROL BOXES

CONTROL BOX – SENIOR SWING, 9550-3462

Electronic controlling device for Senior Swing.

HEADERS

HEADER, 9550-72HL

Standard, mounting header. Pair door, two operators. Specify length 60" to 98" maximum.

CABLES

COMPANION CABLES, 9550-982

Cable that allows one control box to run two motor gear boxes. Companion cable. For use with Senior Swing.

END CAPS

HEADER ENDCAPS, 9550-334

End cap with openings for wiring.

END DRESS PLATE, 9550-334-2

Metal finish end cap.

TRACKS

TRACK 9550-3038

Standard non-handed track.

TRACK END CAP 9550-73

Black plastic end caps.

ARMS

STANDARD ARM, 9530-3077T

Handed arm. Track roller not included.

REGULAR ARM, 9540-3077

Handed arm.

LONG ARM, 9540-3077L

Handed long arm.

INDIVIDUAL ARMS COMPONENTS

MAIN ARM, 9550-77

Handed arm attaches to motor gearbox

LINKAGE ASSEMBLY – 15", 9550-79

Threaded rod attaches to door. Extends from main arm.

LINKAGE ASSEMBLY – 32", 9550-79LR

Threaded long rod attaches to door. Extends from main arm.

INSTALLATION ACCESSORIES

ROLLER, 9550-3034

Quiet low friction roller assembly.

SPINDLE PLATE – 2 3/4", 9550-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot or butt hinge installations.

FILLER PLATE BLANK, 9550-12

Completes length of header box.

MOUNTING PLATE, 9550-18

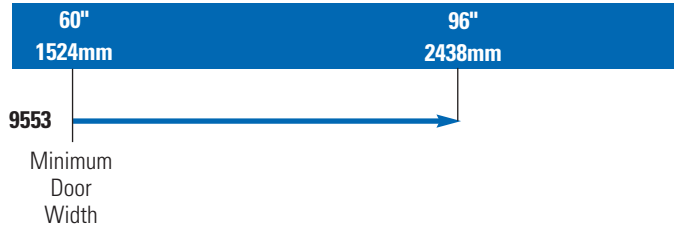
Optional mounting plate for standard hollow metal door frames. Specify length 30" to 98 maximum.

LCN 9550 SERIES

TABLE OF SIZES

→ Indicates recommended range of door width for operator.
Note: For All Senior Swing Series
Simultaneous Pair – Width per leaf 30" minimum to 48" maximum

DOOR WIDTH



HOW-TO-ORDER 9550 SERIES OPERATORS

1. SPECIFY HAND

- RH
- LH

2. SPECIFY FINISH.

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

- STANDARD MOTOR GEARBOX (SF) (2 ea)
- STANDARD CONTROL BOX (SC)
- 72" METAL COVER (72HL)
- REGULAR ARM (2 ea)
- 2 3/4" PIVOT POINT
- MACHINE SCREW PACK

OPERATOR OPTIONS

MOTOR GEARBOX

- Reduced Force Motor Gearbox (RF)

HEADER

- 72HL__ (Specify length 60" to 98")

MOUNTING PLATE

- Plate, ____ (Specify Length 30" to 98")

ARM

- Standard Arm (2 ea)
w/Standard Track (2 ea)
- Double Egress
Includes Standard Arm w/Track (1 ea)
& Regular Arm (1 ea)
- Long Arm (3077L)

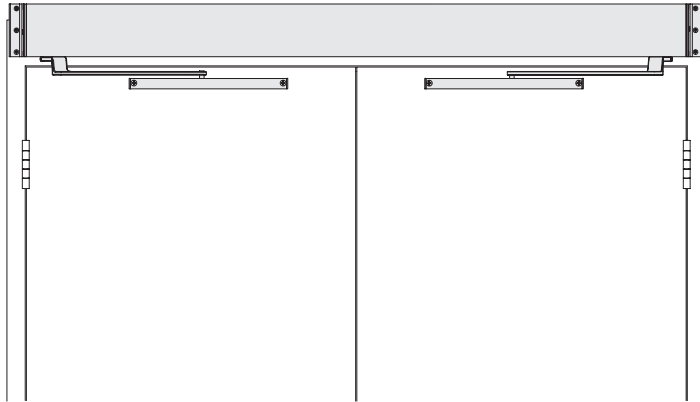
FINISH

- Custom Anodized Finish _____
- Custom Painted Finish _____

SPECIAL TEMPLATE

- ST-_____

OPERATOR MOUNTS
INDEPENDENT PAIR, SURFACE MOUNT
***PULL SIDE**
PUSH SIDE
DOUBLE EGRESS



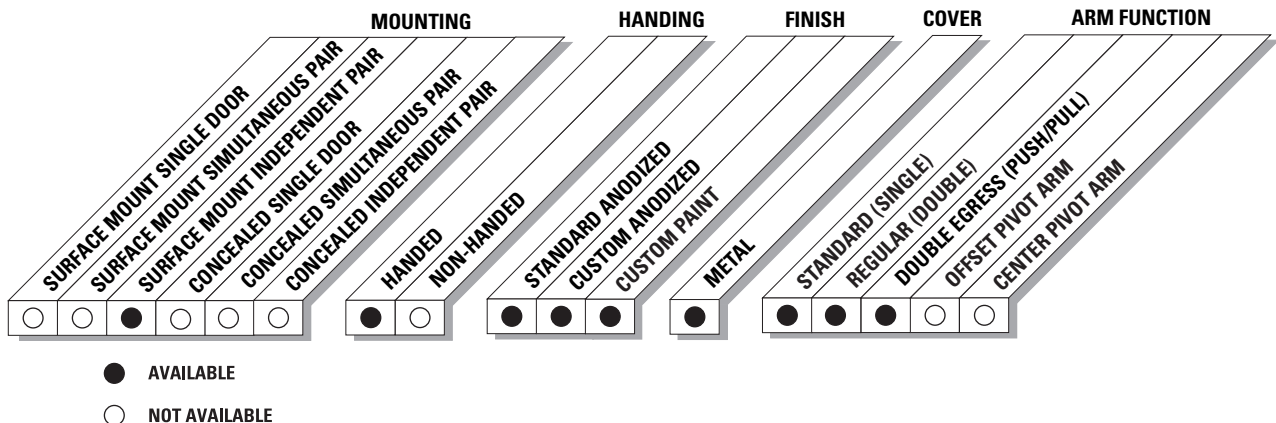
*PULL SIDE mount shown

The 9560 SENIOR SWING® by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING® operators when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

- ▶ **Push 'N Go** permits non-switch activation
- ▶ **Power Boost** provides additional latching force
- ▶ **Electromechanical unit with microprocessor control**
- ▶ **Fast and easy installation**
- ▶ **Tested internally to over ten million cycles**
- ▶ **Meets International Building Code requirements and ANSI A156.19**
- ▶ **UL approved for fire doors**

- ▶ 9560 series operator is shipped with motor gearboxes, control boxes, arms, header, and mounting hardware.
- ▶ Independent pair, surface mounted.
- ▶ Meets ADA requirements (power mode only).
- ▶ Handed product.
- ▶ Pull, Push or Double Egress applications available.
- ▶ 72" header length is standard. Specify other length 60" to 98". Consult factory regarding this option.
- ▶ Adjustable hold-open period of 2 to 30 seconds in automatic or manual mode.

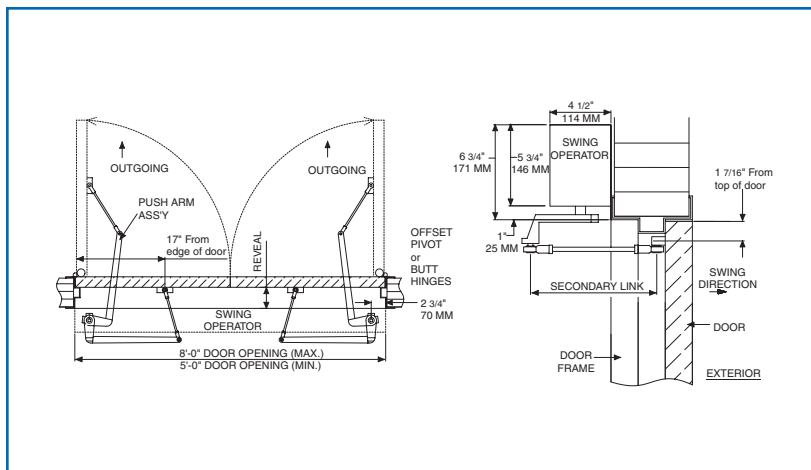
9560 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 9560 Series is UL listed for fire-rated applications. The 9560 Series also meets the provisions of the Americans with Disabilities Act.



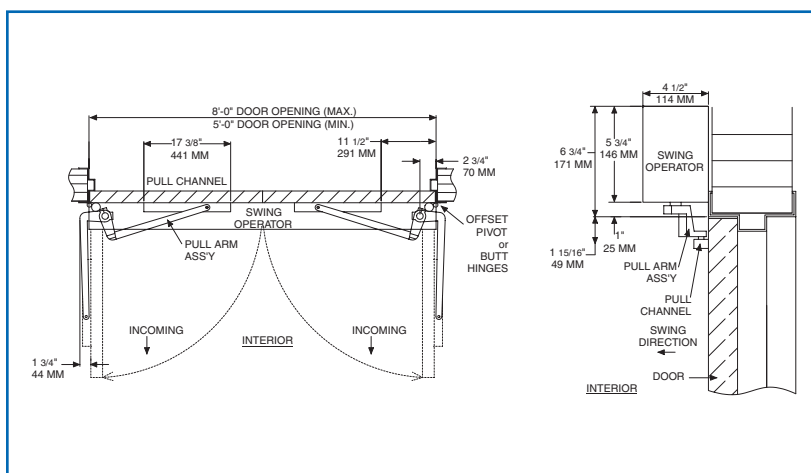
LCN 9560 SERIES

MOUNTING DETAILS

TOP JAMB INDEPENDENT PAIR (OFFSET PIVOT/BUTT HINGE, PUSH) MOUNTING



TOP JAMB INDEPENDENT PAIR (OFFSET PIVOT/BUTT HINGE, PULL) MOUNTING



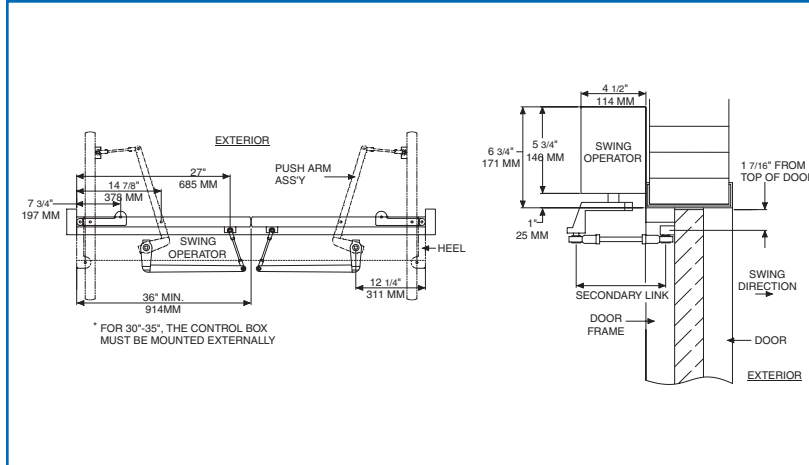
MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

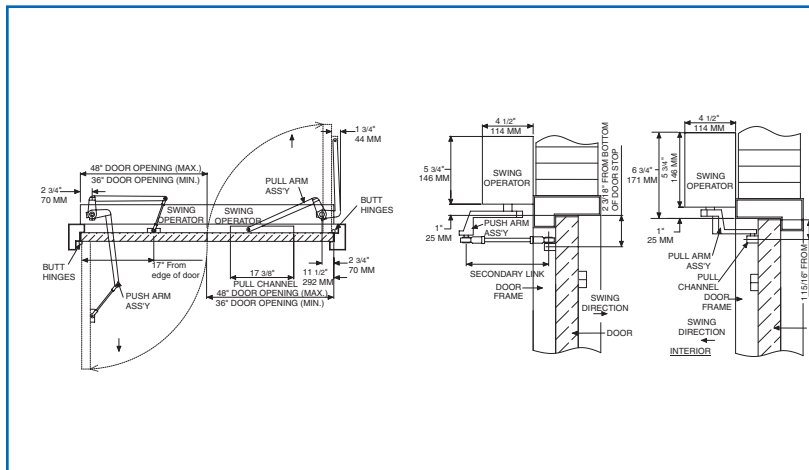
Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Reveal for push** installations should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM.
- ▶ **Reveal for pull** installations should not exceed 4" (102 mm).
- ▶ **Reveal for double egress** installations should not exceed 4" (102 mm).
- ▶ **Head Frame** minimum 1 3/4" (44 mm). Face frame 6 3/4" (171 mm) total operator clearance.
- ▶ **Top Rail** minimum 2 3/4" (70 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.



TOP JAMB INDEPENDENT PAIR (BALANCE DOOR, PUSH) MOUNTING

Consult factory for all balance door installations.



TOP JAMB INDEPENDENT PAIR (RH DOUBLE EGRESS) MOUNTING

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Reveal for push** installations should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM.
- ▶ **Reveal for pull** installations should not exceed 4" (102 mm).
- ▶ **Reveal for double egress** installations should not exceed 4" (102 mm).
- ▶ **Head Frame** minimum 1 3/4" (44 mm). Face frame 6 3/4" (171 mm) total operator clearance.
- ▶ **Top Rail** minimum 2 3/4" (70 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold-open time adjustable up to approximately 30 seconds.
- ▶ **System Diagram** see "POWER OPERATORS" section pages 26-27 for typical system wiring and page 30 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.

MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

Special Templates

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

LCN 9560 SERIES

MOTOR GEARBOX

MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 9560-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.

MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 9560-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.

MOUNTING BRACKETS

MOUNTING BRACKET – 2 3/4", 9560-275

Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations. Front bracket.

REAR MOUNT BRACKET, 9560-3018

Motor gearbox mounting bracket. Rear bracket.

ANGLED BRACKET, 9560-334-1

Mounting bracket for surface applications.

CONTROL BOXES

CONTROL BOX – SENIOR SWING, 9560-3462

Electronic controlling device for Senior Swing

HEADERS

HEADER, 9560-72HL

Standard, mounting header. Pair door, two operators. Specify length 60" to 98" maximum.

END CAPS

HEADER END CAPS, 9560-334

End cap with openings for wiring.

END DRESS PLATE, 9560-334-2

Metal finish end cap.

TRACKS

TRACK 9560-3038

Standard non-handed track.

TRACK END CAP 9560-73

Black plastic end caps.

ARMS

STANDARD ARM, 9530-3077T

Handed arm. Track roller not included.

REGULAR ARM, 9540-3077

Handed arm.

LONG ARM, 9540-3077L

Handed long arm.

INDIVIDUAL ARMS COMPONENTS

MAIN ARM, 9560-77

Handed arm attaches to motor gearbox

LINKAGE ASSEMBLY – 15", 9560-79

Threaded rod attaches to door. Extends from main arm.

LINKAGE ASSEMBLY – 32", 9560-79LR

Threaded long rod attaches to door. Extends from main arm.

INSTALLATION ACCESSORIES

ROLLER, 9560-3034

Quiet low friction roller assembly.

SPINDLE PLATE – 2 3/4", 9560-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot or butt hinge installations.

FILLER PLATE BLANK, 9560-12

Completes length of header box.

MOUNTING PLATE, 9560-18

Optional mounting plate for standard hollow metal door frames. Specify length 30" to 98" maximum.

LCN 9560 SERIES

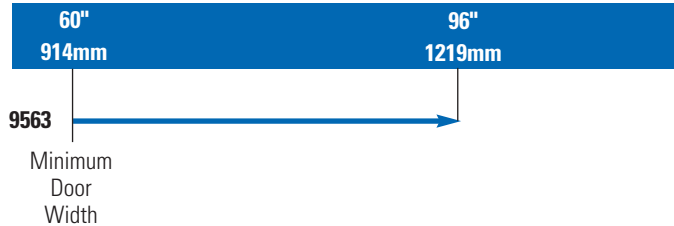
TABLE OF SIZES

→ Indicates recommended range of door width for operator.

Note: For all Senior Swing Series

Independent Pair – Width per leaf 30" minimum to 48" maximum

DOOR WIDTH



HOW-TO-ORDER 9560 SERIES OPERATORS

1. SPECIFY HAND

- RH
- LH

2. SPECIFY FINISH.

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

- STANDARD MOTOR GEARBOX (SF) (2 ea)
 - STANDARD CONTROL BOX (SC) (2 ea)
 - 72" METAL COVER (72HL)
 - REGULAR ARM (2 ea)
 - 2 3/4" PIVOT POINT
 - MACHINE SCREW PACK
- Unless options listed below are selected.*

OPERATOR OPTIONS

MOTOR GEARBOX

- Reduced Force Motor Gearbox (RF)

HEADER

- 72HL____ (Specify length 60" to 98")

MOUNTING PLATE

- Plate, _____ (Specify Length 30" to 98")

ARM

- Standard Arm (2 ea)
w/Standard Track (2 ea)
- Double Egress
Includes Standard Arm w/Track (1 ea)
& Regular Arm (1 ea)
- Long Arm (3077L)

FINISH

- Custom Anodized Finish _____
- Custom Painted Finish _____

SPECIAL TEMPLATE

- ST-_____

LEHMPUR 09:15+
OH-HEATHROW 09:35+
SINGAPORE 09:45+
MTR 09:55+
KUFURT 12:18+
ROME 12:25+
DOEK 12:45+
SBRNI 15:08

LCN[®]

Automated Entrance Accessories

ADA compliant door control without compromise



Stainless Steel Push Plates

- Beveled edges provide a tamper and vandal resistant solution to push plate needs, allowing no room for objects to get between plate and mounting box
- An all-active plate activates with any “push” location
- Stainless steel finish will not deteriorate or rust where it is touched — scratch and scuff resistant
- All activation push plates are available with ADA logo art and text or with ADA logo art only
- Text and ADA Compliant logo art are baked onto the surface for added durability
- Two Year Warranty

Round Push Plates

Stainless Steel
6” Round Style Push Plate



Stainless Steel
4 1/2” Round Style Push Plate



- Available in both 6” or 4 1/2” round stainless steel
- 6” round push plate is ideal for applications where easy visibility of the actuator is desired
- 4 1/2” round push plate is less obtrusive to the aesthetics of a building

Square Push Plates

Stainless Steel
4 3/4” Square Style Push Plate



- 4 3/4” square stainless steel
- Less obtrusive to the aesthetics of a building and can also be mounted to LCN’s bollard post

Jamb Push Plates

Stainless Steel
Jamb Style Push Plate



Stainless Steel
Dual Jamb Style Push Plate



- Narrow design of single style push plate is ideal for guide rail and jamb applications
- Double jamb style is great for vestibule applications to automate either door with only one activation device

Ready Mount Actuators

Stainless Steel
6” Slim Profile Push Plate



Stainless Steel
4 3/4” Round Style Push Plate

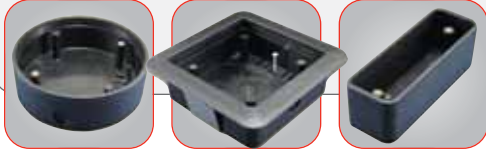


- Available in both 6” round or 4 3/4” square stainless steel
- Ready to install right out of the box! Combines mounting box, wireless transmitter, and stainless steel actuator – no assembly required
- Slim line tamper resistant profile makes it ideal for more aesthetic applications — 1 1/2” profile
- No visible mounting holes on the front cover

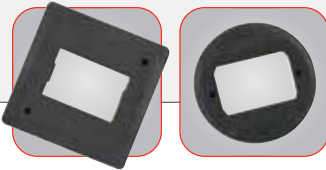
Actuator Accessories

LCN offers a full line of activation device accessories, including: surface and flush mounted boxes, weather rings, escutcheons, wireless transmitters and receivers (4 channel), key chain activation devices (up to 4 buttons), sequencers, and a bollard post (used with 4-3/4" square actuator)

Mounting Boxes



Weather Rings



Bollard Post



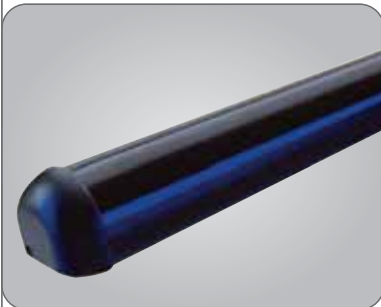
Wireless Transmitters/Receivers



Safety and Activation Sensors

Safety and activation sensors are designed to both protect pedestrians, and help prolong the life of an automatic operator. LCN safety sensors can be used on all automatic operators – high and low energy.

Door Mount Safety Sensor



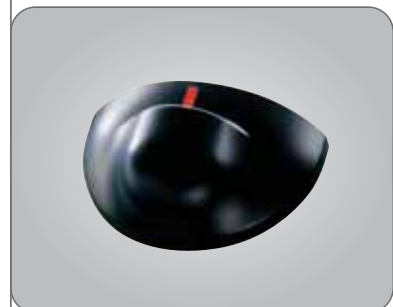
- Door mounted safety sensors can mount to either the swing side or approach side, and uses focused infrared technology to sense motion during door activation
- Available with one or two active sensor modules within the same housing to expand the detection zone through the full face of the door
- Mounts to the top of the door in order to stay out of harms way from pedestrians, carts, and hospital beds

Header Mount Safety Sensor



- Header mount safety sensors mount to either the swing side or approach side of the frame, and uses focused infrared technology to sense motion during door activation
- 9 selectable patterns
- Optional remote for easy adjustment

Header Mount Activation Sensor



- K-Band microwave technology allows quick, reliable and consistent activation
- Detection settings — one way or programmable
- Immunity settings for precise activation zones
- Optional remote for easy adjustment

Door Control Without Compromise



Good business through goodwill

The Americans with Disabilities Act is a civil rights law, not a building code. Yet it has reshaped the entrances and doors in buildings across the country. In an effort to accommodate people with disabilities, buildings have become easier to enter for everyone, including those who just need a little help. The growing elderly population is benefiting, and the goodwill created by improving ADA access is significant.

The right thing

A proactive approach to ADA accessibility is a sound business strategy. It's the right thing to do, for many reasons:

- **Positive, convenient customer experience**
- **Safe, secure and productive environment**
- **Increased Traffic and revenue**
- **Reduced risk of negative publicity**
- **Litigation avoidance**

In the right way

LCN has automatic operator solutions to meet the full array of ADA accessibility and door control needs, from low-energy pneumatic to high-energy electric. What's more, they utilize several patented components, and are all assembled by hand in the United States. LCN's comprehensive portfolio of solutions help building owners bridge the gap between business objectives and ADA accessibility, without sacrificing other needs related to high use and abuse, design, fire and life safety and security.

Touchless Activation Device

LCN's touchless activation device uses a common motion sensor to allow door activation in applications that may require a sterile environment. Touchless actuators are perfect for operating rooms, clean rooms, and many other healthcare applications.



- Variable adjustment of sensing pattern from 2 inches and up to 20 inches
- Variable relay hold time from 1 to 19 seconds - useful in low energy door applications
- Water-resistant foam gasket
- No moving parts for increase life



Actuator and Sensor Kits/Packages

All of LCN's actuators and accessories are available in easy to order and stock kits and packages.



ACTUATOR KITS

Actuator kits are available for all LCN activation devices, to allow you to easily specify and stock application specific accessories. Kits can include push plates, mounting boxes, weather rings, transmitters and receivers. LCN offers 25 easy to order activation packages.



SENSOR PACKAGES

Sensors are available in a variety of application packages to allow for easy order specification. Packages can include safety and activation sensors, wiring harnesses and additional sensor accessories.



Ingersoll Rand's Security Technologies Sector is a leading global provider of products and services that make environments safe, secure and productive. The sector's market-leading products include electronic and biometric access-control systems; time-and-attendance and personnel scheduling systems; mechanical locks; portable security; door closers, exit devices, architectural hardware, and steel doors and frames; and other technologies and services for global security markets.

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800-248-1460 fax
www.lcn.ingersollrand.com

AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 4 1/2" Surface and Flush mounts

The actuators and accessories on the following pages are to be used with LCN automatic operators. When using actuators supplied by others, such as card readers, consult the factory.

The desired function, traffic patterns and physical design of the opening will determine the type of actuators used. Generally, for two-way traffic, an actuator is required on both the interior and exterior side of the door. Each actuator is packaged with a decal to be applied to the controlled door. Scanners operate on 12V or 24V AC/DC and may be powered by the LCN electrohydraulic/electromechanical operators. The 7900 series control box requires separate power supply for scanners. Actuators provide normally open (N.O.) dry contacts.

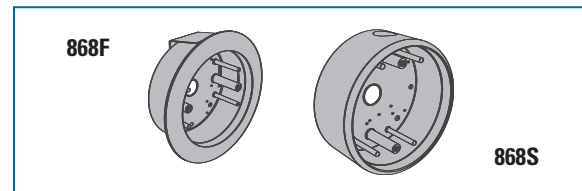
WALL MOUNTED ACTUATOR, 8310-856

Hardwired low voltage actuator with round, stainless steel touch plate in 4 1/2" (114mm) diameter. Engraved blue filled handicap symbol conforms to most accessibility codes. Designed to mount in a flush or surface mount box (sold separately) in/on a vertical surface near the controlled door. Optional mounting in single gang electrical box (by others). Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard.



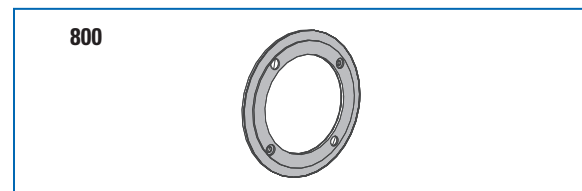
WALL MOUNTED ACTUATOR, 8310-856T

Same as the 3810-856, with the added engraving of "Push to Open"



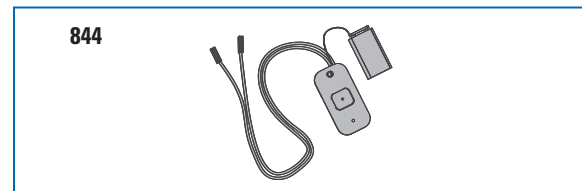
FLUSH MOUNT BOX, 8310-868F

Rugged Plastic Box, 4 1/2" Round, Optional accessory - Can be used w/ any 4 1/2" round actuator



SURFACE MOUNT BOX, 8310-868S

Rugged Plastic Box, 4 1/2" Round, Optional accessory - Can be used w/ any 4 1/2" round actuator

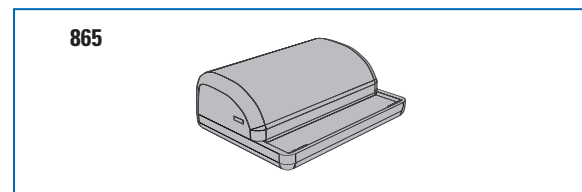


WEATHER RING, 8310-800

Plastic Weather Ring, 4 1/2" Round. Optional accessory - Can be used w/ any 4 1/2" round actuator

TRANSMITTER, 8310-844

Transmitter, Wireless, 1 Channel, 9v battery included. Use to convert standard wall mount actuator to wireless. Requires 8310-865 Receiver

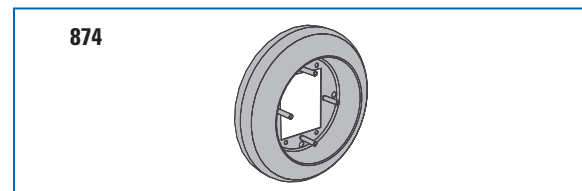


RECEIVER, 8310-865

Receiver, Wireless, 1 Channel, w/Sequencing Feature. Used in conjunction w/ Wireless Actuators & Transmitter(s)

ESCUTCHEON, 8310-874

Tapered stainless steel escutcheon covers the gap between the wall and the back of the wall plate actuators when mounted in electrical boxes (by others) to minimize cart damage or vandalism. Optional accessory - Can be used w/ any 4 1/2" round actuator

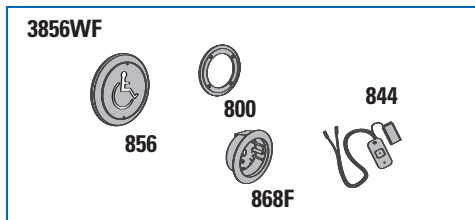


AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 4 1/2" Surface and Flush mounts

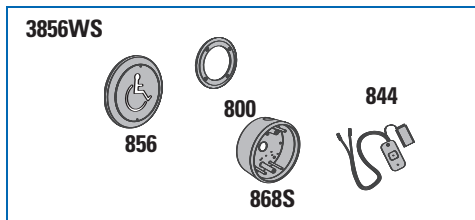
FLUSH MOUNT KIT, 8310-3856WF

Actuator, 4 1/2" Round, Logo, Wireless
Includes 8310-856 Actuator, 8310-844 Transmitter,
8310-868F Flush Box, 8310-800 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



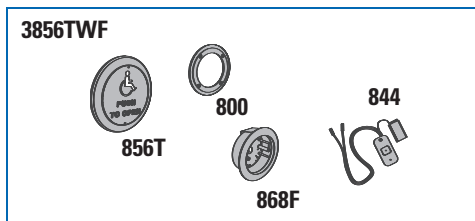
SURFACE MOUNT KIT, 8310-3856WS

Actuator, 4 1/2" Round, Logo, Wireless,
Includes 8310-856 Actuator, 8310-844 Transmitter,
8310-868S Surface Box, 8310-800 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



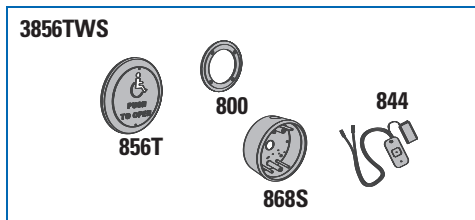
FLUSH MOUNT KIT, 8310-3856TWF

Actuator, 4 1/2" Round, Logo, Text, Wireless,
Includes 8310-856T Actuator, 8310-844 Transmitter,
8310-868F Flush Box, 8310-800 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



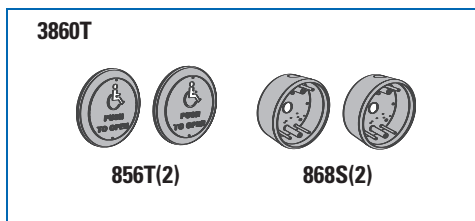
SURFACE MOUNT KIT, 8310-3856TWS

Actuator, 4 1/2" Round, Logo, Text, Wireless,
Includes 8310-856T Actuator, 8310-844 Transmitter,
8310-868S Surface Box, 8310-800 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



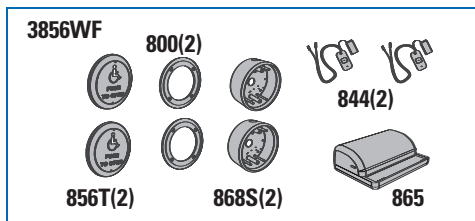
SURFACE MOUNT KIT, 8310-3860T

Actuator Package, 4 1/2" Round,
Includes 8310-856T (2) Wall Mount Actuator, 8310-868S
Surface Mount Box



SURFACE MOUNT KIT, 8310-3860TW

Actuator Package, 4 1/2" Round, Wireless,
Includes 8310-856T (2) Wall Mount Actuator, 8310-868S (2)
Surface Mount Box, 8310-800 (2) Weather Ring, 8310-844 (2)
Transmitter, 8310-865 Receiver



AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 6" Surface and Flush mounts

WALL MOUNTED ACTUATOR, 8310-852

Hardwired low voltage actuator with round, stainless steel touch plate in 6" (152mm) diameter. Engraved blue filled handicap symbol conforms to most accessibility codes. Designed to mount in a flush or surface mount box (sold separately) in/on a vertical surface near the controlled door. Optional mounting in single gang electrical box (by others) or double gang box (4" x 4" by others). Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard.



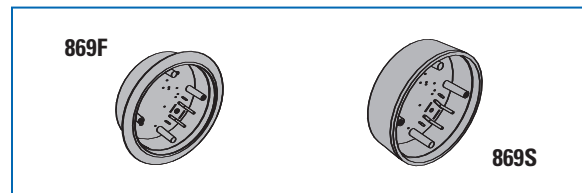
WALL MOUNTED ACTUATOR, 8310-852T

Same as the 8310-852, with the added engraving of "Push to Open"



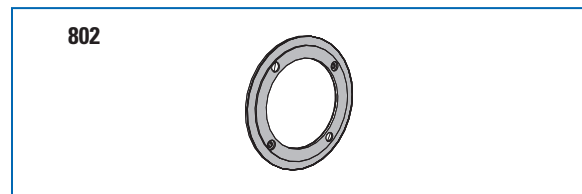
WALL MOUNTED ACTUATOR, 8310-852WP

Wireless, low profile, low voltage actuator with round, stainless steel touch plate in 6" (152mm) diameter. Engraved blue filled handicap symbol conforms to most accessibility codes. Surface mount box includes integral transmitter w/ battery and actuator switch. Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard.



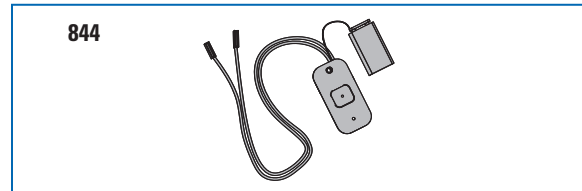
WALL MOUNTED ACTUATOR, 8310-852TWP

Same as the 8310-852WP, with the added engraving of "Push to Open"



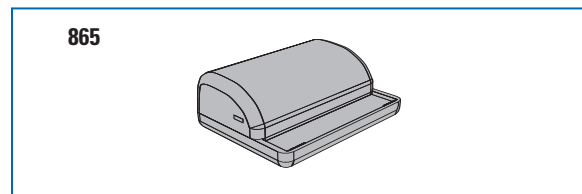
FLUSH MOUNT BOX, 8310-869F

Rugged Plastic Box, 6" Round. Optional accessory - Can be used w/ any 6" round actuator



SURFACE MOUNT BOX, 8310-869S

Rugged Plastic Box, 6" Round. Optional accessory - Can be used w/ any 6" round actuator

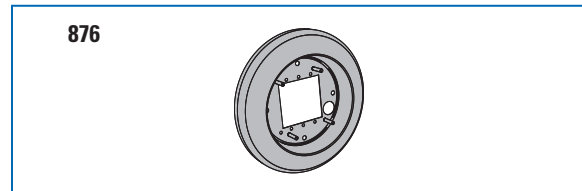


WEATHER RING, 8310-802

Plastic Weather Ring, 6" Round. Optional accessory - Can be used w/ any 6" round actuator

TRANSMITTER, 8310-844

Transmitter, Wireless, 1 Channel, 9v battery included. Use to convert standard wall mount actuator to wireless. Requires 8310-865 Receiver



RECEIVER, 8310-865

Receiver, Wireless, 1 Channel, w/ Sequencing Feature Used in conjunction w/ Wireless Actuators & Transmitter(s)

ESCUTCHEON, 8310-876

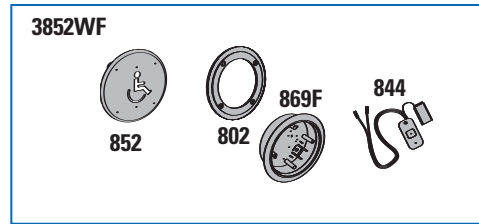
Tapered stainless steel escutcheon covers the gap between the wall and the back of the wall plate actuators when mounted in electrical boxes (by others) to minimize cart damage or vandalism. Optional accessory - Can be used w/ any 6" round actuator

AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 6" Surface and Flush mounts

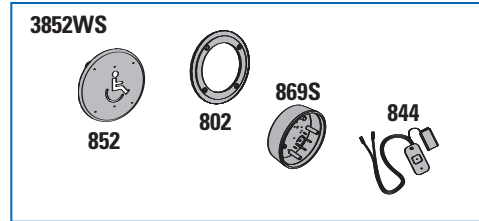
FLUSH MOUNT KIT, 8310-3852WF

6" Round, Logo, Wireless,
Includes 8310-852 Actuator, 8310-844 Transmitter,
8310-869F Flush Box, 8310-802 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



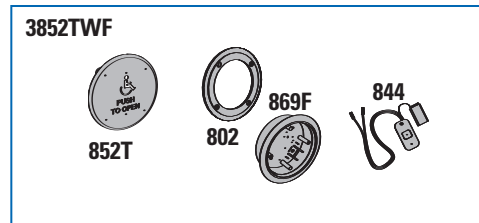
SURFACE MOUNT KIT, 8310-3852WS

6" Round, Logo, Wireless,
Includes 8310-852 Actuator, 8310-844 Transmitter,
8310-869S Surface Box, 8310-802 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



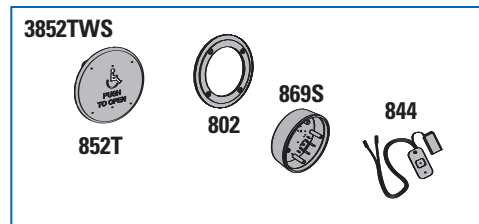
FLUSH MOUNT KIT, 8310-3852TWF

6" Round, Logo, Text, Wireless,
Includes 8310-852T Actuator, 8310-844 Transmitter,
8310-869F Flush Box, 8310-802 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



SURFACE MOUNT KIT, 8310-3852TWS

6" Round, Logo, Text, Wireless,
Includes 8310-852T Actuator, 8310-844 Transmitter,
8310-869S Surface Box, 8310-802 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 1 1/2" x 4 3/4" Surface and Flush mounts

NOTE: LCN recommends for all jamb mount actuators be used on an interior installation only.

JAMB MOUNTED ACTUATOR, 8310-818

Hardwired low voltage actuator with rectangular stainless steel touch plate. 1 1/2" (38mm) wide by 4 3/4" (121mm). Engraved blue filled handicap symbol conforms to most accessibility codes. Designed to mount in a frame cutout (template provided) projecting approximately 1/2" (12mm) from the frame. Optional mounting in surface or flush mount box (sold separately). Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard.

JAMB MOUNTED ACTUATOR, 8310-818T

Same as the 8310-818, with the added engraving of "Push to Open"

FLUSH MOUNT BOX, 8310-819F

Rugged Plastic Jamb Box, 1 1/2" x 4 3/4" Rectangle, Optional accessory - Can be used w/ any 1 1/2" x 4 3/4" jamb mount actuator

SURFACE MOUNT BOX, 8310-819S

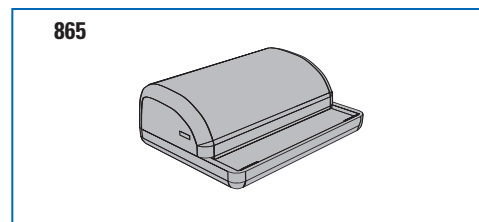
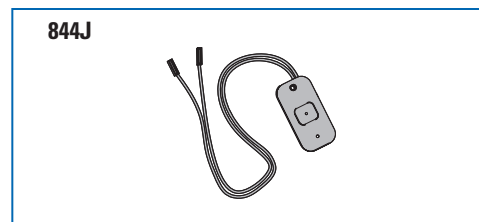
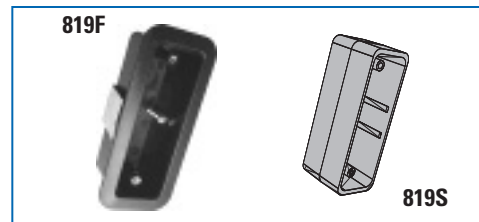
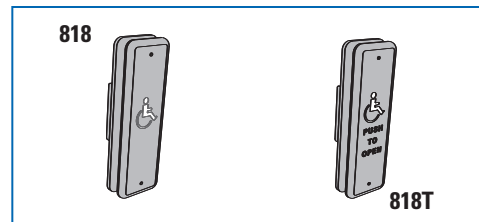
Rugged Plastic Jamb Box, 1 1/2" x 4 3/4", Rectangle, Optional accessory - Can be used w/ any 1 1/2" x 4 3/4" jamb mount actuator

TRANSMITTER, 8310-844J

Transmitter, Wireless, 1 Channel, Jamb Mount, 3v battery included. Used to convert standard jamb mount actuator to wireless when used w/ 819F or 819S boxes. Requires 8310-865 Receiver (interior use only)

RECEIVER, 8310-865

Receiver, Wireless, 1 Channel, w/ Sequencing Feature Used in conjunction w/ Wireless Actuators & Transmitter(s)



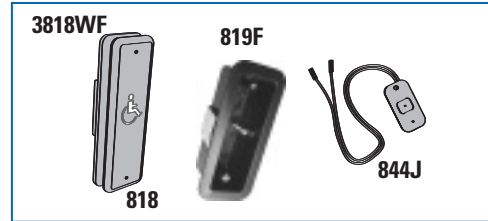
AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 1 1/2" x 4 3/4" Surface and Flush mounts

NOTE: LCN recommends for all jamb mount actuators be used on an interior installation only.

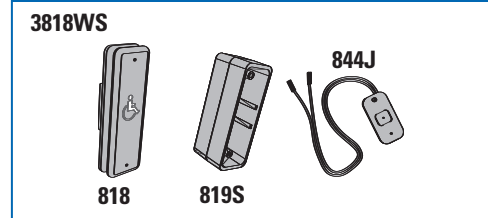
FLUSH MOUNT KIT, 8310-3818WF

Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
Includes 8310-818 Actuator, 8310-844J Transmitter, 8310-819F Flush Box. Requires 8310-865 Receiver (not part of kit)



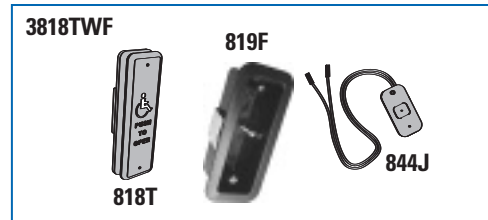
SURFACE MOUNT KIT, 8310-3818WS

Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
Includes 8310-818 Actuator, 8310-844J Transmitter, 8310-819S Surface Box. Requires 8310-865 Receiver (not part of kit)



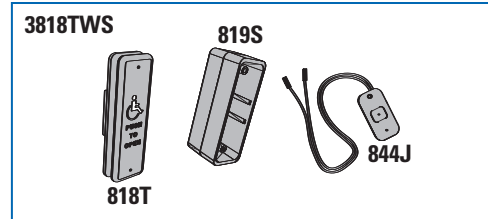
FLUSH MOUNT KIT, 8310-3818TWF

Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
Includes 8310-818T Actuator, 8310-844J Transmitter, 8310-819F Flush Box. Requires 8310-865 Receiver (not part of kit)



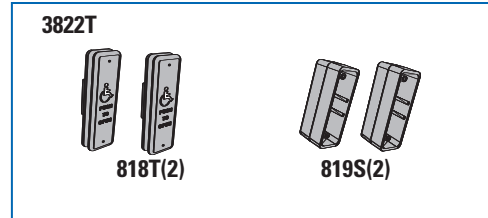
SURFACE MOUNT KIT, 8310-3818TWS

Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
Includes 8310-818T Actuator, 8310-844J Transmitter, 8310-819S Surface Box. Requires 8310-865 Receiver (not part of kit)



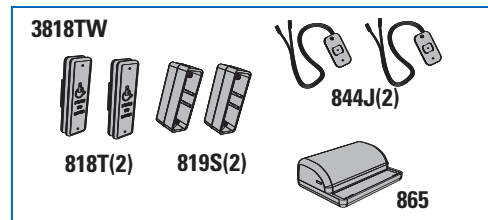
SURFACE MOUNT KIT, 8310-3822T

Actuator Package, 1 1/2" x 4 3/4", Jamb Mount
Includes 8310-818T (2) Jamb Mount Actuator, 8310-819S (2) Surface Mount Box.



SURFACE MOUNT KIT, 8310-3822TW

Actuator Package, 1 1/2" x 4 3/4", Wireless, Jamb Mount
Includes 8310-818T (2) Jamb Mount Actuator, 8310-819S (2) Surface Mount Box, 8310-844J (2) Jamb Mount Transmitter, 8310-865 Receiver.



AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 4 3/4" Square Surface and Flush mounts

WALL MOUNTED ACTUATOR, 8310-853

Hardwired low voltage actuator with stainless steel touch plate in 4 3/4" (121mm) square. Engraved blue filled handicap symbol conforms to most accessibility codes. Designed to mount in a flush or surface mount box (sold separately) in/on a vertical surface near the controlled door. Optional mounting in single gang electrical box (by others) or double gang box (4" x 4" by others) or on an 8310-866 bollard post. Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard.

WALL MOUNTED ACTUATOR, 8310-853T

Same as the 8310-853, with the added engraving of "Push to Open"

SURFACE MOUNTED ACTUATOR, 8310-853WP

Wireless, low profile, low voltage actuator with round, stainless steel touch plate in 4 3/4" (121mm) square. Engraved blue filled handicap symbol conforms to most accessibility codes. Surface mount box includes integral transmitter w/ battery and actuator switch. Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard.

SURFACE MOUNTED ACTUATOR, 8310-853TWP

Same as the 8310-853WP, with the added engraving of "Push to Open"

FLUSH MOUNT BOX, 8310-867F

Rugged Plastic Box, 4 3/4" Square
Optional accessory - Can be used w/ any 4 3/4" square actuator

SURFACE MOUNT BOX, 8310-867S

Rugged Plastic Box, 4 3/4" Square
Optional accessory - Can be used w/ any 4 3/4" square actuator

WEATHER RING, 8310-801

Plastic Weather Ring, 4 3/4" Square Optional accessory - Can be used w/ any 4 3/4" square actuator

TRANSMITTER, 8310-844

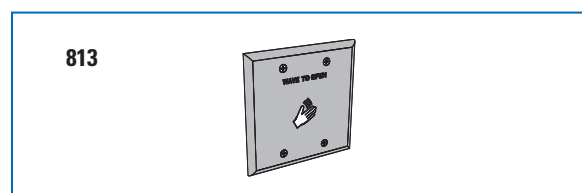
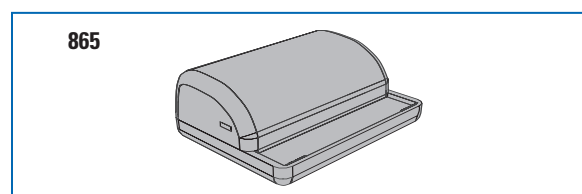
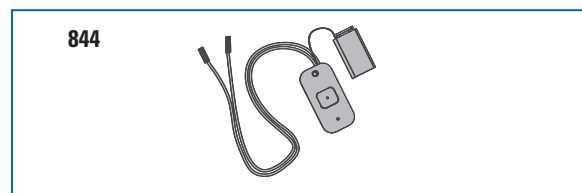
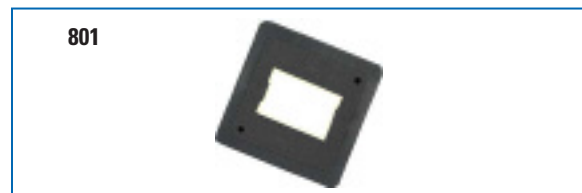
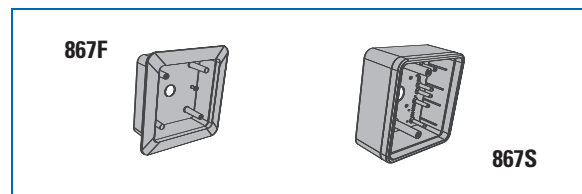
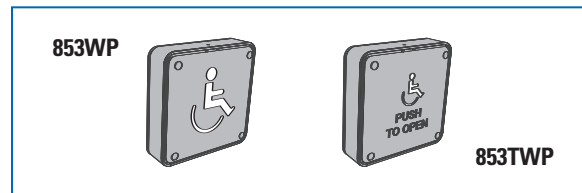
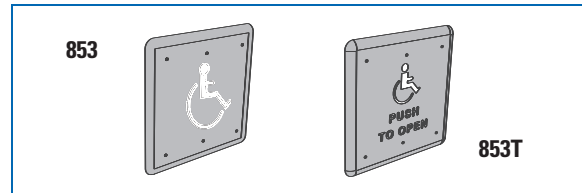
Transmitter, Wireless, 1 Channel, 9v battery included.
Use to convert standard wall mount actuator to wireless.
Requires 8310-865 Receiver

RECEIVER, 8310-865

Receiver, Wireless, 1 Channel, w/ Sequencing Feature
Used in conjunction w/ Wireless Actuators & Transmitter(s)

TOUCHLESS WALL MOUNTED ACTUATOR, 8310-813

Hardwired low voltage actuator with plastic plate in 4 3/4" (121mm) square. Optional mounting in single gang electrical box (by others) or double gang box (4" x 4" by others).

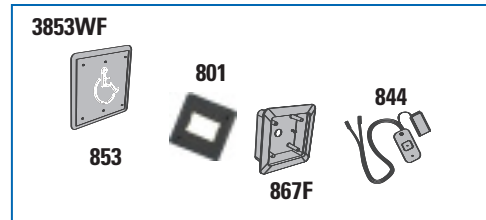


AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 4 3/4" Square Surface and Flush mounts

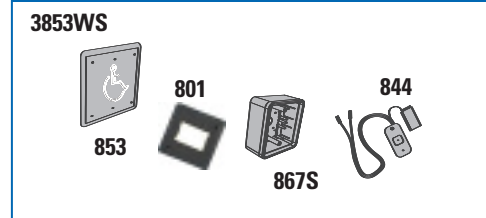
FLUSH MOUNT KIT, 8310-3853WF

Actuator, 4 3/4" Square, Logo, Wireless
Includes 8310-853, 8310-844 Transmitter,
8310-867F Flush Box, 8310-801 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



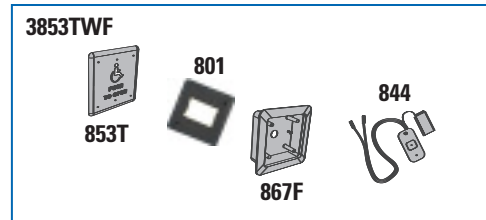
SURFACE MOUNT KIT, 8310-3853WS

Actuator, 4 3/4" Square, Logo, Wireless
Includes 8310-853, 8310-844 Transmitter,
8310-867S Surface Box, 8310-801 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



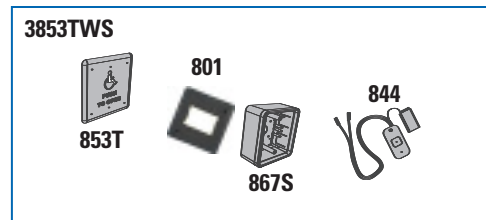
FLUSH MOUNT KIT, 8310-3853TWF

Actuator, 4 3/4" Square, Logo, Text, Wireless
Includes 8310-853T, 8310-844 Transmitter,
8310-867F Flush Box, 8310-801 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



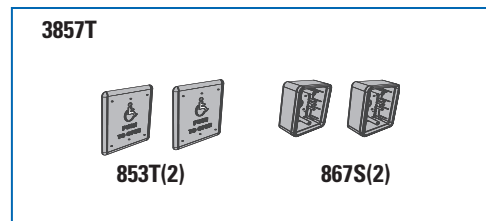
SURFACE MOUNT KIT, 8310-3853TWS

Actuator, 4 3/4" Square, Logo, Text, Wireless
Includes 8310-853T, 8310-844 Transmitter,
8310-867S Surface Box, 8310-801 Weather Ring.
Requires 8310-865 Receiver (not part of kit)



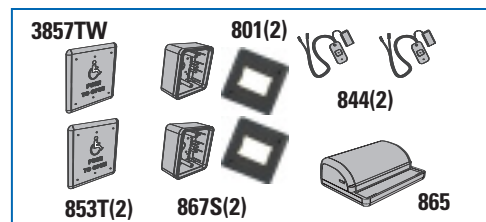
SURFACE MOUNT KIT, 8310-3857T

Actuator Package, 4 3/4" Square
Includes 8310-853T (2) Wall Mount Actuator, 8310-867S (2)
Surface Mount Box



SURFACE MOUNT KIT, 8310-3857TW

Actuator Package, 4 3/4" Square
Includes 8310-853T (2) Wall Mount Actuator, 8310-867S (2)
Surface Mount Box, 8310-801 (2) Weather Ring, 8310-844 (2)
Transmitter, 8310-865 Receiver



AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 4 3/4" Dual Square Surface and Flush mounts

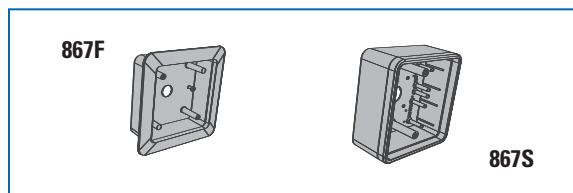
DUAL WALL MOUNTED ACTUATOR, 8310-855

Hardwired low voltage actuator with dual rectangle, stainless steel touch plate in 4 3/4" (121mm) square. Engraved blue filled handicap symbol w/ text, conforms to most accessibility codes. Designed to mount in a flush or surface mount box (sold separately) in/on a vertical surface near the controlled door. Optional mounting in double gang box (4" x 4" by others) or on an 8310-866 bollard post. Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard.



FLUSH MOUNT BOX, 8310-867F

Rugged Plastic Box, 4 3/4" Square
Optional accessory - Can be used w/ any 4 3/4" square actuator



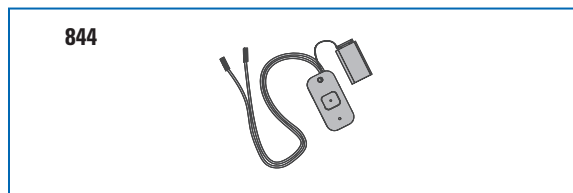
SURFACE MOUNT BOX, 8310-867S

Rugged Plastic Box, 4 3/4" Square
Optional accessory - Can be used w/ any 4 3/4" square actuator



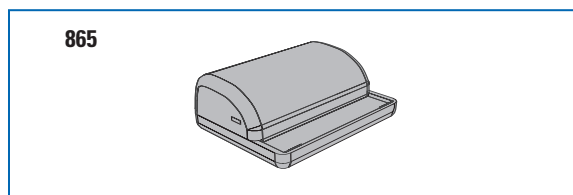
WEATHER RING, 8310-801

Plastic Weather Ring, 4 3/4" Square
Optional accessory - Can be used w/ any 4 3/4" square actuator



TRANSMITTER, 8310-844

Transmitter, Wireless, 1 Channel, 9v battery included.
Use to convert standard wall mount actuator to wireless.
Requires 8310-865 Receiver



RECEIVER, 8310-865

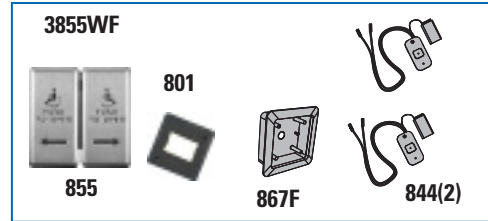
Receiver, Wireless, 1 Channel, w/ Sequencing Feature
Used in conjunction w/ Wireless Actuators & Transmitter(s)

AUTOMATIC OPERATOR ACTUATORS & ACCESSORIES

8310 Series 4 3/4" Dual Square Surface and Flush mounts

FLUSH MOUNT KIT, 8310-3855WF

Actuator, 4 3/4" Square, Logo, Text, Dual Vestibule, Wireless.
Includes 8310-855 Actuator, 8310-844 Transmitter (2),
8310-867F Flush Box, 8310-801 Weather Ring.
Requires 8310-865 Receiver (2) (not part of kit)



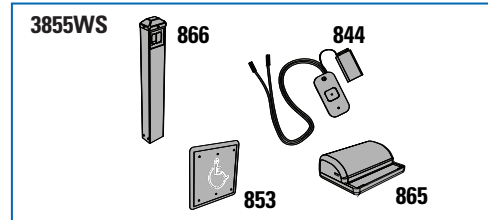
SURFACE MOUNT KIT, 8310-3855WS

Actuator, 4 3/4" Square, Logo, Text, Dual Vestibule,
Wireless. Includes 8310-855 Actuator, 8310-844 Transmitter
(2), 8310-867S Surface Box, 8310-801 Weather Ring.
Requires 8310-865 Receiver (2) (not part of kit)



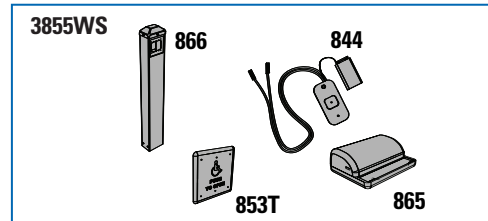
ACTUATOR, BOLLARD MOUNT, 8310-3853WB

4 3/4" Square w/ Logo, Wireless actuator
Use w/ 8310-866 Bollard - Includes 8310- 853 actuator, 8310-
844 Transmitter, 8310-865 Receiver.



ACTUATOR, BOLLARD MOUNT, 8310-3853TWB

4 3/4" Square w/ Logo, Text, Wireless actuator
Use w/ 8310-866 Bollard - Includes 8310- 853T actuator,
8310-844 Transmitter, 8310-865 Receiver



LCN[®]

In Control of ADA Accessibility

Solutions that meet everyone's needs





Five Critical Needs. One Brand

ADA Accessibility Solutions

Durability

ADA Accessibility

Safety

Security

Design



Automatic Operators for High, Primarily Manual, Traffic Applications



Automatic Operators for High, Primarily Automatic, Traffic Applications



Automatic Operators for Concealed Applications



Automatic Operators for Extremely Quiet Applications



Automatic Operators for Doors Requiring 8 1/2 lbs Maximum Manual Opening Force Applications



Automatic Operators for Light to Medium Traffic Applications




Fully Automatic High-Energy Operators for Unimpeded Flow for High Traffic Applications



LCN has the power operator solutions to meet the full array of ADA accessibility and door control needs

Door Control Without Compromise



“ ADA guidelines are so deeply integrated into building management we don't even think about it. That doesn't mean we don't care, we care a great deal. That's why we choose LCN.”

Good business through goodwill

The Americans with Disabilities Act is a civil rights law, not a building code. Yet it has reshaped the entrances and doors in buildings across the country. In an effort to accommodate people with disabilities, buildings have become easier to enter for everyone, including those who just need a little help. The growing elderly population is benefiting, and the goodwill created by improving ADA access is significant.

The right thing

A proactive approach to ADA accessibility is a sound business strategy. It's the right thing to do, for many reasons:

- **Positive, convenient customer experience**
- **Safe, secure and productive environment**
- **Increased Traffic and revenue**
- **Reduced risk of negative publicity**
- **Litigation avoidance**

In the right way

LCN has automatic operator solutions to meet the full array of ADA accessibility and door control needs, from low-energy pneumatic to high-energy electric. What's more, they utilize several patented components, and are all assembled by hand in the United States. LCN's comprehensive portfolio of solutions help building owners bridge the gap between business objectives and ADA accessibility, without sacrificing other needs related to high use and abuse, design, fire and life safety and security.

LCN stands for:

AutoEqualizer 4640 Series



Automatic Operators for High, Primarily Manual, Traffic Applications 🦹‍♂️ ♿ 🔥

- Ideal for primarily manual entrances
- Low-Energy, electro-hydraulic or pneumatic hydraulic design
- Integrates LCN's 10 Million Cycle Heavy Duty door closer
- Digital control suite with on-board diagnostics for easy setup
- On-board Power supply for peripherals
- UL Listed

Automatic Operators for High, Primarily Automatic, Traffic Applications 🦹‍♂️ ♿ 🔥 ⚡

- Ideal for entrances or cross-corridor doors
- Low-Energy, electro-mechanical design
- 10 Million Cycle Heavy Duty operator
- Power Boost assisted closing assures secure latching
- Push-N-Go initiates automatic opening when door is manually put in motion
- Built-in "Blow Open" Feature
- Full Length headers available for aesthetics
- UL Listed

Senior Swing 9550 Series



Senior Swing 2800 Series



Automatic Operators for Concealed Applications 🦹‍♂️ ♿ 🔥 👁️

- Ideal for applications where aesthetics are important
- Units are concealed in the header to ensure aesthetic appeal
- Low-Energy, electro-mechanical or pneumatic-hydraulic designs
- 10 Million Cycle Heavy Duty operators
- UL Listed

Automatic Operators for Extremely Quiet Applications 🦹‍♂️ ♿ 🔥

- Ideal where a quiet atmosphere is important
- Great for Libraries and Churches
- Units can be concealed in the header to ensure aesthetic appeal
- Ideal Multi-door Solution, as cost per door leaf is reduced
- Low-Energy, pneumatic-hydraulic design
- 10 Million Cycle Heavy Duty operators
- UL Listed

Pneumatic AutoEqualizer 4810 Series



Middle swing 9740 Series



Automatic Operators for Doors Requiring 8 1/2 lbs Maximum Manual Opening Force Applications

- Ideal for Exterior Doors requiring 8 1/2 lbs Max. Manual Opening Force
- Low-Energy, electro-mechanical design
- 10 Million Cycle Heavy Duty operator
- Full Length headers available for aesthetics
- UL Listed

Automatic Operators for Light to Medium Traffic Applications

- Ideal for interior doors such as restrooms, offices, and corridors
- 3 Million Cycle Medium Duty operator
- Push-'N'-Go initiates automatic opening when door is manually put in motion
- Auto-Reverse provides added safety during opening
- Optional On-board Power supply and Power Boost
- Full Length headers available for aesthetics
- UL Listed

Benchmark 9140 Series



Astro Swing 2550 Series



Fully Automatic High-Energy Operators for Unimpeded Flow for High Traffic Applications

- Ideal for Grocery, Retail and Supermarket entrances as well as Airports
- Adjustable closing, opening, and backcheck speeds
- Single, simultaneous pair or double egress configurations
- Power Boost closing
- Built in "Blow Open" Feature
- UL Listed

Automatic Operators for Fire Door Applications

- ALL of LCN's Automatic Power Operators can be used on fire door applications
- ALL can easily be tied into fire alarm systems
- ALL are available in standard as well as custom finishes
- ALL are UL Listed
- ALL have a standard 2 year Warranty

AutoEqlaizer 4630 Series





Ingersoll Rand's Security Technologies Sector is a leading global provider of products and services that make environments safe, secure and productive. The sector's market-leading products include electronic and biometric access-control systems; time-and-attendance and personnel scheduling systems; mechanical locks; portable security; door closers, exit devices, architectural hardware, and steel doors and frames; and other technologies and services for global security markets.

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LCN®

Benchmark Low Energy Operator

Intelligent. Reliable. Economic.

Introducing the most reliable low energy automatic operator in the commercial market. LCN's **NEW** Benchmark provides the perfect mix of intelligence and affordability. So when you're looking for a solution to your ADA needs, think Benchmark — it's more than what you would expect in an economic operator.





Complete control for your commercial ADA solutions.

The new Benchmark by LCN is an electromechanical low-energy operator, designed primarily for automated use. It's ideal for commercial applications to help those who may need additional assistance. The NEW Benchmark is the perfect combination of reliability and affordability to meet your ADA needs.

Reliability meets affordability

With a sleek appearance and superior intelligence the Benchmark is perfectly suited for both new construction and retro-fit applications.

LCN has built in a host of features that make this the most reliable low energy automatic operator available in the commercial market.

Intelligent Adjustability

- Power Boost
- Push-N-Go
- Opening, closing and backcheck speed control
- Latch and backcheck position

Fast, easy installation

- Non-handed
- Descriptive adjustment pod labels on control box
- LED power illumination

Meets ADA requirements

- Exceeds ANSI 156.19 requirements
- Tested to over 3 million automated cycles

Customized Options

- Multiple header lengths
- Push or Pull arm
- Concealable on/off switch

FEATURE	BENEFIT
Intelligent Power Boost	When power boost is enabled, it adds the extra force needed during the last 10 degrees of closing to overcome weather, HVAC, and other forces that may prevent the door from latching. The new Benchmark is even more intelligent and allows easy manual push through
Push-and-Go	The Push-N-Go setting now comes standard! When enabled, the door will automatically open when it is manually opened beyond 3 degrees
Non-Volatile Memory	Non-volatile memory simply means that during a power loss or failure, the control box will save the installation settings. This reduces the need to readjust setting if the operator is turned off nightly. And - after a power failure, the Benchmark no longer performs a noticeable "learn cycle".
Speed Adjustment	The new Benchmark allows adjustment to opening and closing speed, as well as latch and backcheck speed. Speed setting may vary depending on the application, allowing you to make specific adjustments for safe and complete door control.



LCN

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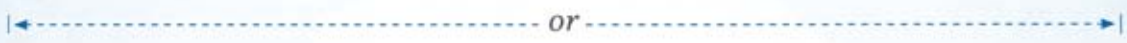
LCN[®]

*Door Closer and Power Operator
Condensed Catalog*

LCN

 **Ingersoll Rand**
Security Technologies

THE POETRY BEHIND CLOSING A 75-POUND DOOR IN 5.7 SECONDS



WHY WE MAKE LOUSY GUESTS AT COCKTAIL PARTIES



DOOR CONTROL DUMBED DOWN (NO OFFENSE)

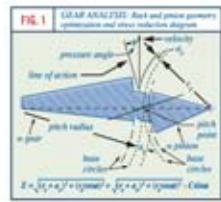


- (1) During the opening swing, the LCN closer allows for an easy opening, the type Hollywood producers dream of.
- (2) At the end of the opening swing, LCN backcheck prevents the door from skimming into the stop (ouch).
- (3) Through the long closing arc, LCN closers maintain a uniform, reasonable speed. If only they'd do the same for our driving.
- (4) The latching arc allows the door to close quietly and firmly. SHHHH-weest!

We admit it, we're an odd bunch. We eat, sleep and breathe door control. We're control freaks, but in a good way. Because to us, door control is one of the most pressing issues facing society today. Okay, maybe not society, but at least building security and safety. Door closers create the first impression of a facility and must be attractive without compromising quality – like a beauty pageant winner who is actually good at the talent section. So how has LCN been in control of door control for over 125 years? We thought you'd never ask.

MORE PEACE OF MIND THAN PIECE OF METAL
Our commitment is to provide each of our customers with the best door control possible. It's the reason we use only the best cast iron and forged steel available. They deliver exceptional value and an impressively long service life. That means you won't ever have to worry about door control at all (even though it really is an altogether fascinating subject). We labor over the complex physics and meticulous construction so you can rest easy knowing that your facility will always operate properly – just like it should.

AND NOW FOR SOMETHING THAT MAKES A TAX RETURN SEEM DOWNRIGHT SIMPLE



Chances are, you have not seen anything this brain-numbing since tenth-grade chemistry. But this little equation, a mere warm-up for our team of engineers,

is the basis behind the precision of LCN closers. It translates to: *Your door opens and closes perfectly every single time.* Now don't go thinking you can take the equation and start your own door closer company. If you happen to have the brain power to understand it, you are likely already happily employed here at LCN.

BUT SO WHAT??!

Why should you care that LCN is a passionate team of rabid door control fanatics? Perhaps you should spend the afternoon watching our closers perform in places like hospitals, office buildings and high schools (Figure 2) all over the world. Maybe then you'd understand why we put our closers through a grueling ten-million-cycle test. And who knows? You just might discover the beauty of door closers and become a control freak too.












Innovations that last.

LCN sets industry standards for quality, durability and innovation in premium door closers. Founded in 1926, LCN became a division of Ingersoll Rand in 1974 and today offers a broad line of products, including heavy-duty closers for interior and exterior doors, with fire/life safety closers/holders and high security manual closers available in most configurations. LCN also provides power operators and closers for use by people with physical challenges. These innovative door closers offer a wide range of applications in schools, healthcare facilities, sports arenas, government and commercial settings.

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STANDARD POWDER COATED FINISHES

Description	BHMA
 Aluminum – AL	689
 Dark Bronze – DKBRZ	695
 Tan – TAN	692
 Statuary – STAT	690
 Light Bronze – LTBRZ	691
 Black – BLACK	693
 Brass – BRASS	696

The Best Closers. The Best Value.

The LCN formula for success



Cast Iron

Heavy-duty cast iron. There isn't a stronger, harder, more reliable material for door closers that are expected to deliver millions of cycles. Cast iron is more compatible with high grade steel components and is more resistant to the wear of millions of opening/closing cycles.



10 Million Cycles

Why do some hardware professionals claim that LCN stands for "Last Closer Needed?" Only LCN closers were put through grueling independent cycle tests and only LCN exceeded 10 million cycles.



Forged Steel Arms

The closing power and control generated within LCN closers is transferred to the door through forged steel arms. Forged steel arms have greater strength, better appearance and less bulk.



Chrome Silicon

Many closer manufacturers use less expensive oil-tempered springs, but LCN engineers know that such a spring loses up to 20% of its power after a few thousand cycles. The chrome silicon springs used in LCN closers have the strength to perform beyond 10 million cycles.



Heat-Treated

LCN forged steel pinions have larger, stronger teeth and are double heat-treated for the greatest possible strength on the shaft. Heat treating makes the pinion harder, better able to resist wear after years of service and results in less stress on the cylinder.



Customized Products

When a standard door closer won't do the job, there is only one proven, reliable source for special solutions—LCN. With over 3,000 special templates on file, LCN can provide a door control solution for one-of-a-kind doors such as vault, balanced, over-sized and arch doors.



All-Weather Fluid

LCN uses a special formula hydraulic fluid that acts as an insulator to keep closer components working smoothly. This unique all-weather, fire-resistant hydraulic fluid eliminates the need for seasonal adjustments.

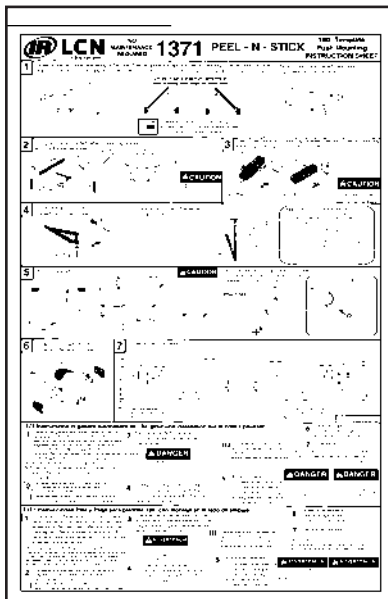


Customer Service

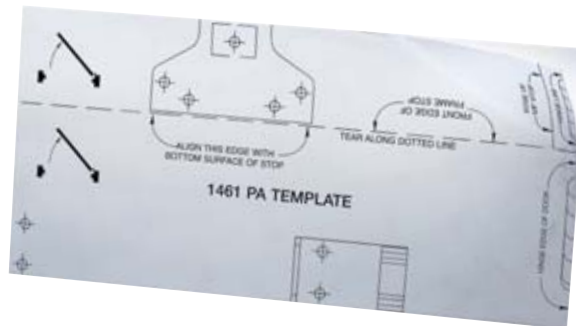
At a time when machines are picking up more and more customer calls, real people are answering the phones at LCN. Every member of our customer service staff is trained and qualified to assist you with orders, closer selection and scheduling.

LCN Fast and Accurate Installation

Installing and adjusting doors can be difficult and time consuming. A closer not installed properly can fail prematurely damaging the door, frame and hardware. Poor performance from an incorrect installation can also compromise building security and safety. LCN Fast and Accurate installation features enable LCN closers to be installed right the first time. Available on 4040, 4010, 1460 and 1370 Series Closers.



Peel & Stick Instructions
Hang it on the door for easy reference during installation



Peel & Stick Templates
Use to quickly install closers in the right place so they perform properly



LCN FAST™ Power Adjusts
A revolutionary visual indicator for Spring Power Adjustment



Self-Reaming & Tapping (SRT) Fasteners
Reduces drilling and tapping time

LCN No-Leak Closers

This No Leak™ 10 year guarantee is covered by the LCN standard warranty against defects in material and workmanship, and is subject to the specific requirements, exclusions, limitations and instructions for warranty returns included in the LCN standard warranty. See the LCN standard warranty for details. Additionally, see the product installation instructions to ensure proper installation.



4010/4020/4110/4010T/4020T/4110T SERIES CLOSERS

BEST PERFORMANCE



4110 EDA Shown

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

Features & Benefits

- Exceeded 10 million cycles in independent testing
- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- Handed for either right or left swinging door
- FAST™ power adjust allows accurate on-site spring power adjustment to meet the condition of the opening (4010/4020/4110 only)
- Fast and accurate installation (4010/4020/4110 only)
- Extra Duty Arm (EDA) is standard on 4110
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Sized cylinders for interior doors to 5'0" (1524mm) and exterior doors to 4'0" (1219mm)
- Non-sized cylinder adjustable for interior doors to 4'6" (1372mm) and exterior doors to 3'6" (1067mm)
- Closers to mount hinge side, top jamb or parallel arm
- Corner brackets available (4010 only) - requires opposite hand closer
- Size one cylinder meets ADA requirements on 3'0" (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

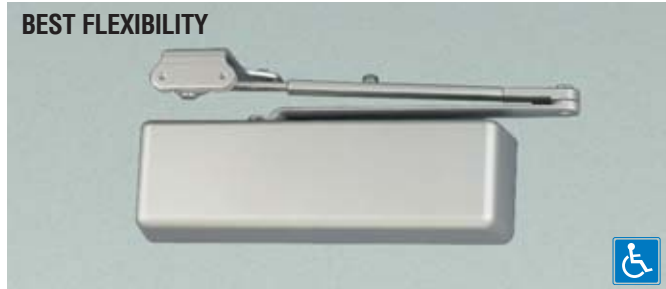
- Delay Action provides additional adjustable closing time (4010/4020/4110 only)
- Advanced Variable Backcheck allows earlier backcheck control on potentially abusive installations (available on 4110 series only)
- Metal cover available
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



= Complies with ADA Accessibility Guidelines

4040/4040T SERIES CLOSERS

BEST FLEXIBILITY



P4040 Shown

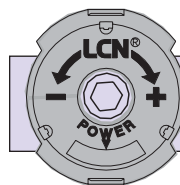
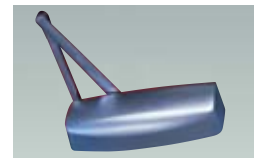
The 4040 is LCN's most flexible heavy duty closer designed for institutional and other rugged high traffic applications.

Features & Benefits

- Exceeded 10 million cycles in independent testing
- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- Non-handed
- FAST™ power adjust allows accurate on-site spring power adjustment to meet the condition of the opening (4040 only)
- Fast and accurate installation (4040 only)
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Non-sized cylinder is adjustable for interior doors to 5'0" (1524mm) and exterior doors to 4'0" (1219mm)
- Closers to mount hinge side, top jamb or parallel arm
- Size one cylinder meets ADA requirements on 3'0" (914mm) interior door
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Delay Action provides additional adjustable closing time (4040 only)
- Designer series non-handed metal cover provides smooth contoured look
- Metal cover available
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



Many of the 4000 Series Closers include the LCN. FAST™ Power Adjust, a revolutionary visual indicator for Spring Power Adjustment.



4030/4030T SERIES CLOSERS



4030 Shown

The 4030 is a cast iron, universal closer designed specifically for interior doors in moderate traffic applications.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel main arm, multiple arm options
- Heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Non-sized (1-4) 4031 cylinder for exterior doors to 36" (914mm) and interior doors to 48" (1219mm)
- Closer mounts hinge side, top jamb and parallel arm, on either right or left swinging doors
- Size one cylinder meets ADA requirements on a 3'0" (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid minimizes seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

4000T SERIES CLOSERS



4000T Shown

The 4000T Series is LCN's heavy-duty track closer designed specifically for interior pocket doors in institutional and other rugged high traffic applications.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel arm
- Double heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold-open
- 4000T provides wall pocket installation for fire/life safety in an aesthetically pleasing application – use SEM7850 wall magnet for complete installation
- Uses modified 4040 cylinder which has exceeded 10 million cycles in independent testing
- Non-handed
- Sized cylinders for interior doors to 4'0" (1219mm)
- Closer used for pocket installation
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Metal cover available
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



= Complies with ADA Accessibility Guidelines

SEM7820/SEM7830/SEM7840/SEM7850 MAGNETS



SEM7830 Shown

The Sentronic® SEM7800 is a series of heavy duty, electrically controlled door holding magnets. Magnets are fail safe and hold until the current is interrupted. A manual door closer is used to control and close the door. A choice of floor, recessed wall or surface mounted wall magnets are available.

CONFIGURATION

- SEM7820: Floor mounted magnet
- SEM7830: Surface wall mounted magnet
- SEM7840: Low profile recessed wall-mounted magnet
- SEM7850: Standard profile recessed wall-mounted magnet

Features & Benefits

- 7800 Series magnets are shipped with a screw pack for attachment of the door mounted armature
- Available in Aluminum or Dark Bronze finishes
- Wall units should be mounted per template instructions
- Suitable for use in pocket installations

Available Options

- All SEM magnets are available in either 24V or 120V (please specify)
- Available in two standard finishes – Aluminum or Dark Bronze

3130SE/4040SE SERIES HOLDER/CLOSERS



4040SE Shown

The 4040SE SENTRONIC® is a heavy-duty, non-handed, non-sized closer/holder designed to provide single point hold-open for fire and smoke barrier doors. The door is held open until current interruption releases the holding mechanism and the door closes. The single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, track functions and installation accessories meet virtually all life safety requirements.

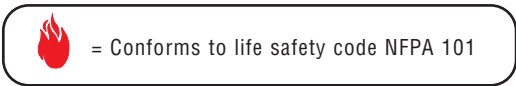
This series is UL listed for smoke barrier or labeled fire doors and cUL listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

Features & Benefits

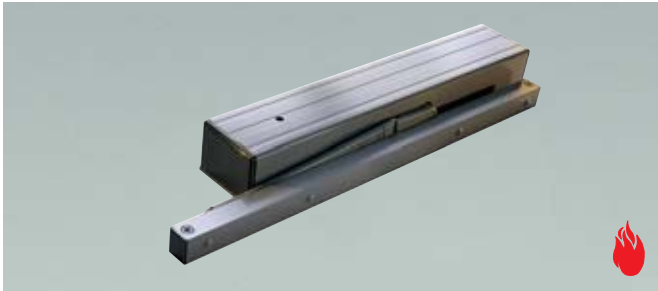
- Cast iron cylinder offers proven durability
- Non-sized cylinders for interior doors to 4'0" (1219mm)
- Hold-open force is adjustable
- Momentary on/off switch board assembly for testing door release also provides over-voltage protection, field replaceable
- Functions as a full rack and pinion closer when hold-open is not engaged or current is interrupted
- Closers to mount on either push or pull side of the door (4040SE)
- Closer can be concealed (3130SE)
- Non-handed
- Concealed or surface wiring
- Interfaces with alarm systems. *Consult factory* for full details
- Seven standard powder coated finishes available on cover and arm
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Metal cover available
- Double egress arm available (4040SE only), consult factory
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



2310ME/4310ME/4410ME SERIES HOLDER/CLOSERS



4310ME Shown

The 2310ME/4310ME/4410ME SENTRONIC® is a heavy-duty, electrically controlled closer/holder designed to provide infinitely adjustable hold-open for fire and smoke barrier doors. Door is held open until current interruption releases mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, cylinder functions and installation accessories meet virtually all life safety requirements.

This series is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

Features & Benefits

- Sized cylinders for interior doors to 4'0" (1219mm)
- Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted with Swing-Free arm engaged
- Handed for right or left swinging door
- ME Series available in hinge side mount, stop face mount or concealed in frame
- Concealed or exposed electrical connections
- Built-in "On/Off" switch controls hold-open function
- Swing-Free arm allows door to be moved without door closer resistance (4310ME only)
- Interfaces with fire alarm systems. *Consult factory*
- Seven standard powder coated finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Optional hold-open bypass feature available
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



= Conforms to life safety code NFPA 101

4310HSA/4410HSA SERIES HOLDER/CLOSERS



4310HSA Shown

The 4310HSA/4410HSA Series offers an electrically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors. Pedestrians, moving through the doorway, trigger the built-in scanner. When the door is opened to 80° or more, the door is electrically held open to minimize wear and tear on applied door hardware. After the last pedestrian in a group passes through the doorway the system timer releases the hold-open, closing the door under control of the heavy duty closer. Single lever (track) arm closer is specifically designed for pull-side mounting. Choice of finishes and accessories meet virtually all high traffic installation requirements.

This series is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

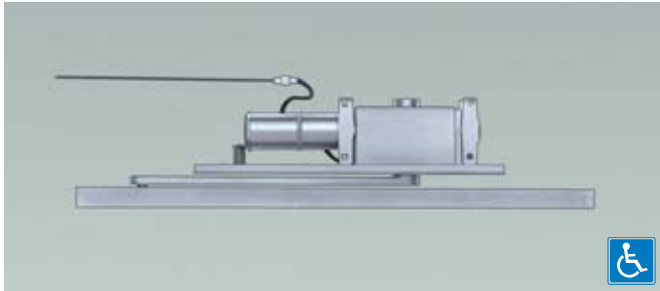
Features & Benefits

- HSA features a scanner activated hold-open function
- Hold-open period is adjustable up to 30 seconds
- Non-sized cylinders for interior doors to 4'0" (1219mm) or exterior doors to 3'0" (914mm)
- Functions as full rack and pinion door closer when current is interrupted or continuous hold-open is not engaged
- Handed for right or left swinging door
- HSA Series can be mounted hinge side or stop face
- Concealed or surface wiring. 24VAC/DC input only. 120VAC input requires 4040SE-3210 transformer
- Built-in "On/Off" switch provides continuous hold-open function
- Seven standard powder coated finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

2210/2210DPS SERIES CLOSER



2210DPS Shown

The concealed 2210 Series, heavy-duty, high security track closer features complete concealment with special components to minimize tampering and vandalism. Forged steel single lever arm and heavy steel mounting plate are designed for correctional, vandal prone, institutional and other high traffic applications. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold-open
- Sized cylinders for interior doors to 4'6" (1372mm) and exterior doors to 3'6" (1067mm)
- Closer mounts in head frame
- 10 year warranty (2210). 2 year warranty (2210DPS)
- Size one cylinder meets ADA requirements on a 3'0" (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Optional door position switch (DPS)
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish (2210 only)
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

4210/4210T/4510/4510T SERIES CLOSERS



4210 Shown

The 4210/4510 Series is a heavy-duty, high security closer with special components to minimize tampering and vandalism. Forged steel double lever arms and heavy gauge metal security covers are designed for correctional, vandal prone, institutional and other high traffic applications. The closer has passed 10,000,000 cycles in independent testing. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Features & Benefits

- Cast iron cylinder offers proven durability
- Forged steel main arm
- Double heat-treated steel pinion
- UL/cUL listed for self-closing, fire-rated doors without hold open
- Sized cylinders for interior doors to 5'0" (1524mm) and exterior doors to 4'0" (1219mm)
- Non-sized cylinder adjustable for interior doors to 4'6" (1372mm) and exterior doors to 3'6" (1067mm)
- Closers to mount hinge-side, stop-face or parallel mount side
- Handed for either right or left swinging door
- Size one cylinder meets ADA requirements on a 3'0" (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

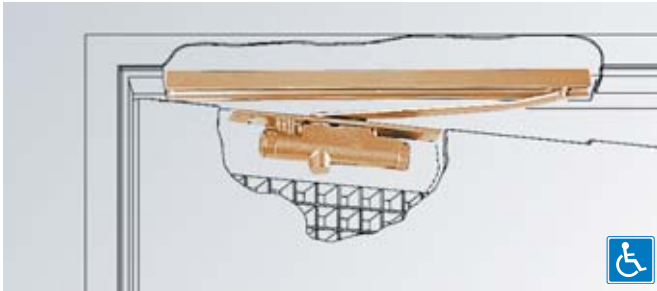
Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

 = Complies with ADA Accessibility Guidelines

Concealed

330/3030/3130 SERIES



3130 Shown

The concealed 330/3030/3130 Series is designed to mount in a 1 3/4" interior door. The double lever arm version provides superior door control and the choice of finishes and arm functions meet virtually all architectural requirements.

Features & Benefits

- Sized cylinders (330 or 3030) for interior doors to 4'0" (1219mm)
- Sized cylinders (3130) for interior doors to 3'2" (965mm)
- Handed for right or left swinging doors
- Size one cylinder meets ADA requirements on a 3'0" (914mm) interior door
- Consult factory for installations with pivots
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

2010/5010 SERIES



2010 Shown

The concealed 2010/5010 Series offers a heavy-duty closer designed for institutional, high traffic or other applications exposed to weather or abuse. The double lever arm version provides superior door control and a choice of finishes, cylinder functions and arm functions that meet virtually all architectural requirements.

Features & Benefits

- Sized cylinders for interior doors to 5'0" (1524mm) and exterior doors to 4'0" (1219mm)
- Handed for right or left swinging doors
- For hollow metal or wood door and frame
- Aluminum frame requires minimum 4" (102mm) x 4" (102mm) tube
- Size one cylinder meets ADA requirements on a 3'0" (914mm) interior door
- Seven standard powder coat finishes available
- Tested and certified under ANSI Standard A156.4, grade one
- All-weather fluid eliminates seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



= Complies with ADA Accessibility Guidelines

2030/5030/6030 SERIES



2030 Shown

The concealed 2030/5030/6030 Series PACER® is a heavy-duty closer designed to fit in a narrow, minimum 1-3/4" aluminum transom. The double lever version provides superior door control and the choice of finishes and arm functions meet virtually all architectural requirements.

Features & Benefits

- Sized cylinders for interior doors to 5'0" and exterior doors to 4'0"
- Handed for right or left swinging doors (2030/5030)
- Aluminum frame requires minimum 1-3/4" (44mm) x 4-1/2" (114mm) tube (5030)
- Aluminum frame requires minimum 1-3/4" (44mm) x 4" (102mm) tube (2030/6030)
- Size one cylinder meets ADA requirements on a 3'0" (914mm) interior door
- Double acting closer available (6030)
- Seven standard powder coat finishes available
- All-weather fluid eliminates seasonal adjustments

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available



 = Complies with ADA Accessibility Guidelines

1000 Series Surface-Mount

1460/1460T SERIES



1460 Shown

Designed for maximum versatility, the 1460 is available with multiple cover options and can be used for both commercial and institutional applications. This fully universal closer offers a wide variety of options and is fast and accurate to install.

Features & Benefits

- Cast iron cylinder offers proven durability
- Slim line cover is standard
- Non-sized (1-6) cylinder is adjustable for interior doors to 5'0" (1524mm) and exterior doors to 4'0" (1219mm) and non-handed
- Closers to mount hinge side, top jamb and parallel arm
- Non-handed
- Rotational indicator dial helps installer apply proper spring power (1460 only)
- Size one cylinder meets ADA requirements on a 3'0" (914mm) interior door
- Seven standard powder coat finishes available
- Peel and stick template for easy installation
- UL/cUL listed for self-closing, fire-rated doors without hold open
- All-weather fluid eliminates seasonal adjustments

Available Options

- Delay Action provides additional adjustable closing time (1460 only)
- Multiple cover options include; Smooth Slim line (EC), Full Cover (FC) and Designer Series (DS)
- Full Cover provides complete cylinder enclosure
- Designer Series non-handed metal cover provides contoured look
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available (must use Designer Series (DS) cover)



= Complies with ADA Accessibility Guidelines

QUEST® 1370 SERIES



1370 Shown

The LCN Quest® 1370 Series is the “Fastest Closer Ever Installed”. The LCN Quest features a contemporary design with the unique Rapidor™ mounting bracket, stick-on installation templates, self-reaming & tapping screws, as well as easy to use mounting instructions. The 1370 is designed for use on narrow 1-3/4" head frames.

Features & Benefits

- Cast iron cylinder offers proven durability
- Non-sized 1371 cylinders for interior doors to 4’6” and exterior doors to 3’6”
- Non-handed
- Closers to mount hinge side, top jamb and parallel arm
- Size one cylinder meets ADA requirements on a 3’0” interior door
- Unique Rapidor mounting bracket and peel and stick template provides quick and easy installation
- Features self-reaming and tapping fasteners for aluminum and other metal doors
- Seven standard powder coat finishes available
- All-weather fluid eliminates seasonal adjustments
- UL/cUL listed for self-closing, fire-rated doors without hold open

Available Options

- Delay Action provides additional adjustable closing time
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes

1070 SERIES



1070 Shown

The 1070 is a cast iron closer that fits the most common commercial footprint. This economical closer is designed for use on narrow 1-3/4" head frames.

Features & Benefits

- Cast iron cylinder offers proven durability
- Non-sized 1071 cylinders for interior doors to 3’2” and exterior doors to 2’6”
- Sized 1074 or 1075 cylinders for interior doors to 4’6” and exterior doors to 3’6”
- Non-handed
- Closers to mount hinge side, top jamb, and parallel arm
- Size one cylinder meets ADA requirements on a 3’0” interior door
- Features the most common footprint - retrofits are made easy
- Seven standard powder coat finishes available
- UL/cUL listed for self-closing, fire-rated, doors without hold open

Available Options

- Optional Slim line cover
- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes

 = Complies with ADA Accessibility Guidelines

Automatic Operators — ADA Accessibility



What is ADA?



The ADA is a civil rights law, not a building code. This act is designed to provide protection for people with disabilities. The law is divided into four major titles that prohibit discrimination against people with disabilities in Employment (Title I), Public Service (Title II), Public Accommodations (Title III) and Telecommunications (Title IV). Title III concerns doors and door control.

What is the intent of ADA, Title III? Essentially, owners of certain types of buildings must remove barriers and provide people with disabilities with access equal to, or similar to, that available to the general public.
















How does ADA affect a building's entrance? The ADA defines an "accessible" opening which means, among other things, providing a door with a minimum 32" (813mm) clear opening, easily manipulated handles, a maximum opening force, a minimum closing time and capable of opening to at least 90°.



LCN ADA Solutions

- The proven standard in schools and healthcare facilities for over 25 years!
- Six distinct low-energy products to meet all ADA applications
- Unique fast and accurate installation features
- Easy-to-adjust smart diagnostic controls
- Easily retrofitted into existing doors and frames as well as new construction

Automatic Operators — Application Guide

APPLICATION GUIDE	Design & System	Use		Traffic			Durability	
		Primary Use	Secondary Use	High 	Medium 	Low 	Heavy	Standard
AUTOEQUALIZER™ - ELECTRIC  4630 Shown 	Electro Hydraulic	Manual	Automatic	✓	✓	✓	✓	✓
AUTOEQUALIZER™ - PNEUMATIC  4810 Shown 	Pneumatic Hydraulic	Manual	Automatic	✓	✓	✓	✓	✓
SENIOR SWING®  9540 Shown 	Electro Mechanical	Automatic	Manual	✓	✓	✓	✓	✓
MIDDLE SWING®  9740 Shown 	Electro Mechanical	Automatic	Manual	✓	✓	✓	✓	✓
ASTRO SWING®  9340 Shown 	Electro Mechanical	Automatic	N/A	✓	✓	✓	✓	✓
BENCHMARK®  9140 Shown 	Electro Mechanical	Automatic /Manual	Automatic /Manual		✓	✓		✓



= Complies with ADA Accessibility Guidelines



= HIGH TRAFFIC APPLICATIONS

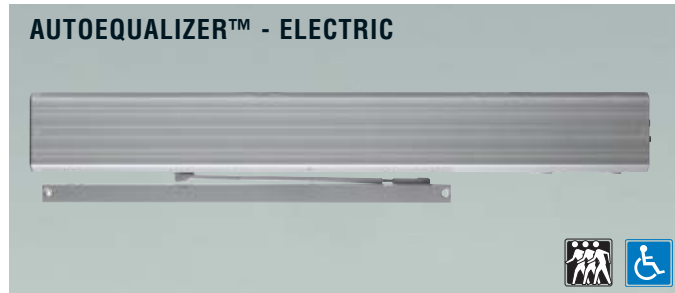


= MEDIUM TRAFFIC APPLICATIONS



= LOW TRAFFIC APPLICATIONS

4630/4640 SERIES



 
4630 Shown

2610/4810/4820/4840 SERIES



 
4810 Shown

SMART & RELIABLE

The 4630/4640 AUTO-EQUALIZER™ is LCN's Smart & Reliable electrically powered, low-energy power operator. It provides easy access for people with disabilities, the elderly or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

SERIES IS UL AND cUL LISTED FOR SELF-CLOSING DOORS AND MEETS THE PROVISIONS OF ANSI STANDARDS A117.1, A156.19, AND THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- Non-sized cylinders for interior doors to 4'6" and exterior doors to 3'6"
- Non-handed
- New Digital Control Suite with on-board diagnostics
- Integrates LCN's **10 million cycle** Heavy Duty 4040 cylinder
- Complete on-board diagnosis ensures trouble-free installation
- Convenient on-board power supply to power actuators and electric strikes
- Backup factory default memory allows unit to reset to original settings in just seconds
- Quick plug-n-play connections allow quick installation of motion sensors and safety sensors
- No Destruct feature ensures longlife even in abusive applications
- Guard rails and safety mats are not required
- Meets ADA requirements (power mode only)
- Easily accessible switches provide on/off and continuous hold-open functions. Control module provides all timing and sequential door functions, electric strike controls and adjustments for opening speed and force
- Seven standard powder coated finishes available

Available Options

- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

 = Complies with ADA Accessibility Guidelines

TRAFFIC LEVEL GUIDE



= HIGH TRAFFIC APPLICATIONS



= MEDIUM TRAFFIC APPLICATIONS



= LOW TRAFFIC APPLICATIONS

MULTI-DOOR SOLUTION

The 2610/4810/4820/4840 AUTO-EQUALIZER™ is LCN's pneumatically powered multi-door solution. This low energy power operator provides easy access for people with disabilities, the elderly, or the frail. Designed primarily for manual opening applications that occasionally require automatic opening.

SERIES IS UL AND cUL LISTED FOR SELF-CLOSING DOORS AND MEETS THE PROVISIONS OF ANSI STANDARDS A117.1, A156.19, AND THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- Non-sized cylinders for interior doors to 4'0" and exterior doors to 3'0"
- Non-handed (4810, 4820, 4840)
- Handed for right or left swinging door (2610)
- Ideal for multi-door applications since cost per door leaf decreases significantly as the number of door leaves increases
- Complete unit tested to over **3 million automated cycles**, 10 times the industry standard
- Integrates LCN's **10 million cycle** Heavy Duty 4040 cylinder
- Provides quiet, efficient and reliable operation
- Pneumatic operator allows use in hazardous environments even where electrically operated devices would not be permitted
- Available "Blow Open" control box that is controlled by smoke evacuation system
- Requires control boxes with integral compressor or control box using auxiliary air supply
- Guard rails and safety mats are not required
- Meets ADA requirements (power mode only)
- Seven standard powder coated finishes available

Available Options

- Special Rust Inhibitor provides additional protection to an already durable powder coat finish
- Custom colors allow the closer to closely match unique door and frame finishes
- Plated finishes are also available

Automatic Operators

2800/9500 SERIES



9540 Shown

RELIABLE WITH POWER BOOST

The **SENIOR SWING®** by LCN is an ADA door operator that is a two-in-one swing door operator. **SENIOR SWING®** operators, when activated, opens door automatically for wheelchair access, yet allow for manual operation for regular pedestrian traffic.

SERIES IS FULLY COMPLIANT WITH UL 325 AND 1998 AND MEETS THE PROVISIONS OF ANSI A156.19. THE 9530/9540 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS. THE 9530/9540 SERIES ALSO MEETS THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- Power Boost Assisted closing assures secure latching regardless of drafts, wind gusts or pressure differentials
- Complete unit tested internally to over **10 million cycles!**
- Push'N' Go feature for automatic requirements without the added expense of optional activation accessories
- Electromechanical unit, digital with key pad for quick and easy setup
- Auto reverse on opening and closing cycle provides safety by reversing direction when coming into contact with a person/object
- Fast and easy installation
- Meets international building code requirements and ANSI A156.19
- UL approved for fire doors
- No guard rails or safety mats needed due to low energy design
- Bottom load capability for simplified field adjustability and quicker installations
- Single door, surface mounted or concealed
- Meets ADA requirements (power mode only)
- Handed product
- 36" header length is standard. Specify length 30" to 49" max
- Double door header available up to 98", specify other length 49" to 98" max. *Consult factory* regarding this option
- Adjustable hold-open period of 2 to 32 seconds in automatic mode
- Quick connect wiring system with Molex-type plugs allows for easy field connections

2900/9700 SERIES



9740 Shown

RELIABLE WITH 8-1/2 LB. OPENING FORCE

The **MIDDLE SWING®** by LCN is a low-energy automatic swing door operator that is a cost-effective solution to ADA-compliance. In automatic mode, push button controls open the door automatically and permit safe, easy access for the disabled or elderly. This swing operator acts as a regular pedestrian door without automatic activation.

SERIES IS FULLY COMPLIANT WITH UL 325 AND 1998 AND MEETS THE PROVISIONS OF ANSI A156.19. THE 9730/9740 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS. THE 9730/9740 SERIES ALSO MEETS THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- In manual mode only requires 8-1/2 lbs of opening force
- Complete unit tested internally to over **10 million cycles!**
- Push'N' Go feature for automatic requirements without the added expense of optional activation accessories
- Electromechanical unit, digital with key pad for quick and easy setup
- Auto reverse on opening and closing cycle provides safety by reversing direction when coming into contact with a person/object
- Fast and easy installation
- Meets international building code requirements and ANSI A156.19
- UL approved for fire doors
- No guard rails or safety mats needed due to low energy design
- Bottom load capability for simplified field adjustability and quicker installations
- Single door, surface mounted or concealed
- Meets ADA requirements (power mode only)
- Handed product
- 36" header length is standard. Specify length 30" to 49" max
- Double door header available up to 98", specify other length 49" to 98" max. *Consult factory* regarding this option
- Adjustable hold-open period of 2 to 32 seconds in automatic mode
- Quick connect wiring system with Molex-type plugs allows for easy field connections



= Complies with ADA Accessibility Guidelines

TRAFFIC LEVEL GUIDE



= HIGH TRAFFIC APPLICATIONS



= MEDIUM TRAFFIC APPLICATIONS



= LOW TRAFFIC APPLICATIONS

9100 SERIES



9140 Shown

2500/9300 SERIES



with Motion Sensor

9340 Shown

ECONOMICAL

The **BENCHMARK®** by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, the elderly or the frail. Designed primarily for automatic opening applications that occasionally require manual opening. The **BENCHMARK®** is a cost-effective solution for retrofitting an activated or manual door.

SERIES IS FULLY COMPLIANT WITH UL 325 AND MEETS THE PROVISIONS OF ANSI A156.19. THE 9130/9140 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS. THE 9130/9140 SERIES ALSO MEETS THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT.

Features & Benefits

- Push 'N' Go feature for automatic requirements without the added expense of optional activation accessories
- Complete unit tested to over **3 million automated cycles**, 10 times the industry standard!
- Microprocessor control box for reliability
- Auto reverse on opening cycle provides safety by reversing direction when coming into contact with a person/object
- Available on-board power supply to power actuators, electric strikes and peripherals with optional premium control box
- No guard rails or safety mats needed due to low energy design
- Adjustable manual opening force to maximize on site adjustment requirements
- ADA compliant (power mode only)
- On/off switch included as standard
- Non-handed for either right or left swinging door
- 27" cover is standard. Full length covers available up to 49" for single doors

The **ASTRO SWING®** by LCN is a High-Energy operator constructed to meet the stringent demands of high volume, high traffic environments. **ASTRO SWING®** operators allow flexible control over closing force, opening speed, backcheck speed, hold-open duration and more, all within ANSI guidelines.

SERIES IS FULLY COMPLIANT WITH UL 325 AND 1998 AND MEETS THE PROVISIONS OF ANSI A156.10. THE 9330/9340 SERIES IS UL LISTED FOR FIRE-RATED APPLICATIONS.

Features & Benefits

- Microprocessor control box for quiet efficiency
- Electromechanical unit, digital with key pad for quick and easy setup
- Adjustable opening, closing and backcheck speeds
- Tested up to 300,000 cycles
- Meets International Building Code requirements and ANSI A156.10
- Power Boost provides additional latching force
- Astro Swing operators are shipped with motor gearbox, control box, system arm, header and mounting hardware
- Handed product
- 36" header length is standard. Specify length 30" to 49" max.
- Double door header available up to 98", specify other length 49" to 98" max. *Consult factory* regarding this option
- Quick connect wiring system with Molex-type plugs allows for easy field connections
- High energy operators must be ordered with guide rails and safety devices
- Must be installed by AAADM certified individuals



= Complies with ADA Accessibility Guidelines

TRAFFIC LEVEL GUIDE



= HIGH TRAFFIC APPLICATIONS



= MEDIUM TRAFFIC APPLICATIONS



= LOW TRAFFIC APPLICATIONS

Automatic Operators, Actuators & Accessories

ACTUATORS & ACCESSORIES



7910-956 shown

7910-954 shown

HARDWIRED ACTUATORS:

Wall Mount

- Stainless steel plate
- Engraved symbol conforms to entrance accessibility codes
- Available in 6" or 4-1/2" diameters

Jamb Mount

- Stainless steel plate
- Mounts in door jamb as narrow as 1-3/4"

Touchless

- Triggered by movement near the face of the actuator

WIRELESS (RF) ACTUATORS:

Surface Mount

- 9V battery powered
- Stainless steel plate - 4-1/2" diameter
- Weather resistant

Bollard Mount

- 9V battery powered
- Stainless steel plate - 6" diameter
- Weather resistant

Handheld

- 9V battery powered

WIRELESS (RF) RECEIVERS:

Handheld

- For use with wireless (RF) actuators

SENSORS:

Motion Sensor

- Detects objects approaching or moving away from sensor

Sensor Remote Control

- Remotely adjusts settings on the motion sensor

Header Mount

- Infrared presence detector protects people on the swing side of the door

Door Mount

- Infrared presence detector protects people on the swing path of the door

ACCESSORIES:

Bollard Post

- 6" square aluminum post; 36", 42", 44" or 48" heights
- Can be configured as a wireless (RF) or as a hardwired actuator



PNEUMATIC SYSTEM CONTROL BOXES



7982ES Shown

- **7901:** For use in a single door application or independent control of a single door in a multiple door system. Two door leaves can be operated if they are activated simultaneously. The single pneumatic circuit accepts 'normally open' inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7901 control box requires a separate compressor. LCN recommends the 920 series.
- **7901ES:** Same as 7901 but includes electric strike relay.
- **7902:** For independent operation of two door or four door leaves if pairs are actuated simultaneously. Two independent pneumatic circuits accept 'normally open' (N.O.) inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7902 control box requires a separate compressor. LCN recommends the 920 series.
- **7902ES:** Same as 7902 but includes electric strike relays.
- **7902SES:** Same as 7902 but includes electric strike relays and sequential card for operators to activate in sequence.
- **7981:** Self-contained control box/compressor combination for single door leaf applications. The single pneumatic circuit accepts 'normally open' (N.O.) inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7981 does not require a separate compressor.
- **7982:** Self-contained control box/compressor combination for independent or simultaneous operation of two door leaves. Two independent pneumatic circuits accept 'normally open' (N.O.) inputs from hardwired or remote frequency (wireless) actuator/receiver combinations. The 7982 does not require a separate compressor.
- **7982ES:** Same as 7982 but includes electric strike relays.
- **7982SES:** Same as 7982 but includes electric strike relays and sequential card for operators to activate in sequence.
- **7949:** Auxiliary 'blow open' box works with or without 7901 or 7902 control box and one or two pneumatic power operators. Controlled by the smoke evacuation system, the 7949 opens a door or doors to allow fresh air into the building. Normal power operator functions are not available when 'blow open' function has been activated.
- **7949ES:** Same as 7949 but includes electric strike relay.

Additional Features & Benefits

- 2 year warranty



= Complies with ADA Accessibility Guidelines

COMPLETE INGERSOLL RAND ADA SOLUTIONS

In addition to LCN Power Operators, the Ingersoll Rand family of brands offers a wide array of products that can easily help you attain ADA compliance and security needs for all areas of a door opening.

LEVERS



**SCHLAGE[®]
FALCON[®]**

EXIT DEVICES



**VON DUPRIN[®]
MONARCH[®]**

PULLS



IVES[®]

LATCHES



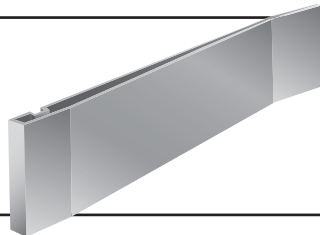
GLYNN-JOHNSON[®]

DOORS



STEELCRAFT[®]

LATCH GUARDS



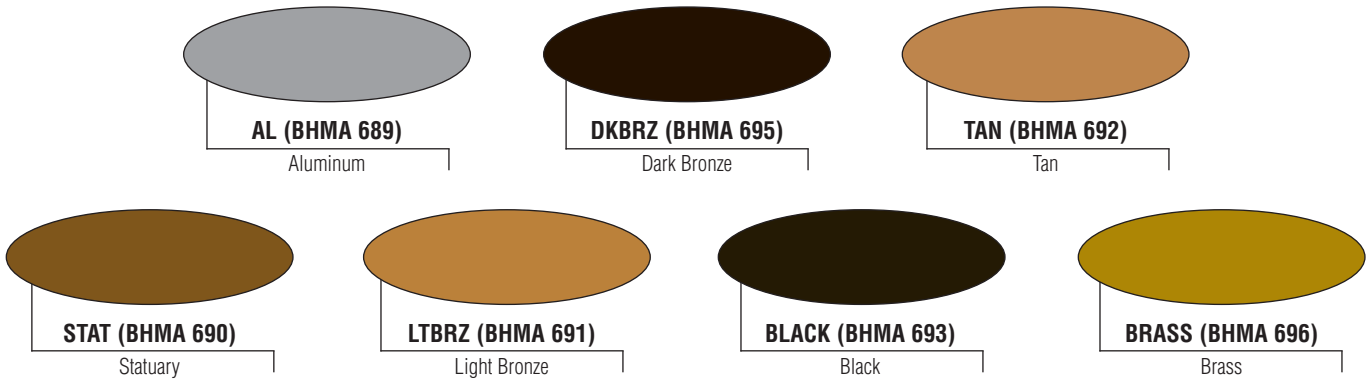
VON DUPRIN[®]

Finish Options

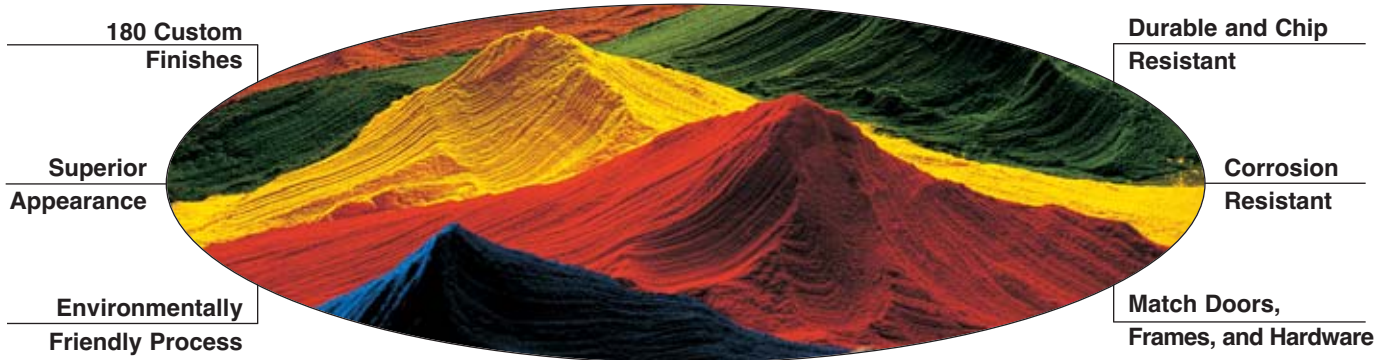
LCN closers and power operators can be specified in seven standard or over 180 custom powder coated finishes. Powder coating provides superior protection against the effects of weathering and provides a durable, chip resistant finish. For information about custom finishes, plated finishes and a special rust inhibiting (SRI) process, see the LCN General Catalog or CD.

STANDARD POWDER COATED FINISHES

Colors shown are approximate. See LCN General Catalog, page 5 for exact colors.



OPTIONAL CUSTOM POWDER COATED FINISHES



OPTIONAL SRI

When powder coated closers are installed in high humidity or potentially corrosive installations like swimming pools, water treatment facilities or near large bodies of water, specify LCN SRI Pretreatment. This optional process extends the corrosion protection offered by powder coat finishes.

OPTIONAL PLATED FINISHES

LCN offers 11 plated finishes at additional cost: US 3, US 4, US 9, US 10, US 10B, US 14, US 15, US 19, US 20, US 26, US 26D



Ingersoll Rand's Security Technologies Sector is a leading global provider of products and services that make environments safe, secure and productive. The sector's market-leading products include electronic and biometric access-control systems; time-and-attendance and personnel scheduling systems; mechanical locks; portable security; door closers, exit devices, architectural hardware, and steel doors and frames; and other technologies and services for global security markets.

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LCN ELECTRICALLY POWERED SYSTEMS

ELECTRIC AUTO-EQUALIZERS

These new Auto-Equalizer products are an addition to the original pneumatic drive system. People moving through a door can use it as a normal rack & pinion door closer or, at the touch of a button, open the door automatically. An integrated digital control suite provides all electrical control functions. These self-contained units are suitable for use on single leaf doors or pair of doors where each leaf is equipped with an operator. The operator provides all the control and power elements into a single operator package, only some actuators are required to complete the system.

- ▶ Introduced in 1995
- ▶ Two surface mount models available. The 4630 mounts on the pull side of the door and the 4640 series mounts on the push side of the door.
- ▶ Integrates a modified heavy-duty 4040 series cast iron cylinder. The 4040 series closer has been independently tested to 10 million cycles.
- ▶ Mounting plate and cover end caps are only available in a powder coat black finish.

UNIQUE FEATURES

▶ Digital Control Suite

Provides exceptionally precise control of a large range of built-in functions combined with superior durability and performance. Visual indications and digital readouts of all control function settings and activity make adjustments easy, fast and accurate.

▶ Dual Independent Program Memories

Each unit is pre-programmed to factory default settings. The installer can adjust the unit to meet the job site requirements. These field settings are locked into the computer's memory. Any subsequent field adjustments replace the original field adjustments. The factory settings are always retained in memory and can be recalled to replace the field settings in just seconds, restoring the unit to its original programming.

▶ On-Board Diagnostics

Sophisticated built-in diagnostics program monitors the system microprocessors, power supplies, drive system and actuators circuitry. Reduces the time required to make sure the installation is complete and correct.

▶ On-Board Power Supply

Provides both 12V DC and 24V DC outputs to power card readers, manual actuators and other peripherals.

▶ "Plug & Play" Sensors

Motion sensors and safety sensors feature a 'plug and play' concept allowing fast and accurate wiring connections in only seconds.

▶ "No Destruct" Drive System

Specially designed motor and clutch assembly provide a 'breakaway' function that reduces the chance the operator will be damaged in an abusive application. If a vandal tries to force the door closed while it is trying to open, the clutch mechanism prevents damage. The door is never out of control because the heavy duty 4040 closer is always operable.

▶ Electronic Circuit Protection

The high voltage input circuits is protected by electronic circuit breakers. The low voltage output circuits by self-resetting fuses.

▶ Visual Function Indicators

LED's allow direct observation of these inputs:

- input power
- fire alarm input
- normal trigger (actuator) input
- sequential trigger (actuator) input
- hold-open/alternate action (actuator) input
- lockout timer
- safety sensor (clear) input
- safety sensor (active) input

▶ Programming Mode

Allows tailoring the following functions to meet specific site conditions:

- hold-open time
- 90° slow down time
- one shot input [ON or OFF]
- Exterior mode [ON or OFF] function to accommodate momentary resistance, like wind gusts, during the opening swing.
- electric strike delay timer
- electric strike 3 second power function [ON or OFF]
- sequential trigger delay timer
- alternate action timer
- lockout timer

ELECTRIC AUTO-EQUALIZER SYSTEMS

- ▶ Originally introduced in 1995.
- ▶ Exceeds proposed ANSI cycle test standard of 300,000 full load automatic operating cycles. Integrated LCN 10 million cycle heavy duty 4040 door closer.
- ▶ Power operation plus full door control.
- ▶ For all applications, single or multi-door projects.
- ▶ Opening time to backcheck no faster than 3 seconds.
- ▶ Opening time 4 seconds or more to fully open.
- ▶ Must remain fully open for at least 5 seconds.
- ▶ Closing time from 90° to 10° no faster than 3 seconds.
- ▶ Less than 15 pounds-force to stop door's motion.
- ▶ Kinetic energy must not exceed 1.25 lbf-ft.
- ▶ In event of failure; less than 15 lbf. to release latch, less than 30 lbf. to put door in motion, less than 15 lbf. to fully open door systems.

Continued on page 6

LCN ELECTRICALLY POWER SYSTEMS

STANDARDS, LISTINGS & APPROVALS

- ▶ UL listed for self-closing doors without hold-open under "SWINGING DOOR CLOSERS (GVEV)" file R 1943.
- ▶ Tested and certified under ANSI Standard A156.19. Refer to Section 2.1 and consult factory for details.
- ▶ ANSI Standard A117.1, Section 4.13.13
- ▶ ADA law, Section 4.13.12.
- ▶ UBC 7.2 (1997) for positive pressure plus UL 10B and UL 10C listing.
- ▶ Wiring is compliant with both UL325 and the National Electrical Code. Separation of high and low voltage.
- ▶ Consult the factory for other listings such as; ULC, Department of Labor and Industry of the Commonwealth of Pennsylvania, The Board of Standards and Appeals of the City of New York, Fire and Panic Safety Standards of the California State Fire Marshal.
- ▶ UL Listed for Fire Rated Door Operators with Automatic Closers, File No. (GUJY).

WARRANTY

- ▶ 2 year limited warranty. See General Section for complete details.

MAINTENANCE

- ▶ Operators mounted according to the LCN installation instructions require no periodic maintenance or adjustments.
- ▶ Monthly, quarterly and annual visual inspections are recommended.
- ▶ No service contracts.

TYPICAL ELECTRIC LCN SYSTEMS

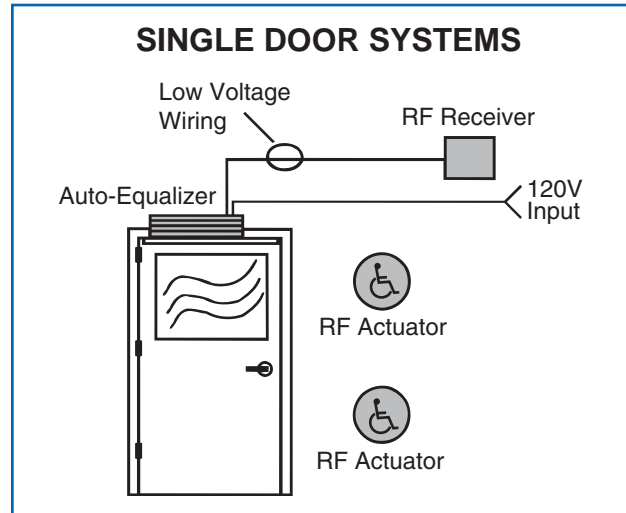
These pages illustrate examples of typical Electric LCN systems. Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.

SINGLE DOOR SYSTEM

- ▶ An Interior Door.
- ▶ No Guard rails or mats.
- ▶ Free Swinging (or Dogged) Door.

How It Works

Wireless RF actuators with receiver, powered by the Auto-Equalizer simplify installation and minimize installation costs. For automatic door operation, touching either actuator signals the receiver and controller module to open the door to 90°. The door is held there until the system times out, then full spring power is applied to reliably close and latch the door. Door opening speed and hold-open time are adjustable on the controller. Closing power and speed are adjustable on the cylinder assembly. If not actuated, the Auto-Equalizer functions as a full featured door closer.



BILL OF MATERIALS

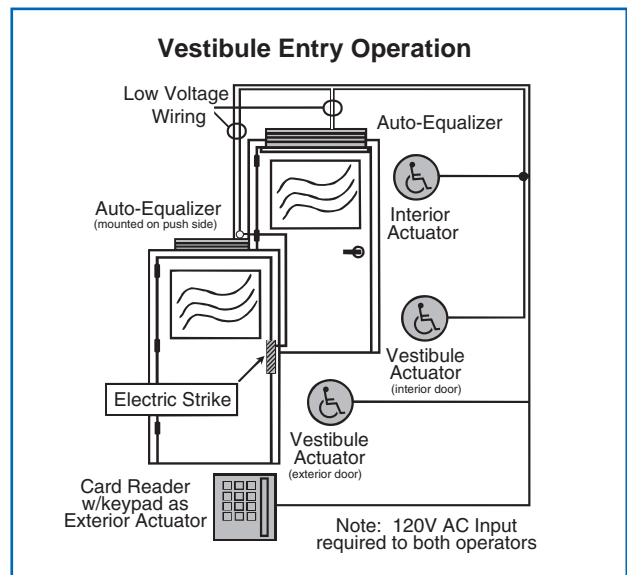
Qty.	Part No.	Description
1	4631	Auto-Equalizer
2	7910-967	RF Actuators
1	7910-931	RF Receiver

VESTIBULE ENTRY SYSTEM

- ▶ Exterior & Vestibule doors.
- ▶ Sequential Operation.
- ▶ No Guard Rails or Mats.
- ▶ Controlled Access, Free Egress.

How It Works

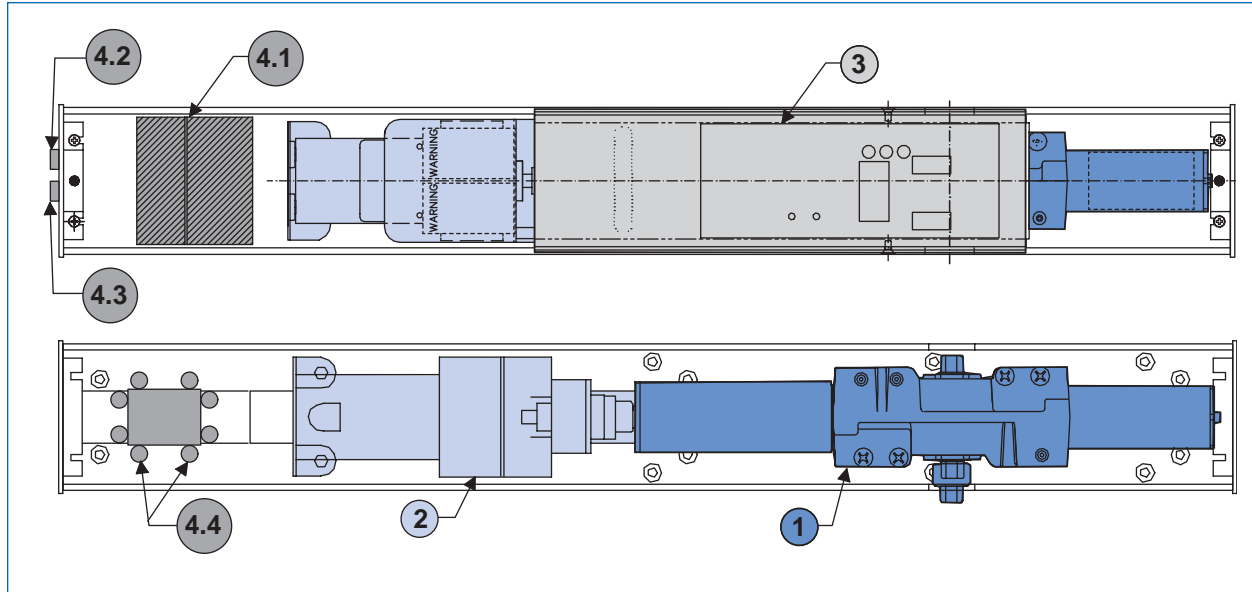
This installation provides both accessibility and security for building occupants. The Auto-Equalizer controller module provides both the power and coordination for card reader and electric strike applications. A built-in delay allows the strike to release before the door begins to open. Two interconnected Auto-Equalizers provide sequential operation in both directions. Vestibule actuators allow single door ingress/egress from the vestibule as needed. *Note: An EL device requires a separate power supply.* If not actuated, the Auto-Equalizer functions as a full featured door closer.



BILL OF MATERIALS

Qty.	Part No.	Description
1	4642	Auto-Equalizer (exterior)
1	4631	Auto-Equalizer (interior)
3	7910-956	Wall Plate Actuators
Other products from Von Duprin and Locknetics		

LCN 4630/4640 ELECTRICALLY POWERED SYSTEM



1 DOOR CLOSER ASSEMBLY

- ▶ Based on a heavy duty 4040, cast iron cylinder with all-weather fluid for consistency and reliability.
- ▶ Rugged drive mechanism provides the connection to the electric motor assembly.
- ▶ Fully adjustable, independent hydraulic regulation controls the door to minimize the chance of damage to the door and frame assemblies.

2 ELECTRIC MOTOR/CLUTCH ASSEMBLY

- ▶ Highly efficient motor combined with a custom designed gear system provides exceptionally quiet and smooth operation.
- ▶ Special clutch transmits the power and provides a unique “breakaway” function that prevents damage to the operator, door and frame if a vandal forces the door closed during the powered opening swing.

3 DIGITAL CONTROLLER MODULE

- ▶ Digital Control Suite
- ▶ Dual Independent Program Memories
- ▶ On Board Diagnostics
- ▶ Visual Function Indicators
- ▶ Adjustable Programming Modes

4.x FIELD WIRING

- 4.1 ▶ Input power; 120V AC @ 1.5 amperes.
 - ▶ On-board, low voltage power supply provides both 12V and 24V DC @ 1.0 ampere (maximum combined load) for LCN actuators, RF receivers, and electric strikes or magnetic locks.
 - ▶ Circuit breaker switch and self-resetting fuses protect input and output power from voltage spikes.
 - ▶ Terminal strips simplify field wiring.
- 4.2 ▶ On/Off Switch (red)
- 4.3 ▶ Hold Open Switch (black)
- 4.4 ▶ Separate conduits for high voltage power and low voltage power and signal wiring meet UL and National Electrical Code requirements.

LCN DIGITAL CONTROLLER MODULE

Opening Speed Adjustment

Limited to a minimum of 3 seconds to backcheck (approx. 70°)

Opening Force Adjustment

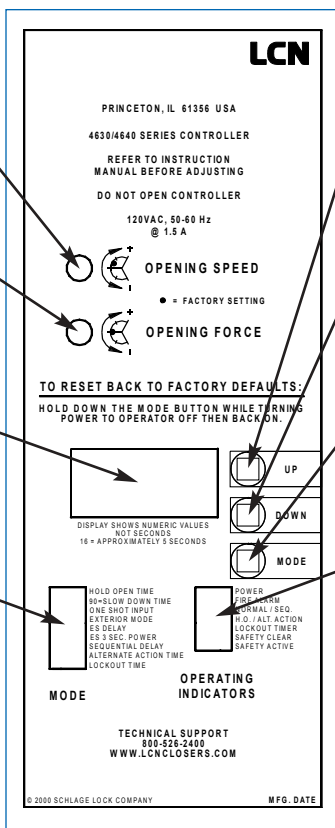
Maximum of 15 lb-f to stop door swing

Time Display

Displays numeric value relating to timing adjustments (16 = approx. 5 seconds)

Mode Indicator

Indicates programming mode currently being displayed



Up Button

Increases time or changes from OFF to ON when programming

Down Button

Decreases time or changes from OFF to ON when programming

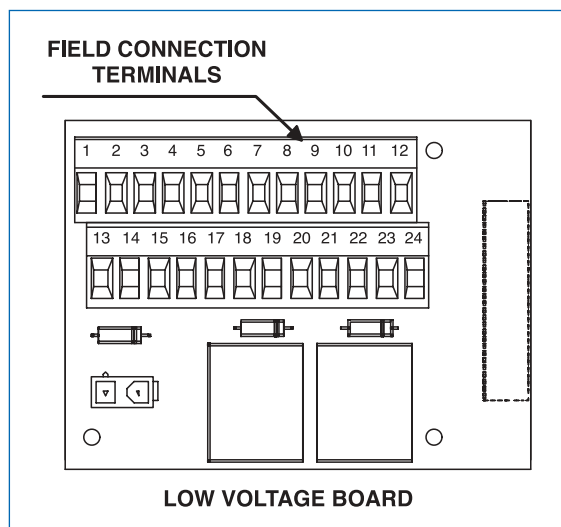
Mode Button

Advances through programming setups on Mode Indicator

Operating Indicators

Displays operating information about internal functions and external hardware

LCN LOW VOLTAGE (CLASS 2 NEC) ELECTRICAL CONNECTIONS



FUNCTION

- Actuator - Normal Input (N.O.)
- Actuator - Sequential Input (N.O.)
- Actuator - Alternate Action (N.O.)
- Actuator - Continuous (N.O.)
- Sequential Output
- Stop Side Safety (N.O.)
- Swing Side Safety (N.O.)
- Fire Alarm Contact (N.C.)
- Auxiliary Relay Contacts(5 amp max)

TERMINAL

- 16 & 17 or 18 & 19
- 8 & 19
- 15 & 17
- 6 & 17
- 9
- 19 & 20
- 19 & 21
- 13 & 14 (Fire Shunt)
- 10 - Common
- 11 - N.O.
- 12 - N.C.
- 22 - Common
- 23 - N.O.
- 24 - N.C.
- 2, 4, 13, 17, & 19
- 5 & 7
- 1 & 3

* Note: 1 Amp max load between 12V and 24V DC outputs

LCN ELECTROMECHANICAL POWERED SYSTEMS

ELECTROMECHANICAL POWER OPERATORS

LCN's electromechanical products are designed primarily for automatic opening applications that occasionally require manual opening. A control box provides all electrical functions. These self-contained units are suitable for use on single leaf doors or pair of doors. These products combine all the control and power elements into a single operator package, only some actuators are required to complete the system.

- ▶ Surface mounted and overhead concealed mountings available.
- ▶ Available in two standard anodized finishes – aluminum and dark bronze. Custom anodized finishes and custom paint is available.

LOW ENERGY ELECTROMECHANICAL POWER OPERATORS

- ▶ Complies with ANSI 156.19
- ▶ Opening time from full close to backcheck is no faster than 3 seconds
- ▶ Less than 15lbs of force to open door manually

HIGH ENERGY ELECTROMECHANICAL POWER OPERATORS

- ▶ Complies with ANSI 156.10
- ▶ Opening time from full close to backcheck is no faster than 1.5 seconds
- ▶ Less than 30 lbs of force to open door manually
- ▶ Requires use of guide rails and safety devices

UNIQUE FEATURES-High and Low Energy Operators

- ▶ **Tested to 300,000 cycles.**
- ▶ **Power and manual operation.**
- ▶ **For all applications, single or multi-door projects.**
- ▶ **Push 'N Go**

Allows pedestrians to walk up to the door and push it open as if it were a manual door. After the door is manually opened approximately 5 degrees, the Push 'N Go feature takes over and continues to open the door – slowly and automatically to the full open position. With Push 'N Go, the door will stay fully open from one to 30 seconds, depending on the time delay chosen. Available only on low-energy, electromechanical power operators.

- ▶ **Auto Reverse**

A safety feature that reverses the direction of the door when it comes into contact with an object during either opening or closing. Available on low and high energy, electromechanical power operators.

- ▶ **Safety Slow Function**

- Once the door starts opening, any person or object entering the swing area will cause the door to go into a safety slow speed. This function can be set to allow for a short stop once a person or object is sensed. Available on high energy, electromechanical power operators.

UNIQUE FEATURES-High and Low Energy Operators cont.

- ▶ **Power Boost**

Adds an additional latching force to ensure secure latching in severe wind or stack conditions. Power Boost is also ideal for overcoming slowing obstacles such as electric strikes. This feature is activated by a simple on/off toggle switch located on the face of the bottom-loaded control box. Provides additional 25 lbs on the 2500, 2800, 9300, 9500 Series, 15 lbs on the 9100 Series with premium control box.

- ▶ **Microprocessor**

Control unit allows for quiet efficiency in operation. Combined with the all electromechanical unit it eliminates unnecessary wear and prolongs the life of the unit. Available on low and high energy, electromechanical power operators.

STANDARDS, LISTINGS & APPROVALS

- ▶ UL listed for self-closing doors without hold open. UL 325.
- ▶ Tested and certified under ANSI.
- ▶ Low Energy Electromechanical Operators ANSI 156.19
- ▶ High Energy Electromechanical Operators ANSI 156.10
- ▶ ADA Compliant. Applicable to Low Energy Electromechanical Operators only.
- ▶ Wiring is compliant with both UL 325 and the NEC. Separation of high and low voltage.
- ▶ Consult the factory for other listings.

WARRANTY

- ▶ 2 year limited warranty. See General Section for complete details

MAINTENANCE

Low Energy Electromechanical Power Operators

- ▶ Operators mounted according to the LCN Installation instructions require no periodic maintenance or adjustments.
- ▶ Monthly, quarterly and annual visual inspections are recommended.
- ▶ No service contracts.

High Energy Electromechanical Power Operators

- ▶ High energy power operators may require periodic maintenance and/or adjustments.
- ▶ Daily visual inspections are recommended to ensure proper operation of all activation and safety devices.

LCN ELECTROMECHANICAL POWERED SYSTEMS

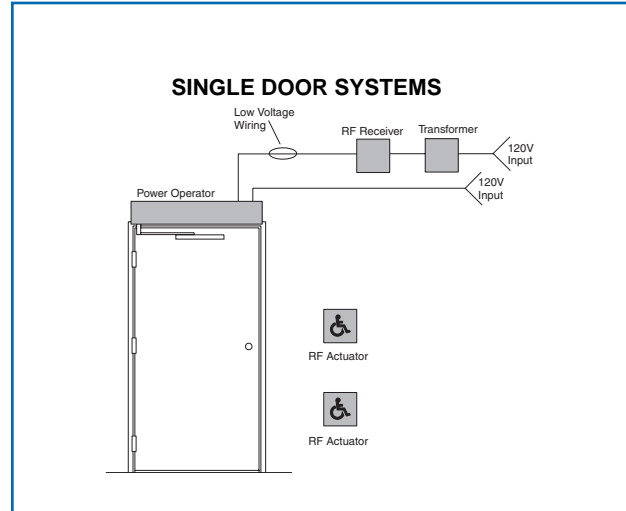
This page illustrates examples of typical Electromechanical LCN systems. Please consult your local SSC representative of LCN for assistance with specific installations and material requirements.

SINGLE DOOR SYSTEM (Low Energy)

- ▶ An Interior Door.
- ▶ No guide rails or safety devices.
- ▶ Free Swinging (or Dogged) Door.

How It Works

Wireless RF actuators with receiver, powered by the transformer allows for easy installation. For automatic door operation, touching either actuator signals the receiver and power operator to open the door to 90 degrees. The door is held there until the system times out. Door closes via spring return. Door opening speed, closing speed and hold-open time is adjustable on the control box. If not actuated, the power operator functions as a manual door.



BILL OF MATERIALS

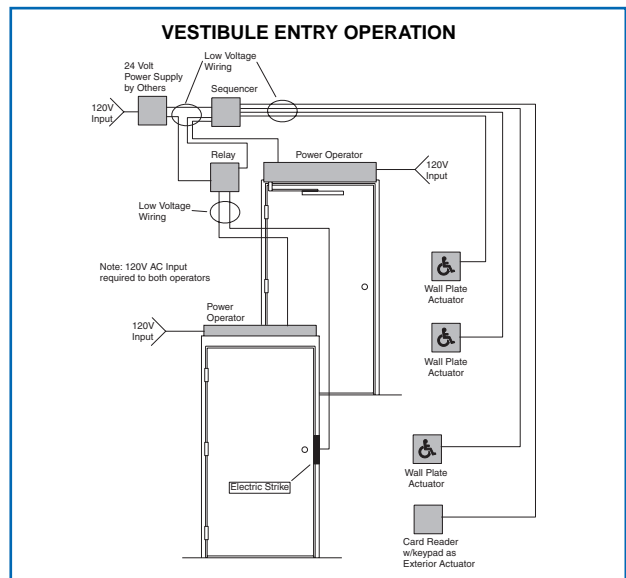
Qty.	Part No.	Description
1	9531	Power Operator (RH)
2	7930-292RF	RF Actuators
1	7930-103	Transformer
1	7930-106	RF Receiver

VESTIBULE ENTRY SYSTEM (Low Energy)

- ▶ Exterior & Vestibule doors.
- ▶ Sequential Operation.
- ▶ No guide rails or safety devices.
- ▶ Controlled Access, Free Egress.

How It Works

This installation provides both accessibility and security for building occupants. It allows for the integration of multiple power operators, a card reader and electric strike. A sequencer allows sequential operation of the two power operators. Vestibule actuators allow single door ingress/egress from the vestibule as needed. If not actuated the power operator functions as a manual door.



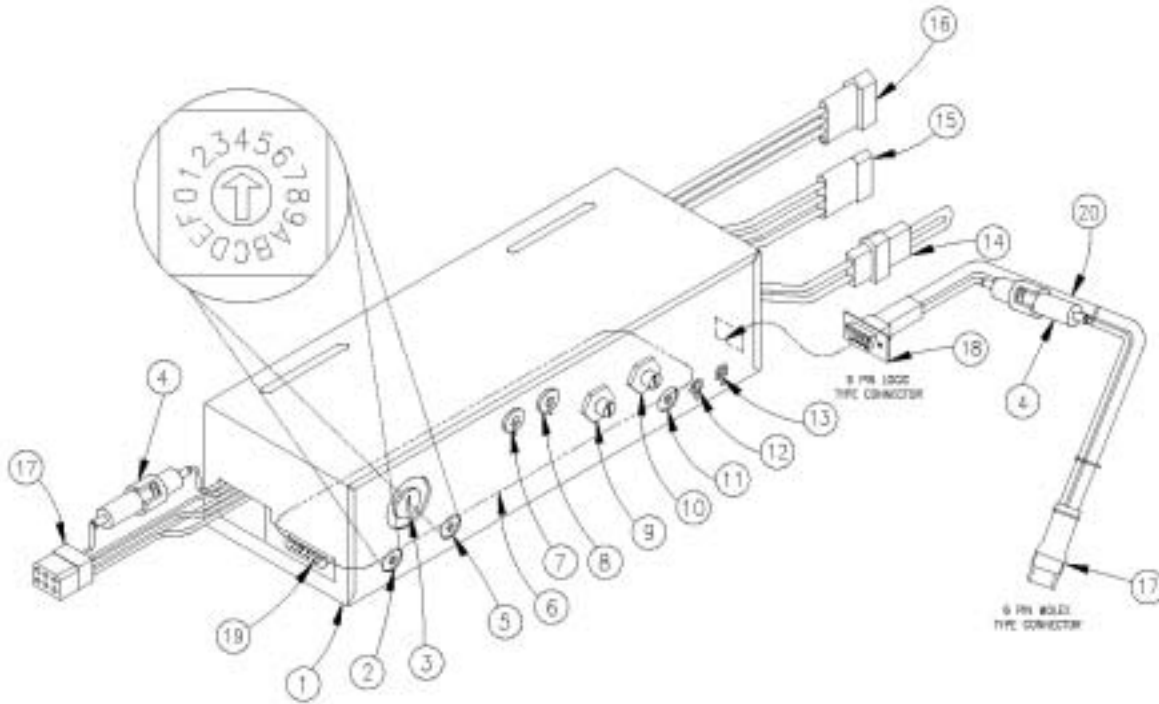
BILL OF MATERIALS

Qty.	Part No.	Description
1	9542	Power operator (RH)
1	9531	Power operator (RH)
3	7930-292	Wall Plate Actuators
1	7930-148	Relay
1	7930-149	Sequencer
Other products from Von Duprin and Locknetics		

Note: this installation requires a separate power supply, sequencer and relay.

LCN ELECTROMECHANICAL POWERED SYSTEMS

CONTROL BOX - 2500, 2800, 2900, 9300, 9500, 9700 SERIES



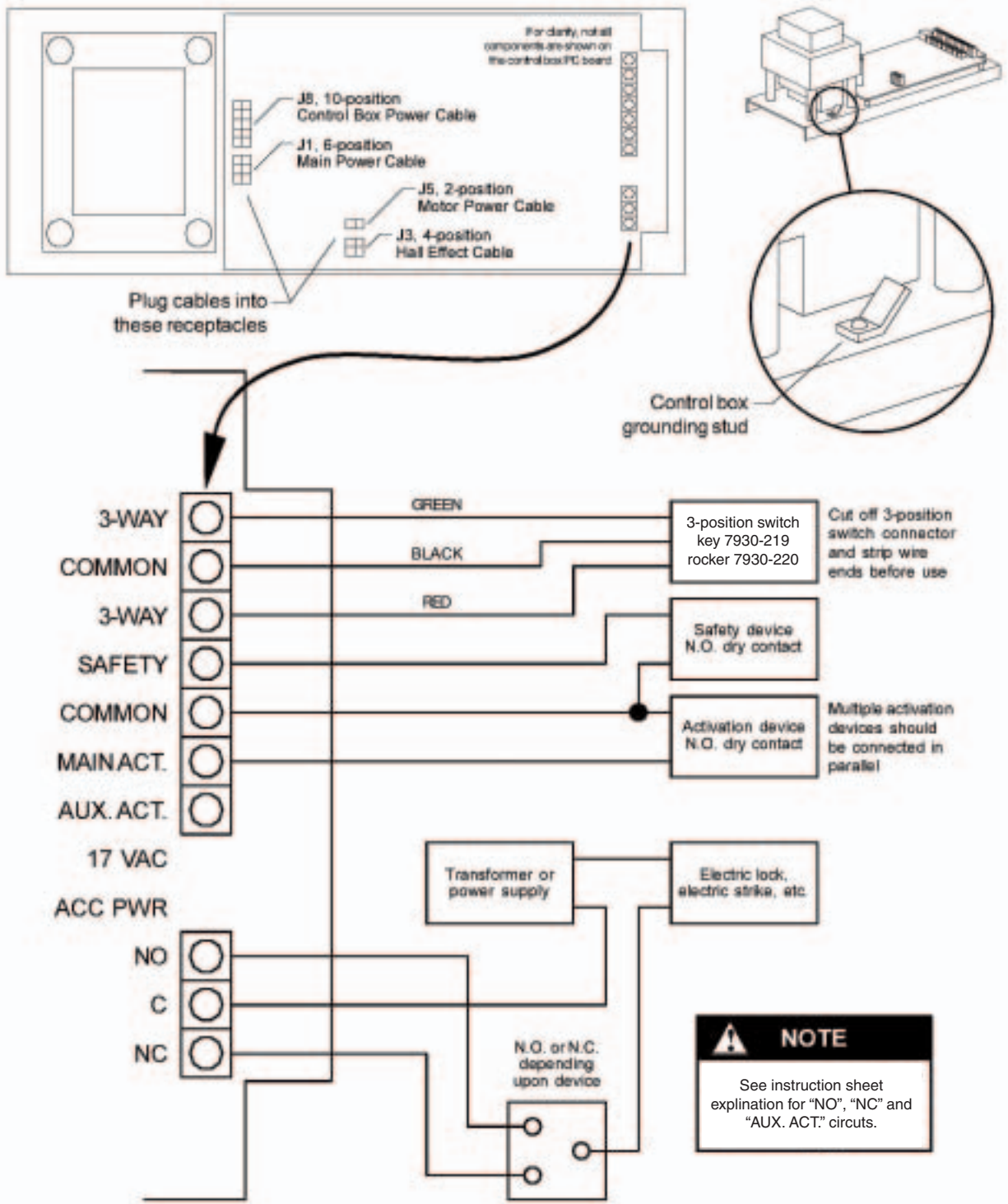
1. Control box, 115 volt
2. Function selector dial
3. Fuse
4. Fuse holder with fuse
5. Latch selector dial
6. Label for function & latch selector dials (located on bottom of box)
7. Push 'N Go ON/OFF switch (not applicable for 2510, 2550, 9330, 9340, 9350 Series)
8. Power Boost ON/OFF switch (not applicable for 2910, 2950, 2960, 9730, 9740, 9750, 9760 Series)
9. Closing speed adjustment (for main unit)
10. Closing speed adjustment (for companion unit)
11. Time delay adjustment (2 seconds to 30 seconds)
12. Opening speed adjustment
13. Backcheck speed adjustment
14. 2-Pin connector for breakaway switch
15. 3-Pin connector for activation input
16. 4-Pin connector for power input
17. 6-Pin connector to motor gearboxes
18. 9-Pin connector to control box
19. Logic Terminal – used for accessories (15-Pin DIN)
20. Companion Cable

Note:

1-Pin connector safety slow/stop feature included on 2510, 2550, 9330, 9340, 9350 Series

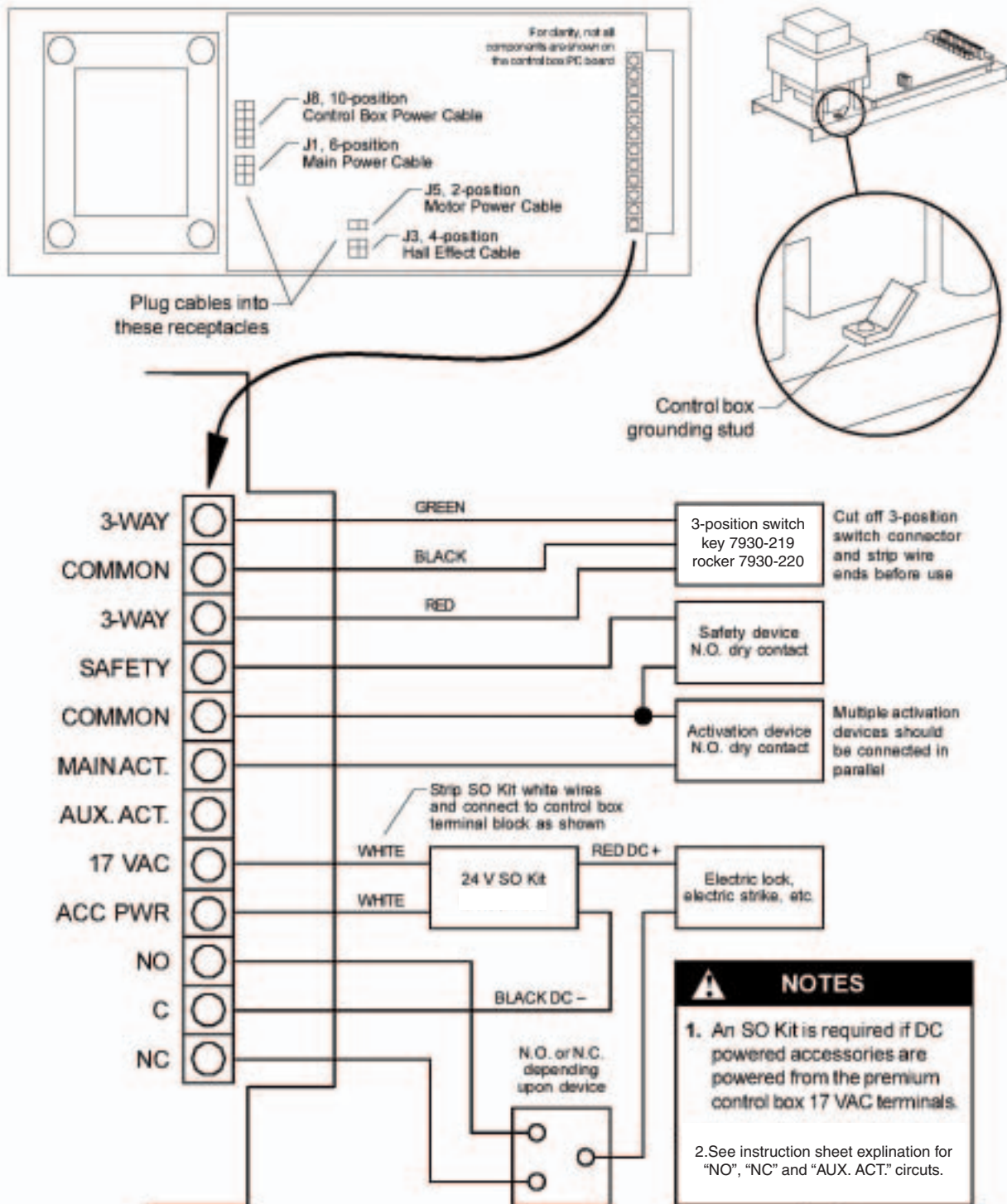
LCN ELECTROMECHANICAL POWERED SYSTEMS

STANDARD CONTROL BOX - 9100 SERIES



LCN ELECTROMECHANICAL POWERED SYSTEMS

PREMIUM CONTROL BOX - 9100 SERIES



LCN ELECTROMECHANICAL POWERED SYSTEMS

GENERAL ELECTRICAL DATA

1. Input power 115 volt, 3 wire, single phase, 60Hz, fused, 15 amp supply.
2. UL approved type flexible conduit is recommended for the 115 volt power line.
3. The 115 volt power supply must be a dedicated circuit from the main circuit breaker panel and must not be connected into a building lighting system operating fluorescent lights.
4. Location of conduits determined by mounting. See installation instructions for location.

2500, 2800, 2900, 9300, 9500, 9700 Series

ELECTRICAL DATA

1. 120 VAC input @ 6amps (2500 and 9300 Series).
2. 120 VAC input @ 3 amps (2800, 2900,9500 and 9700 Series).
3. No AC/DC output available.

9100 Series

ELECTRICAL DATA

1. 120 VAC input @ 1 amp.
2. 17 VAC output @ 2.5 amps on premium control box.
3. 24 VDC available with SO kit included with premium control box.

LCN®

In Control of Control

Peace of mind at the heart of the opening



Durability

ADA

Safety

Security

Design



Five Critical Needs. One Brand.

LCN has developed a portfolio of door control products that integrate the individual factors that collectively determine success. In every situation, each of these five factors assert themselves to varying degrees. LCN knows how to support each without compromising the rest.

Durability—Durable, reliable, cost effective control for high traffic environments. 🦾



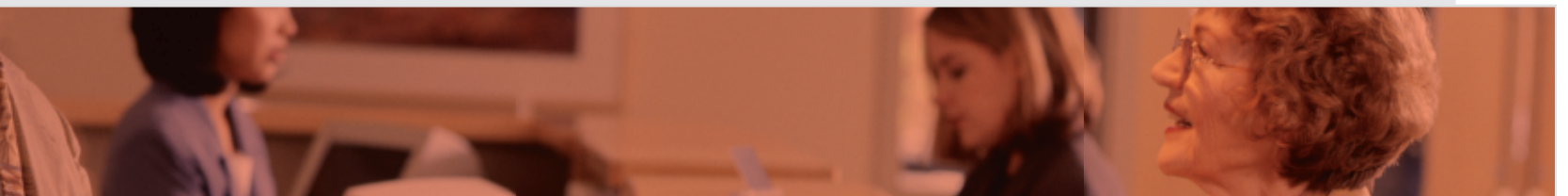
ADA—Easy accessibility for a positive facility experience and ADA compliance. ♿



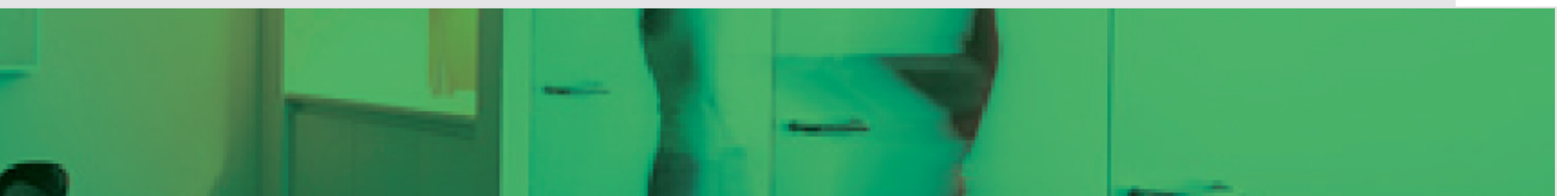
Safety—Reliable closing For Non-Hold Open And Hold Open Fire Doors. 🔥



Security—Reliable closing to protect your most valued assets. 🏠



Design —Enhance the integrity of your interior design. 👁️



Control. Not Compromise.

“With multiple entrances for a wide range of users, I need a company with quality solutions across the board. That’s LCN.”

A building is an object in motion—opening, closing, moving with the flow of users. LCN designers and engineers begin there—with the multiplicity of users and the many directions they take a building.

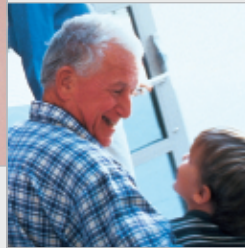
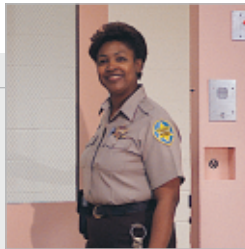
How can we make their access easy? What abuse are they capable of? What actions aren’t they capable of because of a disability? And most importantly, how can we protect their safety? These questions all exist in a context of control.

Facility owners and managers aim to create controllable environments that anticipate the full range of experiences and circumstances, and door closers are essential components. They are a dynamic link in well-controlled building, expected to deliver precise performance, over a long service life, and to look good doing it. It’s not about compromise. It’s about control.

Facility owners and managers aim to create
controllable environments
that anticipate the full range of
experiences and circumstances, and
door closers
are essential components.

1

" I need to know the door is closing with enough force to fully close and latch."



" I don't have the strength to pull a hard-to-open door. I need every door to comply with ADA regulations."

Resolution: Electrical power operators meet ADA regulations while ensuring that the doors latch shut.

2

" Obtrusive closers disrupt the architectural lines of the building. I want a clean opening."

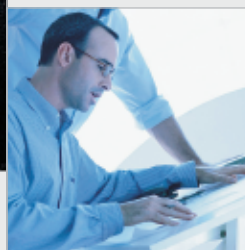


" I need a closer that is reliable and strong under heavy abuse."

Resolution: Concealed closers hold the visual integrity of the door while providing long lasting durable reliability.

3

" I need open doors in corridors that release and close if there ever is a fire."



" Hold open fire door hardware is clunky and obtrusive."

Resolution: Recessed wall magnets hold the door open from behind, hidden from view. A heavy duty closer with a track arm with an eye-pleasing, low profile appearance closes the door in the event of a fire.

4

" I need to bridge the gap between ADA compliance and my business objectives on multiple doors throughout my building."



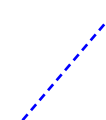
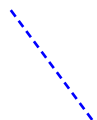
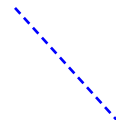
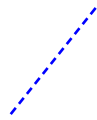
" Power operators ensure I meet ADA requirements however the budget is a major concern."

Resolution: LCN has a full line of ADA power operators to meet every budget and need.

Kinematic Vector Analysis:

$$(-r_3 \sin \theta_3) \dot{\theta}_3 - r_4 = r_2 \dot{\theta}_2 \sin \theta_2 + r_2 \dot{\theta}_2^2 \cos \theta_2$$

Translation: *Your door opens and closes perfectly every single time.*



Security That Can Grow with Your Needs

Bringing it all Together

Fully integrated control is built on progressive layers of performance and capability. Ingersoll Rand Security Technologies offers solutions for the entire continuum, from baseline mechanical access and egress control to complete electronic control and monitoring. Only Ingersoll Rand takes you to the pinnacle of security.



Ingersoll Rand's Security Technologies Sector is a leading global provider of products and services that make environments safe, secure and productive. The sector's market-leading products include electronic and biometric access-control systems; time-and-attendance and personnel scheduling systems; mechanical locks; portable security; door closers, exit devices, architectural hardware, and steel doors and frames; and other technologies and services for global security markets.

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LCN GLOSSARY OF ABBREVIATIONS

Arm Options

STD	- Standard Arm
REG	- Regular Arm
Rw/PA	- Regular Arm with Parallel Arm Shoe
R/62A	- Regular Arm with Auxiliary Parallel Arm Shoe
H	- Hold Open Arm
Hw/PA	- Hold Open Arm with Parallel Arm Shoe
LONG	- Long Arm
XLONG	- Extra Long Arm
HLONG	- Hold Open Long Arm
EDA	- Extra Duty Arm
EDAw/145	- Extra Duty Arm with Flush Transom Shoe
EDAw/62G	- Extra Duty Arm with Thick Hub Shoe
HEDA	- Hold Open Extra Duty Arm
HEDAw/145	- Hold Open Extra Duty Arm w/ Flush Transom Shoe
HEDAw/62G	- Hold Open Extra Duty Arm w/ Thick Hub Shoe
CUSH	- Cush -n- Stop Arm
HCUSH	- Hold Open Cush -n- Stop Arm
SCUSH(SCNS)	- Spring Cush -n- Stop Arm
SHCUSH(SHCNS)	- Spring Hold Open Cush -n- Stop Arm
SF	- Swing Free Arm
DE	- Double Egress Arm
FL	- Fusible Link Arm

Cylinder Options

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

Cover Option

STD	- Standard Plastic Cover
MC	- Metal Cover
LL	- Lead Lined Cover
FC	- Full Cover
CAPS	- Cover Caps (1370)
DS1	- Designer Series Cover
EC	- Smooth Slim Line Cover (European Cover)

Track Options

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

Fastener Pack Options

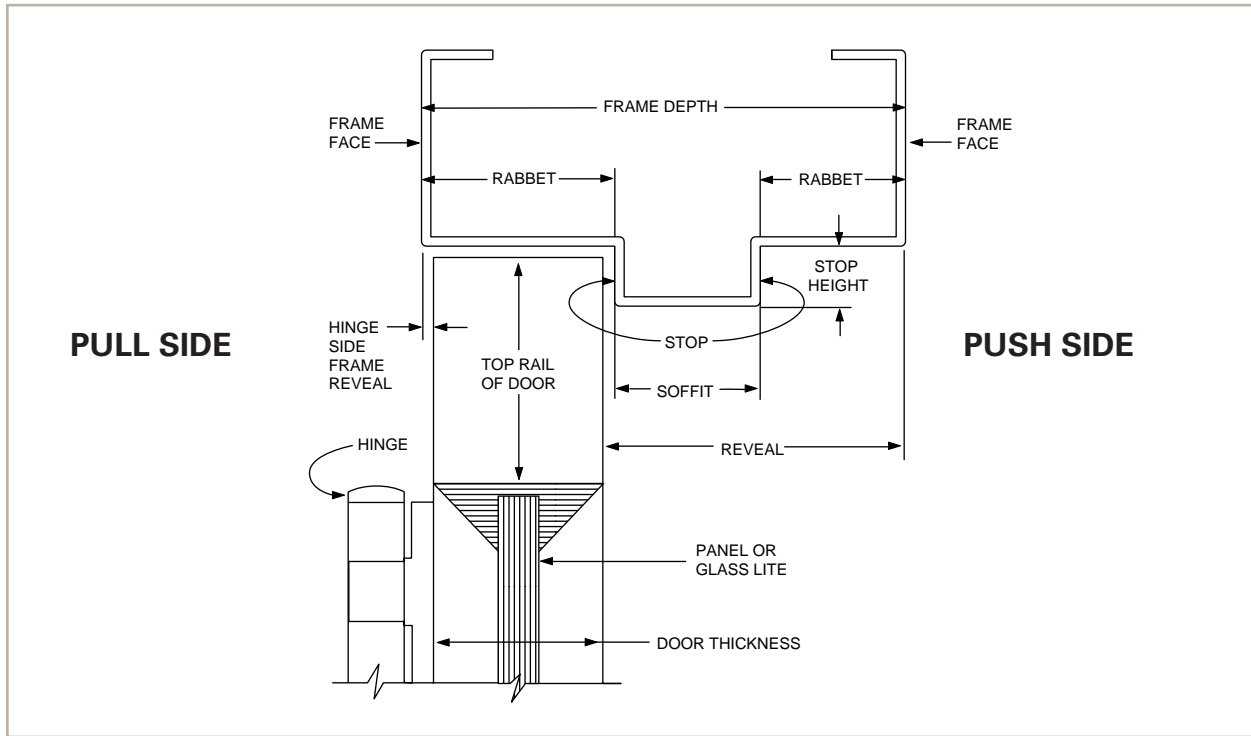
WMS	- Wood & Machine Screws
TBWS	- Thru-Bolt, Wood & Machine Screws
SRT	- Self Reaming & Tapping Screws
TBSRT	- Thru-Bolt, Self Reaming & Tapping Screws
TORX	- 'Torx' Machine Screws
TBTRX	- Thru-Bolt, 'Torx' Machine Screws

Powder Coat Finishes

AL	- Aluminum
DKBRZ	- Dark Bronze
TAN	- Tan
STAT	- Statuary Bronze
LTBRZ	- Light Bronze
BLK	- Black
BRASS	- Brass
MTLPC	- Bright Metallic

Miscellaneous Terms

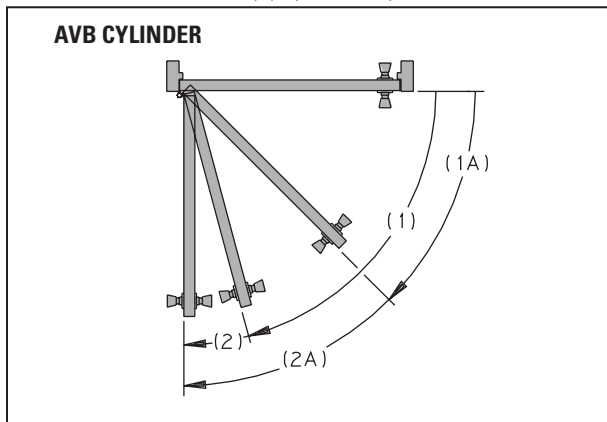
ELR	- Extra Long Rod
SRI	- Special Rust Inhibitor
SE	- Single Point Electronic
ME	- Multi-Point Electronic
PAH	- Parallel Arm Holder
HSA	- Hold Open / Scanner Activated
ES	- Electric Strike Relay (Control Boxes)
S	- Sequential (Control Boxes)
RF	- Radio Frequency
TJ	- Top Jamb
PA	- Parallel Arm
G	- Flush Ceiling
T	- Track
DPS	- Door Position Switch



A

ADA - Americans with Disabilities Act

ADVANCED VARIABLE BACKCHECK CYLINDER (AVB) – Optional cylinder that starts backcheck at about 45° (2A) instead of the normal 75°(2). (See Illus.)



ANSI – American National Standards Institute publishes standards for commercial hardware. A156.4 is the basic door closer standard.

APPLIED STOP – Surface mounted stop attached to a cased opening frame.

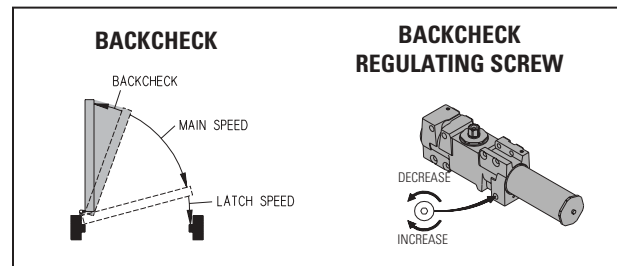
ARCH TOP DOOR – Any door with an arched top rail.

AUTO-EQUALIZER - An LCN specific term for an electric or a pneumatic power operator. System is low-energy & carries a two-year warranty.

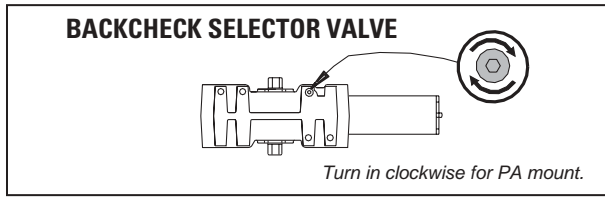
AUXILIARY DOOR STOP – Hardware designed and installed to limit the swing of a door.

B

BACKCHECK – Hydraulic circuit designed to cushion the doors opening at about 75°. Standard on all LCN closers. (See Illus.)

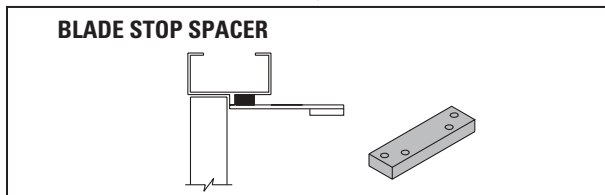


BACKCHECK SELECTOR VALVE – Valve used to provide proper backcheck location for 4041 parallel arm mounting. (See Illus.)



BLADE STOP – Narrow frame stop that will not accept a parallel arm shoe.

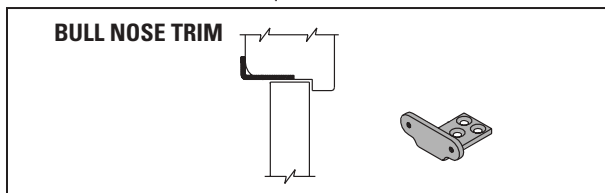
BLADE STOP SPACER – Spacer lowers a parallel arm 1/2" so the arm will clear a blade stop. (See Illus.)



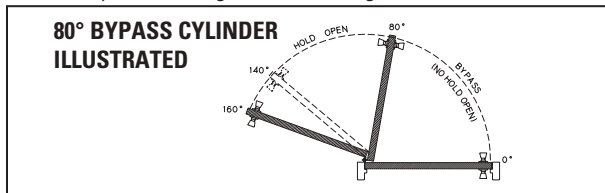
BLOW-OPEN – A type of control box that is used for a smoke evacuation system. Can be used with or without a normal power operator system.

BRIGHT METALLIC – Custom power coat finish, which resembles that of US26 or US26D plated finish.

BULL NOSE TRIM – Face and jamb width joined by a radius rather than a 90° break. Requires -65 soffit shoe. (See Illus.)



BYPASS CYLINDER – ME cylinder that will not hold-open within a specified range of door swing. (See Illus.)

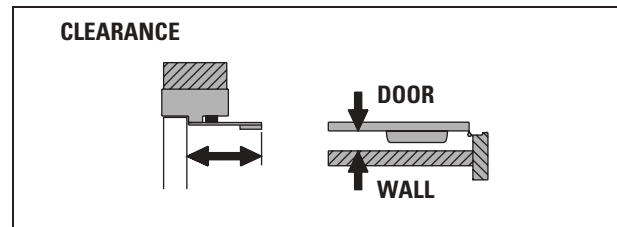


C

CASED OPENING – Frame section without stops.

CAST IRON – Material used in producing high quality door closers.

CLEARANCE – Distance from a PA SHOE to the push side of door or distance from the pull side of door to the wall on 90° installations. (See Illus.)

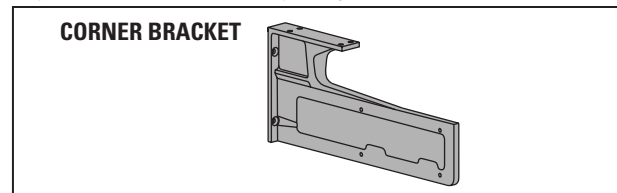


CLOSING FORCE – Energy generated by a closer to close and latch the door.

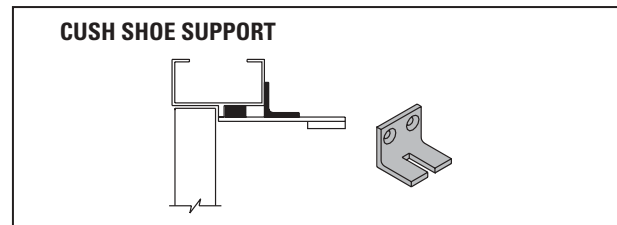
CONTROLLER ASSEMBLY – Digital control suite used in the LCN electric power operator. Includes adjustments for opening force and opening speed.

CONCEALED IN DOOR – Closer with cylinder concealed in the top rail of the door with either an exposed or concealed arm.

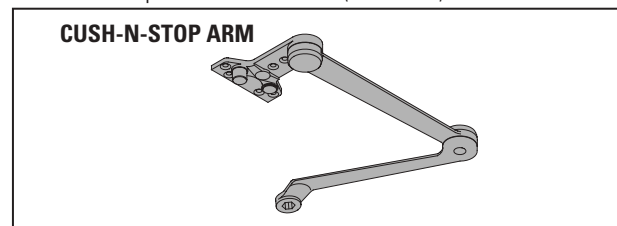
CORNER BRACKET – Push side frame mounted adapter used to position closer in frame opening. (See Illus.)



CUSH SHOE SUPPORT – Support provides fifth screw anchorage of CUSH shoes on frames with narrow push side reveals. (See Illus.)



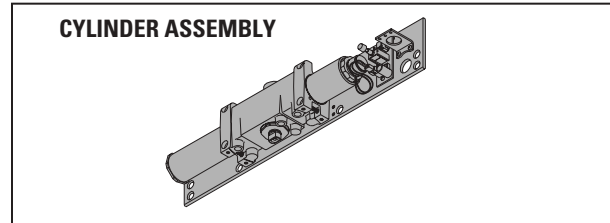
CUSH-N-STOP ARMS (CUSH) – Extra duty, parallel arm that includes a stop in the CUSH shoe. (See Illus.)



CUSTOM POWDER COAT (RAL) – An optional powder coat finish. Currently, LCN offers a wide selection for special powder coat finishes. LCN uses a European color standard, referred to as an RAL #, to differentiate between finishes.

CUTOUT – Preparation of the top rail of a door or frame for concealment of the closer, arm or track.

CYLINDER ASSEMBLY – Main closer component complete with any mounting plates or electronics. (See Illus.)

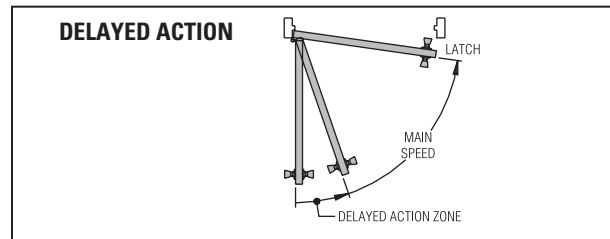


CYLINDER ONLY – Hydraulic cast iron cylinder.

D

DEEP REVEAL – Reveal deeper than what an arm will accommodate.

DELAYED ACTION (DEL) – Delays closing from maximum opening to approximately 75°. (See Illus.)

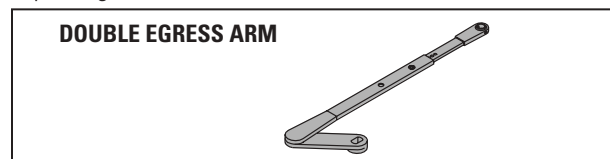


DESIGNER SERIES COVER (DS1) – An aesthetically pleasing cover design that appeals to many types of facilities & architects.

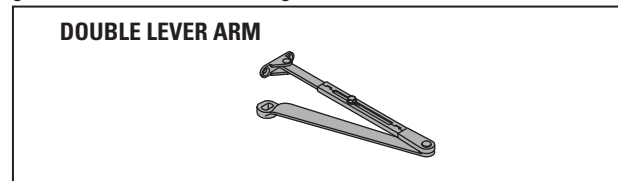
DOOR POSITION SWITCH (DPS) – A security option specific to the 2210 Series closer. A door position switch is used to monitor the closed position of a door in an opening.

DOUBLE ACTING – Term used to describe door swing. A double acting frame does not have a stop thus allowing the door to swing 95 degrees in both directions.

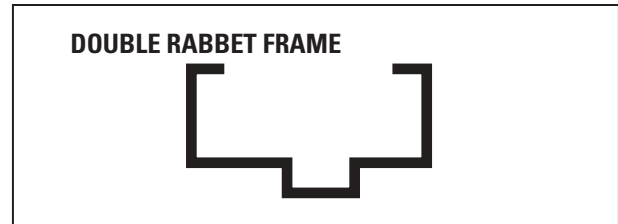
DOUBLE EGRESS ARM (DE) – Designed for pull side installation on double egress frames. Actual arm varies depending on selected closer. (See Illus.)



DOUBLE LEVER ARM – Two-part arm hinged at the elbow that provides superior leverage. Used on hinge side, top jamb and parallel arm mountings, the geometry of the arm provides greater mechanical advantage to the closer. (See Illus.)



DOUBLE RABBET FRAME – Frame with a recess or offset formed on both sides of a stop to receive a door. (See Illus.)



DROP PLATE – Designed to mount a closer on top rail or head frame to meet special conditions or mounting surface dimensions that are below minimums.

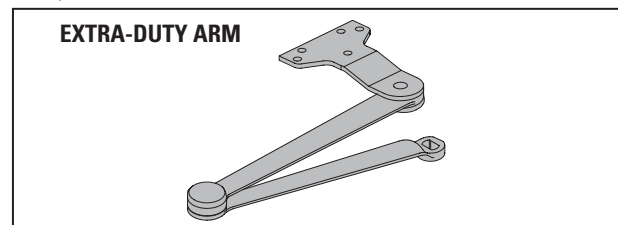
E

ELECTRIC STRIKE – An optional, electronic latching device that replaces a regular lock strike in a doorframe that allows the door to open from a remote location or by special access equipment.

ELECTRIC STRIKE RELAY (ES) – An optional feature found in an LCN 7900 Series control box that can be used to control an electric strike.

ESCUTCHEON – An optional, protective or decorative plate that can be installed with many surface mounted actuators.

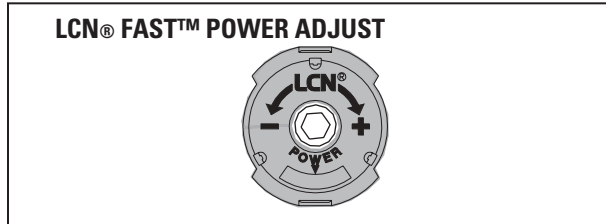
EXTRA DUTY ARM (EDA) – Double lever arm with both main and forearm made of solid forged steel for extra strength. (See Illus.)



EXTRA LONG ARM (XLONG) – 4040 Series double lever arm for exceptionally deep reveals or other special applications.

F

(LCN®) FAST™ POWER ADJUST – A green dial located on the end of the spring tube on selected heavy duty closers. Designed to help installers accurately adjust the closer power to match the conditions of the entrance. (See Illus.)



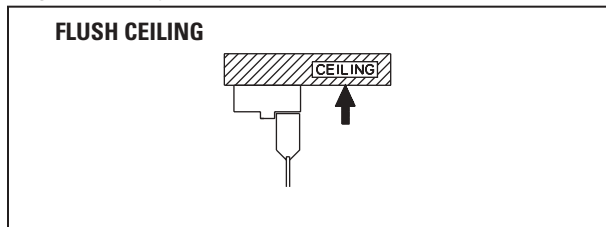
FIFTH SCREW – Mounting screw farthest from the door on a parallel arm shoe.

FIFTH SCREW SPACER – Supports PA shoe mounted on frame stop.

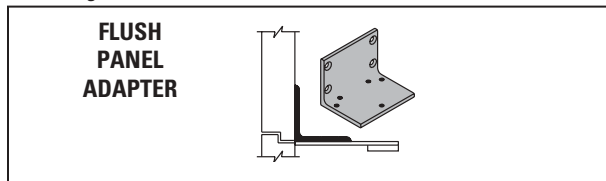
FINISH PLATE – Decorative plate applied to overhead concealed closer to conceal closer mounting plate and screws.

FIRE SHIELD – 22-gage steel liner mounts in the track mortise of the door's top rail for 20 minute labeled wood doors.

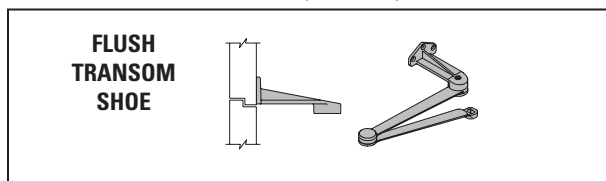
FLUSH CEILING – Condition when the ceiling is at the same height as the top of the frame. (See Illus.)



FLUSH PANEL ADAPTER – Adapter provides PA shoe mounting surface when door and frame are flush. (See Illus.)



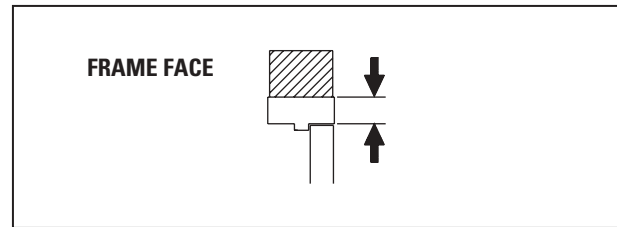
FLUSH TRANSOM SHOE – Substituted for standard EDA shoe when door and frame are flush. (See Illus.)



FOREARM – Arm part that connects main arm to the shoe attachments in a double lever arm system.

FRAME DEPTH – Face to face dimension of the frame.

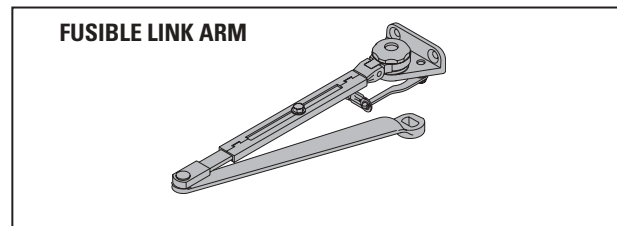
FRAME FACE – Exposed part of frame parallel to face of the wall. (See Illus.)



FULL COMPLIMENT BEARINGS – Low friction, high load needle bearings found in all LCN closers.

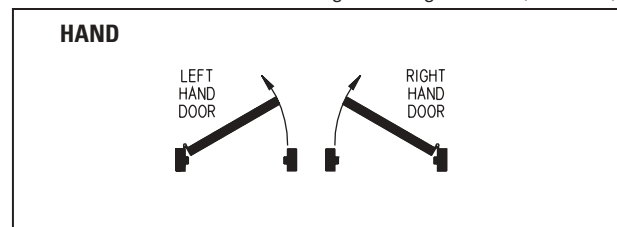
FULL COVER (FC) – Cover that encloses cylinder assembly except for shaft/arm attachment.

FUSIBLE LINK ARM (FL) – Releases hold-open function when exposed to high temperatures. 135°F and 165°F available. (See Illus.)



H

HAND – Direction of a doors' swing, either right or left. (See Illus.)



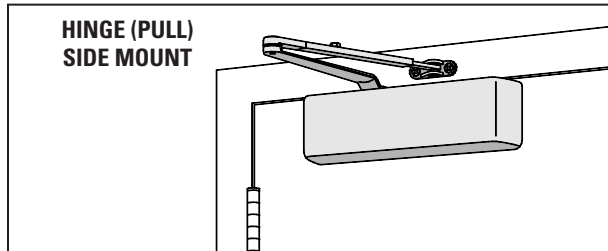
HANDED – Closer or part designed for ONLY right or left swinging doors.

HEAD FRAME – Member of the frame above the door.

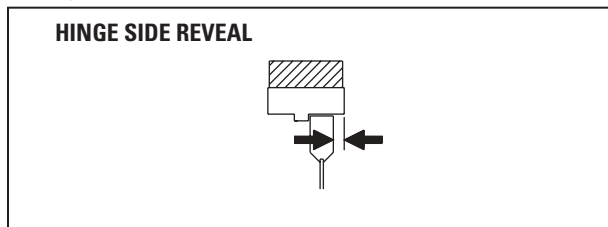
HIGH ENERGY OPERATOR – A type of automated opener used on a door that must be opened to 90 degrees within 1.5 seconds. Usually used in conjunction with sliding doors. High-energy operators use safety mats & guardrails to protect the user.

HINGE SIDE – Face of door and frame on which the hinge pivot point is located.

HINGE SIDE MOUNT – Mounting with the closer cylinder on the hinge side of the door top rail. (See Illus.)



HINGE SIDE REVEAL – Depth measured from the frame face to the pull side of the door face. (See Illus.)



HINGE STILE – Vertical member of a door prepared for installation of hinges.

HOLD-OPEN ARM (H) – Double lever arm that provides hold-open function that is either adjustable at elbow or shoe.

HOLD-OPEN CLIP – Located in track to provide hold-open function for single lever arms.

HOLD-OPEN CUSH (HCUSH) – Parallel arm that features solid forged steel main arm and forearm with stop in soffit shoe. Uses control handle to select hold-open function.

HOLD-OPEN LONG ARM (HLONG) – Hold-open arm extended by a long head and tube for deep reveals.

HOLD-OPEN TRACK (HO) – Track with hold-open clip installed.

HOLD-OPEN TRACK with BUMPER (HBUMPER) – Track with hold-open clip and bumper assembly installed.

HOLDER SCANNER-ACTIVATED (HSA) – Electrically controlled closer/holder with built-in scanner.

HYDRAULIC FLUID – Fluid metered by valve system to control door.

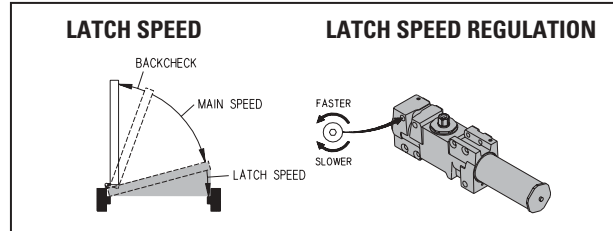
J

JAMB – The vertical member that forms the sides of a door frame. There is a hinge side jamb and a strike side jamb.

L

LABELED DOOR – Conforms to all applicable codes, requirements, and procedures governing fire rated doors and bears the manufacturer's identification label.

LATCH SPEED – Separate adjustment to control the last few degrees of the door's closing swing. (See Illus.)



LEAD LINED COVER (LL) – Cover with lead lining for x-ray applications.

LOCK STILE – Vertical member of a door prepared for installation of a lock.

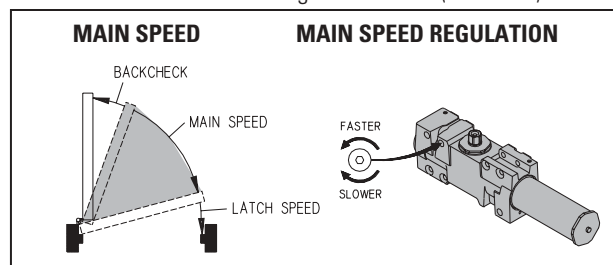
LONG ARM (LONG) – Extended arm for deep reveals or other special applications.

LOW ENERGY OPERATOR – A type of automated opener used on a door that should take approximately 5 seconds to open to 90 degrees. Low Energy operators do not require safety mats or guard rails.

M

MAIN ARM – Connects to the cylinder in a double lever arm system.

MAIN SPEED – Separate adjustment to control closing swing of the door to within a few degrees of latch. (See Illus.)



MAXIMUM OPENING – Furthest degree of door opening.

LCN GLOSSARY

M-P

METAL COVER (MC) – Stamped metal cover required for optional plated finishes and custom powder coat finishes. Standard cover with High Security Series closers.

MOTOR CLUTCH – The geared assembly in an LCN electric power operator. Once activated, the motor clutch drives the door open.

MORTISE – Material removed from frame and/or top rail of door.

MOUNTING/FINISH PLATE – Plate with exposed mounting screws and finish applied.

MULTI-POINT HOLD-OPEN (ME) – Infinite hold-open points from 0° up to maximum opening.

N

NO DESTRUCT FEATURE – A feature specific to the motor clutch assembly portion of an LCN electric power operator. This feature does not allow the user to back drive the motor, which could cause damage to the unit.

NON-HANDED – Closer or part designed for both right and left hand swinging doors.

NON-SIZED – Cylinder assembly with spring power adjustable over a range of sizes.

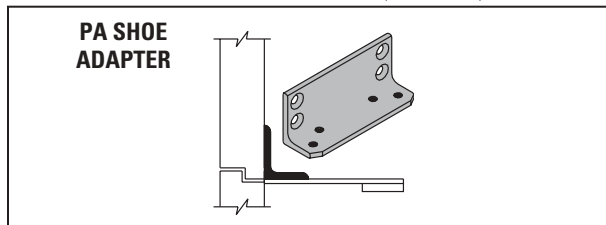
O

OPENING FORCE – Force required to open the door against the closers spring power.

OVERHEAD CONCEALED – Closer with cylinder concealed in head frame and either a concealed or exposed arm.

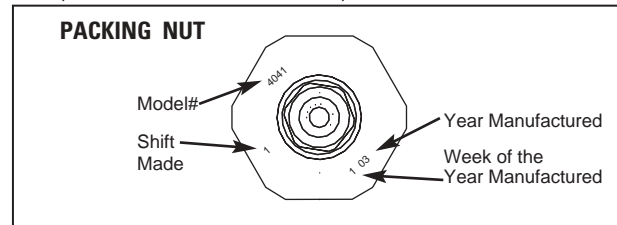
P

PA SHOE ADAPTER – Adapter provides horizontal mounting for PA shoe on a flush door and frame. (See Illus.)

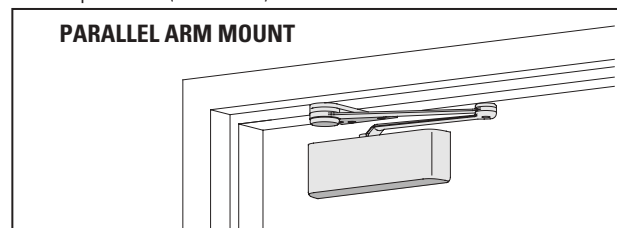


PA SHOE – Attaches the forearm to the soffit for a parallel arm system.

PACKING NUT – A threaded part that holds the pinion in place. Usually, the LCN model number and date of manufacture are stamped into this part. The date of manufacture is important because the owner can determine if the cylinder is in or out of warranty. (See Illus.)



PARALLEL ARM – A push side mounted double lever arm system where main arm is parallel to the door when in the closed position. (See Illus.)



PARALLEL ARM HOLDER (PAH) – An item usually used on the inactive leaf of a pair of doors for hold-open where the active leaf has a closer installed.

PINION – Transfers rotary motion of the arm system to the piston. Also provides attachment of arms to closer.

PISTON – One of the internal pieces of a door closer. The piston is moved by the rotating pinion, which in turn compresses the spring.

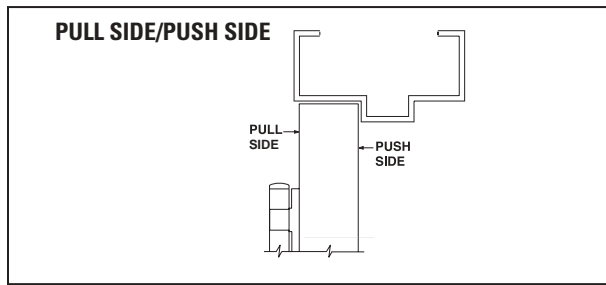
PNEUMATIC – This type of LCN Power Operator is driven by an air source. The air source can be built into the control box or provided separately within the building.

POWER OPERATOR – A term used to describe a type of automated opening system.

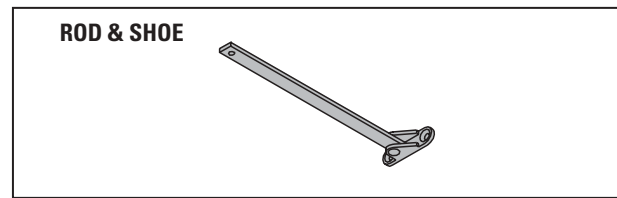
POWDER COAT – A standard finishing process that provides a very durable, corrosion resistant covering to the majority of products that LCN offers. An LCN powder coat finish offers over four times the ANSI salt spray test of 25 hours.

PULL SIDE – Hinge side of door. (See Illus.)

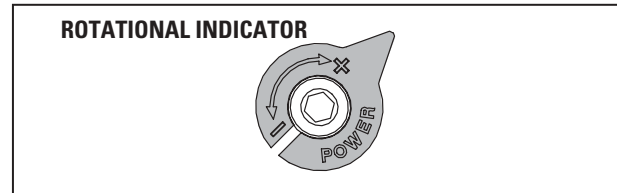
PUSH SIDE – Face of door on stop side of frame. (See Illus.)



ROD & SHOE – Part of forearm that provides adjustable length feature for double lever arms. (See Illus.)



ROTATIONAL INDICATOR - An indicator located on the end of 1460 spring tubes. Used when adjusting spring power to indicate each revolution. (See Illus.)

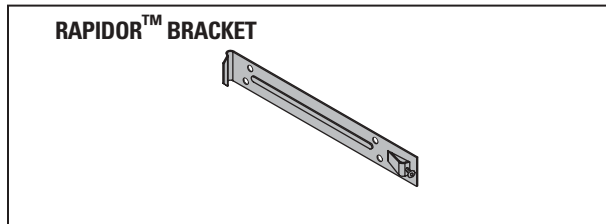


R

RABBET – Recess or offset formed in the face to receive a door.

RADIO FREQUENCY (RF) – A method of actuating LCN power operators. A RF transmitter signals a RF receiver to open a door.

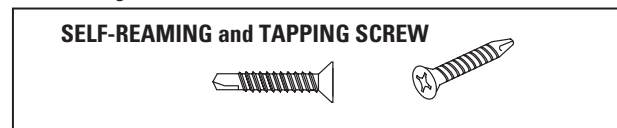
RAPIDOR™ BRACKET – Hands free mounting bracket for 1371. (See Illus.)



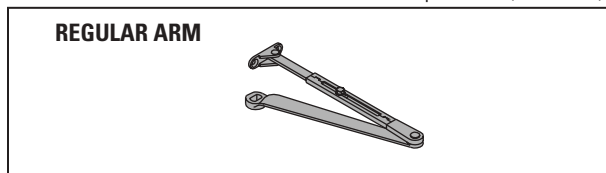
S

SAFETY GUARD – A product that mounts on the hinge edge of the door. This is a heavy-duty vinyl product that covers the opening between the door and frame where many injuries occur. One suggested use is on doors within childcare facilities.

SELF-REAMING and TAPPING SCREW (SRT) – Philips head screw with self-reaming and self-tapping capability used in mounting installations. (See Illus.)



REGULAR ARM – A double lever, non hold-open arm. (See Illus.)



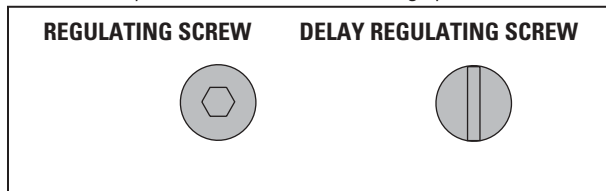
SECOND CHANCE FEATURE – A feature that allows the Power Operator two attempts at opening the door. If resistance is encountered on the first attempt, the operator will pause and then try a second time. This feature is standard on the LCN electric power operators.

SEM – SEM is short for 'single-point electronic magnet'. An actual product number is required when ordering.

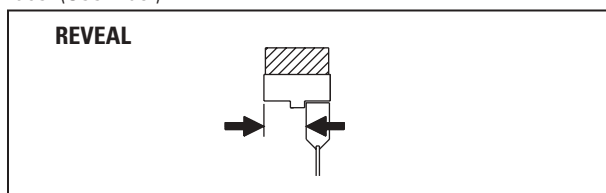
SENTRONIC – A general term for the fire/life safety products that are offered by LCN.

SEQUENCE – An option to the LCN series of power operators. This option allows a pair of vestibule doors to open one after the other.

REGULATING SCREW – Valve that adjusts flow of hydraulic fluid within cylinder to control door closing speed. (See Illus.)



REVEAL – Depth measured from the frame face to the door face. (See Illus.)



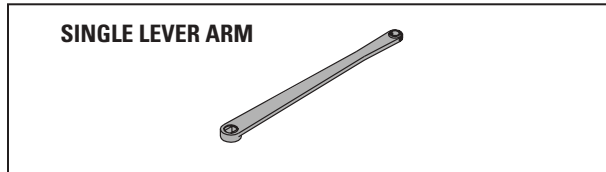
LCN GLOSSARY



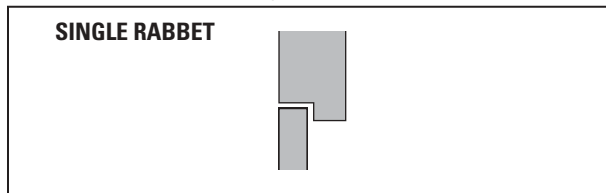
SHOE – Attaches forearm to frame or door face in a double lever arm system.

SINGLE POINT HOLD-OPEN (SE) – Electrically controlled hold-open using a special track and single lever arm.

SINGLE LEVER (STANDARD) ARM (STD) – Directly connects cylinder and track/roller assembly on the door or frame. (See Illus.)



SINGLE RABBET FRAME – Frame with a recess or offset formed on one side of a stop to receive a door. (See Illus.)



SIZED – A closer with a specific closer power for proper door applications.

SLIDER – This part is used in conjunction with a track roller in a Sentronic track assembly.

SLIM LINE COVER – 1460 cover conceals cylinder but exposes both pinion shafts.

SOFFIT – Horizontal surface of a frame between vertical stops on a double rabbet frame.

SOFFIT SHOE – Connects parallel arm shoe to soffit.

SPECIAL RUST INHIBITOR (SRI) – A special corrosion resistant pre-treatment that is available for most LCN closers. Adding SRI to the standard LCN powder coat finish gives the closer a tremendous advantage over a potentially corrosive environment.

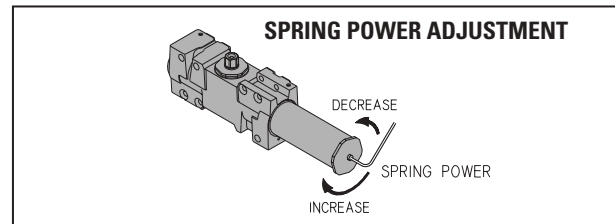
SPECIAL TEMPLATE (ST) – A special template is usually a modification to a standard product. Either the product itself changes location in the opening or a component is modified from the standard offering to accommodate other hardware or door and frame dimensions.

SPRING CUSH ARM (SCUSH) – Non-handed parallel arm for abusive applications. Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe.

SPRING HOLD-OPEN CUSH ARM (SHCUSH) – Non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Uses control handle to select hold-open function.

SPRING POWER – Closing force exerted by spring inside the cylinder to closer door.

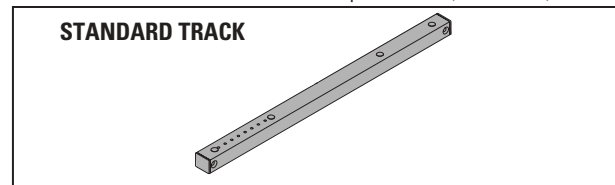
SPRING POWER ADJUSTMENT – Mechanical pre-loading of spring to adjust closing force. (See Illus.)



SPRING TUBE – Part of the closer assembly that contains the spring.

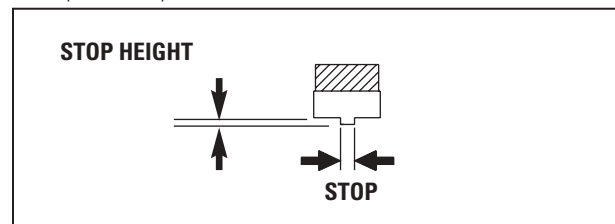
STANDARD CYLINDER – Cylinder with main speed, latch speed, and backcheck adjustments.

STANDARD TRACK – Non hold-open track. (See Illus.)

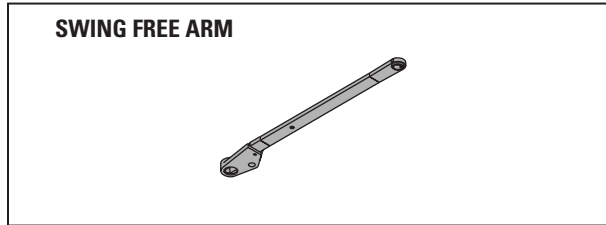


STOP – Part of frame against which the door closes.

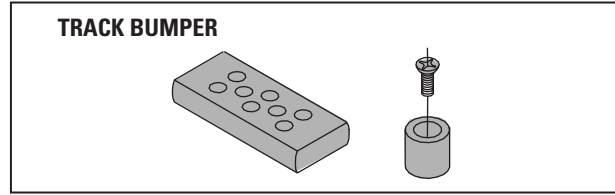
STOP HEIGHT – Distance the stop extends below the frame face. (See Illus.)



SWING FREE ARM – ME arm designed to allow free movement of the door without disengaging the holding mechanism. (See Illus.)



TRACK BUMPER – Mounts in track to cushion opening swing, but reduces maximum opening. This is not a substitute for a mechanical door stop. (See Illus.)



T

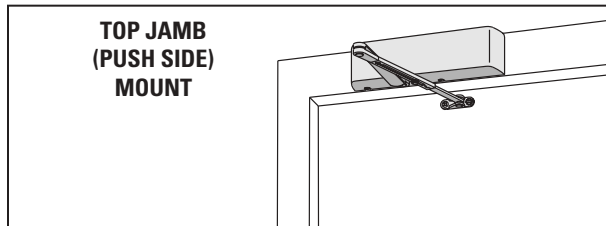
TBSRT – Thru bolts and self-reaming and tapping screw package.

TBTRX – Thru bolts and TORX security machine screw package.

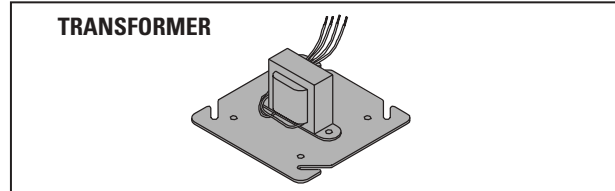
TBWMS – Thru bolt, wood and machine screw package.

THICK HUB SHOE – Substituted for soffit shoe on EDA arm to clear blade stop.

TOP JAMB – Mounting with closer installed on frame face. (See Illus.)



TRANSFORMER – Electrical device to reduce voltage from 120V AC to 24V AC. (See Illus.)



U

ULTRA LIQUID X – All weather fluid that does not change viscosity over a wide temperature range.

UNIVERSAL – A term used to describe a door closer. Closers of this nature are non-sized and non-handed.

V

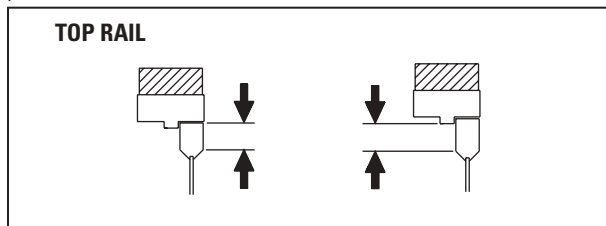
VESTIBULE – A small lobby or entrance that has at least two doors. One door is to the exterior and the other to the interior of the building. A variation could be multiple doors or banks of doors.

W

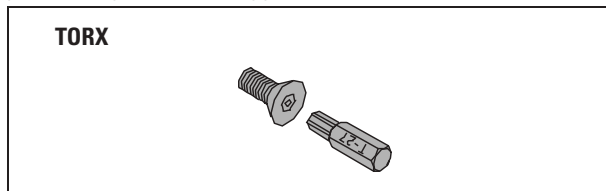
WMS – Standard wood and machine screw package.

WOOD MOUNTING CLIP – Designed to ease installation of concealed closer in wood frame.

TOP RAIL – Horizontal top member of a door that connects the latch and hinge stiles. Height is measured from stop on push side. (See Illus.)



TORX – Security machine screw with TORX drive and security pin for tamper resistant applications. (See Illus.)



POWER OPERATORS

PRODUCT SELECTION GUIDE

LCN power operators are the proven standard in schools and health care facilities for over 20 years. They are easily retrofitted into existing doors and frames, as well as new construction. LCN low energy electrohydraulic and pneumatic power operators feature a heavy duty closer with a slow opening function. LCN's electromechanical power operators utilize a motor gearbox and control box to perform the opening and closing function.

LOW ENERGY POWERED SYSTEMS



CONCEALED MOUNT

2610 (PNEUMATIC)
2810 (ELECTROMECHANICAL)
2850 (ELECTROMECHANICAL)
2860 (ELECTROMECHANICAL)
2910 (ELECTROMECHANICAL)
2950 (ELECTROMECHANICAL)
2960 (ELECTROMECHANICAL)

SURFACE MOUNTED PULL SIDE

4630 (ELECTROHYDRAULIC)
4810 (PNEUMATIC)
9130 (ELECTROMECHANICAL)
9530 (ELECTROMECHANICAL)
9550 (ELECTROMECHANICAL)
9560 (ELECTROMECHANICAL)
9730 (ELECTROMECHANICAL)
9750 (ELECTROMECHANICAL)
9760 (ELECTROMECHANICAL)

SURFACE MOUNTED PUSH SIDE

4640 (ELECTROHYDRAULIC)
4820 (PNEUMATIC)
4840 (PNEUMATIC)
9140 (ELECTROMECHANICAL)
9150 (ELECTROMECHANICAL)
9540 (ELECTROMECHANICAL)
9550 (ELECTROMECHANICAL)
9560 (ELECTROMECHANICAL)
9740 (ELECTROMECHANICAL)
9750 (ELECTROMECHANICAL)
9760 (ELECTROMECHANICAL)

SURFACE MOUNTED DOUBLE EGRESS

9550 (ELECTROMECHANICAL)
9560 (ELECTROMECHANICAL)
9750 (ELECTROMECHANICAL)
9760 (ELECTROMECHANICAL)

HIGH ENERGY POWERED SYSTEMS



High Energy Operators must be ordered with guide rails & safety devices.

CONCEALED MOUNT

2510 (ELECTROMECHANICAL)
2550 (ELECTROMECHANICAL)

SURFACE MOUNTED PULL SIDE

9330 (ELECTROMECHANICAL)
9350 (ELECTROMECHANICAL)

SURFACE MOUNTED PUSH SIDE

9340 (ELECTROMECHANICAL)
9350 (ELECTROMECHANICAL)

SURFACE MOUNTED DOUBLE EGRESS

9350 (ELECTROMECHANICAL)

Note: LCN offers manual closers that have reduced opening force to meet ADA requirements. See applicable catalog section.

POWER OPERATORS

PRODUCT COMPARISON - ELECTROHYDRAULIC/PNEUMATIC PRODUCT COMPARISON

This chart shows a basic features comparison of the LCN electrohydraulic and pneumatic power operator systems designed to provide easy access without sacrificing closing power. Refer to the specific closer chapter for complete details.

CLOSER SERIES	MOUNTING				FINISH		COVER		CYLINDER			*ARM FUNCTION						
	TOP JAMB (PULL SIDE)	TOP JAMB (PUSH SIDE)	PARALLEL ARM	CONCEALED	POWDER COAT	PLATED	PLASTIC	METAL	NON-HANDED	NON-SIZED	ACCESSIBILITY*	POWER OPERATOR	HOLD-OPEN	STANDARD (SINGLE)	REGULAR (DOUBLE)	EXTRA DUTY ARM	CUSH-IN-STOP	SPRING CUSH
2610	○	○	○	●	●	●	○	●	○	○	♿	●	○	90°	○	○	○	○
4630	●	○	○	○	●	●	○	●	●	●	♿	●	●**	90°	○	○	○	○
4640	○	●	○	○	●	●	○	●	●	●	○	●	●**	○	90°	○	○	○
4810	●	○	○	○	●	●	○	●	●	●	♿	●	○	90°	○	○	○	○
4820	○	●	○	○	●	●	○	●	●	●	○	●	○	○	90°	○	○	○
4840	○	○	●	○	●	●	○	●	●	●	♿	●	○	○	○	90°	90°	90°

- AVAILABLE
- NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
 * See individual series for maximum manual opening.
 ** Switch provided for continuous Hold-Open.

PRODUCT COMPARISON - ELECTROMECHANICAL PRODUCT COMPARISON

This chart shows a basic features comparison of the LCN electromechanical power operator systems designed to provide easy access without sacrificing closing power. Refer to the specific operator chapter for complete details.

OPERATOR SERIES	MOUNTING						HANDING		FINISH		COVER		ARM FUNCTION				
	SURFACE MOUNT SINGLE DOOR	SURFACE MOUNT SIMULTANEOUS PAIR	SURFACE MOUNT INDEPENDENT PAIR	CONCEALED SINGLE DOOR	CONCEALED SIMULTANEOUS PAIR	CONCEALED INDEPENDENT PAIR	HANDED	NON-HANDED	STANDARD ANODIZED	CUSTOM ANODIZED	CUSTOM PAINT	METAL	STANDARD (SINGLE)	REGULAR (DOUBLE)	DOUBLE EGRESS (PUSH/PULL)	OFFSET PIVOT ARM	CENTER PIVOT ARM
2510	○	○	○	●	○	○	●	○	○	○	○	○	○	○	○	○	○
2550	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○
2810	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○
2850	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○
2860	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○
2910	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2950	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2960	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9130	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9140	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9150	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9330	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9340	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9350	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9530	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9540	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9550	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9560	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9730	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9740	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9750	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9760	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

- AVAILABLE
- NOT AVAILABLE



Note: Series 2510, 2550, 9330, 9340, 9350 are high-energy products & must be ordered with guide rails and safety devices.

WHAT IS THE ADA?

The ADA is a civil rights law, not a building code. This act is designed to provide protection for people with disabilities. The law is divided into four major titles that prohibit discrimination against the disabled in Employment, Title I, Public Services and Transportation Title II, Public Accommodations Title III, and Telecommunications Title IV. Title III concerns doors and door controls.

WHAT IS THE INTENT OF ADA, TITLE III?

Essentially, owners of certain types of buildings must remove barriers and provide people with disabilities with access equal to, or similar to, that available to the general public. The deadline for compliance was January 26, 1992.

The final rules implementing Title III were published in the Federal Register of July 26, 1991. To obtain a copy or ask questions, contact the U.S. DEPARTMENT OF JUSTICE. Technical information can be obtained from The U.S. ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD.

HOW DOES ADA AFFECT DOORS?

The ADA defines an "accessible" opening which means, among other things, providing a door with a minimum 32" (813 mm) clear opening, easily manipulated handles, a maximum opening force, a minimum closing time, and capable of opening to at least 90°.

ADA criteria, based on OPENING FORCE, are similar to American National Standards Institute (ANSI) Standard A117.1. This is different from ANSI Standard A156.4, which is based on CLOSING FORCE.

WHAT ARE THE OPENING FORCE LIMITS?

DOOR TYPE	OPENING FORCE
Fire Rated	Note 1
Interior Non-Fire-Rated	5.0 lbs. (22.2 N)
Exterior Non-Fire-Rated	"Reserved", Note 2

Note 1: All fire rated doors should have the minimum opening force allowable by the appropriate administrative authority, typically the local Fire Marshal. Closing and latching a fire door takes precedence over ADA opening force limits.

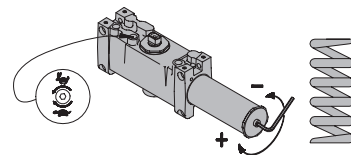
Note 2: The exterior door limit is "Reserved" (an undefined term), although the 8.5 pounds (37.8 N) maximum force recommended in ANSI Standard A117.1-1986 is commonly used.

HOW IS THE DOOR MEASURED?

Two ADA criteria affect the door closer selection, adjustments, opening force, and time to close. Since the law does not clearly define the method of measurement, this is LCN's recommendation.

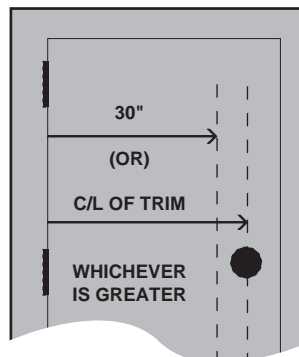
1. On the push side of the door, locate a point at the center line of the push plate/lock trim or 30" (762 mm), from the hinge edge of the door, whichever is greater.
2. Mark the floor at a point where the push side of the doors' latch stile is at 70°. Mark a second point where the push side is 3" (76 mm) from the latch.
3. Open the door so the latch is clear of the strike and the door is slightly off the stop.
4. Using a force gauge on the mark determined in Step #1, push the door open to the 70° mark established in Step #2. Observe the force readings. (Accuracy of the readings varies with the gauge quality.)
5. Adjust the closer spring power to meet the maximum opening force.
6. Hold the door at the 70° mark. Release the door and time the closing sweep between the two marks.
7. Adjust the closer main speed regulation valve to obtain a minimum 3 second "time to close".

NOTE: Delayed action closers are not necessary to meet the ADA 3 second "time to close" requirement but do offer additional time for people to pass through the door.



CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard 156.4, that is selected, installed, and adjusted based on ADA

requirements may not provide sufficient power to reliably close and latch a door. Auto-Equalizer systems offer an alternate solution.



POWER OPERATORS

WHAT ARE THE CHOICES FOR ADA COMPLIANT DOOR CONTROLS?

LCN offers both surface and concealed mountings for powered systems or manual closers.

POWERED SYSTEMS

LCN Power Operator Systems offer easy access for the disabled and resolve the problem of obtaining reduced opening force while providing adequate closing force.

MANUAL CLOSERS

Manual closers rely on reduced spring power to meet opening force requirements. Four principle factors affect the performance of manual closers:

1. DOOR WIDTH:

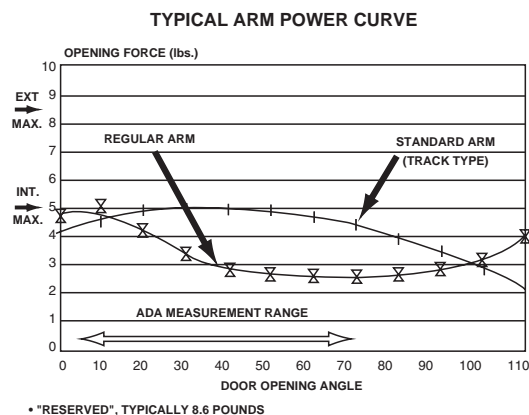
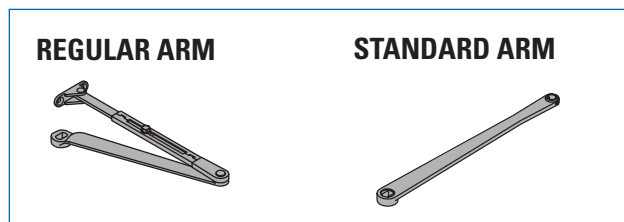
A wider door provides more leverage for the user, thus reducing the opening force required.

2. SPRING POWER:

Adjusting spring power to achieve a lower opening force also reduces the closing force available.

3. ARM SELECTION:

The superior mechanical advantage of a regular arm system offers the user significantly lower average opening forces through the 70° measurement range compared to a standard arm (track type) closer. Regular arms also provide superior latching power.



4. ADDITIONAL FORCES

Improperly hung doors, stiff latches, HVAC or environmental pressures, and other forces acting on the door require increasing the closer spring power to reliably close and latch a door which produces a corresponding increase in opening force.

INFORMATION SOURCES

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

PHONE 800-526-2400
FAX 800-248-1460
www.lcnclosers.com

U.S. DEPARTMENT OF JUSTICE

The Office of the Americans with Disabilities Act, Civil Rights Div.,
P.O. Box 66118, Washington, D.C. 20035-6118
(202) 514-0301

THE U.S. ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

1111 18th Street N.W., Suite 501, Washington, D.C. 20036
(800) 872-2253

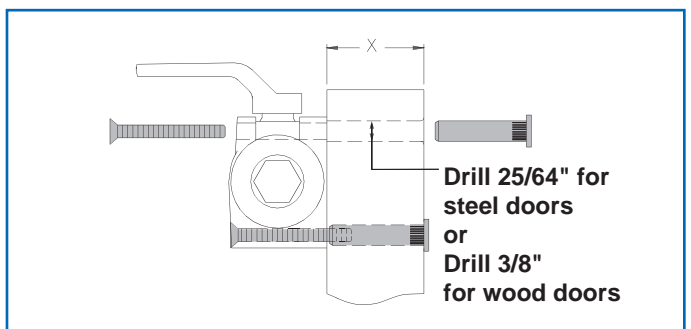
AMERICAN NATIONAL STANDARDS INSTITUTE

11 West 42nd Street, New York, N.Y. 10036
(212) 642-4900

- ANSI A117.1 Providing Accessibility and Usability for Physically Handicapped People
- ANSI A156.4 for Door Controls - Closers
- ANSI A156.19 Power Assist and Low Energy Power Operated Doors

ELECTROHYDRAULIC & PNEUMATIC FASTENERS

Standard WOOD and MACHINE SCREW (WMS) pack contains phillips head wood and machine screws to install the closer. Through Bolts (TB) and/or TORX® machine screws are available for all closers, except the 2610 series. LCN through bolts can be installed on 1 3/4" thick doors with either the 1/4-20 machine screws or optional TORX security screws supplied with the closer. Optional sizes are available for 1 5/8" or 1 3/8" door thicknesses, but must be specified when ordering.



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

ELECTROMECHANICAL FASTENERS

Typically installed 1/4 - 20 machine screw for aluminum/steel frames. Wood screws included for wood door mounting. Consult factory for additional information.

LOW ENERGY OPERATORS

The basic design concept for all LCN power operator systems is door control of both the opening and closing motion of the door. Our designs allow the system to be easily retrofitted into existing doors and frames as well as new construction.

A basic LCN electrohydraulic/pneumatic system consists of a power operator based on a heavy duty LCN 4040 Series door closer and peripheral actuators.

Our electromechanical power operators utilize a motor gearbox and a control box to perform the opening and closing function.

LCN offers a choice of either electrohydraulic, electromechanical or pneumatic low energy power operators.

APPLICATIONS

- ▶ Electrohydraulic and pneumatic systems are used primarily for manual opening with available push button automatic opening.
- ▶ Electromechanical systems are used primarily for automatic openings.
- ▶ For dedicated handicap access.
- ▶ Stand alone or integrated into larger multi-door systems.
- ▶ Surface and concealed mountings.
- ▶ Installation accessories available for unusual conditions.
- ▶ **Caution! For exterior doors exceeding 3'0" wide by 7'0" tall, interior doors exceeding 4'0" wide by 8'0" tall, or any door exceeding 225 pounds, consult factory before specifying or installing LCN electrohydraulic or pneumatic power operators.**
- ▶ **Caution! For exterior doors exceeding 4'0" wide by 7'0" tall, interior doors exceeding 4'0" wide by 8'0" tall, or any door exceeding 200 pounds, consult factory before specifying or installing LCN Electromechanical power operators.**

A156.19 SYSTEM DESIGN PARAMETERS

- ▶ Cycle test standard of 300,000 full load operating cycles.
- ▶ Power opening plus full door control.
- ▶ Open to backcheck no faster than 3 seconds.
- ▶ Opening time to fully open is no faster than 4 seconds.
- ▶ Remain fully open for at least 5 seconds.
- ▶ Closing time from 90° to 10° is no faster than 3 seconds.
- ▶ Less than 15 lbf to stop doors motion.
- ▶ Kinetic energy must not exceed 1.25 lbf-ft.
- ▶ In event of failure, less than 15 lbf to release latch, less than 30 lbf to put door in motion, less than 15 lbf to fully open door system.

COMMON SYSTEM FEATURES

- ▶ Power opening plus full door control.
- ▶ No guide rails or safety devices required due to low energy design.
- ▶ Adjustable opening force.
- ▶ Adjustable closing power.
- ▶ Operators meet ADA reduced manual opening force requirements, this includes 4630 and 4810.
- ▶ Electrohydraulic and pneumatic systems feature adjustable backcheck that slows opening swing at about 70°.
- ▶ Electromechanical systems feature electronic backcheck that slows opening swing at about 70°.
- ▶ Systems allow for separate adjustment of general closing and latch speed.
- ▶ Electrohydraulic and pneumatic systems are available in seven standard or a wide selection of optional custom powder coat finishes to blend with door and frame.
- ▶ Electromechanical systems are available in two standard anodized finishes or optional custom anodized and custom paint finishes to blend with door and frame.
- ▶ UL & NEC compliant.
- ▶ Compatible with most security and safety systems.
- ▶ Capable of full integration with high security keypads and card readers.
- ▶ Wiring allows for sequential operation for vestibule applications. Electromechanical systems require additional components.
- ▶ Modular design simplifies installation and maintenance.

WARRANTY

- ▶ 2 year limited warranty. See General Section for complete details.

MAINTENANCE

- ▶ Operators mounted according to the LCN installation instructions require no periodic maintenance or adjustments.
- ▶ Monthly, quarterly and annual visual inspections are recommended.

POWER OPERATORS

FEATURES

HIGH ENERGY OPERATORS

The basic design concept for all LCN power operator systems is door control of both the opening and closing motion of the door. Our designs allow the system to be easily retrofitted into existing doors and frames as well as new construction.

Our Electromechanical power operators utilize a motor gearbox and a control box to perform the opening and closing function.

LCN offers a choice of electromechanical high energy power operators.

APPLICATIONS

- ▶ Electromechanical high energy systems are used primarily for automatic openings.
- ▶ Power operated pedestrian doors.
- ▶ Well suited for high traffic, high volume areas.
- ▶ Surface and concealed mountings.
- ▶ Installations accessories available for unusual conditions.
- ▶ **Caution! For exterior doors exceeding 4'0" wide by 7'0" tall, interior doors exceeding 4'0" wide by 8'0" tall, or any door exceeding 200 lbs. consult factory before specifying or installing LCN high energy Electromechanical power operators.**
- ▶ **Caution! High energy electromechanical power operators require the use of guide rails and safety devices to be in compliance with ANSI 156.10.**

A156.10 SYSTEM DESIGN PARAMETERS

- ▶ Cycle test standard of 300,000 full load operating cycles
- ▶ Manual opening force shall not exceed 30lbs
- ▶ Latch position shall occur for swinging doors at no less than 10° from closed position.
- ▶ Opening time of a swinging door from fully closed to backcheck no faster than 1.5 seconds.
- ▶ Center pivoted doors shall have provisions for finger guard protection if the door clearance at hinge side is greater than 1/4" (6 mm) inch but less than 3/4" (19mm) with door in any position. (Consult door manufacturer)
- ▶ Requires the use of guide rails and safety devices.

COMMON SYSTEM FEATURES

- ▶ Power opening, spring return.
- ▶ Microprocessor control unit for quiet efficiency.
- ▶ Adjustable opening, closing and backcheck speed.
- ▶ Power Boost closing provides an additional 25 lbs of latching force.
- ▶ Electromechanical high energy systems are available in two standard anodized finishes or optional custom anodized and custom paint finishes can be ordered to blend with door and frame.
- ▶ Quick connect wiring system with Molex type plugs.
- ▶ Self-contained power operators in a cast aluminum housing and a forged steel arm.



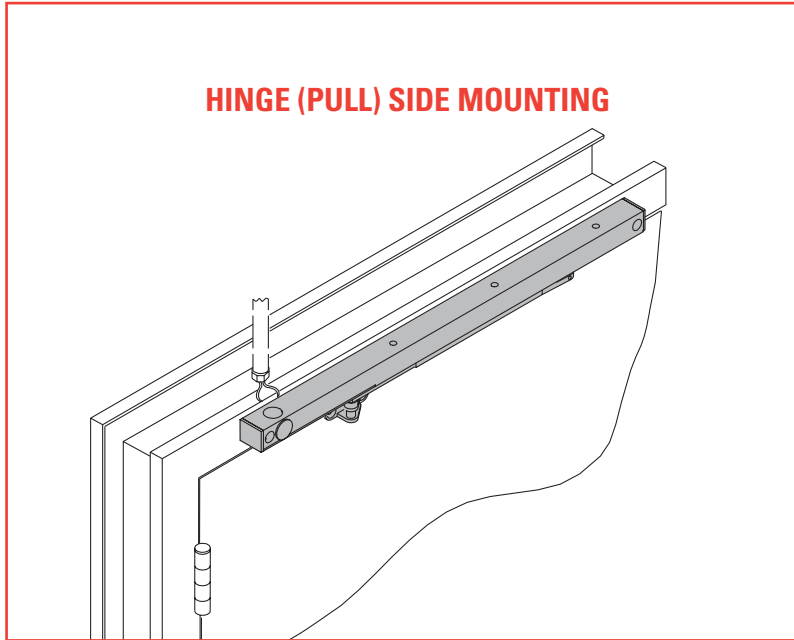
High Energy Operators must be ordered with guide rails & safety devices.

WARRANTY

- ▶ 2 year limited warranty. See General Section for complete details.

MAINTENANCE

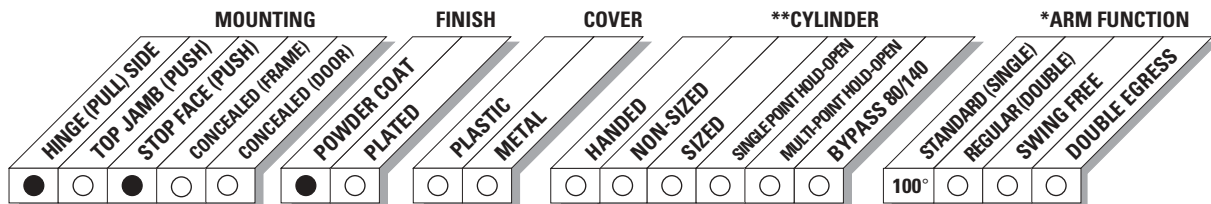
- ▶ High energy power operators may require periodic maintenance and/or adjustments.
- ▶ Daily visual inspections are recommended to ensure proper operation of all activation and safety devices.



The SEH SENTRONIC® is a holder designed to provide single point hold-open for fire and smoke barrier doors that must be used with a opposite side mounted UL listed door closer. The door is held open until current interruption releases the holding mechanism and the door closes. Single lever (track) arm is specifically designed for interior doors. Choice of finishes, track functions, and installation accessories meet virtually all life safety requirements.

- ▶ Standard SEH series is a door holder that must be installed in conjunction with a opposite side mounted, UL listed door closer.
- ▶ Standard SEH series holder shipped with a standard arm, 24V or 120V (please specify) SEH track and wood and machine screw pack.
- ▶ Hold-open force is adjustable.
- ▶ Momentary on/off switch board assembly for testing door release also provides over-voltage protection. Field replaceable.
- ▶ Non-handed for mounting on either right or left hand door.
- ▶ Concealed or surface wiring.
- ▶ Interfaces with alarm systems. Consult factory for full details.
- ▶ Standard or optional custom powder coated finishes on track and arm.
- ▶ A good application is a CUSH-N-STOP closer mounted on the push side and the SEH mounted on the pull side of the door.

The SEH Series is UL listed for smoke barrier or labeled fire doors. ULC listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.



● Available
○ Not available

* Maximum hold-open with standard template. See individual closer series for degrees of opening and hold-open per installation.
** Cylinder sold separately

LCN SEH SERIES

MOUNTING DETAILS

HINGE (PULL) SIDE & STOP FACE (PUSH SIDE) MOUNTINGS

Information applies to SEH unless otherwise specified.

MAXIMUM OPENING

Templating allows 100°.

Hold-open points between 80° and 100° in approximately 3° increments.

SEH ELECTRICAL OPTIONS

These track assemblies require a single power circuit for the holding solenoid.

SEH holding solenoid is either 24V or 120V input, please specify.
An optional 4040SE-3210 TRANSFORMER reduces 120V AC line voltage to 24V AC.
Circuitry accepts either AC or DC input.

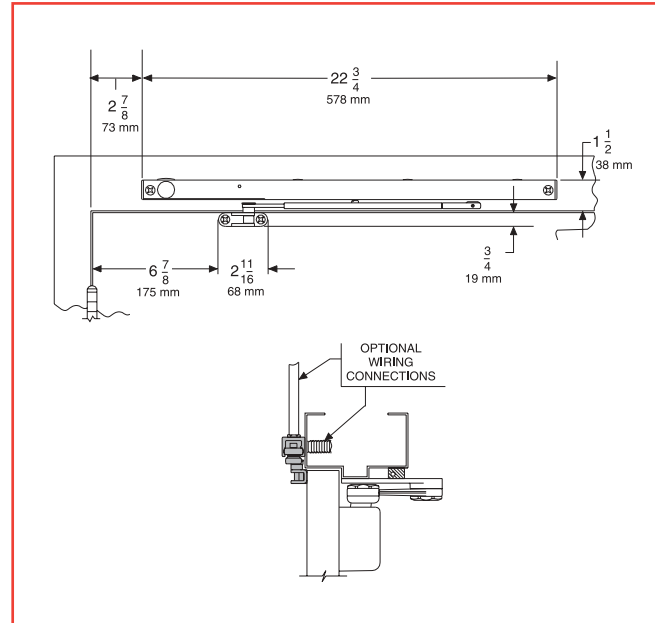
Options

- ▶ 24V or 120V input for SEH, please specify.

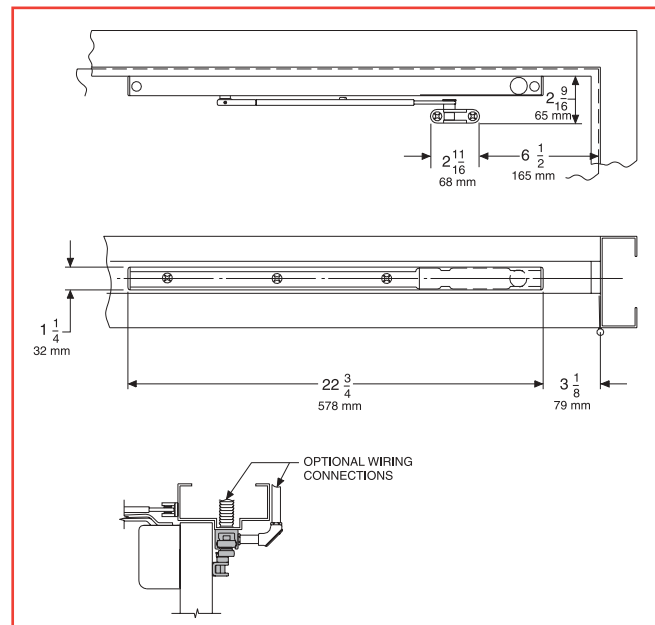
Special Templates

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

HINGE (PULL) SIDE MOUNT



STOP FACE (PUSH SIDE) MOUNT

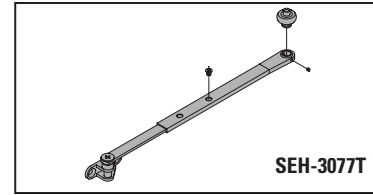


- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Swing Clear Hinges** consult factory.
- ▶ **Auxiliary Stop** is recommended at hold-open point.
- ▶ **Reveal** should not exceed 1/8" (3 mm) for standard arm.
- ▶ **Head Frame** requires 2" (51 mm) minimum.
- ▶ **Stop Width** 1 1/4" (32 mm) minimum.
- ▶ **Flush Ceiling** with 2" (51 mm) head frame does not require special templating.
- ▶ **Door Width** 2'4" (711 mm) minimum for single door with SEH.
4'8" (1422 mm) minimum for paired doors with SEH.
- ▶ **Wiring Diagram** See "FIRE/LIFE SAFETY" section page 13 for typical wiring and electrical diagram.

ARMS

HOLDER ARM, SEH-3077T

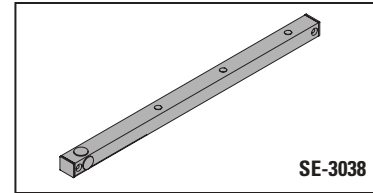
Non-handed arm can be combined with any 4040SE series track to provide an electrically controlled hold-open function on either side of the door. All SEH type holders require a separate closer for fire or smoke barrier door applications.



TRACKS

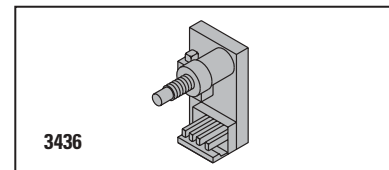
SE TRACK, SEH-3038

Standard, non-handed track for SEH. Mounts on either head frame or stop. 24V or 120V AC/DC input for holding solenoid, please specify. Includes test switch assembly with fuse.



SWITCH

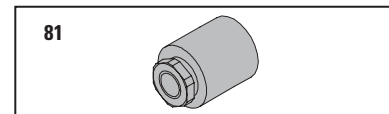
TEST SWITCH, SEH-3436



INSTALLATION ACCESSORIES

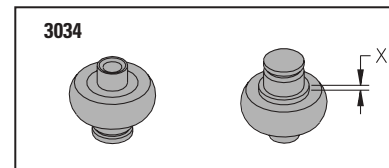
CONDUIT QUICK-CONNECTOR, SEH-81

Two piece connector for use with 1/2" conduit.



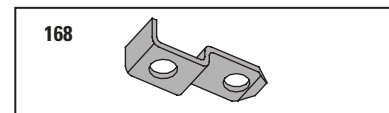
TRACK ROLLER, SEH-3034

Quiet, low friction roller assembly. Shoulder dimension "X" = 1/4" (6 mm).



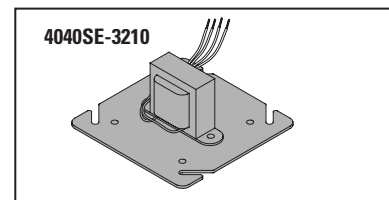
TRACK SLIDER, SEH-168

Alloy metal slider for use in SE series tracks only.



TRANSFORMER, 4040SE-3210

Reduces line voltage from 120V to 24V AC. Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others).



HOW-TO-ORDER SEH SERIES

1. VOLTAGE

- 24V AC/DC
- 120V AC/DC

2. SPECIFY FINISH.

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

Closer will be shipped with;

- STANDARD ARM,
 - STANDARD TRACK,
 - WOOD & MACHINE SCREW PACK,
- unless options listed below are selected.*

CLOSER OPTIONS

FINISHES

- Custom Powder Coat (RAL) _____
(handed metal cover required)

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".

INSTALLATION ACCESSORIES

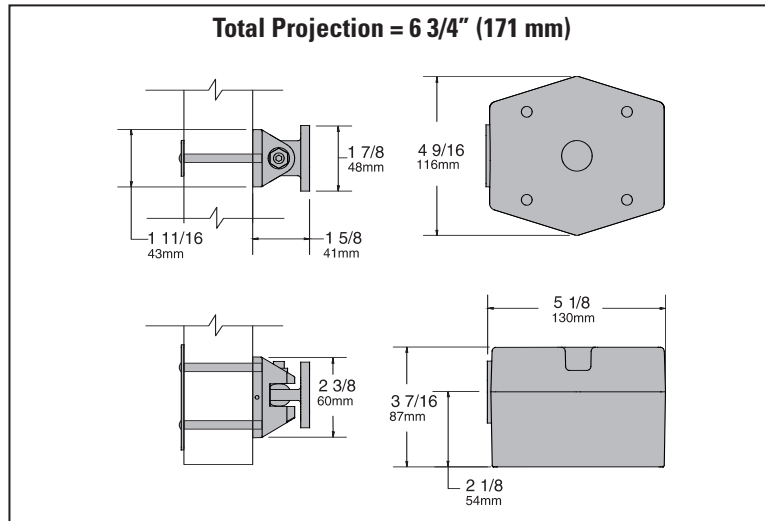
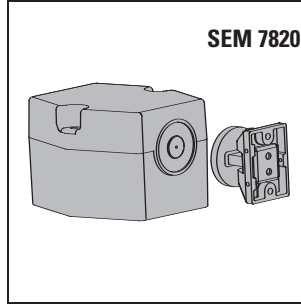
- Transformer, 4040SE-3210

SPECIAL TEMPLATE

- ST- _____ (if required)

SEM 7820 MAGNET

Die Cast, Floor mounted.



The Sentronic® SEM 7800 Series

are heavy duty, electrically

controlled door holding magnets.

Magnets are fail safe and hold

until the current is interrupted. A

manual door closer is used to

control and close the door. A

choice of floor, recessed wall, or

surface mounted wall magnets are

available.

All SEM series magnets are UL listed

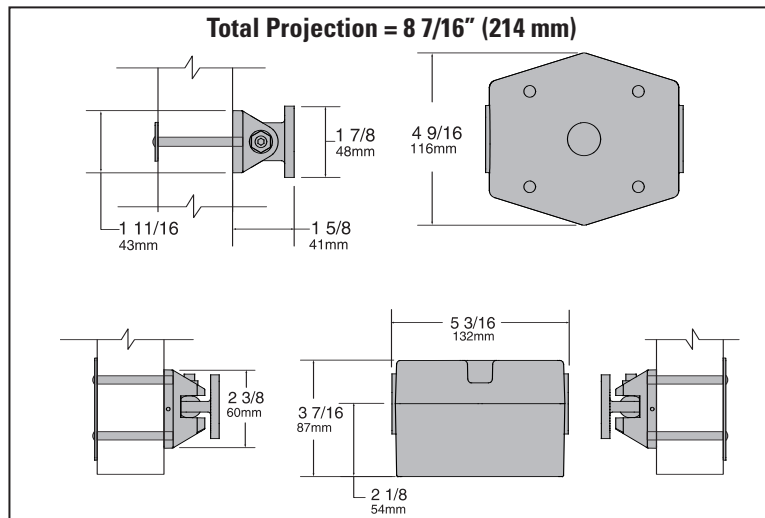
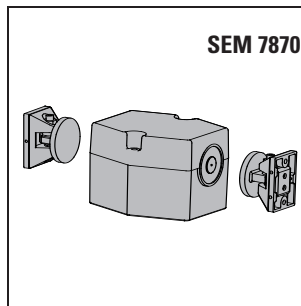
for smoke barrier or labeled

fire doors. Tested and certified under

ANSI Standard A156.15.

SEM 7870 MAGNET

Die Cast, Dual Sided
Floor mounted.



SEM FEATURES

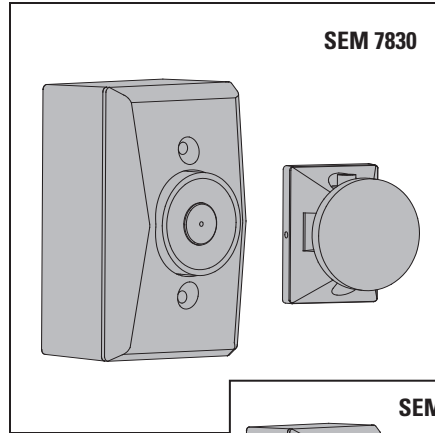
- ▶ **Tri-voltage design with 35lbs. of holding force.**
- ▶ Now available armature extensions from LCN (see page 11).
- ▶ SEM 7820 & SEM 7870 magnets are shipped with die cast housing, cover, armature(s) and WMS screw pack.
- ▶ Available in standard powder coat finishes.
- ▶ Optional custom powder coat finish available.
- ▶ UL listed for smoke barrier or labeled fire doors.

LCN SEM SERIES

FEATURES

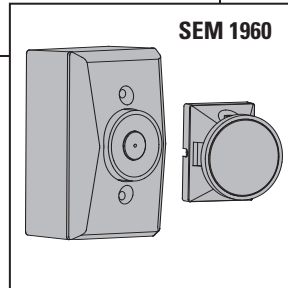
SEM 7830 MAGNET

Die cast housing,
Surface wall mounted.



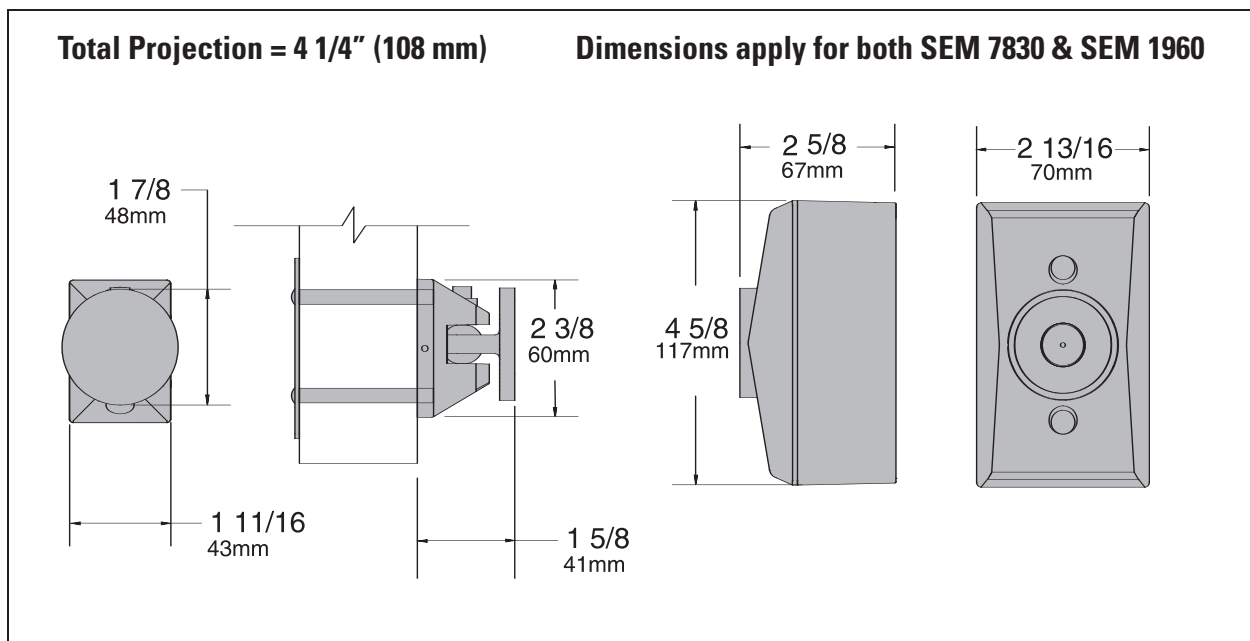
SEM 1960 MAGNET

Plastic housing,
Surface wall mounted.
Now available in 2007.



SEM FEATURES

- ▶ **Tri-voltage design with 35lbs. of holding force.**
- ▶ Now available armature extensions from LCN (see page 11).
- ▶ SEM 7830 magnets are shipped with die cast housing, cover, armature and WMS screw pack.
- ▶ SEM 7830 available in standard powder coat finishes.
- ▶ SEM 7830 optional custom powder coat finish available.
- ▶ SEM 1960 magnets are shipped with plastic housing, cover, armature and WMS screw pack.
- ▶ SEM 1960 available in aluminum and dark bronze finishes only.
- ▶ Suitable for use in pocket door installations.
- ▶ UL listed for smoke barrier or labeled fire doors.

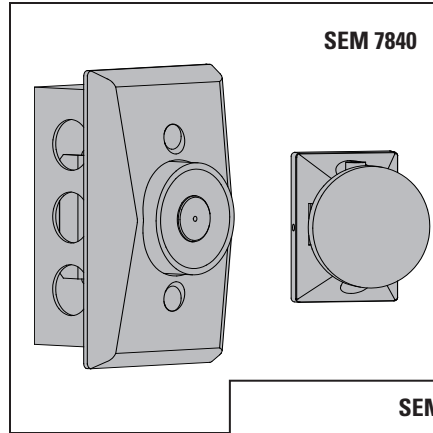


SEM 7840 MAGNET

Die cast housing, low profile recessed wall mount.

2" (51 mm) x 4" (102 mm) x 1 1/2" (38 mm).

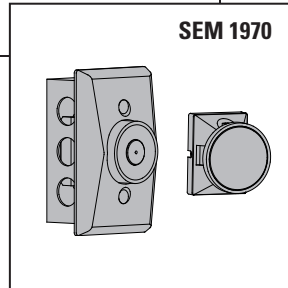
NOTE: Outlet box not included.



SEM 1970 MAGNET

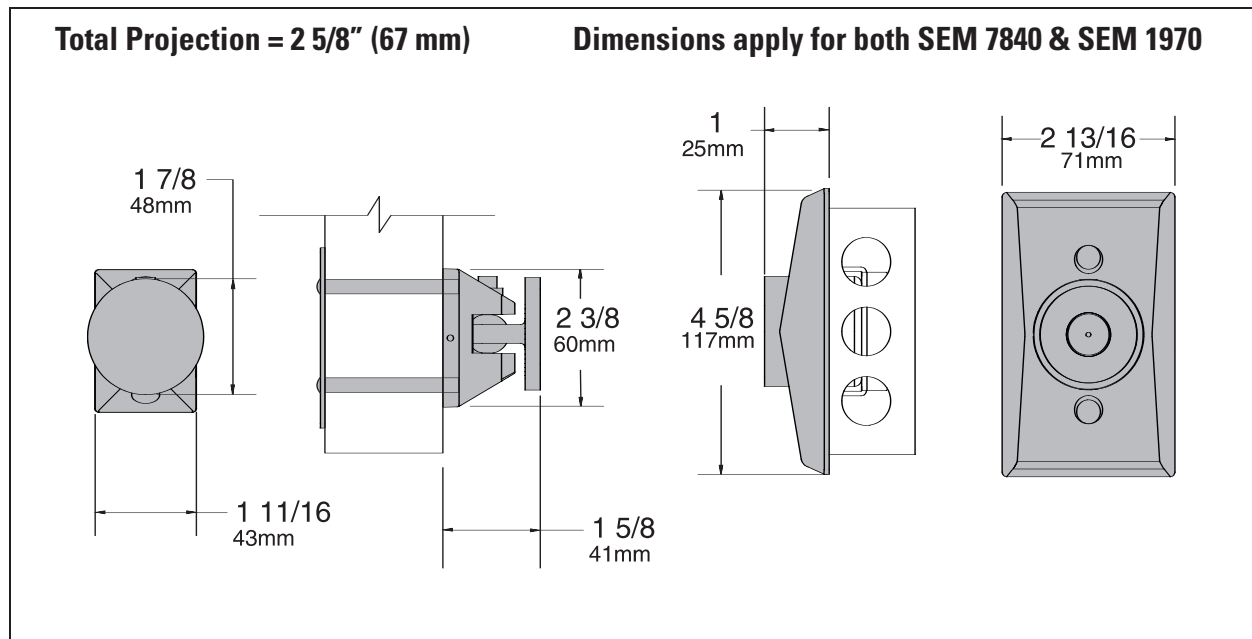
Plastic housing, low profile recessed wall mount.

NOTE: Outlet box not included.



SEM FEATURES

- ▶ **Tri-voltage design with 35lbs. of holding force.**
- ▶ Now available armature extensions from LCN (see page 11).
- ▶ SEM 7840 magnets are shipped with die cast housing, cover, armature and WMS screw pack.
- ▶ SEM 7840 available in standard powder coat finishes.
- ▶ SEM 7840 optional custom powder coat finish available.
- ▶ SEM 1970 magnets are shipped with plastic housing, cover, armature and WMS screw pack.
- ▶ SEM 1970 available in aluminum and dark bronze finishes only.
- ▶ Suitable for use in pocket door installations.
- ▶ UL listed for smoke barrier or labeled fire doors.



LCN SEM SERIES

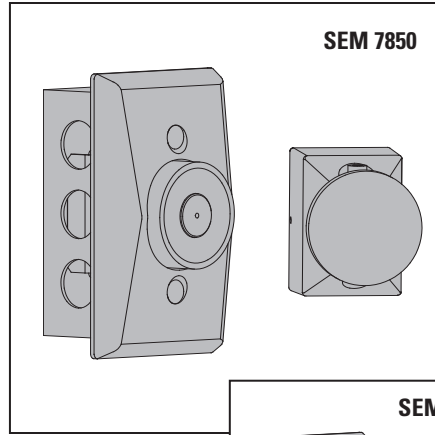
FEATURES

SEM 7850 MAGNET

Die cast housing,
standard profile
recessed wall mount.

2" (51 mm) x 4" (102 mm)
x 1 1/2" (38 mm)

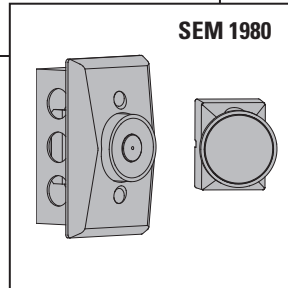
NOTE: Outlet box not
included.



SEM 1980 MAGNET

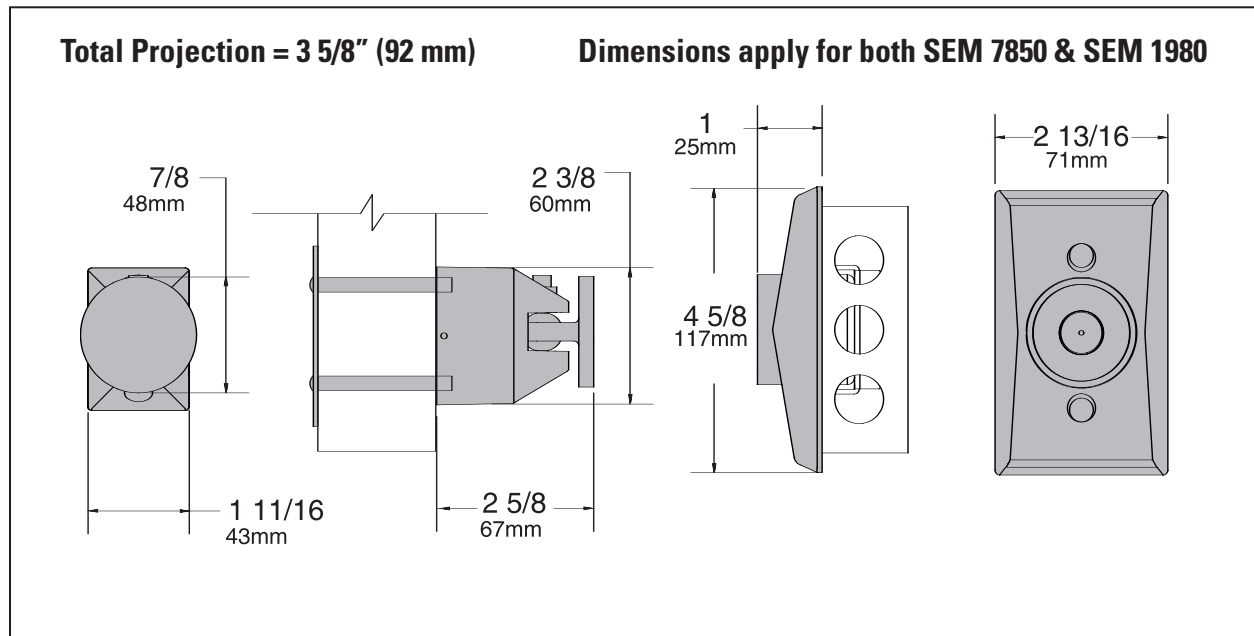
Plastic housing, standard
profile recessed wall
mount.

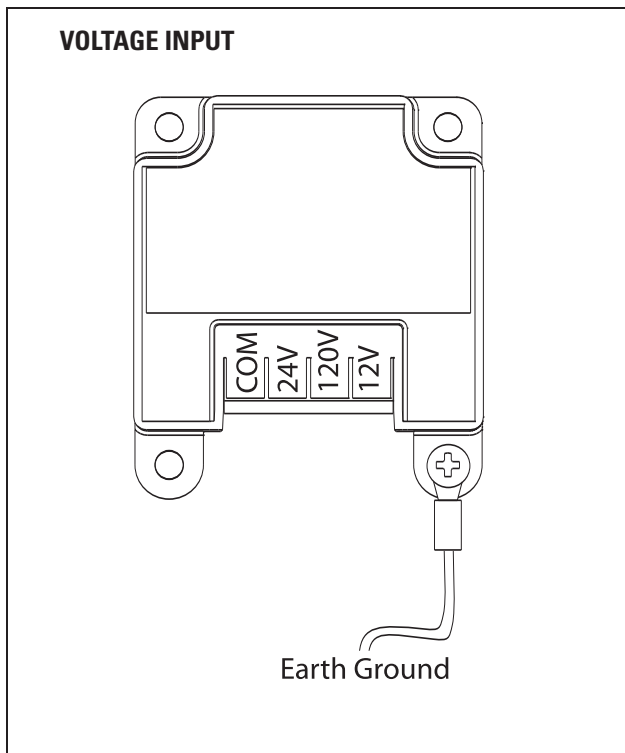
NOTE: Outlet box not included.



SEM FEATURES

- ▶ **Tri-voltage design with 35lbs. of holding force.**
- ▶ Now available armature extensions from LCN (see page 11).
- ▶ SEM 7850 magnets are shipped with die cast housing, cover, armature and WMS screw pack.
- ▶ SEM 7850 available in standard powder coat finishes.
- ▶ SEM 7850 optional custom powder coat finish available.
- ▶ SEM 1980 magnets are shipped with plastic housing, cover, armature and WMS screw pack.
- ▶ SEM 1980 available in aluminum and dark bronze finishes only.
- ▶ Suitable for use in pocket door installations.
- ▶ UL listed for smoke barrier or labeled fire doors.

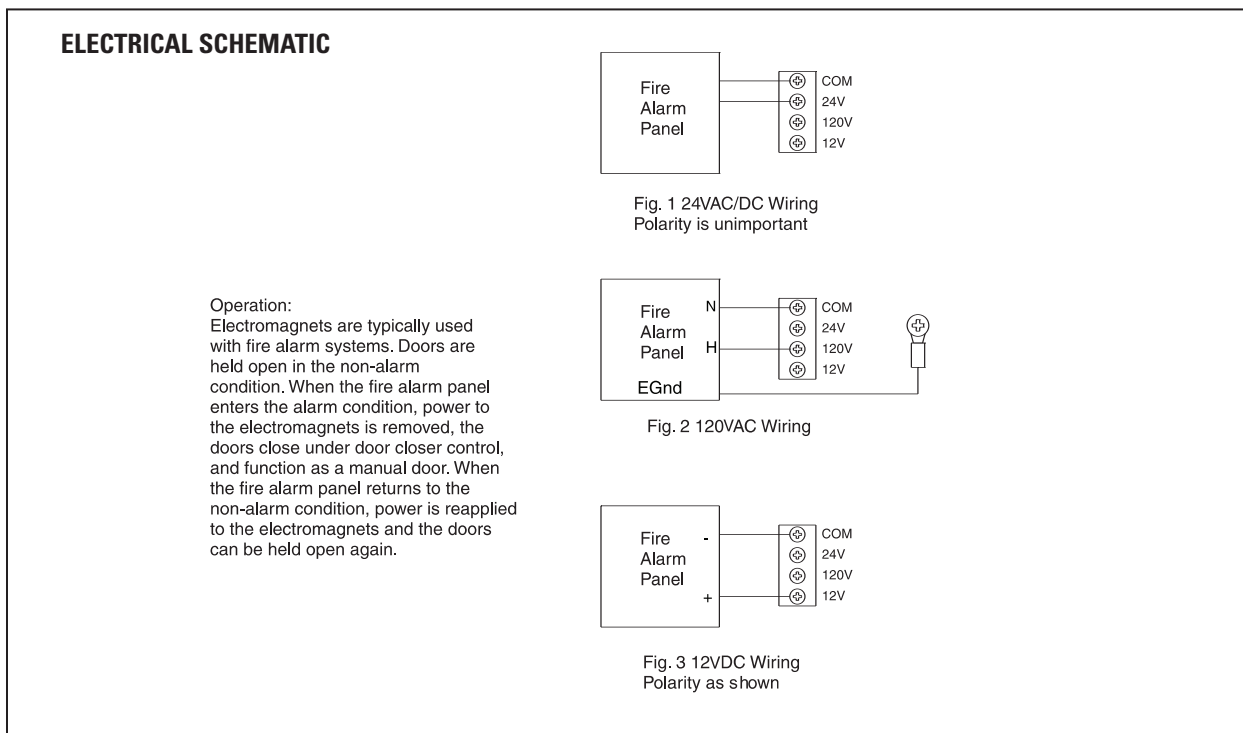




ELECTRICAL DATA

Holding Force: 35lbs. @ Nominal Input Voltage.

Maximum Current Draw: .020A @ 24VAC/DC, 120VAC
.030A @ 12VDC



LCN SEM SERIES

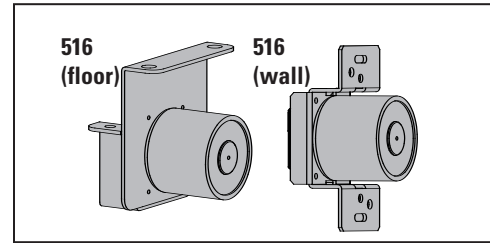
MAGNETS

FLOOR MAGNET, SEM7820-516, SEM7870-516

Standard magnet coil.

WALL MAGNET, SEM7830-516, SEM7840-516, SEM7850-516, SEM1960-516, SEM1970-516, SEM1980-516

Standard magnet coil.



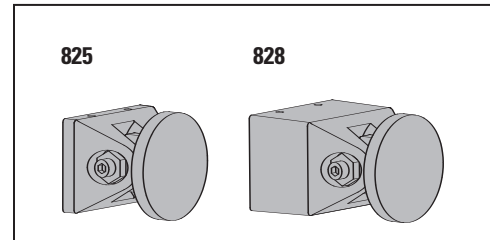
ARMATURES

DOOR ARMATURE, SEM7820-825, SEM7830-825, SEM7840-825, SEM7870-825

Standard, die cast low profile armature.

DOOR ARMATURE, SEM7850-828

Standard, die cast armature.

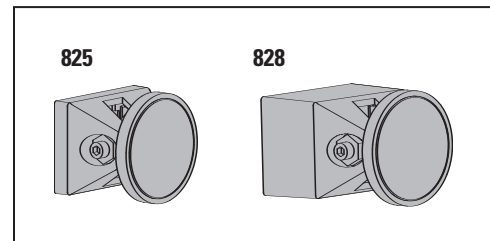


DOOR ARMATURE, SEM1960-825, SEM1970-825

Standard, plastic low profile armature.

DOOR ARMATURE, SEM1980-828

Standard, plastic armature.



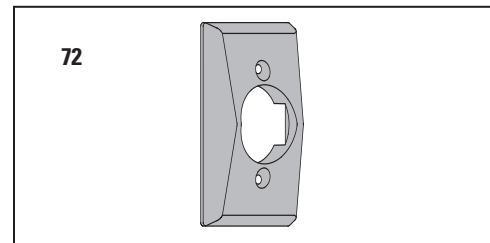
COVER

STANDARD COVER, SEM7830-72, SEM7840-72, SEM7850-72

Standard, die cast cover.

STANDARD COVER, SEM1960-72, SEM1970-72, SEM1980-72

Standard, plastic cover.



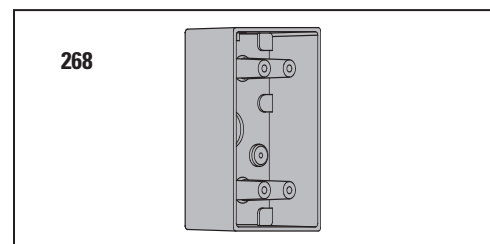
BOX

WALL BOX, SEM7830-268

Standard, die cast surface wall mount box.

WALL BOX, SEM1960-268

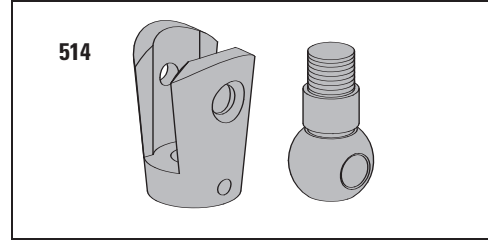
Standard, plastic surface wall mount box.



EXTENSIONS

COUPLER ASSEMBLY KIT, SEM7810-514

Coupler assembly is required for each door needing extension(s). Kit includes coupler link and ball pivot (alone serves as a 1 1/2" extension).



EXTENSION, SEM7810-E050

Standard metal 1/2" extension.



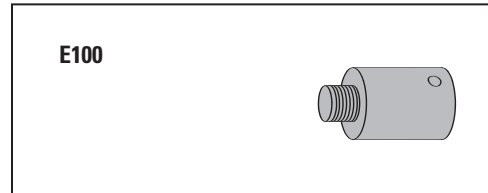
EXTENSION, SEM7810-E075

Standard metal 3/4" extension.



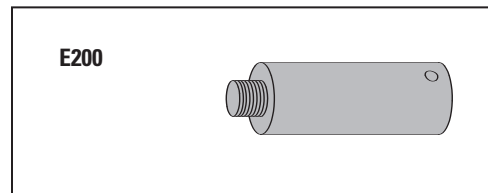
EXTENSION, SEM7810-E100

Standard metal 1" extension.



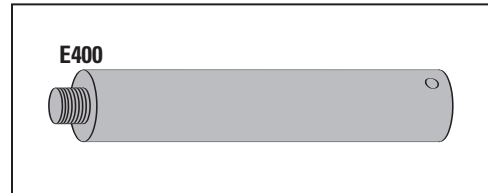
EXTENSION, SEM7810-E200

Standard metal 2" extension.



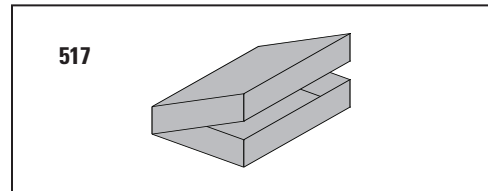
EXTENSION, SEM7810-E400

Standard metal 4" extension.



EXTENSION KIT, SEM7810-517

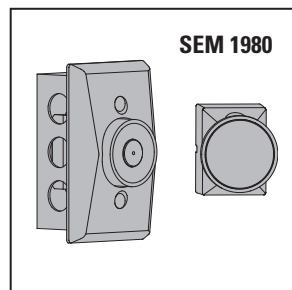
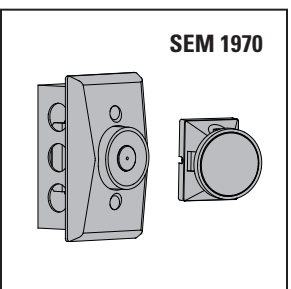
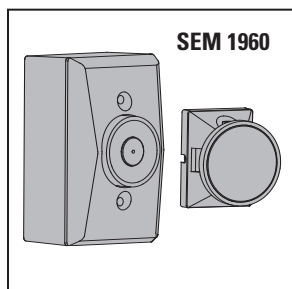
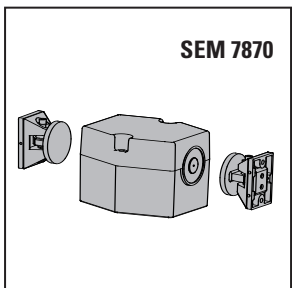
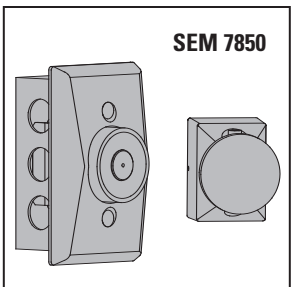
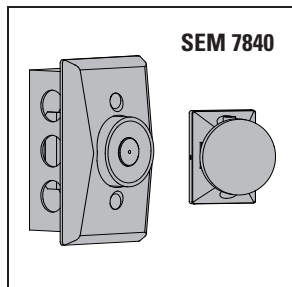
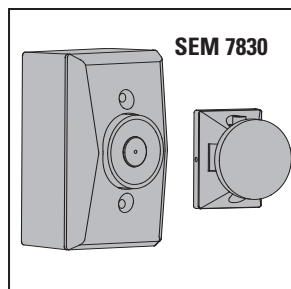
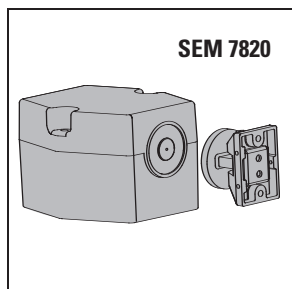
Extension kit includes: 10 7810SEM-E050
 10 7810SEM-E075
 10 7810SEM-E100
 5 7810SEM-E200
 20 7810SEM-514



NOTE: Using just the ball link and connector link will create a 1 1/2" link. Extension Links are available in different lengths and can be combined together to achieve the desired length.

LCN SEM SERIES

ORDERING INFORMATION



HOW-TO-ORDER SEM 7800 SERIES MAGNETS

1. SELECT MAGNET SERIES.

- SEM7820
- SEM7830
- SEM7840
- SEM7850
- SEM7870

2. SPECIFY FINISH

- Standard Powder Coat _____
Aluminum, Dark Bronze, Tan, Statuary,
Light Bronze, Black, Brass.
- Bright Metallic (MTLPC) _____
- Custom Powder Coat (RAL) _____

HOW-TO-ORDER SEM 1900 SERIES MAGNETS

1. SELECT MAGNET SERIES.

- SEM1960
- SEM1970
- SEM1980

2. SPECIFY FINISH

- Standard Finish _____
Aluminum or Dark Bronze

HOW-TO-ORDER SEM 7810 EXTENTIONS

1. SELECT EXTENTIONS.

- SEM7810-514 (qty.) _____
- SEM7810-E050 (qty.) _____
- SEM7810-E075 (qty.) _____
- SEM7810-E100 (qty.) _____
- SEM7810-E200 (qty.) _____
- SEM7810-E400 (qty.) _____
- SEM7810-517 (qty.) _____

2. SPECIFY FINISH

- Standard Finish _____
Aluminum or Dark Bronze