

LCN®

Door controls

General information

History of door controls and LCN

Trinity Church

In 1876, Mr. L. C. Norton was sent to Boston, Massachusetts to help build the Boston Trinity Church. The church took over four years to complete. The church was located on the Back Bay facing south and west thus at times, encountering some very severe wind conditions. The church began operation in 1880, the pastor, Rev. Brooks and his congregation quickly found out that the strong winds would make the doors close with a thunderous bang. Needless to say, the pastor was not going to stand for all the noise; those doors needed to be controlled! This prompted Mr. Norton to action.

Mr. Norton's first attempt to remedy the situation was to hang the doors on double-spring hinges. Mr. Norton had now uncovered a second problem. The slamming stopped but now the strong winds made the doors stand open. The cold, drafting air raised protest amongst the people in the church. He tried rubber stops, special door linings, and some other ideas. Nothing worked. One day, continuing to ponder the problem with the doors at the Trinity Church, he put some things away in a closet and being in a hurry, he threw the door shut. To his amazement, the door did not slam. Instead, the door bounced back. He tried this over and over with the same result. An idea came to him; he rushed to town and purchased a beer pump. With the beer pump, a makeshift arm, and some special brackets he had designed, Mr. Norton installed his invention on one of the exterior church doors. He opened the door and let it go...crash! The door slammed so hard it broke the pump into many pieces.

Mr. Norton spent many months trying to solve the problem; finally, he used the principles of the lever, improved the main components, and decided to reposition the device on the door. He took his updated version and again installed it on one of the troublesome church doors. Rev. Brooks saw Mr. Norton's new design and to his delight, the closer worked perfectly. Mr. Norton had used air pressure to make the doors close quietly. The problems with the doors at the Boston Trinity Church were now solved.

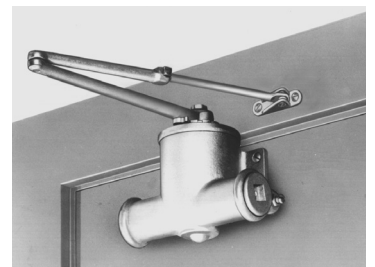
Growing pains

Soon after the doors at the Trinity Church were under control, Mr. Norton formed a company to manufacture his new found invention. The factory was located in Boston, Massachusetts and business started out strong. In fact, at times, there were more orders than production could match.

Time flew by. Mr. Norton's company began to experience difficulty. Competition was fierce. Some competitors began to infringe on patents, which drained Mr. Norton of both cash flow and other resources. Mr. Norton also made a few business decisions that would hamper company growth. The early years presented other challenges too. New closer designs were being introduced at an increasingly fast pace. This quick growth brought about some challenging quality issues. Business associates both good and bad, came and went. The factory moved to Brooklyn, New York and then back to Boston, Massachusetts. In these years, the door closer business was a volatile one. Most good companies were forced into change whether they liked it or not. The door closer industry was no exception.

New beginnings

Competition drove Mr. Norton in a new direction. His air check had worked well but was slowly giving way to new technology. In 1900, Mr. Norton developed a liquid door check. This new liquid door check controlled the door through the entire door swing by incorporating three independent hydraulic regulations. Back check, general speed, and latch speed were necessary for total door control. In 1908, the company was moved to Chicago, Illinois. By the early 1920's, the door closer business was doing well but Mr. Norton was wearing down, he needed help.



In 1925, Mr. L. C. Norton teamed with Mr. D. R. Lasier and formed the Norton-Lasier Company. The business was located at 466 West Superior Street in Chicago, Illinois. Norton and Lasier knew that if their company was to survive, they must build a far superior product at a very fair price. They called their improved door closer an LCN. After



a few years, Mr. Norton left the business to Mr. Lasier and moved to California. During the years of 1926 through 1948, under the leadership of Mr. D. R. Lasier, LCN manufactured and shipped high-quality traditional style closers all over the world. Many of these closers are still in use today. In

1949, the factory moved to Princeton, Illinois. In 1958, LCN introduced the heavy-duty 4010/4110 Series closer. Schlage Lock Company purchased LCN in 1959. In 1974, Ingersoll-Rand purchased Schlage Lock Company (and LCN). Today, LCN offers a complete line of door control products including heavy-duty hydraulic closers, automatic operators, fire/life safety closer/holders, high security closers and more.

The model numbers may have changed but the passion, quality, and excitement will always remain. LCN closers are made with premier materials and our products are tested far beyond the industry requirements.



Information and customer care



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Ordering



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eFax: 1.800.248.1460

- 1851** Lewis C. Norton born May 5th in New Hampshire.
- 1880** First door closer installed at Boston Trinity Church.
- 1881** Manufacturing begins at Boston plant.
- 1900** Mr. Norton introduces a liquid door check.
- 1908** Company moves to Chicago.
- 1917** David R. Lasier joins company as timekeeper.
- 1925** Norton-Lasier Company begins operation.
- 1929** L. C. Norton moves to California. D. R. Lasier heads up company.
- 1930** Norton-Lasier Company produces wooden riding toys to cope with the Great Depression.
- 1937** L. C. Norton passes away on November 4th.
- 1942** Norton-Lasier Company produces hydraulic aircraft fittings for the war effort.
- 1948** Norton-Lasier Company officially changes name to LCN.
- 1958** LCN introduces the 4010/4110 Series door closer.
- 1959** LCN sold to Schlage Lock Company.
- 1972** LCN introduces Sentronic line of fire/life safety holder/closers.
- 1973** LCN introduces the 4040 series door closer.
- 1974** Schlage Lock (and LCN) sold to Ingersoll-Rand.
- 1978** LCN introduces Equalizer units.
- 1980** Production on traditional series ends.
- 1981** LCN introduces the 1460 Series door closer.
- 1981** LCN introduces AutoEqualizer™ units.
- 1985** LCN introduces the 1070 Series door closer.
- 1993** LCN introduces the powder coat finish.
- 1995** LCN introduces Electric Operator units.
- 1996** LCN introduces the 1520 Series door closer.
- 1998** LCN introduces the 1370 Series door closer.
- 2006** LCN introduces the new 4030 Series door closer to replace the 1520 closer series.
- 2006** LCN introduces the new Senior, Astro and Middle Swing Digital Control Box.
- 2007** LCN introduces the new Tri-Volt Magnets.
- 2007** LCN introduces the new 4040XP.
- 2007** LCN introduces the new 1260 Series.
- 2013** In December of 2013, the Security Technologies division of Ingersoll Rand became its own publicly traded company called Allegion.
- 2015** LCN introduces the 1250, 1450 and 4050A Series cast aluminum door closers.

The LCN formula for success

Since its founding in 1926, LCN has specialized in solving door control problems through the use of high quality, innovative door control products. By adhering to high standards of performance, LCN has earned a leadership role within the industry and is committed to meeting door control challenges of the future. With representatives located throughout the world, LCN provides the products and services necessary to solve your door control problems.



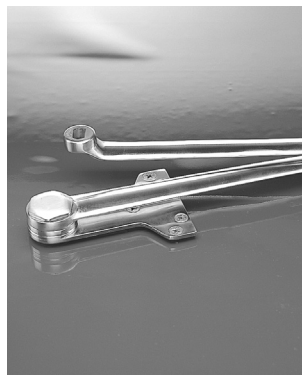
Materials

Material control is foundational to the consistent performance of LCN closers. Consequently, we hold our material suppliers to rigorous standards for the cut and type of raw materials they provide. Suppliers are required to show certification that the raw materials adhere to LCN standards.



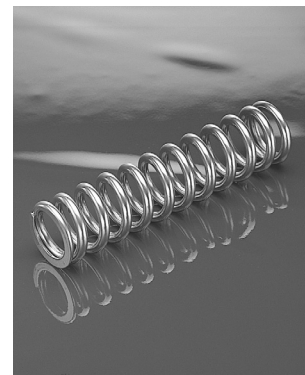
Extensive abuse test

LCN door closers go through robust testing, beyond industry requirements, to ensure you get performance you can trust in real-world applications. In addition to meeting ANSI and BHMA industry compliance standards, our engineers seek to understand just how much our closers can handle.



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.



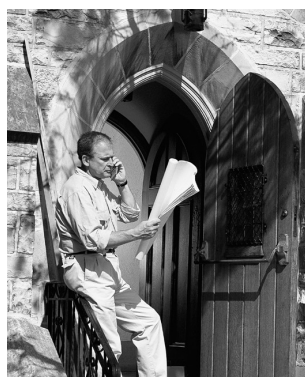
Chrome silicon

Many closer manufacturers use less expensive oil-tempered springs, but LCN's Green Dial is a user-friendly tool that makes adjusting a door closer fast, easy and foolproof. Installers can easily tune in the performance of a closer.



Heat-treated

The process of double heat treating pinions gives proper hardness and strength to the parts where they need it and maximizes torque rating, reduces wear and, ultimately, readies it to withstand abusive applications.



Special templates

LCN offers a variety of custom door closers solutions. 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.



Hydraulic fluid

LCN's Liquid X is one of the primary reasons our closers can operate at extreme temperatures. This unique all-weather hydraulic fluid helps maintain consistent closer performance throughout seasonal changes.



Customer service

We have a phone support team able to address countless product questions. Whether we're consulting on code, advising a door specification or answering installation questions, we are focused on making your interaction with LCN a positive one.

Door controls aim to execute the perfect opening and closing cycle

In most applications, a pedestrian manually opens a door and a door closer controls the speed and force with which the door shuts behind them. The power to close the door is generated by the springs inside the closer. Regulated hydraulic circuits control the speed of the door's closing swing. An ideal door closing cycle can be achieved using one of the many LCN door closers available.

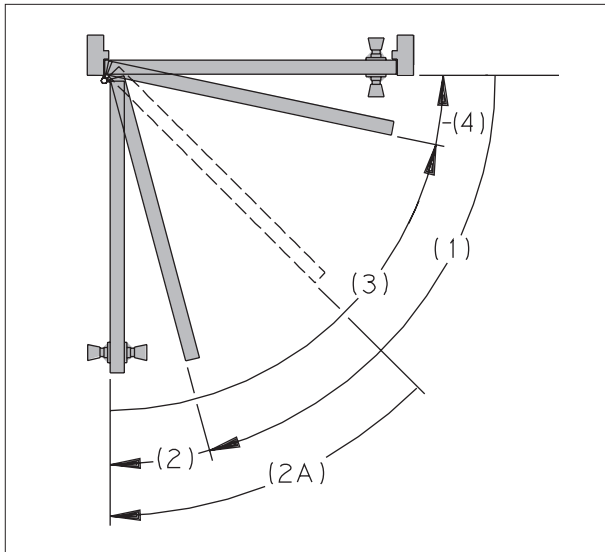


Diagram shows the main stages in correct door operation

1. On the opening swing, the door closer's function is to let the door open easily, except at the end of the swing where back check is applied.
2. Back check is a feature that cushions the opening swing to prevent the door from slamming into the stop. Special closers designed for potentially abusive applications begin the back check function much earlier (2A) such as LCN's Advanced Variable Back Check (CYLAVB).
3. Through the long closing arc, a uniform, reasonable (main) speed should be maintained.
4. The latching arc brings the door to a quiet, secure close.

Opening the door builds up the power that later closes the door

As a controlled door is opened, the spring of the closer is compressed which builds up the power to close the door. Normally, more opening force would be required as spring compression increases. However, an LCN closer changes its arm geometry while the door opens, which increases the door leverage. This offsets the spring compression, resulting in greater ease in opening the door.

In opening, more leverage for the person

The changing arm geometry increases leverage over the door to overcome the growing power of the spring and allows one to pass through the door easily.

In closing, more leverage for the closer

When the person releases the door and the closer takes over, spring power is applied through the arm system to close the door. Because the spring has been compressed, its power is very high. As the door closes the spring expands, providing the power to close the door.

Special closers for reduced opening force

The 1990 Americans with Disabilities Act (ADA) and ANSI Standard A117.1 describe maximum opening force limitations for certain non-fire rated doors. The last page of each closer section in the catalog includes a section titled Reduced Opening Force Closers. This section lists closers in that specific series that will comply with a maximum opening force based on the width of the door.

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 the door.

Refer to LCN Automatic Operators catalog for information on electric, pneumatic and electromechanical systems that meet reduced opening force requirements without affecting closer power.



How to select a door closer

Concealed or surface mounted closers

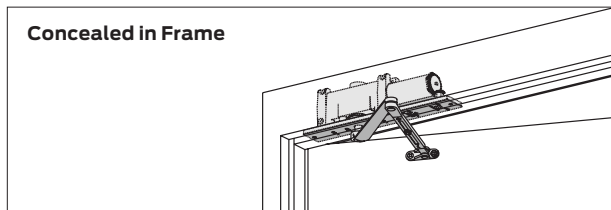
Door closers are available in two styles - concealed or surface mounted. When choosing a closer style for a particular application, consideration should be given to the type of door being controlled, frame conditions, aesthetic requirements, and control features needed. The following information can serve as a guide in selecting the style and model of closer to meet specific requirements.

Concealed application

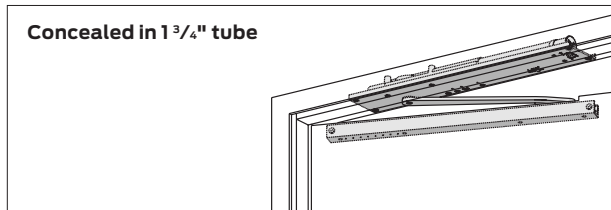
Closers concealed in the head frame over the door are out of sight and out of the pedestrians way. They are more protected from external contaminants than those mounted outside of the door. They are easy to reach for regulation without removing any parts. Closers for frame sections as thin as 1 3/4" (44 mm) are available.

Closers located within the door itself are also hidden and protected but recommended for interior doors only.

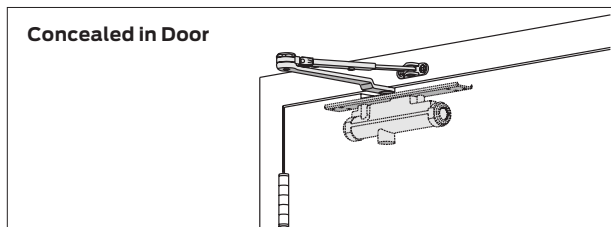
Concealed in Frame



Concealed in 1 3/4" tube



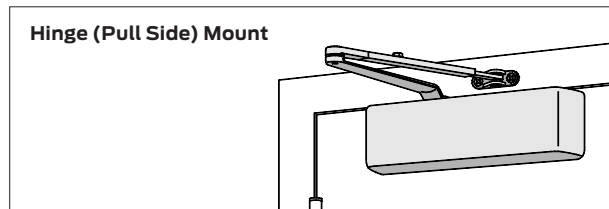
Concealed in Door



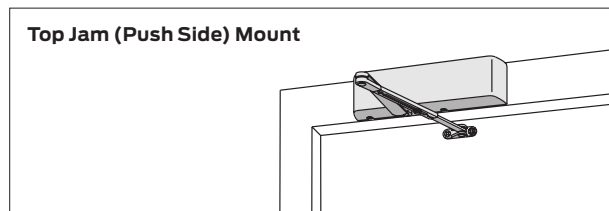
Surface mounted application

Closer location is subject to the considerations of practicality and appearance. Standard application usually decrees that closers on doors along a corridor be located on the room side of the door so they are out of the line of sight from the corridor. Closers should be placed on the inside of exterior doors for optimal aesthetics and to shelter them from environmental elements.

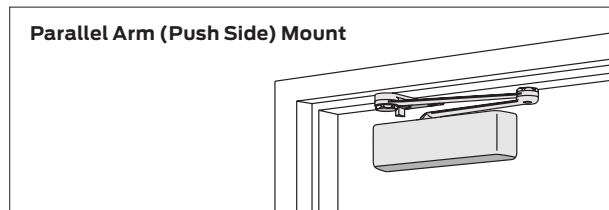
Hinge (Pull Side) Mount



Top Jam (Push Side) Mount



Parallel Arm (Push Side) Mount



Where heavy duty closers are required

Heavy duty closers are the recommended solutions in the following locations:

1. Schools or public buildings where heavy or abusive usage is expected.
2. Exterior doors.
3. Doors subject to draft, winds, or air pressure differentials.
4. High frequency doors such as those on department stores, malls, or mixed use tenancies.

Mechanical considerations

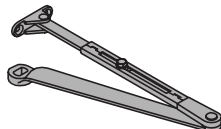
How to select a door closer

Arm system options

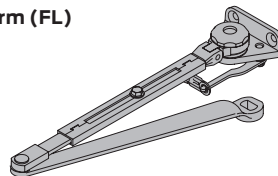
Double lever arm

Double lever arm closers can provide control under difficult conditions for either interior or exterior doors. A parallel arm system is a type of double lever arm where the main arm is parallel to the face of the closed door. Available double lever arms:

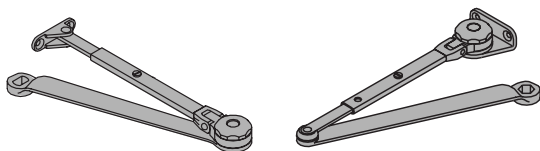
Regular Arm (REGARM)



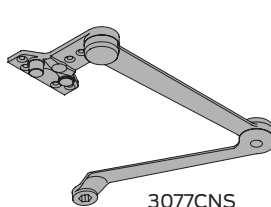
Fusible Link Arm (FL)



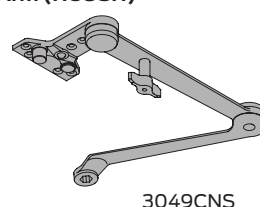
Hold Open Arm (H)



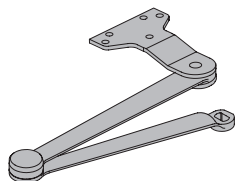
Cush-n-Stop Arm (CUSH)



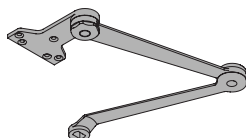
Hold Open Cush-n-Stop Arm (HCUSH)



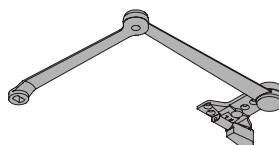
Extra Duty Arm (EDA)



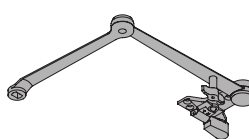
Hold Open Extra Duty Arm (HEDA)



Spring Cush-n-Stop Arm (SCUSH)



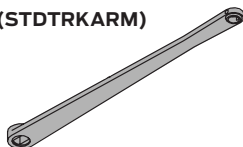
Spring Hold Open Cush-n-Stop Arm (SHCUSH)



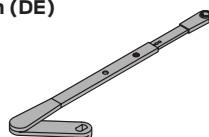
Single lever arm

Single lever arm (track) closers may be used on interior or sheltered exterior doors. The hold open function in a single lever arm system is provided by either the track or the cylinder assembly. Available single lever arms:

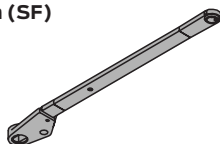
Standard Arm (STDTRKARM)



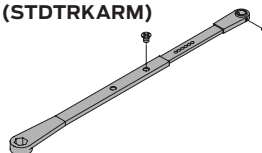
Double Egress Arm (DE)



Swing Free Arm (SF)



Standard Arm (STDTRKARM)

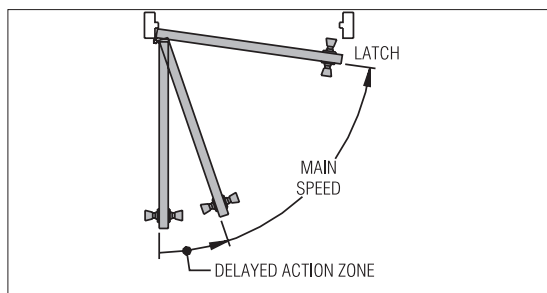


How to select a door closer

Special cylinder functions

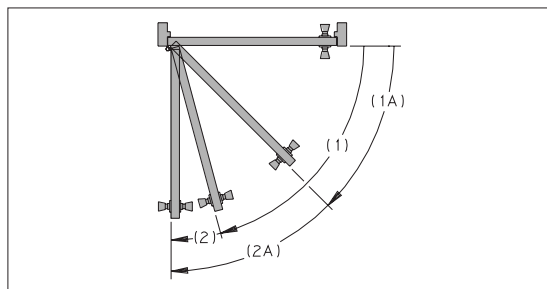
Delay Action (CYLDEL)

Many LCN closers can be ordered with a delayed action function built into the cylinder. Delay Action (CYLDEL) is a special hydraulic circuit that provides additional time to pass through the door. A special regulating screw controls the closing speed from maximum opening through approximately 75°. After that point the normal main speed resumes control to close the door. Delayed action is not available with single lever arm (track) closers.



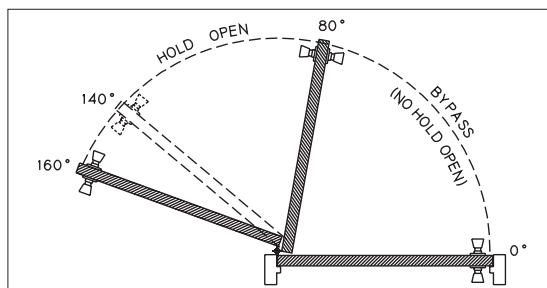
Advanced Variable Back Check (CYLAVB)

CYLAVB is available with high security and 4110 Series closers to begin cushioning the opening swing at about 45° (2A) instead of the usual 75° (2). CYLAVB is recommended for potentially abusive applications.



Multi-point (ME Series)

ME Series closer/holders can be ordered with a hold open bypass at either 80° or 140° function. This feature does not allow hold open to take effect until opened beyond the selected degree of bypass.



Seasonal adjustment

Temperature changes can affect the operation of common door closers by changing the viscosity of the hydraulic fluid inside the closer. As temperature rises, the fluid thins out and closes the door more rapidly. As temperatures decrease, the fluid thickens causing the closer to close the door very slowly.

LCN's Liquid X reduces the amount of adjustments and maintenance needed through every season.

Hanging the doors

While butt hinges provide the most common method of hanging doors, some doors are hung on pivots centered in the door, others on offset pivots. Surface mounted closers will handle doors hung in any of these three ways. LCN 4020 Series closers can even control a "balanced" door installation. Concealed closers may conflict in location with pivot leaves and thus may require special templating.

Degree of opening

Three basic rules apply to maximum degree of opening.

1. It is best to let the door swing as far as it can swing freely. Closers are mounted in different locations for different degrees of opening.
2. Use a mechanical stop when a door can not swing 180° or at the selected hold open point of a double lever arm system. The mechanical stop can be mounted on the floor, wall, overhead, or built into the closer arm.
3. The closer should be positioned so back check takes place well in advance of the stop position to cushion the opening swing and prevent door and frame damage from an abrupt stop.

Mechanical considerations

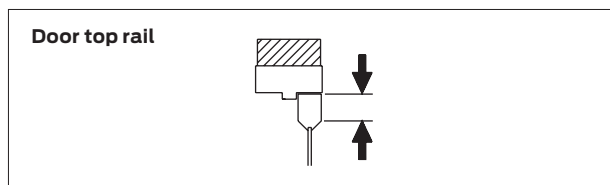
How to select a door closer

Door dimensions

The width of the door is the main consideration in determining the correct closer size. Size here refers to the minimum spring power and hence the closing force, generated by the closer. In the catalog, the interior and exterior table of sizes for each closer are set up for ranges of door width and assume normal operating conditions. If a door is of exceptional height, weight, special construction, or if drafts and air pressure differentials exist, increased closer power should be considered.

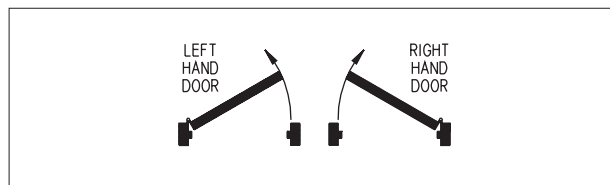
Door thickness may be a factor. A concealed-in-the-door closer should not be used in a hollow metal door less than 1 1/2" (38mm) thick or a wood door under 1 3/4" (44mm). Exceptionally thick doors can affect hinge and pivot centers to the extent that closer functions and geometry are also affected.

The depth of the doors top rail is important to nearly every closer installation. Narrow top rails may require plates to successfully mount the closer. An insufficient top rail in flush, hollow, or composite filled doors may make concealed-in-the-door installations impractical.



Handed closers

Some door closers are handed. When approaching a door from the push side, if hinged on the left, it is a left hand door; if hinged on the right, it is a right hand door.



For purposes of handing door closers, right hand reverse bevel and left hand are identical. Also, left hand reverse bevel and right hand are identical.

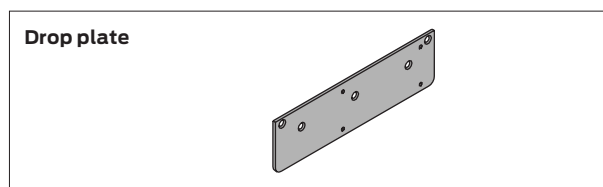
A standard closer and template to meet your needs

Occasionally the physical limitations of the selected closer may not provide the desired functions or degree of opening. Standard templated locations may interfere with other applied hardware. In these

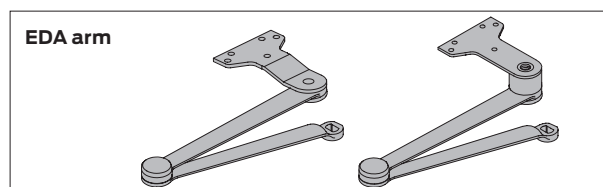
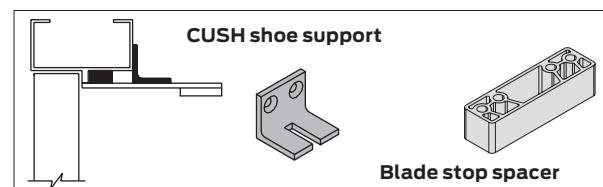
situations, contact the LCN Applications Engineering Department for assistance. Customized installation templates or products may be available to solve a non-standard application.

Plates, brackets, adapters and other special pieces

A drop plate is now commonly used to drop (lower) closers to meet special conditions or adapt a closer to door or frame surfaces that are not adequate for normal mounting patterns.



Specialized brackets, adapters, and parallel arm shoes are available to simplify the installation of closers with a variety of frame and door conditions. The most commonly used are listed with each closer. Consult LCN for assistance if you are not sure.



Fastener options

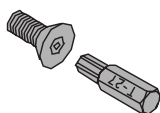
LCN closers are shipped with Wood and Machine Screws (WMS) or Self Reaming and Tapping Screws (SRT) unless other fasteners are ordered. These screw packs are suitable for wood or properly reinforced hollow metal frames and metal or solid core wood doors. For wood door applications, LCN recommends the use of wood screws. For selected closers, metric machine screws are available in lieu of UNC/UNF machine screws.

How to select a door closer

When attaching closers to hollow core doors, optional Through Bolts (TB) are recommended to minimize crushing or squeezing the door. Through bolting can also provide a very strong mechanical connection for potentially abusive applications. Because the TB barrel extends completely through the door, the door thickness must be specified when ordering if it is other than 1 3/4" (44 mm). TBs are only available for 1/4"-20 machine screws.

For high security applications, Torx machine screws are available with most closers. These are standard for all exposed fasteners with high security closers. Torx fasteners feature a hex lobular drive with a security pin in the center. They can only be installed or removed with a special set of bits that are available from LCN.

Torx



Desired finishes

LCN powder coating provides superior protection against the effects of weather conditions and is an environmentally friendly process. The high quality, chip resistant finish is far superior to any previously offered. Corrosion resistance surpasses 100 hours salt spray testing (four times the industry standard). Non-metallic components also provide the same high resistance to the effects of the elements. All LCN products are shipped with a finish.

LCN offers custom finishing services to complement special installations. This provides a custom appearance and all the corrosion resistance inherent in the standard powder coated finishes. It is recommended that the customer submit a physical sample of desired custom finish with the closer order. Custom powder coat finishes are available at additional cost. A metal cover must be ordered when custom powder coat finishes are desired.

With some exceptions, visible components such as covers, arms, fasteners, and finish plates are available in plated finishes. Tracks are painted to complement the plated finish. Hidden assemblies such as cylinders and mounting plates are supplied with a powder coated finish. Plated finishes are available at additional cost.

For installations where a higher level of protection against

weathering is required, LCN offers a Special Rust Inhibitor (SRI) process at an additional cost. Metal components receive an SRI pretreatment and a standard or custom powder coat finish. The SRI process with a powder coat finish exceeds the protection level available with powder coated parts. SRI can not be ordered with plated or anodized finishes. All closers must be shipped with a finish.

Installation process

Before installation of the door closer:

- Review the installation instructions provided with the door closer.
- Verify the desired installation and template with the hardware schedule. Review other applied door hardware for possible interference.
- Verify that the frame attachments and door hinges or pivots are securely installed.
- Verify that the door is hung properly and operates smoothly through its entire range of opening. Misalignment, sagging or other conditions that prevent free movement of the door must be corrected prior to installation of the door closer. LCN recommends < 1/4 lbf to open the door before installing closers for ADA applications.
- Check latching mechanisms for proper operation and release.
- Verify that the door and frame have specified reinforcements.
- Verify that all required tools are available.

To complete the installation:

- Follow the installation instructions and use fasteners provided with the closer.
- Use the template provided with the closer, layout, drill and tap (for metal screws) the required mounting holes. Be sure to use the proper size drill bit and tap to ensure maximum holding power by the screws.
- For closers with adjustable spring power, adjust the cylinder spring power based on the width of the door as described in the installation instructions.
- The hydraulic back check main speed and latch speed regulation adjustments of the door closer have been adjusted at the factory to meet normal installation conditions. If further adjustments are required to the hydraulic regulation, follow the directions included with the installation instructions.
- Lightly wipe the cover and arm surfaces with a soft, clean, dry cloth to remove any dirt or smudges that occurred during the installation.

Finishes

Standard powder coat finishes

LCN powder coating provides superior protection against the effects of weather conditions and is an environmentally friendly process. The high quality finish is chip resistant. Corrosion resistance surpasses 100 hours salt spray testing (four times the industry standard). Non-metallic components also provide the same high resistance to the effects of the elements. All LCN products must be shipped with a finish.

LCN standard finishes (ANSI/BHMA number):

689 Aluminum Paint



691 Light Bronze Paint



695 Dark Bronze Paint



693 Black Paint



690 Statuary Bronze Paint



696 Brass Paint



Optional custom powder coat finishes

LCN offers custom powder coating to provide a custom appearance and all the corrosion resistance of standard powder coat finishes at a nominal additional cost. LCN uses the RAL numbering system for the 150+ custom colors available. Contact your local RSO representative for a brochure showing the available custom colors.

Note: Custom powder coat finishes require a metal cover.

Optional plated finishes

Visible components such as metal covers, arms, fasteners, and finish plates are plated to match the selected finish. Surface mounted tracks are powder coated to compliment the plated finish. Hidden assemblies such as cylinders, tracks, and mounting plates are supplied with a powder coated finish. Plated finishes require handing of closers.

Plated finishes:

616 Satin Bronze, Blackened	639 Satin Bronze
632 Bright Brass	646 Satin Nickel
633 Satin Brass	651 Bright Chrome
	652 Satin Chrome

Special Rust Inhibitor (SRI) process

For installations where a higher level of protection against weather conditions, or the effects of a potentially corrosive atmosphere is required, LCN offers a Special Rust Inhibitor (SRI) process. Ferrous metal components receive an SRI pretreatment and a standard powder coat finish of your choice, or a custom powder coat finish for a nominal additional cost. Closers treated with the SRI process exceed the 100 hour protection level available with standard LCN powder coated finishes. For details, contact your local RSO representative or the LCN factory.

Standard anodized finishes

LCN Senior Swing and Benchmark electromechanical automatic operators are offered with an anodized finish. Anodizing is an electrochemical process that thickens and toughens the protective oxide on aluminum metal.

LCN anodized finishes:

628 Aluminum, Clear Anodized
710 Dark Brown, Anodized

Materials

The LCN offering consists of well-made, reliable, long-lasting products that work in real-life applications. In addition to the mechanical advantages derived from proven designs, much of the durability of the closer and arm system is directly related to the materials used in their manufacturing.

Precision machined cast iron cylinders and forged steel pistons work together because of the compatibility of their basic elements. Heat-treated pinions and pistons spread the load over a large gear tooth system to better handle the wear and stress of millions of operating cycles. Upper and lower full complement pinion bearings provide the support and load capacity required by the design of the closer. All-weather fluid, Liquid X, reduces the amount of adjustments and maintenance needed and ensures consistent performance through every season.

Forged steel main arms are a durable alternative to lower-cost stamped steel arms. Specially designed shoe and elbow joints help each closer fit securely onto a variety of opening applications. A state-of-the-art, powder coat process delivers a high quality, corrosion resistant finish on all metal parts in popular architectural finishes.

Through state-of-the-art equipment, processes and people, we believe LCN will continue to provide the best solutions for our customers.

Part 1 - General

1.1 Quality assurance

A. Reference standards

- American National Standards Institute (ANSI/BHMA):
 - A117.1 Providing Accessibility and Usability for Physically Handicapped People
 - A156.10 For Power Operated Pedestrian Doors
 - A156.4 Door Controls - Closers
 - A156.15 Life Safety Closer Holder Release Devices
 - A156.18 Materials and Finishes
 - A156.19 Power Assist and Low Energy Power Operated Doors
- Americans with Disabilities Act (ADA)
- American Society for Testing and Material (ASTM): Specification B117-9 Method of Finish Corrosion Testing
- Underwriters Laboratory (UL):
 - 228 Door Closers-Holders
 - UL10C Standard Positive Pressure Fire Test of Door Assemblies
 - UL10B Standard for Fire Test of Door Assemblies
- National Fire Protection Association (NFPA)
 - No. 80 Fire Doors and Windows
 - No. 101 Life Safety Code

B. Source quality control

- Obtain each kind of hardware (latch and lock sets, hinges, closers, etc.) from only one manufacturer, although several may be indicated as offering products complying with requirements.
- All products shall meet grade 1 or the highest level of cycle test requirements of the applicable ANSI/BHMA standard.

C. Supplier qualifications

- Supplier must be a recognized builders hardware supplier who has been furnishing hardware in the projects vicinity for a period of not less than two years.
- Supplier must be or employ an experienced hardware consultant who is available, at reasonable times during the course of the work, for consultation about the project's hardware requirements, to Owner, Architect, and Contractor.

D. Fire-rated openings

- Provide hardware for fire rated openings in compliance with NFPA Standard No. 80, NFPA Standard No. 101, and local building codes.
- [Manual Hold Open Arm function not allowed.]** Provide hardware which has been tested and listed by UL for types and sizes of doors required and complies with the requirements of door and frame labels.

- one piece forged steel pistons.
- Fluid of a type requiring no seasonal adjustments.
- [Excluding 1460, 1260, 3030, 3130 4030, 4040XP, 1250, 1450, and 4050A Series.]** Pinion shaft minimum diameter of $\frac{1}{16}$ ".
- Hydraulic regulation controlled by tamper-proof, non-critical screw valves, adjustable with a hex wrench.
- Separate adjustments for back check, general speed, and latch speed.
- [Applies to 1450, 1460, 4010, 4020, 4040XP, 4050A, 4110, 4210, 4510, 5010 Series.]** Where detailed on double lever arm closers, provide a delay action feature to delay closing up to one minute from maximum opening to approximately 75°.
- back check shall be properly located for protection of the door, frame, and applied hardware.
- [Applies to 2210, 4110, 4210, 4210T, 4510, and 4510T Series only.]** Where detailed, provide advanced variable back check to start back check function at approximately 45°.
- Include high efficiency, low friction full complement pinion bearings.
- [Excluding 1260, 1460, 6030 Series.]** Forged steel main arms.
- [Applies to 4110, 4210, 4510 Series and all EDA and CUSH arms.]** Forged steel main and forearms.
- [Applies to all single lever arm (track type) closers.]** Where detailed, provide a quiet, low friction track and roller assembly and provisions for an optional bumper assembly to assist back check and/or Hold Open Clip.
- [Applies to all double lever arm closers, except EDA or CUSH arms.]** Reversible shoe to increase latching power of the closer.

B. Size of closers

- Sized in accordance with ANSI/BHMA Standard A156.4 as shown in the applicable table of sizes listed in the current LCN catalogs.
- Closing power of non-sized cylinders shall be adjustable over a range of sizes; **[Applies to 1250, 1261, 1450, 1461, 1460T, 4011, 4021, 4040SE, 4040XP, 4040XPT, 4041DEL, 4050A, 4111, 4211, 4511, 4631, 4642, 4811, 4822, 4841, 4031, 4031T Cylinders.]**

C. Barrier free manual closers

- All closers for openings that must meet the minimum requirements of the ADA act, in lieu of ANSI/BHMA Standard A156.4, shall be sized in accordance with the applicable REDUCED OPENING FORCE table in the current LCN catalogs.
- All size 1 manual closers shall provide or be adjustable to provide less than 5 pounds opening force on a 36" door leaf and delay closing time in accordance with the ADA requirements.

D. Combination door closers and holders

- Provide closer/holders designed to hold the door in the open position under normal usage and to release and automatically close the door under fire conditions. Closer will include an integral electromagnetic holder mechanism designed for use with UL listed fire detectors, provided with normally closed switching contacts.
- [Applies to all ME models.]** Where detailed, multi-point closer/holders shall incorporate a hold open bypass feature from 0° up to either 80° or 140°.
- [Applies to 4310 ME only.]** Where detailed, multi-point closer/holders shall provide a swing-free function with a no-drift feature.

E. High security closers

- Provide closers designed to resist vandalism and tampering.
- All exposed fasteners shall be Torx machine screws with a security pin.

Part 2 - Products

2.3 Materials and fabrication

A. General

- Closers shall be installed to allow door swing as shown on plans. Doors swinging into exit corridors should provide for corridor clear width as required by codes.

2.8 Closers and door control devices

A. General

- All closers shall have the following features:
- All closers shall carry manufacturer's warranty, as stated on page 27.
 - All closers with electrical or pneumatic components shall carry a manufacturers two (2) year warranty. **[Items 3 through 11 apply to closer cylinder, items 12 through 15 apply to closer arms.]**
 - [Excluding 1250, 1450, and 4050A]** Fully hydraulic, rack and pinion action with high strength cast iron cylinders and

Part 2 - Products (cont.)

3. All closer adjustments shall be shielded by the cover or finish plate, after installation.
4. Arm and, where furnished, high security roller assembly shall be designed to prevent disassembly.
5. **[4210 and 4510 Series only.]** All surface mounted high security closers shall include a cast iron cylinder, heavy gauge metal covers with four mounting screws and double lever arms manufactured to prevent disassembly.
6. **[4210T and 4510T Series only.]** All surface mounted high security closers shall include a cast iron cylinder, heavy gauge metal covers with four mounting screws, heavy duty arm with special security roller, and a heavy gauge high security track designed to eject foreign objects.
7. **[2210 and 2210 DPS only.]** All concealed high security closers shall include a cast iron cylinder, $\frac{3}{8}$ " steel mounting plate, heavy duty arm with special security roller, and a heavy gauge high security track designed to eject foreign objects.
8. **[2210 DPS only.]** A built-in door position switch shall be optional with concealed closers.

F. Automatic operators

1. Where low kinetic energy, as defined by ANSI/BHMA Standard 156.19, automatic operators are indicated for doors required to be accessible to the disabled. Provide pneumatic, electrohydraulic or electromechanical **[2810, 2850, 2860, 4630, 4640, 9130, 9140, 9150, 9530, 9540, 9550, 9560 Series]** operators complying with the ADA for opening force and time to close standards.
2. Full closing force shall be provided when the power or assist cycle ends **[2610, 2810, 2850, 2860, 4630, 4640, 4810, 4820, 4840, 9130, 9140, 9150, 9530, 9540, 9550, 9560 Series]**.
3. **[2610, 4810, 4820, 4840]** Locate power unit and pneumatic exhaust away from door to minimize noise and vibration in pedestrian areas.
4. All automatic operator systems shall include the following features and functions.
 - a) Provisions for separate conduits to carry high and low voltage wiring in compliance with the National Electrical Code, section 725-31.
 - b) The operator will be designed to prevent damage to the mechanism if the system is actuated while the door is latched or if the door is forced closed during the opening cycle.
 - c) All covers, mounting plates and arm systems shall be powder coated and successfully pass a minimum of 100 hours testing as outlined in ANSI/BHMA Standard A156.18 **[2610, 4630, 4640, 4810, 4820, 4840 Series]**.
-Or-
 - d) Electromechanical automatic operators shall be standard anodized either in aluminum or dark bronze. Custom anodized finishes and custom paint are available and can be specified. **[2810, 2850, 2860, 9130, 9140, 9150, 9530, 9540, 9550, 9560 Series]**
 - e) UL listed for use on labeled doors
 - f) **[4630, 4640, 4810, 4820, 4840 Series]** shall be non-handed with spring power over a range of at least four sizes either 1 through 4 or 2 through 5.
-Or-
 - g) **[2810, 2850, 2860, 9130, 9140, 9150, 9530, 9540, 9550, 9560, Series]** are handed and feature a spring return.
 - h) Provisions in the control box or module shall provide control {inputs and outputs} for; electric strike delay, auxiliary contact, sequential operations, fire alarm systems, actuators, swing side sensors, stop side sensors. **[2610, 4630, 4640, 4810, 4820, 4840, 9130, 9140, 9150 Series]**
5. **[4630, 4640 Series]** All electrohydraulic automatic operators shall include the following features or functions:
 - a) Second Chance Feature: When an obstruction or resistance to the opening swing is encountered the

operator will pause at that point, then attempt to continue opening the door. If the obstruction or resistance remains, the operator will again pause the door.

- b) Easily accessible main power and maintain hold open switches will be provided on the operator.
- c) An electrically controlled clutch to provide adjustable opening force.
- d) A microprocessor to control all motor and clutch functions.
- e) An on-board power supply capable of delivering both 12V and 24V outputs up to a maximum of 1.0 ampere combined load.
- f) All input and output power wiring shall be protected by a resettable circuit breaker.
-Or-
5. All electromechanical automatic operators shall include the following features or functions:
 - a) Maximum 8 1/2 lbs of manual opening force **[9130, 9140, 9150 Series]**.
 - b) Maximum 15 lbs of manual opening force **[2810, 2850, 2860, 9530, 9540, 9550, 9560 Series]**.
 - c) Bottom loaded header for easy access to controls **[2810, 2850, 2860, 9550, 9560 Series]**.
 - d) Power Boost, which adds an additional 25 lbs of closing force at latch **[2810, 2850, 2860, 9130, 9140, 9150, 9530, 9540, 9550, 9560 Series]**.
 - e) Self contained automatic operators in a cast aluminum housing and a forged steel arm **[2810, 2850, 2860, 9130, 9140, 9150, 9530, 9540, 9550, 9560 Series]**.

2.12 Hardware finishes**A. Finish**

1. All closers with powder coat finishes shall exceed a minimum 100 hour salt spray test, as described in ANSI/BHMA Standard A156.4 and ASTM B117.
2. All closers detailed with plated finishes shall include plated covers (or finish plates), arms, and visible fasteners.
3. All electromechanical automatic operators supplied with anodized finishes.
4. All closers must be shipped with a finish.

Part 3 - Execution

3.1 Installation**A. General**

1. Installation shall be in accordance with the templates and installation instructions packaged with the closers at the time of manufacture.
2. Installation shall be made with fasteners packaged with the closer by the manufacturer.
3. All electrical connections shall be made in accordance with the manufacturers recommendations.
4. Clean installed closer to remove dirt, debris, and marks incidental to installation work.
5. Installation instructions and templates are to be turned over to the Owners representative upon completion of the installation work.
6. Factory trained representative will be available for job site inspection of major projects upon completion of the hardware installation work.

3.2 Adjustment**A. Adjustment**

1. Install and regulate all closers in accordance with the installation instructions packaged with the closers at the time of manufacture.
2. If unfamiliar with LCN products furnished, consult factory representative prior to installation for assistance.

ANSI/LCN product cross reference

Surface mounted		ANSI Standard A156.4-2013								
ANSI number	Mounting	LCN closer	PT-4A	PT-4B	PT-4C	PT-4D	PT-4F	PT-4G	PT-4H	PT-4J
C02011	Hinge Side	4031	■	■	■	■			■	
		4040XP	■	■	■	■			■	
		1250	■	■	■	■			■	
		1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	
		1460	■	■	■	■	■		■	
		4010	■	■	■	■	■		■	
		4050A	■	■	■	■			■	
C02021	Parallel	4510	■	■	■	■	■		■	■
		4031	■	■	■	■		■	■	
		4040XP	■	■	■	■		■	■	
		1250	■	■	■	■		■	■	
		1260	■	■	■	■	■	■	■	
		1450	■	■	■	■		■	■	
		1460	■	■	■	■	■	■	■	
		4050A	■	■	■	■		■	■	
C02031	Bracket	4110	■	■	■	■	■	■	■	■
		4210	■	■	■	■	■	■	■	■
		4040XP	■	■	■	■			■	
		4010	■	■	■	■	■		■	
		4050A	■	■	■	■			■	
		4031	■	■	■	■			■	
		4040XP	■	■	■	■			■	
		1250	■	■	■	■			■	
C02041	Top Jamb	1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	
		1460	■	■	■	■	■		■	
		4020	■	■	■	■	■		■	
		4050A	■	■	■	■			■	
		4031	■	■	■	■			■	
		4040XP	■	■	■	■			■	
		1250	■	■	■	■			■	
C02051	Hinge Side Hold Open	1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	
		1460	■	■	■	■	■		■	
		4010	■	■	■	■	■		■	
		4050A	■	■	■	■			■	
		4031	■	■	■	■		■	■	
		4040XP	■	■	■	■		■	■	
		1250	■	■	■	■		■	■	
C02061	Parallel Hold Open	1260	■	■	■	■	■	■	■	
		1450	■	■	■	■		■	■	
		1460	■	■	■	■	■	■	■	
		4050A	■	■	■	■		■	■	
		4110	■	■	■	■	■	■	■	■
		4210	■	■	■	■	■	■	■	■
		4010	■	■	■	■	■		■	
		4040XP	■	■	■	■			■	
C02071	Bracket Hold Open	4050A	■	■	■	■			■	
		4031	■	■	■	■			■	
		4040XP	■	■	■	■			■	
		1250	■	■	■	■			■	
		1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	
		1460	■	■	■	■	■		■	
		4020	■	■	■	■	■		■	
C02081	Top Jamb Hold Open	4050A	■	■	■	■			■	
		4010	■	■	■	■	■		■	
		4031	■	■	■	■			■	
		4040XP	■	■	■	■			■	
		1250	■	■	■	■			■	
		1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	
		1460	■	■	■	■	■		■	
C02091	Hinge Side Fusible Link	4020	■	■	■	■	■		■	
		4050A	■	■	■	■			■	
		4010	■	■	■	■	■		■	
		4110	■	■	■	■	■		■	■
		4010	■	■	■	■	■		■	
		4020	■	■	■	■	■		■	
		4010TEL				■				
		4110TEL				■				
C02211	Hinge Side Track	1460T	■	■	■	■			■	
		4010T	■	■	■	■			■	
		4031T	■	■	■	■			■	
		4040XPT	■	■	■	■			■	
		4510T	■	■	■	■			■	■

Note: All closers listed in this section are certified grade 1 = 1,500,000 cycles, PT-4A = 15% adjustable closing force, PT-4B = 35% adjustable closing force, PT-4C = 50% adjustable closing force, PT-4D = adjustable hydraulic back check, PT-4F = delay action, PT-4G = built-in factory dead stop (Cush-n-Stop), PT-4H = spring power adjustable over a range of sizes, PT-4J = back check position advanced 15 degrees.

Surface mounted		ANSI Standard A156.4-2013								
ANSI number	Mounting	LCN closer	PT-4A	PT-4B	PT-4C	PT-4D	PT-4F	PT-4G	PT-4H	PT-4J
C02221	Hinge Side Hold Open Track	1460T	■	■	■	■			■	
		4010T	■	■	■	■			■	
		4031T	■	■	■	■			■	
		4040XPT	■	■	■	■			■	
		4031T	■	■	■	■			■	
		4040XPT	■	■	■	■			■	
		4510T	■	■	■	■			■	■
C02231	Stop Face Track	1460T	■	■	■	■			■	
		4031T	■	■	■	■			■	
		4040XPT	■	■	■	■			■	
		4110T	■	■	■	■			■	
		4210T	■	■	■	■			■	■
C02241	Stop Face Hold Open Track	1460T	■	■	■	■			■	
		4031T	■	■	■	■			■	
		4040XPT	■	■	■	■			■	
		4110T	■	■	■	■			■	
C02251	Top Jamb Track	1460T	■	■	■	■			■	
		4000T	■	■	■	■			■	
		4020T	■	■	■	■			■	
		4031T	■	■	■	■			■	
		4040XPT	■	■	■	■			■	
C02261	Top Jamb Hold Open Track	1460T	■	■	■	■			■	
		4020T	■	■	■	■			■	
		4031T	■	■	■	■			■	
		4040XPT	■	■	■	■			■	
C02271	Top Jamb Push Side Flush Frame Track	4031T	■	■	■	■			■	
C02281	Top Jamb Push Side Flush Frame Hold Open Track	4031T	■	■	■	■			■	
C03011	Hinge Side	1250	■	■	■	■			■	
		1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	
C03021	Parallel	1250	■	■	■	■		■	■	
		1260	■	■	■	■	■	■	■	
		1450	■	■	■	■		■	■	
C03041	Top Jamb	1260	■	■	■	■	■		■	
C03051	Hinge Side Hold Open	1250	■	■	■	■			■	
		1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	
C03061	Parallel Hold Open	1250	■	■	■	■		■	■	
		1260	■	■	■	■	■	■	■	
		1450	■	■	■	■		■	■	
C03081	Top Jamb Hold Open	1250	■	■	■	■			■	
		1260	■	■	■	■	■		■	
		1450	■	■	■	■			■	

Note: All closers listed in this section are certified grade 1 = 1,500,000 cycles, PT-4A = 15% adjustable closing force, PT-4B = 35% adjustable closing force, PT-4C = 50% adjustable closing force, PT-4D = adjustable hydraulic back check, PT-4F = delay action, PT-4G = built-in factory dead stop (Cush-n-Stop), PT-4H = spring power adjustable over a range of sizes, PT-4J = back check position advanced 15 degrees.

Concealed in door		ANSI Standard A156.4-2013			
ANSI number	Mounting	Arm	LCN closer	PT-4A	PT-4D
C04011	Concealed in Door	Regular Arm	3030	■	■
		Hold Open Arm	3030H	■	■
C04031	Concealed in Door	Standard Arm	3130		■
		Hold Open Arm	3130H		■

Note: All closers listed in this section are certified grade 1 = 1,500,000 cycles. PT-4A = 15% adjustable closing force, PT-4D = adjustable hydraulic back check.

Overhead concealed

ANSI Standard A156.4-2013

ANSI number	Mounting	Arm	LCN closer	PT-8A	PT-8B	PT-8D	PT-8E	PT-8F	PT-8J	PT-8L
C05011	Butt Hinge	Regular Arm	5010	■	■	■	■	■	■	■
			5030	■	■	■	■	■		■
C05021	Pivot	Regular Arm	5010	■	■	■		■	■	■
			5030	■	■	■		■		■
C05031	Butt Hinge	Standard Arm	2010	■	■		■	■		■
			2030	■	■		■	■		■
			2210	■		■	■	■		■
			2210 DPS	■		■	■	■		■
			2010	■	■			■		■
C05041	Pivot	Standard Arm	2030	■	■			■		■
			2210	■		■		■		■
			2210 DPS	■		■		■		■
			2010	■	■			■		■
C05071	Pivot	Standard Arm	2030	■	■			■		■
C05081	Pivot	Standard Arm	6030	■	■			■		■
C05091	Butt Hinge	Hold Open Arm	5010	■	■	■	■	■	■	■
			5030	■	■	■	■	■		■

Note: All closers listed in this section are certified grade 1 = 1,500,000 cycles. PT-8A = door under control from 7 degrees of maximum door opening to close, PT-8B = hold open between 85 and 180 degrees, PT-8D = 50% adjustable PT-8E = single acting, 165 degrees of opening, double acting 165 degrees of opening either way, PT-8F = adjustable hydraulic back check, PT-8J = delay action, PT-8L = 35% adjustable closing force.

Life safety closer/holder release device

ANSI Standard A156.15-2001

ANSI number	Mounting	Arm	LCN closer	PT-4D	PT-4N	PT-4P
C00011	Wall	N/A	7830, 7840, 7850			
C00021	Floor	N/A	7820			
C00191	Hinge Side	Standard Arm	4040SE	■	■	■
			4040SEL	■	■	■
C00231	Stop Face	Standard Arm	4040SE	■	■	■
			4040SEL	■	■	■
C00311	Top Jamb	Regular Arm	4410HSA	■	■	
			4410ME	■	■	
C00351	Hinge Side	Standard Arm	4310HSA	■	■	
			4310ME	■	■	
C00371	Hinge Side	Swing Free Arm	4310ME	■	■	
C00391	Top Jamb	Double Egress Arm	4310HSA	■	■	
			4310ME	■	■	
C00471	Hinge Side	Regular Arm	4040SEH			■
C00511	Push Side	Regular Arm	4040SEH			■
C00611	Concealed	Standard Arm	3130SE	■		■
			3130SEL	■		■
C00651	Concealed	Standard Arm	2310ME	■	■	

Note: Options are; PT-4D = adjustable hydraulic back check, PT-4N = adjustable spring power, and PT-4P = adjustable hold open intensity.

Abbreviations

Arm options

CUSH	Cush-n-Stop Arm
DE	Double Egress Arm
DHWP	H Arm with 62PA for Delay
DRWP	Regular Arm with 62PA for Delay
EDA	Extra Duty Arm
EDAW62G	Extra Duty Arm with 62G Thick Hub Shoe
FL	Fusible Link Arm
H	Hold Open Arm
HCUSH	Hold Open Cush-n-Stop Arm
HEDA	Hold Open Extra Duty Arm
HEDA62G	Hold Open Extra Duty Arm with 62G Thick Hub Shoe
HLONG	Hold Open Long Arm
HPWA	Hold Open with Parallel Arm Bracket
LONG	Long Arm
REGARM	Regular Arm (Non-handed)
RWPA	Regular Arm with Parallel Arm Bracket
RW62A	Regular Arm with 62A Auxiliary Shoe
SCUSH	Spring Cush-n-Stop Arm
SF	Swing Free Arm
SHCUSH	Spring Hold Open Cush-n-Stop Arm
STDTRKARM	Standard Arm (Handed)
STDTRKSECARM	Standard Security Arm (Handed)
XLONG	Extra Long Arm

Control box options

CTRL	Standard Controller
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Cylinder options

CYL	Cast iron or aluminum cylinder assembly
CYL18G	Standard Cylinder with 18G mounting plate
CYL80G	Bypass Hold Open up to 80 Degrees with 18G mounting plate
CYL140G	Bypass Hold Open up to 140 Degrees with 18G mounting plate
CYLA VB	Advanced Variable Back Check
CYLB80	Bypass Hold Open up to 80 Degrees
CYLB140	Bypass Hold Open up to 140 Degrees
CYLDEL	Delay Action Cylinder
CYLTEL	Telephone Booth Cylinder

Cover options

CL	Cover Length
DS	Designer Series Metal Cover
FC36	Full 36" Cover
FPC	Full Plastic Cover
LESSCOV	Less Cover
MC	Metal Cover
MC27	Standard 27" Metal Cover
MC72	Standard 72" Metal Cover
PC	Plastic Cover
SLIMPC	Slim Line Plastic Cover

Track options

BUMP	Track with Bumper
H	Hold Open Track
HBMP	Hold Open Track with Bumper
LESSTRK	Less Track
LONG	Long Track
STDSECTRK	Standard Security Track (non-handed)
STDTRK	Standard Track (Non-handed)

Fastener pack options

LESSCPK	Less Screws
MS	Machine Screws
MTBMS	Metric Metal Through Bolt Machine Screws
MWMS	Metric Metal and Wood Machine Screws
SRT	Self Reaming and Tapping Screws
TBSRT	Through Bolt Self Reaming and Tapping Screws
TBTRX	Through Bolt and Torx Machine Screws
TBWMS	Through Bolt Wood and Machine Screws
TORX	Torx Machine Screws
UNIV	Universal Screws
WMS	Wood and Machine Screws

Motor gearbox options

MGB	Standard Motor Gearbox
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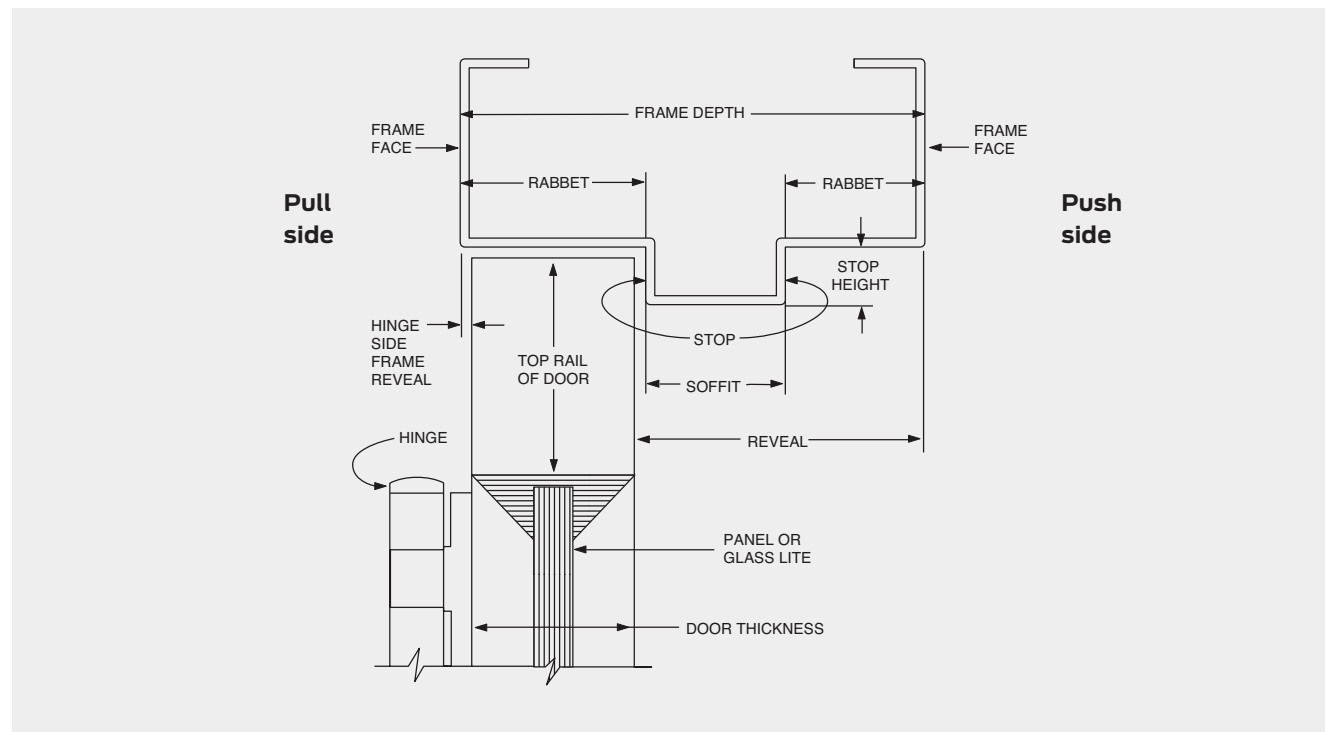
Powder coat finishes

689	Aluminum Paint
690	Statuary Bronze Paint
691	Light Bronze Paint
693	Black Paint
695	Dark Bronze Paint
696	Brass Paint

Miscellaneous terms

BKY	Breakaway Stop
DPS	Door Position Switch
ELR	Extra Long Rod
ES	Electric Strike Relay (control boxes)
FCA	Flush Ceiling Application
HDR2	Double Door Header
HL	Header Length
HSA	Hold Open/Scanner Activated
LH	Left Hand
LR	Long Rod
ME	Multi Point Hold Open Series
PA	Parallel Arm
PAH	Parallel Arm Holder
POS	Positive Stop
RF	Radio Frequency
RH	Right Hand
S	Sequential (control boxes)
SE	Single Point Hold Open Series
SRI	Special Rust Inhibitor
ST	Special template
T	Track
TJ	Top Jamb
XP	Extra Protection

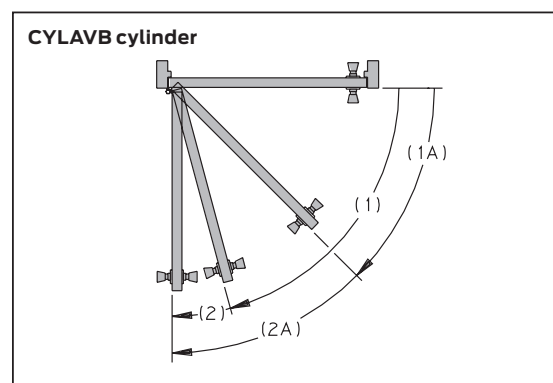
Terms



A

ADA – Americans with Disabilities Act.

Advanced Variable Back Check (CYLAVB) – Optional cylinder that starts back check at about 45° (2A) instead of the normal 75° (2).



Anodized – An electrochemical process that thickens and toughens the protective oxide on aluminum metal.

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.

Armature extension – Standard metal extensions available for SEM magnets where the armature does not reach the magnet. Available in 1/2", 3/4", 1", 2", 4" or a kit including all sizes.

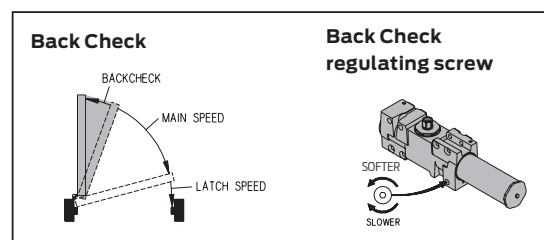
Autoequalizer™ – An LCN specific term for an electric or a pneumatic automatic operator. System is low-energy and carries a two-year warranty.

Automatic operator – A term used to describe a type of automated opening system.

Auxiliary door stop – Hardware designed and installed to limit the swing of a door.

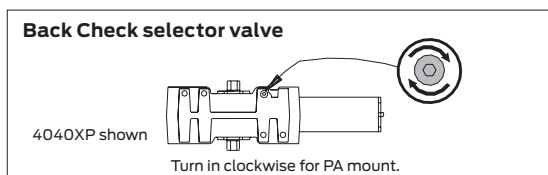
B

Back Check – Hydraulic circuit designed to cushion the doors opening swing at about 75°. Standard on all LCN closers.



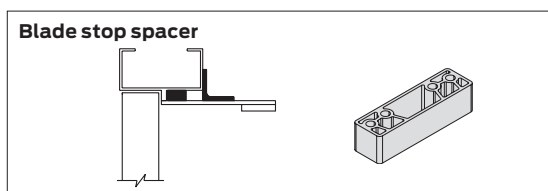
Terms

Back Check selector valve – Valve used to provide proper back check location for 4040XP and 4050A parallel arm mounting.



Blade stop – Narrow frame stop that will not accept a parallel arm shoe.

Blade stop spacer – Spacer lowers a parallel arm $\frac{1}{2}$ " so the arm will clear a blade stop.

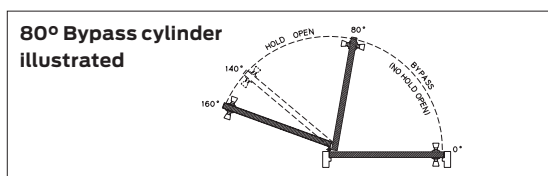


Blow-open – A type of control box that is used for a smoke evacuation system. Can be used with or without a normal automatic operator system.

Breakaway stop (BKY) – An optional safety device that permits egress on in-swinging exterior doors by allowing them to swing out in case of an emergency. Used with overhead concealed, center pivoted in-swinging doors.

Brite Metallic (MTLPC) – Custom powder coat finish, which resembles that of 651 or 652 plated finish.

Bypass cylinder – ME cylinder that will not hold open within a specified range of door swing.



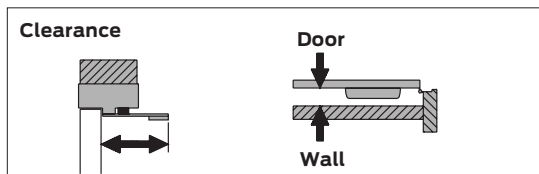
C

Cased opening – Frame section without stops.

Cast aluminum – Material used in producing LCN's competitively priced door closers.

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.



Closing force – Energy generated by a closer to close and latch the door.

Control box, standard, 9100 Series – Microprocessor door control without Power Boost or built in power supply.

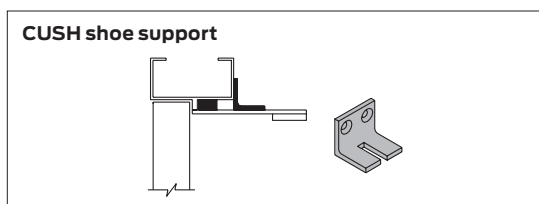
Control box, 2800, 9500 Series – Microprocessor door control, includes adjustment for opening, closing and back check speeds. Features Push 'N Go and Power Boost.

Control box, 7900 Series – Heavy duty, surface mounted control box that contains one or two electrically controlled pneumatic circuits.

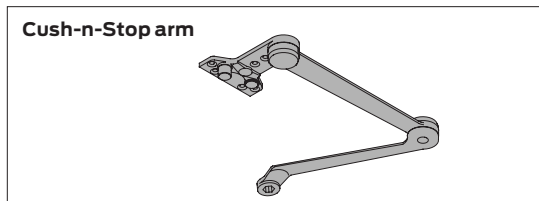
Controller assembly – Digital control suite used in the LCN automatic operator. Includes adjustments for opening force and opening speed.

Concealed in door – Closer with cylinder concealed in the top rail of the door with either an exposed or concealed arm.

CUSH shoe support – Support provides fifth screw anchorage of CUSH shoes on frames with narrow push side reveals.



Cush-n-Stop arms (CUSH) – Extra duty, parallel arm that includes a stop in the CUSH shoe.



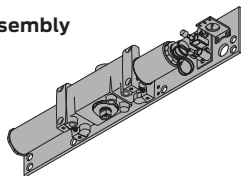
Custom Powder Coat (RAL) – An optional powder coat finish. Currently, LCN offers a wide selection for special powder coat finishes. LCN uses a European color standard, referred to as an RAL #, to differentiate between finishes.

Terms

Cutout – Preparation of the top rail of a door or frame for concealment of the closer, arm or track.

Cylinder assembly (CYL) – Main closer component complete with any mounting plates or electronics.

Cylinder assembly



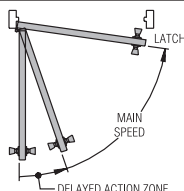
Cylinder only – Hydraulic cast iron cylinder.

D

Deep reveal – Reveal deeper than what an arm will accommodate.

Delay Action Cylinder (CYLDEL) – Delays closing from maximum opening to approximately 75°.

Delay action



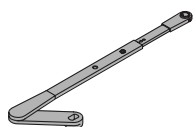
Designer Series Metal Cover (DS) – An aesthetically pleasing cover design that appeals to many types of facilities and architects.

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 Door Header (HDR2) – One electromechanical automatic operator and one manual door within the same header, for a pair of doors.

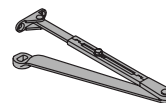
Double acting – Term used to describe door swing. A double acting frame does not have a stop thus allowing the door to swing 95° in both directions.

Double Egress Arm



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.

Double lever arm



Double rabbet frame – Frame with a recess or offset formed on both sides of a stop to receive a door.

Double rabbet frame



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.

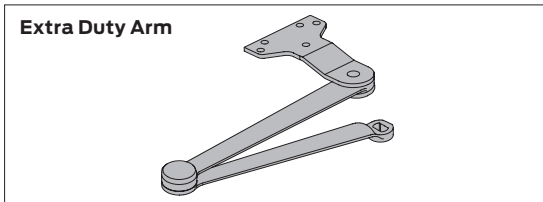
Electrohydraulic automatic operator – Automatic operator with an electrically controlled opening feature and hydraulic closing feature.

Electromechanical automatic operator – Automatic operator with an electrically controlled opening feature and closing feature.

Escutcheon – An optional, protective or decorative plate that can be installed with many surface mounted actuators.

Terms

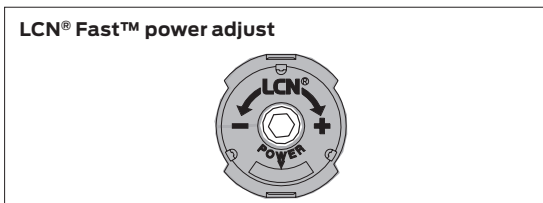
Extra Duty Arm (EDA) – Double lever arm with both main and forearm made of solid forged steel for extra strength.



Extra Long Arm (XLONG) – 4040XP 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.



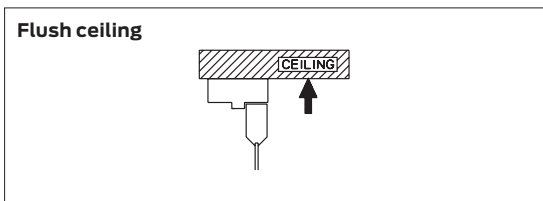
Fifth screw – Mounting screw farthest from the door on a parallel arm shoe.

Fifth screw spacer – Supports PA shoe mounted on frame stop.

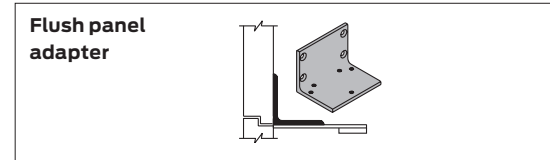
Finish plate – Decorative plate applied to overhead concealed closer to conceal closer mounting plate and screws.

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 Application (FCA) – Condition when the ceiling is at the same height as the top of the frame.



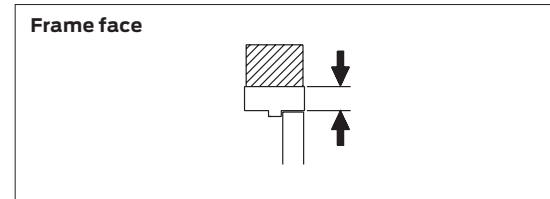
Flush panel adapter – Adapter provides PA shoe mounting surface when door and frame are flush.



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.

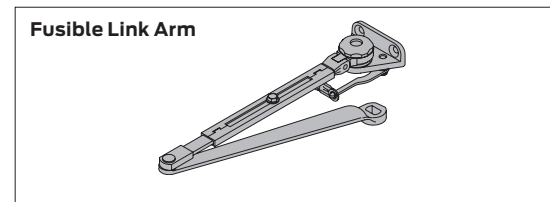
Frame face – Exposed part of frame parallel to face of the wall.



Full complement bearings – Low friction, high load needle bearings found in all LCN closers.

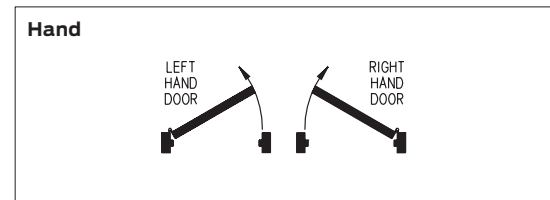
Full Plastic Cover (FPC) – Cover that encloses cylinder assembly except for shaft/arm attachment.

Fusible Link Arm (FL) – Releases hold open function when exposed to high temperatures. 135°F and 165°F available.



H

Hand – Direction of a doors' swing, either right or left.



Handed – Closer or part designed for ONLY right or left swinging doors.

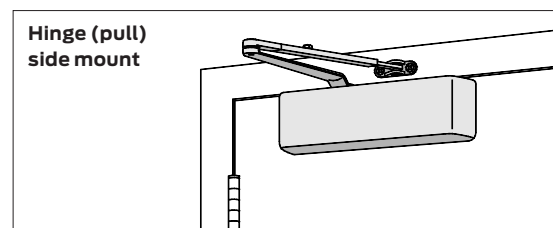
Head frame – Member of the frame above the door.

Terms

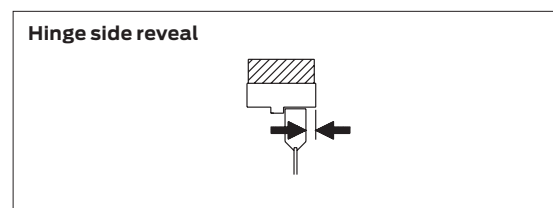
Header – Aluminum enclosure for motor gearbox and controller.

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.



Hinge side reveal – Depth measured from the frame face to the pull side of the door face.



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-n-Stop Arm (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 with Bumper (HBMP) – Track with hold open clip and bumper assembly installed.

Hold Open/Scanner Activated (HSA) – Electrically controlled closer/holder with built-in scanner.

Hydraulic fluid – Fluid metered by valve system to control door.

Independent pair – Two automatic doors that function separately.

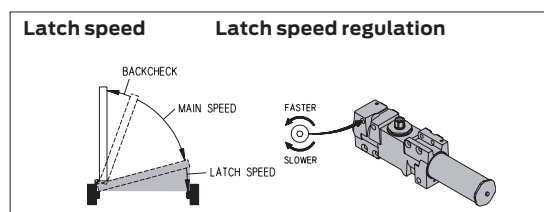
J

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.



Lock stile – Vertical member of a door prepared for installation of a lock.

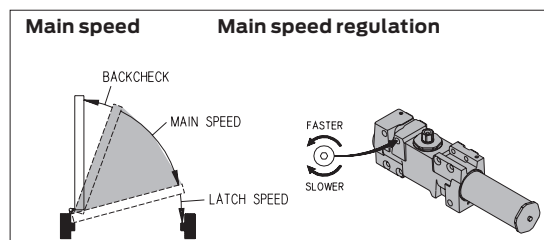
Long Arm (LONG) – Extended arm for deep reveals or other special applications.

Low energy operator – A type of automated opener used on a door that should take approximately 5 seconds to open to 90°. Low Energy operators do not require safety devices or guide rails. Conforms to ANSI A156.19.

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.



Maximum opening – Furthest degree of door opening.

Metal Cover (MC) – Stamped metal cover required for optional plated finishes and custom powder coat finishes. Standard cover with High Security Series closers.

Terms

Motor clutch – The geared assembly in an LCN electric automatic 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 Series (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 automatic 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.

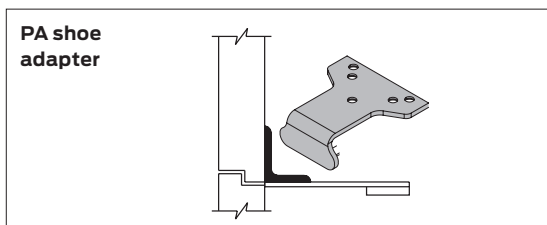
O

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.

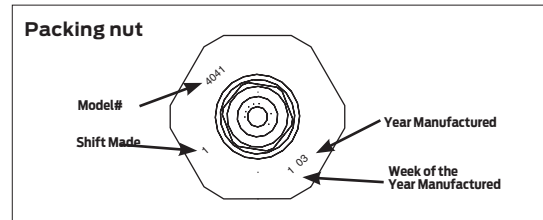
P

PA shoe adapter – Adapter provides horizontal mounting for PA shoe on a flush door and frame.

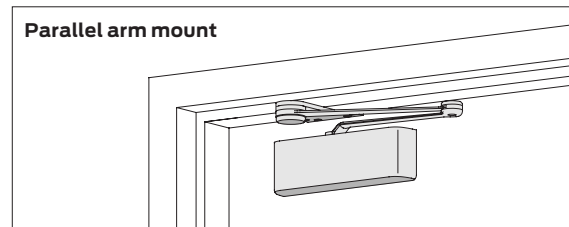


PA shoe – Attaches the forearm to the soffit for a parallel arm system.

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.



Parallel arm – A push side mounted double lever arm system where main arm is parallel to the door when in the closed position.



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.

Positive Stop (POS) – Door stop for overhead concealed, center pivoted out swinging doors.

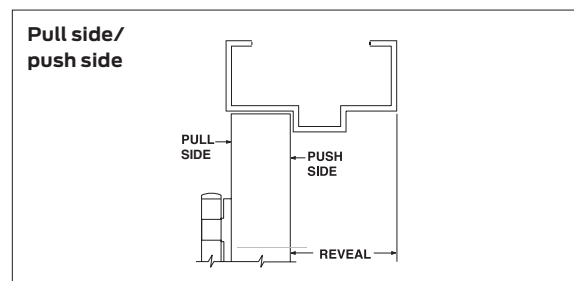
Pneumatic – This type of LCN Automatic Operator is driven by an air source. The air source can be built into the control box or provided separately within the building.

Power boost – Provides additional closing force to ensure latching.

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.

Terms

Pull side – Hinge side of door.



Push side – Face of door on stop side of frame.

Push 'N Go – Provides power opening after partial (5°) manual opening of door.

Q

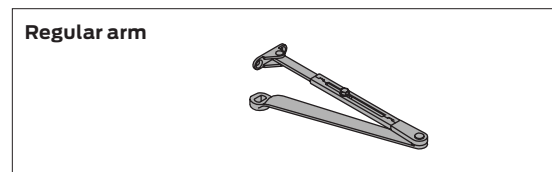
Quick fix plate™ – Retrofit mounting plate for the LCN 1260 closer used for closer replacement in push/pull applications.

R

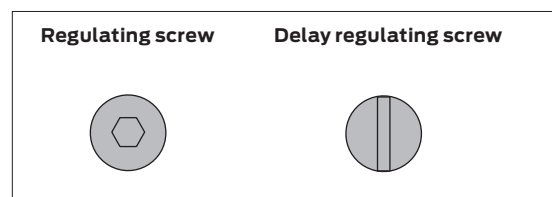
Rabbet – Recess or offset formed in the face to receive a door.

Radio frequency (RF) – A method of actuating LCN Automatic Operators. A RF transmitter signals a RF receiver to open a door.

Regular Arm (REGARM) – A double lever, non hold open arm.

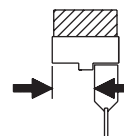


Regulating screw – Valve that adjusts flow of hydraulic fluid within cylinder to control door closing speed.



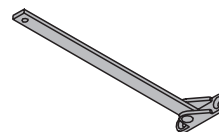
Reveal – Depth measured from the frame face to the door face.

Reveal



Rod and shoe – Part of forearm that provides adjustable length feature for double lever arms.

Rod and shoe



S

Self Reaming and Tapping Screw (SRT) – Phillips head screw with self-reaming and self-tapping capability used in mounting installations.

Self Reaming and Tapping Screw



Second chance feature – A feature that allows the Automatic 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 automatic 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 automatic operators. This option allows a pair of vestibule doors to open one after the other.

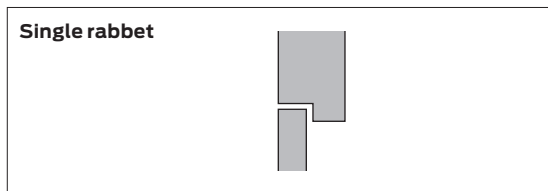
Shoe – Attaches forearm to frame or door face in a double lever arm system.

Simultaneous pair – Two automatic doors that open at the same time.

Single Point Hold Open Series (SE) – Electrically controlled hold open using a special track and single lever arm.

Terms

Single rabbet frame – Frame with a recess or offset formed on one side of a stop to receive a door.



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 Plastic Cover (SLIMPC) – A cover that conceals the 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.

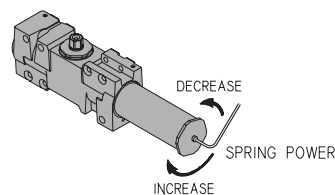
Spring Cush-n-Stop Arm (SCUSH) – Non-handed parallel arm for abusive applications. Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe.

Spring Hold Open Cush-n-Stop 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 the spring inside the cylinder to close the door.

Spring power adjustment – Mechanical pre-loading of spring to adjust closing force.

Spring power adjustment



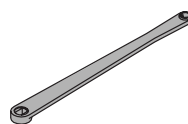
Spring tube – Part of the closer assembly that contains the spring.

Standard cylinder – Cylinder with main speed, latch speed, and back check adjustments.

Standard Motor Gearbox (MGB) – Electromechanical drive unit.

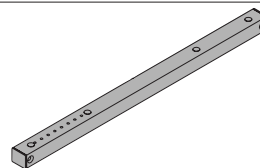
Standard Arm (non-handed) (STDTRKARM) – Directly connects cylinder and track/roller assembly on the door or frame.

Standard Arm



Standard Track – Non Hold Open Track.

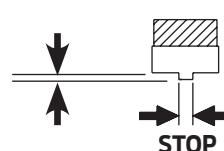
Standard Track



Stop – Part of frame against which the door closes.

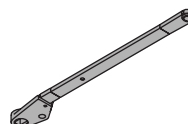
Stop height – Distance the stop extends below the frame face.

Stop height



Swing Free Arm (SF) – ME arm designed to allow free movement of the door without disengaging the holding mechanism.

Swing Free Arm



Terms

T

TBSRT – Through Bolt Self Reaming and Tapping Screws.

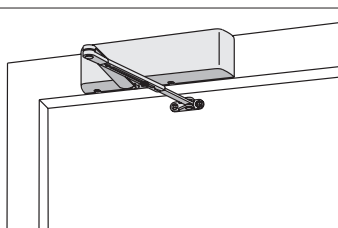
TBTRX – Through Bolt and Torx Machine Screws.

TBWMS – Through Bolt Wood and Machine Screws.

Thick hub shoe (62G) – Substituted for soffit shoe on EDA arm to clear blade stop.

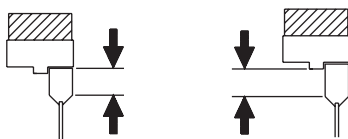
Top Jamb (TJ) – Mounting with closer installed on frame face.

Top Jamb
(Push Side)
Mount

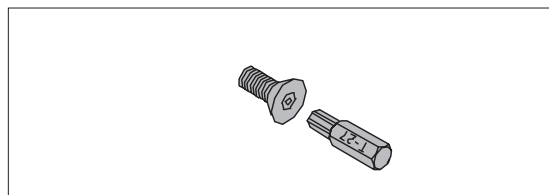


Top rail – Horizontal top member of a door that connects the latch and hinge stiles. Height is measured from stop on push side.

Top rail



Torx – Security machine screw with Torx drive and security pin for tamper resistant applications.



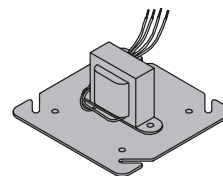
Track bumper – Mounts in track to cushion opening swing, but reduces maximum opening. This is not a substitute for a mechanical door stop.

Track bumper



Transformer – Electrical device to reduce voltage from 120V AC to 24V AC.

Transformer



Tri-voltage – SEM magnets available with current inputs of 12v, 24v and 120v.

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 – Wood and Machine Screws.

Wood mounting clip – Designed to ease installation of concealed closer in wood frame.

Warranty

Limited warranty

Subject to the terms and conditions of this limited warranty, Schlage Lock Company, LLC (the “Company”) extends a limited warranty against defects in material and workmanship for its LCN branded product(s) identified in the Product Table below (“Products”) as installed in the original location.

This limited warranty applies to Products purchased on or after March 3, 2014.

Product table - cast iron

4000 Series	30 Years
1460 Series	30 Years
1260 Series	20 Years
Concealed, High Security (except 2210DPS)	15 Years
Automatic Operators; SE, ME, HSA, SEH Series; SEM Magnets; 2210 DPS (includes both electronic and mechanical components)	2 Years

Product table - cast aluminum

1250 Series	15 Years
1450 Series	25 Years
4050A Series	25 Years

Term: The limited warranty period for products is as stated in the product table above. The “Commencement Date” for a limited warranty period shall be the date of Company’s delivery to the original purchaser of the Products. Proof of Product purchase may be required by Company to confirm the Commencement Date.

What Company will do: Company may require proof of Product purchase in order to provide coverage under this limited warranty. As Company’s only responsibility and user’s only remedy under this limited warranty, Company will furnish a replacement Product upon receipt and confirmation by Company, in its sole opinion, that the Product has, in fact, failed due to a manufacturing defect under normal use and maintenance. In the event a replacement Product cannot be provided, Company will either provide a suitable replacement Product or a refund in the amount of the original purchase price.

What is not covered: The following costs, expenses, and damages are not covered by the provisions of this limited warranty: (i) labor costs including, but not limited to, such costs as removal and installation of Product; (ii) shipping and freight expenses required to return Product to Company; (iii) failures, defects, or damage caused by any third party product or service; (iv) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty, tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages.

The provisions of this limited warranty do not apply to product that is: (i) not the proper size for the application for which the Product is used; (ii) not installed in accordance with Company’s published Product installation instructions; (iii) installed with improper parts and/or incorrect parts (NOTE: It is recommended that Product be installed with LCN fasteners provided with Product); (iv) improperly stored, maintained, or operated; (v) modified, repaired, or altered in Company’s sole opinion, in any manner, without the express written consent of Company; (vi) used for purposes for which the Product is not designed or intended; (vii) subjected to misuse, abuse, negligence, or accident; or (viii) subjected to improper temperature, humidity, or other environmental conditions.

Note: 900/7900 Series compressors are not manufactured by Company and are excluded from coverage under this limited warranty. For more information, parts, or repairs concerning the compressors, contact the compressor manufacturer directly at (269) 926-6171.

Additional terms: This limited warranty is in lieu of all other warranties, express or implied. Company does not authorize any person to create for it any obligation or liability in connection with Product. Company’s maximum liability hereunder is limited to the original purchase price of the Product. No action arising out any claimed breach of this limited warranty by Company may be brought by the user more than one (1) year after the cause of action has arisen.

How local law applies: This limited warranty gives you specific legal rights, and you may also have other rights as permitted by law. Some local laws do not allow limitations on how long an implied warranty lasts or the exclusions or limitation of incidental or consequential damages so the limitations or exclusions provided herein may not apply to you.

Program and warranty claims: If product is to be claimed to be defective under this limited warranty, contact Customer Care at (877) 671-7011.

Note: Please contact LCN Customer Care prior to returning any product back to the factory. You will need prior authorization and an RMA for your return.

About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions. Allegion had \$2.7 billion in revenue in 2018, and sells products in almost 130 countries.

For more, visit www.allegion.com.

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN

LCN®

High Security Series

Vandal resistant closers





Designed with durable materials and meticulous engineering

From the very beginning, our dedication has distinguished LCN from other brands. From those who design the product to those who make it to those who sell it, we have a passion for providing door closers that keep people safe and secure. We want a quality product that stands in its own class. And our heritage for high quality has led the company for multiple decades.

LCN's rich history started in 1877 when our founder was hired to solve the problem of slamming church doors at a Boston church. It led to the world's first door check and launched the beginning of the door closer industry. His innovation continued, leading to the formation of the LCN brand in 1926. LCN is always raising the bar another notch—just like when we began implementing environmental and high use/abuse testing to better gauge performance in real-world applications.

Manufactured with pride in Princeton, Ill., U.S.A., by our highly skilled and tenured craftsmen. Our solutions are specifically designed for enhanced durability, consistency and longevity. From meticulous engineering to strict quality control, LCN accepts no less than the best.

Through investment in state-of-the-art equipment, processes and people, we believe LCN will continue to provide the best solutions for our customers. Reliability means control over door speed, latch engagement and, ultimately, how well a door with an LCN closer operates in the field. Our processes include additional measures, such as honing and centerless grinding, that enable us to achieve tolerances within one ten-thousandth of an inch. The durable and reliable solutions our Princeton manufacturing plant delivers have been proven in the field to withstand abuse.

LCN has dedicated its time and resources to doing one thing—producing the finest line of door control devices possible. Our success is found in the millions of door closers installed in facilities across the world that bear the LCN trademark.

High Security closer features

- A vandal resistant design engineered for each application, easy installation and superior performance
- Hinge side, parallel arm, stop face or concealed mounting
- Handed for right or left swinging doors

Information and customer care



us.allegion.com



US 877.671.7011
Canada 800.900.4734



support@allegion.com
Closers_TechProdSupport@allegion.com



www.youtube.com/LCNHardware

Ordering



Allegion_Orders@allegion.com

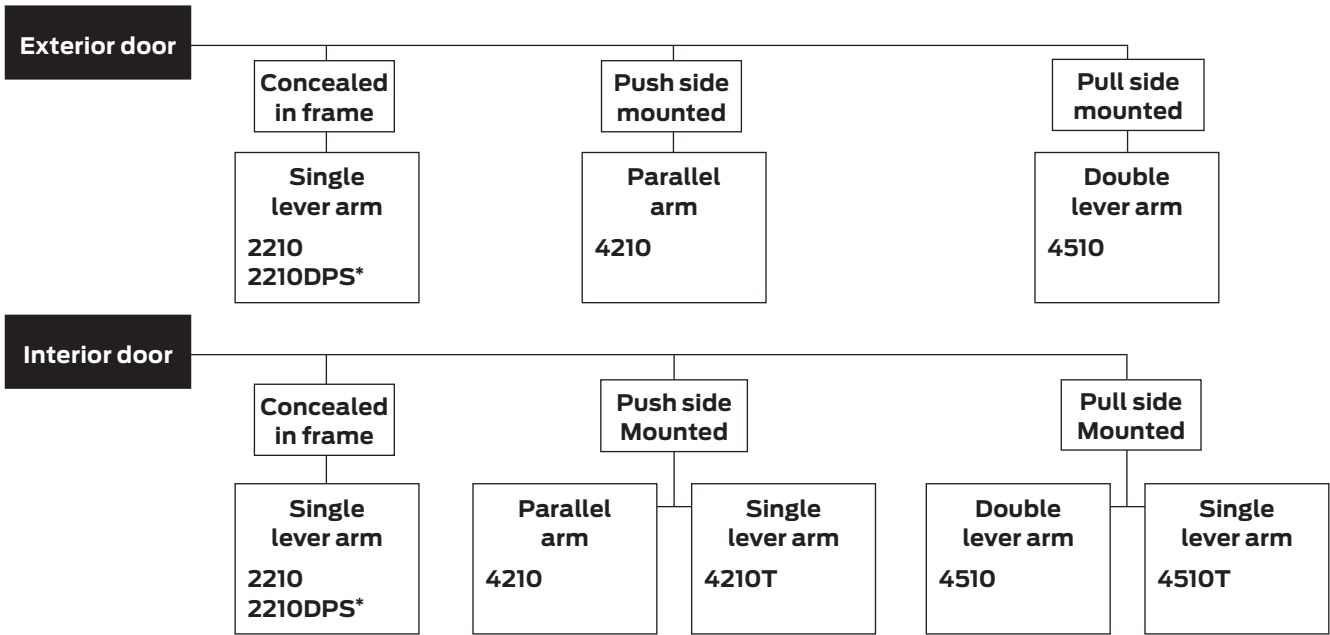


eFax: 1.800.248.1460

High Security Series vandal resistant closers

Product selection guide

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



*Door position switch.

Product comparison

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

	Mounting						Finish		Cover			Cylinder			Arm function*			
	Hinge (pull) side	Parallel arm (push)	Stop face	Concealed (frame)	Powder coat	Plated	Plastic	Metal	Handed	Non-sized	Sized	Accessibility	Delay action	CYLAVB**	DPS	Standard (single)	EDA	CUSH/HCUSH
2210	■	■	■	■	■	■	■	■	■	■	■	■	■	■	180°	■	■	
2210DPS	■	■	■	■	■	■	■	■	■	■	■	■	■	■	180°	■	■	
4210	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	■	180°	110°	
4210T	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	110°	■	■	
4510	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	■	140°	■	
4510T	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	180°	■	■	

■ Available
■ Not available

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
* Maximum opening with standard template. See individual closer series for degrees of opening per installation.
** Advanced Variable Backcheck.

Product selection guide

Applications

- For any concealed or surface mounted installation subject to potential abuse or vandalism
- For correctional, aluminum, hollow metal, or wood doors and frames
- Can be used with hinge or pivot mounted door
- Adapter plates and other installation accessories available for non-standard conditions

Features common to High Security closers

- Each closer is a vandal resistant design for a specific mounting; hinge side, parallel arm, stop face or concealed
- Handed for right or left swinging doors
- Closers to meet ADA reduced opening force requirements
- All closers furnished with torx tamper resistant machine screws
- All surface mount closers include a heavy gauge steel cover with four attachment points
- All closer adjustments are protected when installation is complete
- All track closers use a jam resistant track and tamper resistant arm/roller assembly
- Adjustable hydraulic back check cushions opening swing prior to 90°
- Advanced Variable Back Check (CYLAVB) is available on all high security closers
- Separate regulation of general closing speed and latching speed

Design assistance

LCN has been providing reliable solutions to unique door control problems since 1925. Design and specification assistance are only a phone call away. Contact LCN for assistance or technical information at 877-671-7011 or fax 800-248-1460 (Order Entry), Fax 815-879-1495 for Product Support.

Warranty

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

Specifications

Refer to specifications section for suggested architectural specifications.

Materials

- High strength cast iron cylinder
- Forged steel main arms and forearms
- One piece forged steel piston
- LCN's all weather "Liquid X" fluid performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) without any seasonal adjustment
- High efficiency, full complement, low friction bearings
- Double heat treated pinions
- Tamper resistant regulating screws
- Full rack and pinion hydraulic action
- Quiet, low friction track and roller combination for all single lever arm closers

Finishes

- Available in six standard or a wide selection of optional custom powder coat finishes to blend with door and frame
- LCN's powder coat finishes surpass 100 hours of salt spray, which is over four times the ANSI standard for corrosion resistance
- For installations where a higher level of corrosive resistance is required, LCN offers an optional special rust inhibiting (SRI) pre-treatment
- Closers that combine the exclusive LCN powder coat finish and the SRI pre-treatment exceed the ANSI standard for corrosion resistance even further
- Plated finishes are available as an option to accent door and frame

Listings and approvals

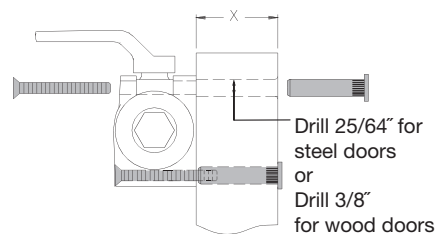
- UL listed for self-closing doors without hold open under "swinging door closers" (GVEV) file R 1943.
- Tested and certified under ANSI Standard A 156.4 (consult factory for details)
- Consult factory for other listings such as; ULC, California State Fire Marshal, Bureau of Standards and Appeals

Positive pressure

LCN closers have been certified for three hours by UL to be in compliance with UL 10 C. Contact LCN for specific details on door closer fire ratings.

Fasteners

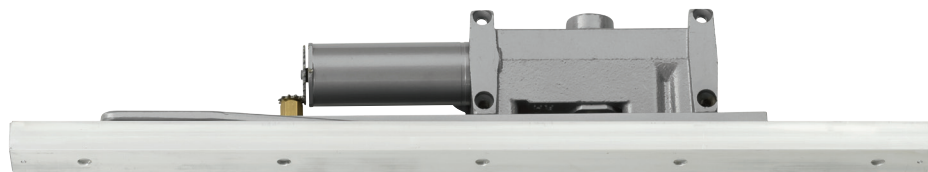
Torx Machine Screw (TORX) pack contains tamper resistant machine screws to install the closer. Through Bolts for Torx Machine Screws are available for all high security closers, except 2210 Series. LCN Through Bolts (TB) can be installed on 1 3/4" thick doors with the 1/4"-20 torx screws supplied with the closer. Optional sizes are available for 1 5/8" or 1 3/8" door thicknesses, but this must be specified when ordering.



Note: For Through Bolts, specify door thickness if other than 1 3/4" (44mm), represented in diagram as dimension "X".

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

2210 Series



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

Certifications	Grade 1 - ANSI A156.4, UL 10C, 100 Hour Salt Spray, Meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Handed
Size	Sized 3-5 (refer to chart); interior, exterior and vestibule
Warranty	15 years (2210); 2 years (2210DPS)
Cover	Two piece metal finish plates

Fasteners	Torx Machine Screws (TORX)
Mounting	<ul style="list-style-type: none"> Concealed, single acting cylinder in head frame Concealed, arm and track in top rail of door
Arms	Standard security arm and security track
Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

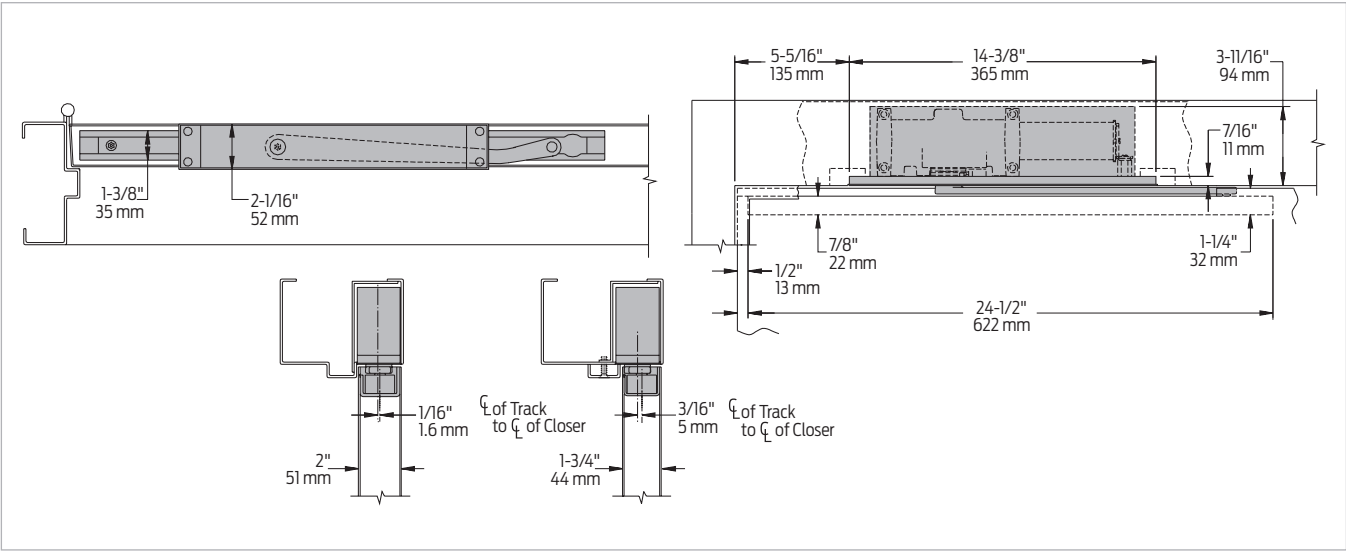
	Hinge (pull) side	Parallel arm (push)	Stop face	Concealed (frame)	Powder coat	Plated	Finish	Cover	Cylinder	Arm function*
2210	■	■	■	■	■	■	■	■	180°	■
2210DPS	■	■	■	■	■	■	■	■	180°	■

■ Available
 ■ Not available

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

Mounting details

Concealed mounting

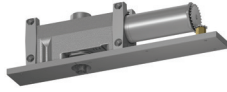


Butt hinges	Should not exceed 4 1/2" (114 mm) in width
Auxiliary stop	Recommended where a door cannot swing 180°
Top rail	1 1/4" (32 mm) mortise required; 3/8" (10 mm) cutout required at top of door, stop face only
Door thickness	1 3/4" (44 mm) minimum
Door width	28" (711 mm) minimum
Head frame	<ul style="list-style-type: none">5 3/4" (146 mm) wide and 4" (102 mm) high with 2 3/16" (56 mm) rabbet requiredConsult factory if any dimension is less
Steel mounting plate	Thickness 3/8" (10 mm)
Door position switch	<ul style="list-style-type: none">Optional, field adjustable switch can interface with security and monitoring systemsAdd suffix "DPS" to selected cylinderProvides normally open (N.O.) and normally closed (N.C.) circuitA three wire connector harness with 84" (2134 mm), 16 AWG leads is furnished to simplify connection to field wiringSingle pole double throw (SPDT) contacts rated at 125/250 VAC at 10.1 amps maximum resistive load are standard
Advanced Variable Back Check	<ul style="list-style-type: none">Cylinder starts back check at approximately 45° instead of the normal 75°Add suffix "CYLAVB" to selected cylinder
Maximum opening	<ul style="list-style-type: none">Templating allows 180°Consult factory if door will be held open at 180°Pivot mounting door limits opening to 110° and increases minimum door width to 32" (813 mm)Please note that many track style door closers are capable of allowing 180° of door swing
Options	<ul style="list-style-type: none">Advanced Variable Back Check Cylinder (CYLAVB)Door Position Switch (DPS)

Note: Track style closers are at their weakest closing force at 180°.

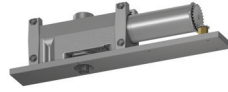
Accessories

Cylinders



2213(4)(5)-3071
Cast iron cylinder
assembly (CYL)

- Handed
- Cast iron
- Standard



2213(4)(5)DPS-3071
Cast iron cylinder
assembly (CYL)

- Handed
- Cast iron
- Assembly includes DPS wire harness and gear

Arms



2210-3077T
2210DPS-3077T
Standard Security Arm
(STDTRKSECARM)

- Handed
- Solid forged steel and large cross section for potentially abusive installations
- Special threaded attachment of track roller for extra security
- Double slab arm/pinion attachment for maximum strength
- Can only be used with high security track roller, 2210-3034 or 2210DPS-3034
- Roller is included with arm when either the 2210-3077T or 2210DPS-3077T are ordered separately

Tracks



2210-3038
2210DPS-3038
Standard Security Track
(STDSECTRK)

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

Installation accessories



2210-11
Long Plate

- Heavy gauge metal plate
- Required for complete enclosure
- Six point Torx Mounting Screws for extra security
- Closer adjustments not accessible with finish plates installed



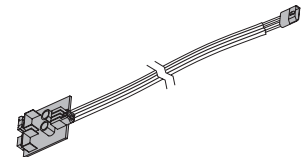
2210-12
Short Plate

- Heavy gauge metal plate
- Required for complete enclosure
- Four point Torx Mounting Screws for extra security
- Closer adjustments not accessible with finish plates installed



2210-3034
Security Track Roller

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



2210-493
Test Kit

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

Ordering information

How-to-order 2210 Series closers

1. Select cylinder size

 - ☐ 2213
 - ☐ 2213DPS
 - ☐ 2214
 - ☐ 2214DPS
 - ☐ 2215
 - ☐ 2215DPS
2. Specify hand

 - ☐ Right Hand (RH)
 - ☐ Left Hand (LH)
3. Select finish

 - ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), Brass (696).

- Closer will be shipped with:
- Standard cylinder
 - Finish plate
 - Standard security arm
 - Security track roller
 - Security track
 - Torx machine screws, (unless options listed below are selected)

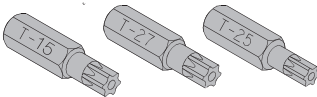
Closer options

- Cylinder**
- ☐ Advanced Variable Back Check (CYLAVB)
- Finish**
- ☐ Custom Powder Coat (RAL) _____
 - ☐ Plated finish _____ (cover plate and arm only)
 - ☐ SRI primer (excludes DPS) (for use with powder coat finishes only)

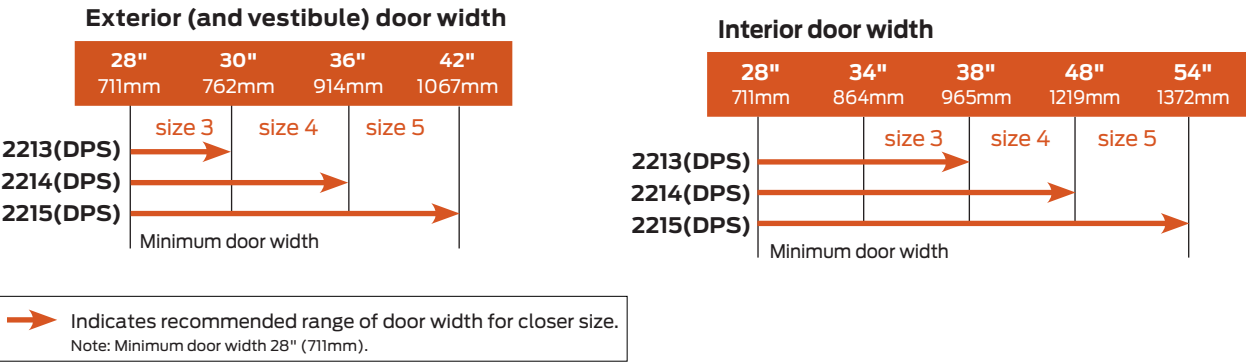
Special template

☐ ST- _____

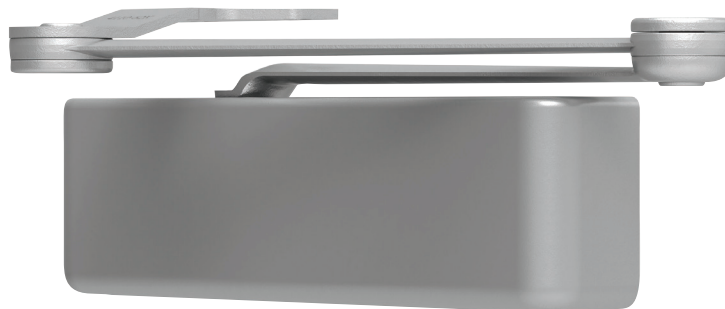
Note: Installation of this closer requires T-27, T-25 and T-15 driver bits for torx machine screws with a security pin. Sold separately.



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



4210 Series



The 4210 Smoothee® Series is a heavy duty, high security closer with special components to minimize tampering and vandalism. Forged steel parallel arms and heavy gauge metal security covers 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

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act Note: 4211 cylinder meets ADA.	Cover	Metal Cover (MC)
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" Diameter piston 1/16" diameter double heat treated pinion journal 	Fasteners	Torx Machine Screws (TORX)
Fluid	All weather fluid	Mounting	Parallel (push side)
Handing	Handed	Arms	Extra duty, non hold open
Size	Sized 1-5 or size 6; adjustable exterior, interior and vestibule	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes (cover only)
Warranty	15 years		

Special templates

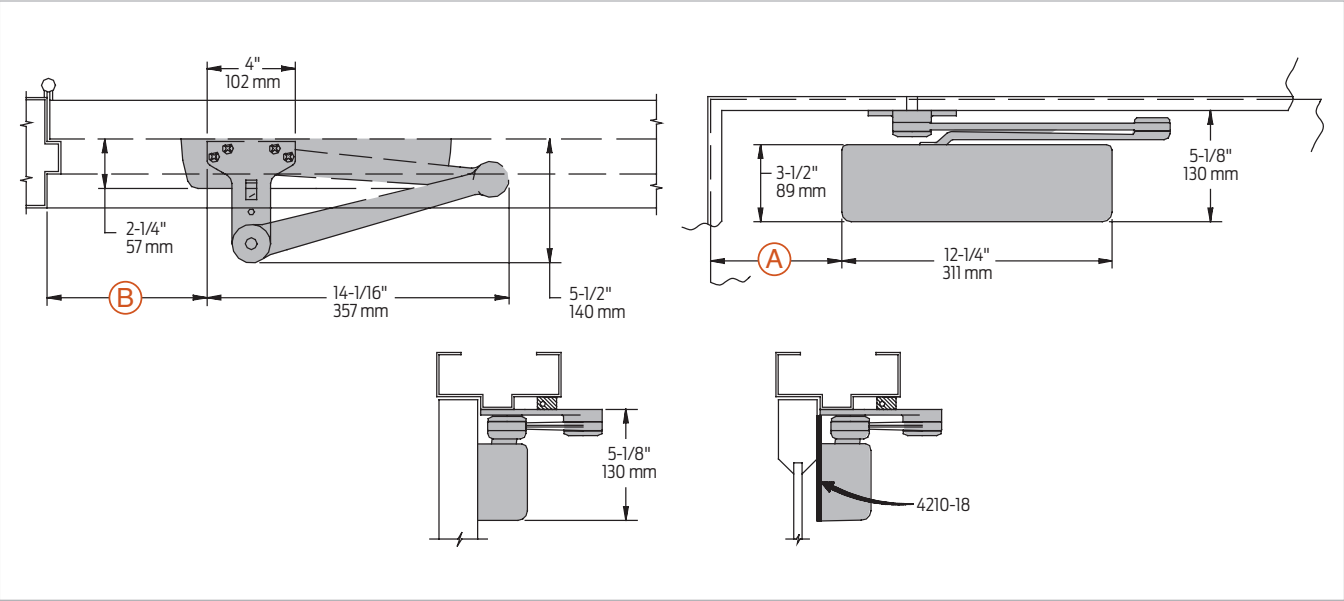
Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side Parallel arm (push) Stop face Concealed (frame) Powder coat Plated	Plastic Metal	Handed Non-sized Sized	Accessibility Delay action CYLAVB** DPS	Standard (single) EDA CUSH/HCUSH
■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available

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

Mounting details

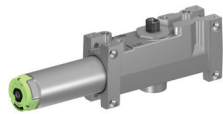
Parallel arm (push side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width	
Auxiliary stop	Recommended where a door cannot swing 180° or where CUSH arms not used	
Clearance	For EDA or CUSH is 5 1/2" (140 mm) from push side of door	
Top rail	Less than 5 1/8" (130 mm) measured from stop, requires plate 4210-18. Plate requires 2" (51 mm) minimum top rail	
Stop width	2 3/4" (70 mm) recommended. Less than 1" (25mm), consult factory	
Delay action	<ul style="list-style-type: none">▪ Add suffix "CYLDEL" to selected cylinder▪ Not available with 4215 or 4216 cylinder▪ Delays closing from maximum opening to approximately 70°▪ Delays time adjustable up to approximately 1 minute	
Advanced Variable Back Check	<ul style="list-style-type: none">▪ Cylinder starts back check at approximately 45° instead of the normal 75°▪ Add suffix "CYLAVB" to selected cylinder	
Maximum opening	EDA arm can be templated for	CUSH arm can be templated for maximum opening at
	100°: A = 5 15/16" (151 mm) B = 7 1/4" (184 mm)	85°: A = 8 5/16" (211 mm) B = 9 5/8" (244 mm)
	140°: A = 4 7/16" (113 mm) B = 5 3/4" (146 mm)	90°: A = 7 11/16" (195 mm) B = 9" (229 mm)
	180°: A = 2 15/16" (75 mm) B = 4 1/4" (108 mm)	100°: A = 6 7/16" (164 mm) B = 7 3/4" (197 mm)
		110°: A = 5 9/16" (141 mm) B = 6 7/8" (175 mm)
	Hold open point at maximum opening with HCUSH arm	
Options	Delay Action cylinder (CYDEL) or Advanced Variable Back Check cylinder (CYLAVB)	

Accessories

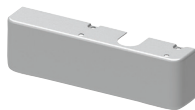
Cylinders



4211(6)-3071
Cast iron cylinder
assembly (CYL)

- Handed
- Cast iron
- Standard

Covers



4210-72MC
Metal Cover (MC)

- Handed
- Four point mounting for extra security
- Closer adjustments not accessible with cover installed
- Standard

Arms



4210-3077EDA
Extra Duty Arm (EDA)

- Non-handed
- Parallel arm features solid forged steel main arm and forearm for potentially abusive installations
- Double slab arm/pinion attachment for maximum strength



4210-3077CNS
Cush-n-Stop Arm (CUSH)

- Non-handed
- Parallel arm features solid forged steel main arm and forearm with built-in stop in soffit shoe
- Double slab arm/pinion attachment for maximum strength



4210-3049CNS
Hold Open Cush-n-Stop Arm (HCUSH)

- Non-handed
- Parallel arm provides hold open function with templated stop/hold open points
- Handle controls hold open function with thumb turn
- HCUSH arm not available with 4216 cylinder
- Double slab arm/pinion attachment for maximum strength

Installation accessories



4210-18, 4210-18CUSH
Plate

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



4210-30
CUSH Shoe Support

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



4210-61
Blade Stop Spacer

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



4210-419
PA Flush Panel Adapter

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

Ordering information

How-to-order 4210 Series closers

1. Select cylinder size

- ☐ 4211 (adjustable from size 1 to 5)
- ☐ 4216 (CYLDEL or HCUSH arm not available)

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat _____
- Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), Brass (696).

Closer will be shipped with:

- Standard cylinder
 - Metal cover
 - Standard security arm
 - Torx machine screws
- (unless options listed below are selected)

Closer options

Cylinder

- ☐ Delay Action Cylinder (CYLDEL)
- ☐ Advanced Variable Back Check Cylinder (CYLAVB)

Finish

- ☐ Custom Powder Coat (RAL) _____
 - ☐ Plated finish _____ (cover only)
 - ☐ SRI primer (excludes DPS)
- (for use with powder coat finishes only)

Arm

- ☐ Cush-n-Stop Arm (CUSH)
- ☐ Hold Open Cush-n-Stop Arm (HCUSH)

Screw packs

- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- ☐ Plate, 4210-18
- ☐ Plate, 4210-18CUSH

Special template

- ☐ ST- _____

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

Table of sizes

- Select closer based on width of door
- The spring power of non-sized 4211 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3
- Sized 4210 Series cylinder available in size 6
- Delay action not available with 4216 cylinder

Exterior (and vestibule) door width

	28" 711mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
	size 3	size 4	size 5	size 6	
4211*	→				
4216	→				
	Minimum door width				

Interior door width


	28" 711mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm	60" 1524mm
	size 2	size 3	size 4	size 5	size 6	
4211*	→					
4216	→					
	Minimum door width					

→ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 4210 Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	4211	4211	4211
	5.0* lbs.	4211	4211	4211

* Maximum opening force.

4210T Series



The 4210T Smoothee Series is a heavy duty, high security track closer with special components to minimize tampering and vandalism. Forged steel arms and heavy gauge metal security covers are designed for correctional, vandal prone, institutional and other high traffic interior applications. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act Note: 4211 cylinder meets ADA.	Cover	Metal Cover (MC)
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" Diameter piston 1/16" diameter double heat treated pinion journal 	Fasteners	Torx Machine Screws (TORX)
Fluid	All weather fluid	Mounting	Stop face (push side)
Handing	Handed	Arms	Security arm, security track with roller
Size	Sized 1, 3 or 4; Interior	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes
Warranty	15 years		

Special templates

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

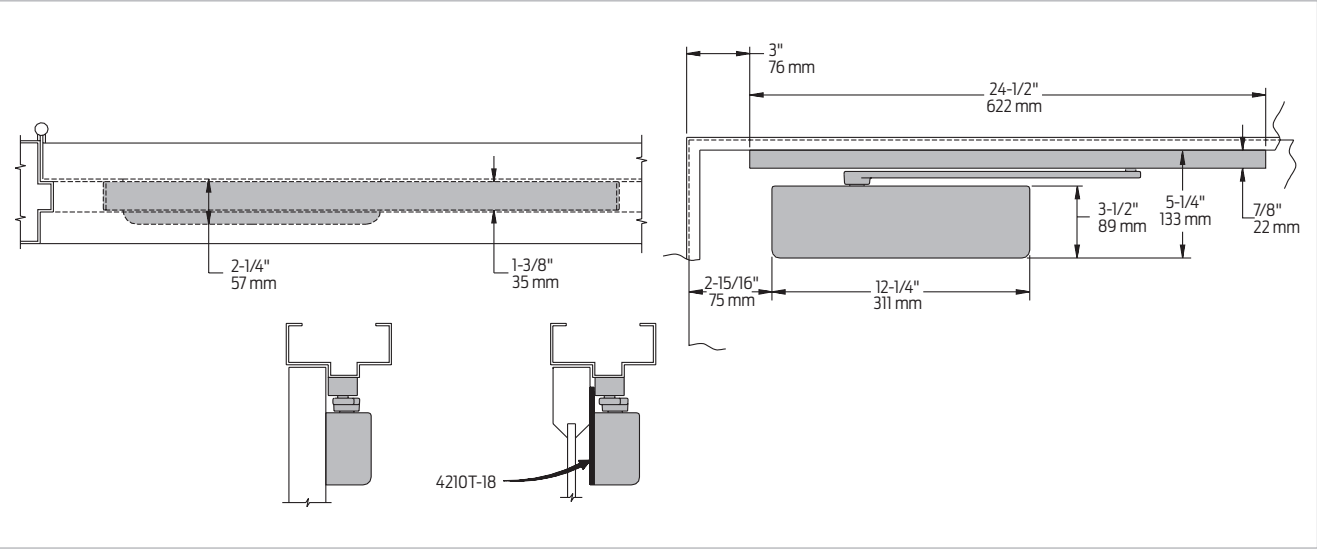
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Handed	Accessibility	Standard (single)
Parallel arm (push)	Metal	Non-sized	Delay action	EDA
Stop face		Sized	CYLAVB**	CUSH/HCUSH
Concealed (frame)			DPS	
Powder coat				
Plated				

■ Available
■ Not available

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

Mounting details

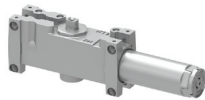
Stop face (push side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended where a door cannot swing 180°
Clearance	2 1/4" (57 mm) from door
Top rail	<ul style="list-style-type: none">Less than 5 1/4" (133 mm) measured from stop, requires plate 4210T-18Plate requires 2 1/4" (57mm) minimum measured from the stop
Stop width	Minimum 1 3/8" (35 mm)
Advanced Variable Back Check	<ul style="list-style-type: none">Cylinder starts back check at approximately 45° instead of the normal 75°Add suffix "CYLAVB" to selected cylinder
Maximum opening	Templating allows 110°
Options	Advanced Variable Back Check Cylinder (CYLAVB)

Accessories

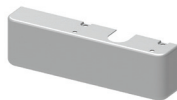
Cylinders



**4211(3)(4)T-3071
Cast iron cylinder
assembly (CYL)**

- Handed
- Cast iron
- Standard

Covers



**4210T-72MC
Metal Cover (MC)**

- Handed
- Four point torx mounting for extra security
- Closer adjustments not accessible with cover installed

Arms



**4210T-3077T
Standard Security Arm
(STDTRKSECARM)**

- Handed
- Solid forged steel, large cross section arm
- Special threaded attachment of track roller for extra security
- Double slab arm/ pinion attachment for maximum strength
- Can only be used with high security track roller, 4210T-3034

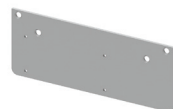
Tracks



**4210T-3038
Standard Security Track
(STDSECTRK)**

- Non-handed
- Designed to eject foreign objects placed in track during either opening or closing motion
- Requires track roller, 4210T-3034

Installation accessories



**4210T-18
Plate**

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



**4210T-3034
Security Track Roller**

- Low friction track roller threads into 4210T-3077 arm for extra strength and security
- Can not be removed without disconnecting arm from closer

Ordering information

How-to-order 4210T Series closers

1. Select cylinder size

- ☐ 4211T (ADA)
- ☐ 4213T
- ☐ 4214T

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), Brass (696).

Closer will be shipped with:

- Standard cylinder
- Metal cover
- Standard security arm
- Security track roller
- Security track
- Torx machine screws,
(unless options listed below are selected)

Closer options

Cylinder

- ☐ Advanced Variable Back Check Cylinder (CYLAVB)

Finish

- ☐ Custom Powder Coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (excludes DPS)
(for use with powder coat finishes only)

Screw packs

- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- ☐ Plate, 4210T-I8

Special template

- ☐ ST- _____

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

Note: Installation of this closer requires T-27 and T-25 driver bits for Torx Machine Screws with a security pin. Sold separately.

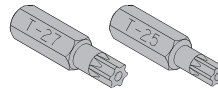


Table of sizes

- Select closer based on width of door
- 4210T series cylinders available in size 1, 3 or 4
- Closing power of all 4210T Series closers may be increased 15%

Interior door width

	30" 762mm	34" 864mm	38" 965mm	48" 1219mm
	size 1	size 3	size 4	
4211T	→			
4213T		→		
4214T			→	
	Minimum door width			

→ Indicates recommended range of door width for closer size.
Note: Minimum door width 30" (762mm).

Reduced opening force 4210T Series closers

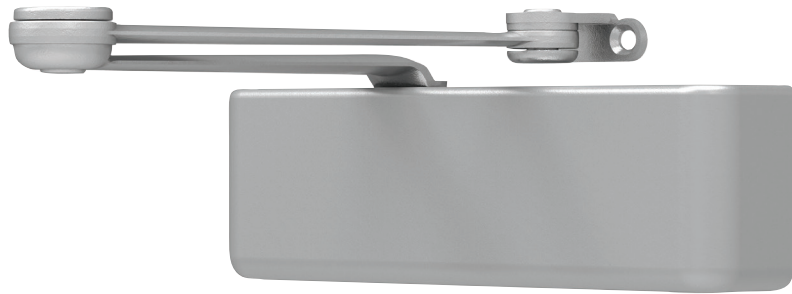
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	4213T	4213T	4213T
	5.0* lbs.	4211T	4211T	4211T

* Maximum opening force.

4510 Series



The 4510 Smoothee 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. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act Note: 4511 cylinder meets ADA.	Cover	Metal Cover (MC)
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" Diameter piston 1 1/16" diameter double heat treated pinion journal 	Fasteners	Torx Machine Screws (TORX)
Fluid	All weather fluid	Mounting	Hinge (pull side)
Handing	Handed	Arms	Extra heavy duty, non-hold open
Size	Sized 1-5; Adjustable, exterior, interior and vestibule	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional
Warranty	15 years		<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

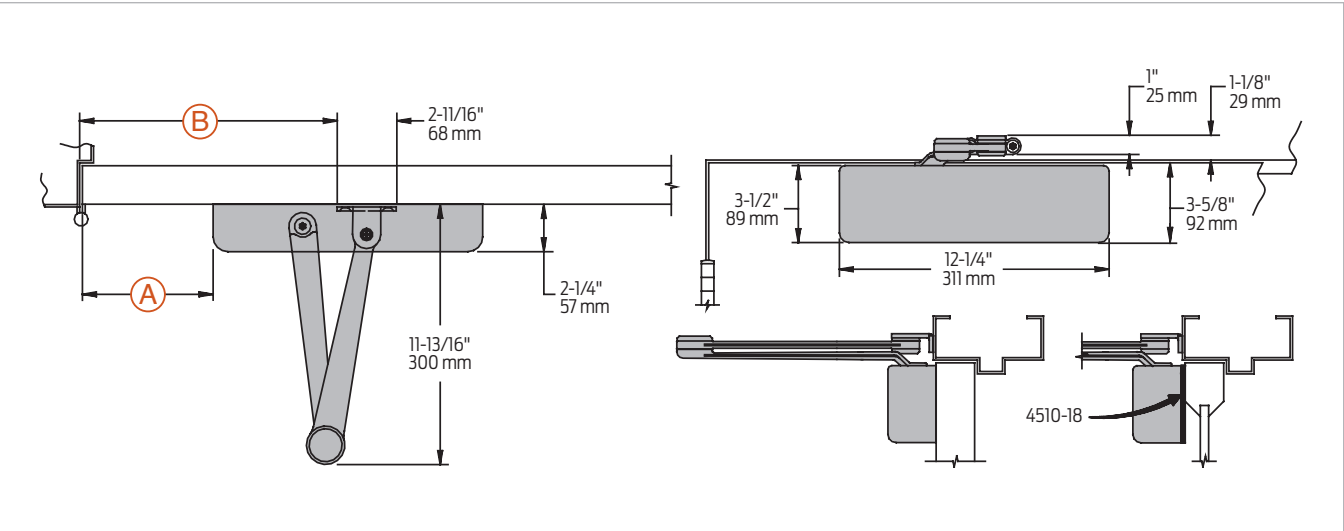
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Handed	Accessibility	Standard (single)
Parallel arm (push)	Metal	Non-sized	Delay action	EDA
Stop face		Sized	CYLAVB**	CUSH/HCUSH
Concealed (frame)			DPS	
Powder coat				
Plated				

- Available
■ Not available

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

Mounting details

Hinge (pull side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended where a door cannot swing 140°
Reveal	Reveal should not exceed 1/8" (3 mm)
Clearance	2 1/4" (57 mm) behind door required for installation
Top rail	<ul style="list-style-type: none">Less than 3 1/2" (89 mm), requires plate 4510-18Plate requires 2" (51mm) minimum top rail
Head frame	Less than 1" (25 mm), consult factory
Arm clearance	Above door 1 1/8" (29 mm) required
Delay action	<ul style="list-style-type: none">Add suffix "CYLDEL" to selected cylinderNot available with 4516 cylinderDelays closing from maximum opening to approximately 70°Delays time adjustable up to approximately 1 minute
Advanced Variable Back Check	<ul style="list-style-type: none">Cylinder starts back check at approximately 45° instead of the normal 75°Add suffix "CYLAVB" to selected cylinder
Maximum opening	Can be templated for 140°: A= 4 3/16" (106 mm) B = 9 7/8" (251 mm)
Options	Delay Action cylinder (CYDEL) or Advanced Variable Back Check cylinder (CYLAVB)

Accessories

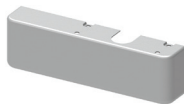
Cylinders



4511(6)-3071
Cast iron cylinder assembly (CYL)

- Handed
- Cast iron
- Standard

Covers



4510-72MC
Metal Cover (MC)

- Handed
- Four point mounting for extra security
- Closer adjustments not accessible with cover installed
- Standard

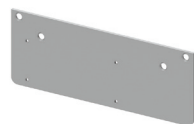
Arms



4510-3077EDA
Extra Duty Arm (EDA)

- Non-handed
- Solid forged steel main arm and forearm for potentially abusive installations
- Double slab arm/pinion attachment for maximum strength
- Standard

Installation accessories



4510-18
Plate

- Required where top rail is less than 3 1/2" (89 mm)
- Requires minimum 2" (51 mm) top rail

Ordering information

How-to-order 4510 Series closers

1. Select cylinder size

- ☐ 4511 (adjustable from size 1 to 5)
- ☐ 4516 (CYLDEL not available)

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat

Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), Brass (696).

Closer will be shipped with:

- Standard cylinder
- Metal cover
- Extra duty arm
- Torx machine screws
(unless options listed below are selected)

Closer options

Cylinder

- ☐ Delay Action Cylinder (CYLDEL)
- ☐ Advanced Variable Back Check Cylinder (CYLAVB)

Finish

- ☐ Custom Powder Coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (for use with powder coat finishes only)

Screw packs

- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- ☐ Plate, 4510-18

Special template

- ☐ ST- _____

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

Note: Installation of this closer requires T-27 and T-25 driver bits for Torx Machine Screws with a security pin. Sold separately.

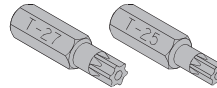


Table of sizes

- Select closer based on width of door
- The spring power of non-sized 4511 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3
- Sized 4510 Series cylinder available in size 6
- Delay action not available with 4516 cylinder

Exterior (and vestibule) door width

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
4511*	size 3	size 4	size 5	size 6	
4516					
	Minimum door width				

Interior door width

	24" 610mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm	60" 1524mm
4511*	size 2	size 3	size 4	size 5	size 6	
4516						
	Minimum door width					

→ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 4210 Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	4511	4511	4511
	5.0* lbs.	4511	4511	4511

* Maximum opening force.

4510T Series



The 4510T Smoothee Series is a heavy duty, high security track closer with special components to minimize tampering and vandalism. Forged steel single lever arm and heavy gauge metal security cover are designed for correctional, vandal prone, institutional and other high traffic interior applications. A choice of finishes and cylinder functions meet correctional and vandal resistant requirements.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act Note: 4511T cylinder meets ADA.	Cover	Metal Cover (MC)
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" Diameter piston 1 1/16" diameter double heat treated pinion journal 	Fasteners	Torx Machine Screws (TORX)
Fluid	All weather fluid	Mounting	Hinge (pull side)
Handing	Handed	Arms	Standard security arm, security track (non hold open) and track roller
Size	Sized 1, 3 or 4	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes
Warranty	15 years		

Special templates

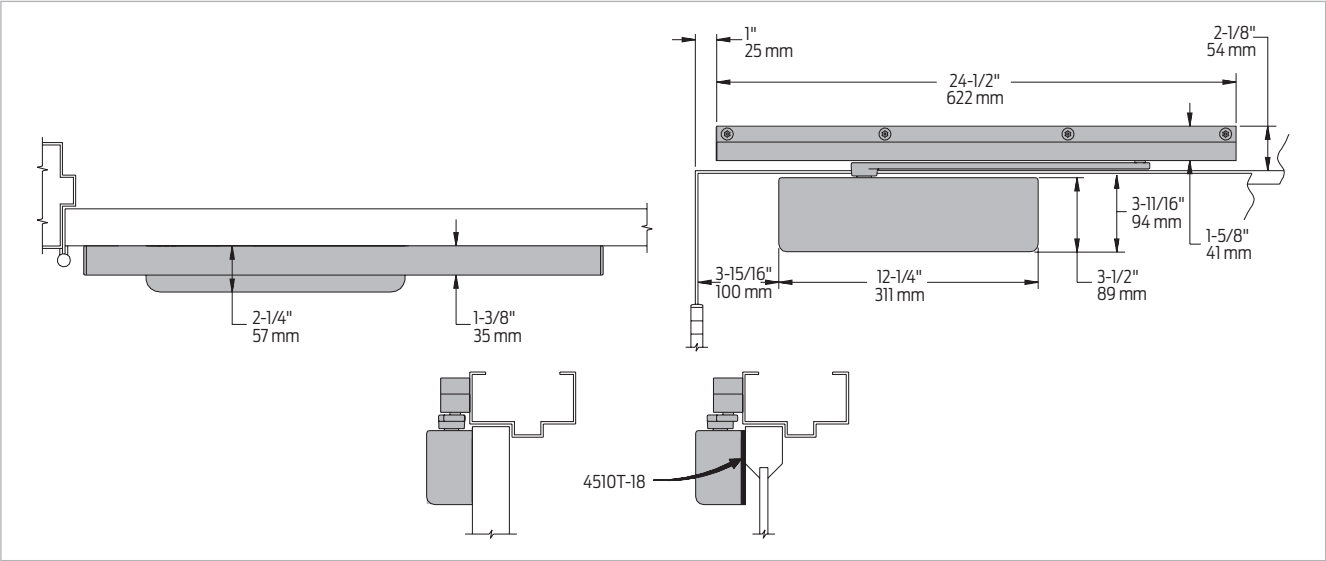
Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side Parallel arm (push) Stop face Concealed (frame) Powder coat Plated	Plastic Metal	Handed Non-sized Sized	Accessibility Delay action CYLAVB** DPS 180°	Standard (single) EDA CUSH/HCUSH
■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available

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

Mounting details

Hinge (pull side) mounting

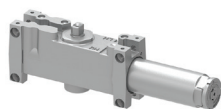


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended where a door cannot swing 180°
Reveal	Reveal should not exceed 1/8" (3 mm)
Clearance	2 1/4" (57 mm) behind door required for installation
Top rail	<ul style="list-style-type: none">Less than 3 3/4" (95 mm), requires plate 4510T-18Plate requires 2" (51mm) minimum top rail
Head frame	Minimum 2 1/8" (54 mm)
Advanced Variable Back Check	<ul style="list-style-type: none">Cylinder starts back check at approximately 45° instead of the normal 75°Add suffix "CYLAVB" to selected cylinder
Maximum opening	<ul style="list-style-type: none">Templating allows 180°Consult factory if door will be held open at 180°
Options	Advanced Variable Back Check cylinder (CYLAVB)

4510T Series

Accessories

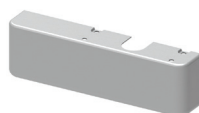
Cylinders



4511T(3)(4)-3071 Cast iron cylinder assembly (CYL)

- Handed
- Cast iron
- Standard

Covers



4510T-72MC Metal Cover (MC)

- Handed
- Four point torx mounting for extra security
- Closer adjustments not accessible with cover installed

Arm



4510T-3077T Standard Security Arm (STDTRKSECARM)

- Handed
- Solid forged steel, large cross section arm
- Special threaded attachment of track roller for potentially abusive installations
- Double slab arm/pinion attachment for maximum strength
- Can only be used with high security track roller, 4510T-3034

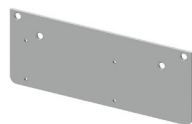
Tracks



4510T-3038 Standard Security Track (STDSECTRK)

- Non-handed
- Designed to eject foreign objects placed in track during either opening or closing motion
- Requires track roller, 4510T-3034

Installation accessories



4510T-18 Plate

- Required where top rail is less than 3 3/4" (95 mm)
- Requires minimum 2" (51 mm) top rail



4510T-3034 Security Track Roller

- Low friction track roller threads into 4510T-3077T arm for extra strength and security
- Can not be removed without disconnecting arm from closer

Ordering information

How-to-order 4510T Series closers

- 1. Select cylinder size**

 - ☐ 4511T (ADA)
 - ☐ 4513T
 - ☐ 4514T
- 2. Specify hand**

 - ☐ Right Hand (RH)
 - ☐ Left Hand (LH)
- 3. Select finish**

 - ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), Brass (696).

Closer will be shipped with:

- Standard cylinder
- Metal cover
- Standard security arm
- Security track roller
- Security track
- Torx machine screws, (unless options listed below are selected)

Closer options

- Cylinder**
- ☐ Advanced Variable Back Check Cylinder (CYLAVB)
- Finish**
- ☐ Custom Powder Coat (RAL) _____
 - ☐ Plated finish _____
 - ☐ SRI primer (excludes DPS)
(for use with powder coat finishes only)
- Screw packs**
- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- ☐ Plate, 4510T-I8

Special template

- ☐ ST- _____

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

Note: Installation of this closer requires T-27 and T-25 driver bits for Torx Machine Screws with a security pin. Sold separately.

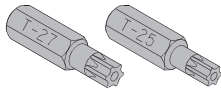


Table of sizes

- Select closer based on width of door
- Sized 4510T Series cylinders available in size 1, 3 or 4
- Closing power of all 4510T Series closers may be increased 15%

Interior door width

	26" 660mm	34" 864mm	38" 965mm	48" 1219mm
	size 1	size 3	size 4	
4511T	→			
4513T		→		
4514T			→	
	Minimum door width			

→ Indicates recommended range of door width for closer size.
Note: Minimum door width 30" (762mm).

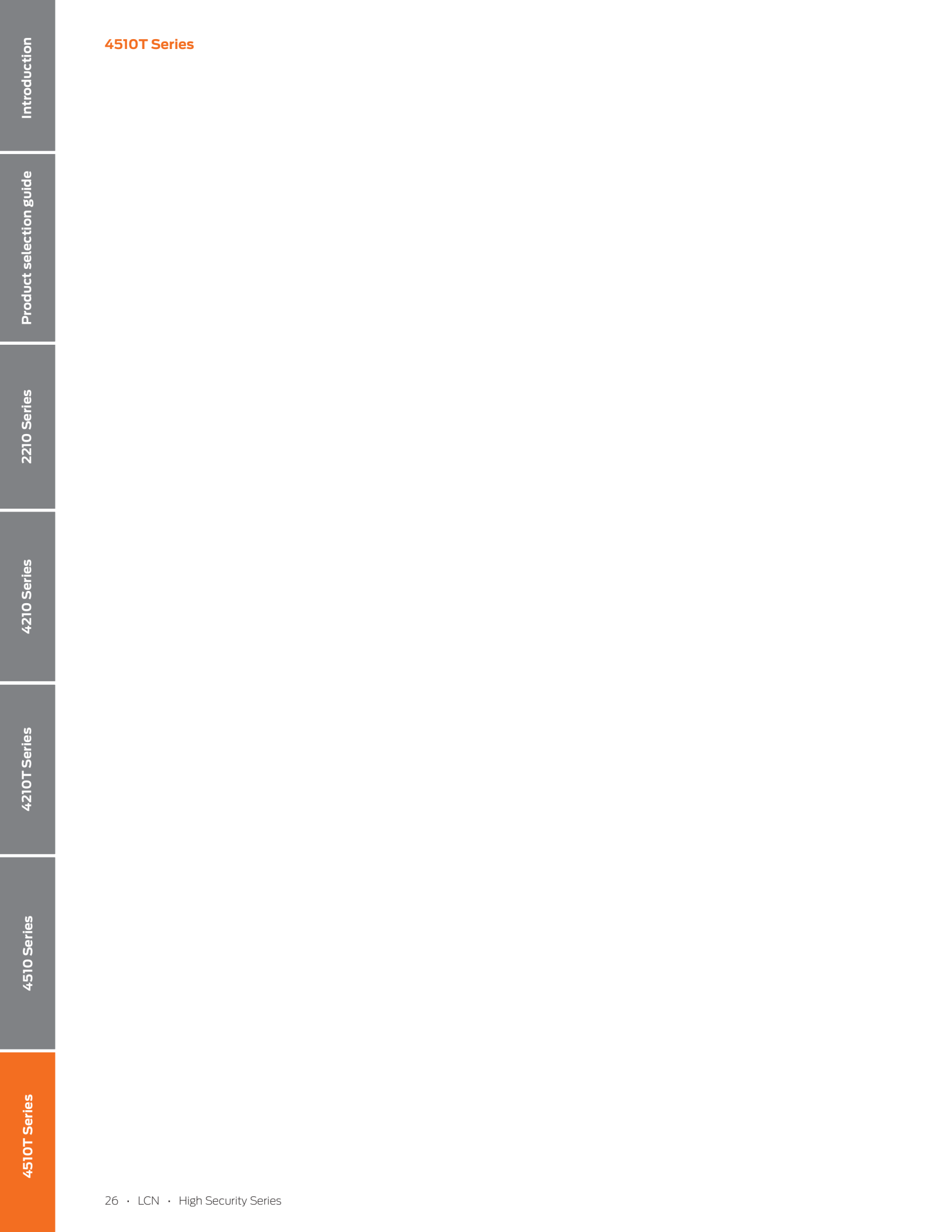
Reduced opening force 4510T Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	4513T	4513T	4513T
	5.0* lbs.	4511T	4511T	4511T

* Maximum opening force.



4510T Series

Introduction	Product selection guide	2210 Series	4210 Series	4210T Series	4510 Series	4510T Series
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About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions. Allegion had \$2.7 billion in revenue in 2018, and sells products in almost 130 countries.

For more, visit www.allegion.com.

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN

LCN®

Concealed closers





Strength and performance for aesthetically driven applications

Allegion's LCN door control portfolio is at the top of its class because of its high-quality construction and reliable performance. LCN's rich history started in 1877 when its' founder was hired to solve the problem of slamming church doors in Boston, leading to the world's first door check.

Built from the inside out, the LCN portfolio combines tougher, bolder construction with proven technology – setting the standards for reliability, longevity and value in high-use applications. Reliability means control over door speed, latch engagement and, ultimately, how well a door with an LCN closer operates in the field.

The overhead concealed closer series features heavy duty construction and smooth, quiet operation. Featuring a high strength cast iron cylinder, you won't compromise strength and performance to meet your desired aesthetic.

LCN was formed on the belief that quality sets us apart. With millions of door closers installed in facilities across the world and backed by support at every point of interaction no matter your role in the industry, you can be confident in choosing LCN.

Features that set concealed closers apart

- Concealment in either the head frame or top rail of the door for aesthetically driven applications
- Features quiet, low friction track and roller combination for all standard arm closers
- Includes high strength cast iron cylinder, and full rack and pinion hydraulic action
- Adjustable hydraulic backcheck cushions and separate regulation of general closing speed and latching speed

Information and customer care



us.allegion.com



US 877.671.7011
Canada 800.900.4734



support@allegion.com
Closers_TechProdSupport@allegion.com



www.youtube.com/LCNHardware

Ordering



Allegion_Orders@allegion.com

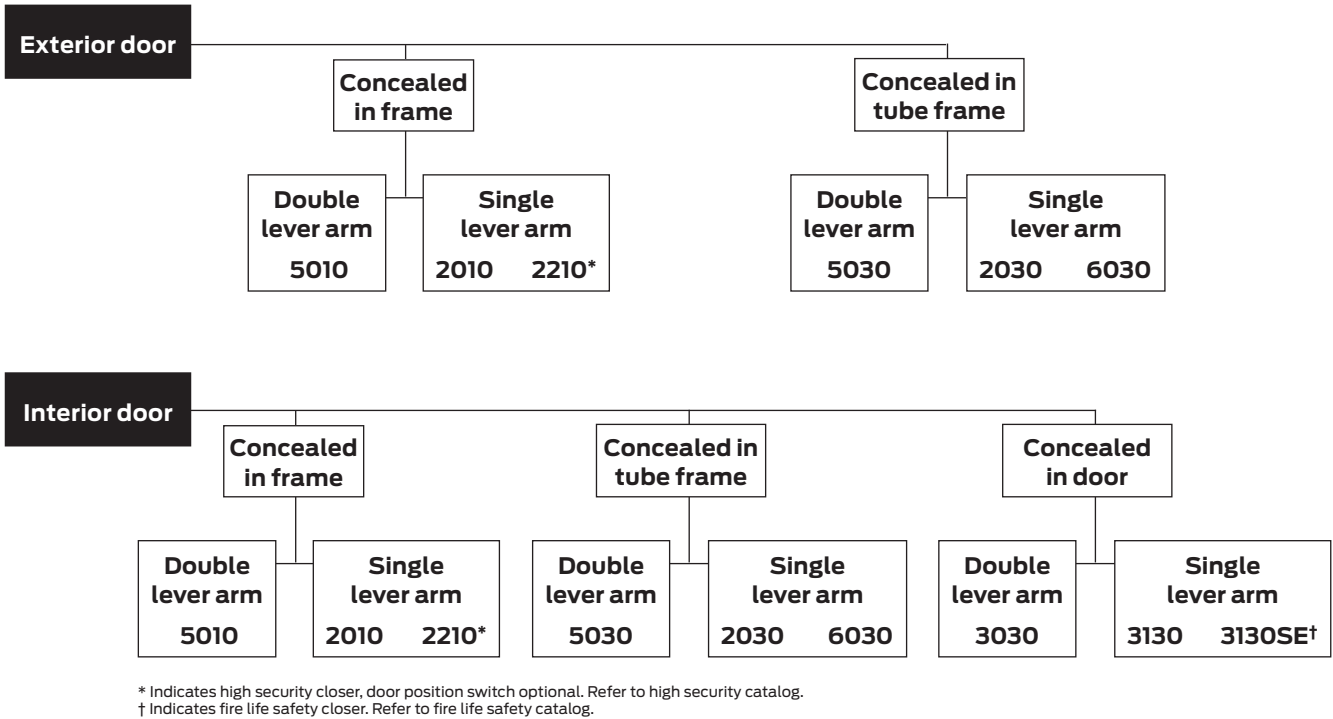


eFax: 1.800.248.1460

Concealed mounted closers

Product selection guide

The concealed LCN closers feature a modern design for concealment in either the head frame or top rail of the door. This guide is based on the desired mounting of the closer.



Product comparison

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

	Mounting			Finish		Cylinder		Arm		Arm function*				
	In frame	In 1 3/4" tube	In door	Powder coat	Plated	Handed	Sized	Accessibility	Delay action	Concealed	Exposed	Standard (single)	Regular (double)	Hold Open
2010	■	■	■	■	■	■	■	♿	■	■	■	180°	■	110°
2030	■	■	■	■	■	■	■	♿	■	■	■	180°	■	110°
3030	■	■	■	■	■	■	■	♿	■	■	■	■	180°	140°
3130	■	■	■	■	■	■	■	♿	■	■	■	140°	■	100°
5010	■	■	■	■	■	■	■	♿	■	■	■	■	180°	100°
5030	■	■	■	■	■	■	■	♿	■	■	■	■	180°	100°
6030	■	■	■	■	■	■	■	♿	■	■	■	95°	■	95°

- 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.

Applications

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

Features common to concealed closers

- Mountings for head frame or door top rail
- Handed for right or left swinging doors (except 6030)
- Closers to meet ADA reduced opening force requirements
- Adjustable hydraulic back check cushions opening swing prior to 90°
- Separate regulation of general closing speed and latching speed
- Joints in arm and shoe adapt to uneven trim (for double lever arms)

Design assistance

LCN has been providing reliable solutions to unique door control problems since 1925. Design and specification assistance are only a phone call away. Contact LCN for assistance or technical information at 877-671-7011, fax 800-248-1460 for Order Entry, or fax 815-879-1495 for Product Support.

Warranty

15 year limited warranty. See General Information catalog for complete warranty details.

Specifications

Refer to "Specifications" section for suggested architectural specifications.

Materials

(Closers concealed in the door or frame)

- High strength cast iron cylinder
- Forged steel main arms (except 6030)
- One piece forged steel piston
- All weather fluid in overhead concealed models performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) without any seasonal adjustment
- High efficiency, full complement, low friction bearings
- Full rack and pinion hydraulic action
- Quiet, low friction track and roller combination for all single lever (standard) arm closers

Finishes

- Available in six standard or a wide selection of optional custom powder coat finishes to blend with door and frame
- LCN's powder coat finishes surpass 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance
- For installations where a higher level of corrosive resistance is required, LCN offers an optional Special Rust Inhibitor (SRI) pretreatment
- Closers that combine the exclusive LCN powder coat finish and the SRI pre-treatment exceed the ANSI standard for corrosion resistance even further
- Plated finishes are available as an option to accent door and frame (SRI not available with plated finishes)

Listings and approvals

UL listed for self-closing doors without hold open under "swinging door closers" (GVEV) file R1943. Tested and certified under ANSI Standard A156.4. Consult factory for other listings such as; cUL, California State Fire Marshal, Bureau of Standards and Appeals.

Positive pressure

LCN closers have been certified for three hours by UL to be in compliance with UL 10C. Contact LCN for specific details on door closer fire ratings.

Fasteners

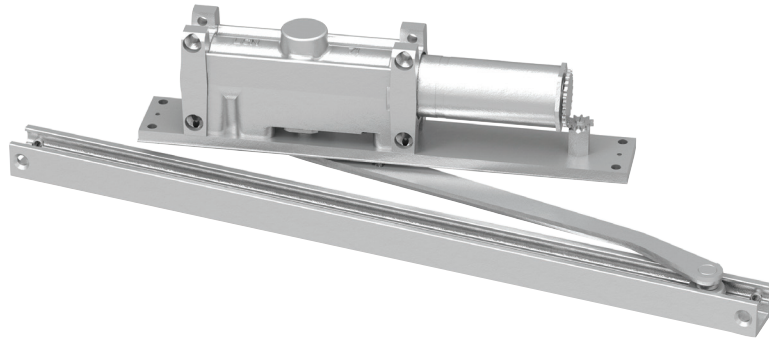
- Standard Wood and Machine Screws (WMS) contains Phillips head wood and machine screws to install the closer
- Torx Machine Screws are available for some closers

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

Maintenance

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

2010 Series



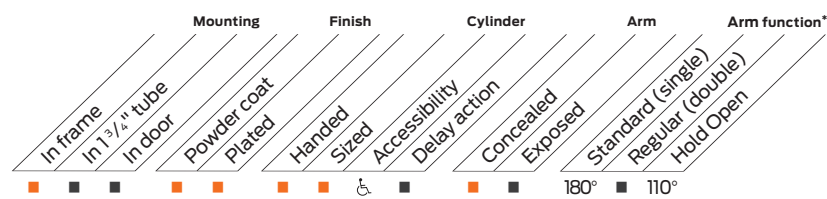
The concealed 2010 Series is a heavy duty closer designed to provide complete concealment. The single lever arm and roller assembly provide smooth, quiet door control and the choice of finishes and track functions meet virtually all architectural requirements.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10 C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Fasteners	Wood and Machine Screws (WMS)
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal 	Mounting	Concealed (in frame); aluminum frame requires minimum 4" x 4" (102 mm) tube
Fluid	All weather fluid	Arms	Standard Arm And Track
Handing	Handed	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional
Size	Sized 1-6		<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes
Warranty	15 years		

Special templates

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



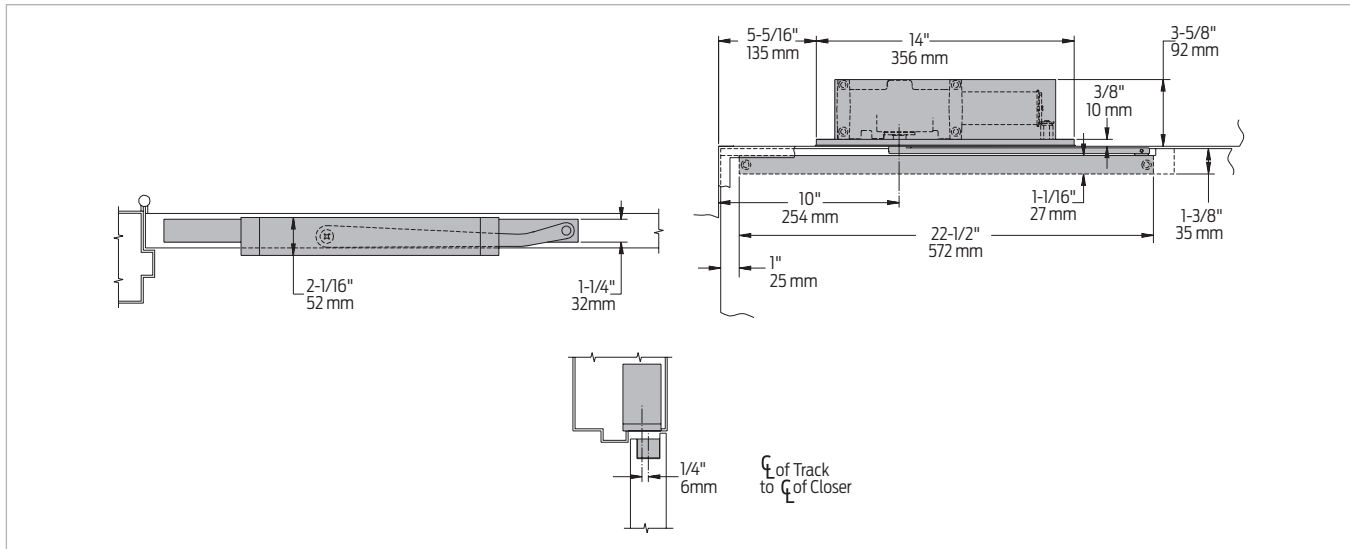
■ Available
■ Not available

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.

Mounting details

Concealed mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none"> Recommended where a door cannot swing 180° Optional track bumper assembly assists back check in cushioning the opening swing of the door (not intended to replace an auxiliary stop)
Top rail	<ul style="list-style-type: none"> 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
Maximum opening	<ul style="list-style-type: none"> 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 (H) 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 (H) 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 (H)

Notes:

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

Accessories

Cylinders



2011(3)(4)(5)(6)-3071
Cast iron cylinder assembly
with mounting plate (CYL)

- Handed
- With mounting plate
- Standard

Arms



2010-3077T
Standard Arm (STDTRKARM)

- Handed
- Track roller not included with arm

Tracks



2010-3038
Standard Track (STDTRK)

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard



2010-3038B
Track with Bumper (BUMP)

- Non-handed
- Non hold open
- Will accept hold open clip
- Optional



2010-3038H
Hold Open Track (H)

- Non-handed
- Will accept bumper assembly
- Optional



2010-3038HB
Hold Open Track with Bumper (HBMP)

- Non-handed
- Optional

Installation accessories



2010-420
Fire Shield

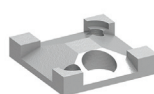
- 22 gauge steel liner mounts in the track mortise of the door's top rail for 20 minute labeled wood doors



2010-169
Track Bumper

- Mounts in track to assist back check
- Limits maximum opening
- Consists of bumper, bumper post and mounting screw

Note: Track bumper does not replace auxiliary stop.



2010-3054
Hold Open Clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Requires 2010-3034H



2010-3034
Track Roller

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



2010-3034H
Hold Open Track Roller

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

Ordering information

How-to-order 2010 Series closers

1. Select cylinder size

- ☐ 2011
- ☐ 2013
- ☐ 2014
- ☐ 2015
- ☐ 2016

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat
Aluminum (689), Dark
Bronze (695), Statuary
Bronze (690), Light
Bronze (691), Black
(693), or Brass (696)

Closer will be shipped with:

- Standard cylinder with finish plate
- Standard arm
- Standard track
- Wood and machine screws
(unless options listed below are selected)

Closer options

Track

- ☐ Track with Bumper (BUMP)
- ☐ Hold Open Track (H)
- ☐ Hold Open Track with Bumper (HBMP)

Finish

- ☐ Custom powder coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (use with powder coat finishes only)

Screw pack

- ☐ Torx Machine Screws (TORX)

Installation accessories

- ☐ Fire Shield, 2010-420

Special template

- ☐ ST- _____

Table of sizes

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

Exterior (and vestibule) door width

	28" 711 mm	30" 762 mm	36" 914 mm	42" 1067 mm	48" 1219 mm
	size 3	size 4	size 5	size 6	
2013	→				
2014		→			
2015			→		
2016				→	
	Minimum door width				

Interior door width

	28" 711 mm	34" 864 mm	38" 965 mm	48" 1219 mm	54" 1372 mm	60" 1524 mm
		size 3	size 4	size 5	size 6	
2013		→				
2014			→			
2015				→		
2016					→	
	Minimum door width					

→ Indicates recommended range of door width for closer size.

Reduced opening force 2010 Series closers

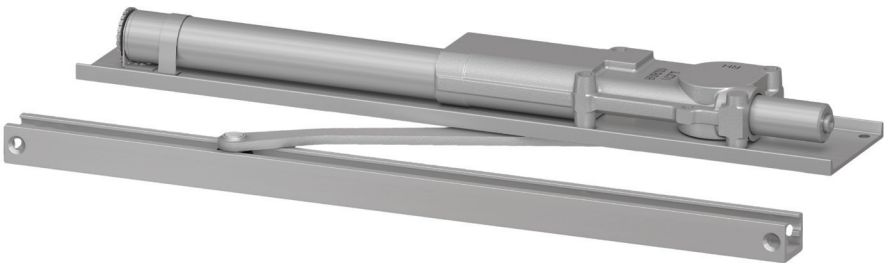
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

Door width	36"	42"	48"
8.5* lbs.	2014	2014	2015
5.0* lbs.	2011	2011	2013

* Maximum opening force.

2030 Series

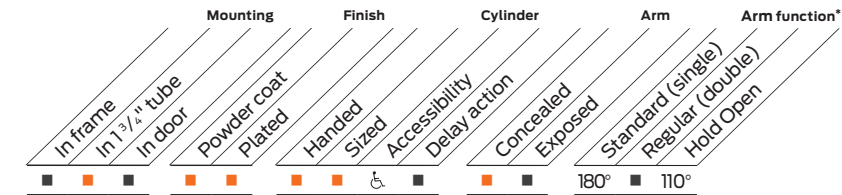


The concealed 2030 Series PACER® is a heavy duty closer designed to fit in a narrow, minimum 1 3/4" aluminum transom. The single lever arm and roller assembly provide smooth, quiet door control and the choice of finishes and track functions meet virtually all architectural requirements.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Fasteners	Wood and Machine Screws (WMS)
Body construction	<ul style="list-style-type: none">Cast iron bodyFull complement bearing1 1/8" diameter piston1/16" diameter double heat treated pinion journal	Mounting	Concealed (in tube); aluminum frame requires minimum 1-3/4" (44 mm) x 4" (102 mm) tube
Fluid	All weather fluid	Arms	Standard Arm and Track
Handing	Handed	Finishes/colors/ powder coat	<ul style="list-style-type: none">689 Aluminum690 Statuary Bronze691 Light Bronze693 Black695 Dark Bronze696 BrassCustom colors optionalOptional SRI primer - powder coat onlyOptional plated finishes
Size	Sized 1-5		
Warranty	15 years		

Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

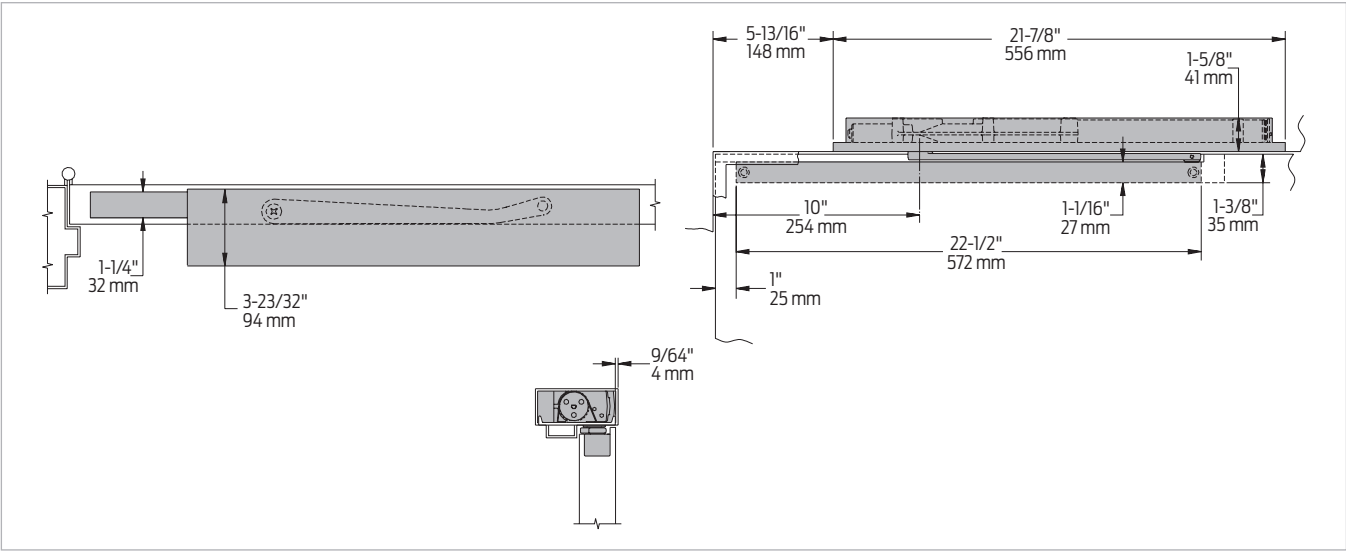


■ Available
■ Not available

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.

Mounting details

Concealed mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended where a door cannot swing 180°Optional track bumper assembly assists back check in cushioning the opening swing of the door (not intended to replace an auxiliary stop)
Top rail	<ul style="list-style-type: none">1 3/8" (35 mm) mortise requiredWith Fire Shield, 1 13/32" (36 mm) mortise required5/16" (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.
Maximum opening	<ul style="list-style-type: none">Butt hinge template allows 180°, trim permittingLimited to 110° when optional bumper is installedAdjustable hold open points from 85° to 110°, with Hold Open Track (H)Consult factory if door will be held open at 180°Offset pivot template allows 115°, trim permitting. Limited to 95° when optional bumper is installedHold open point from 85°, with Hold Open Track (H)Center pivot template allows 120°, trim permittingLimited to 100° when optional bumper is installedAdjustable hold open points from 85° to 100°, with Hold Open Track (H)

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

Accessories

Cylinders



2031(2)(3)(4)(5)-3071
Cast iron cylinder assembly
with mounting plate (CYL)

- Handed
- With mounting plate
- Standard

Arms



2030-3077T
Standard Arm (STDTRKARM)

- Handed
- Track roller not included with arm

Tracks



2030-3038
Standard Track (STDTRK)

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard



2030-3038B
Track with Bumper (BUMP)

- Non-handed
- Non hold open
- Will accept hold open clip
- Optional



2030-3038H
Hold Open Track (H)

- Non-handed
- Will accept bumper assembly
- Optional



2030-3038HB
Hold Open Track with Bumper (HBMP)

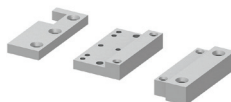
- Non-handed
- Optional

Installation accessories



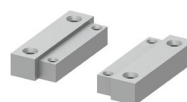
2030-420
Fire Shield

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



2030-416
Wood Mounting Clip Set

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



2030-417
Wood Mounting Clip Set

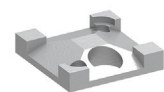
- Simplifies mounting offset pivoted or butt hung 2030 closer in wood frame
- Includes two clips
- For use with offset pivots
- Consult factory for special template



2030-169
Track Bumper

- Mounts in track to assist back check
- Limits maximum opening
- Consists of bumper, bumper post and mounting screw

Note: Track bumper does not replace auxiliary stop.



2030-3054
Hold Open Clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Requires 2030-3034H Hold Open Track Roller



2030-3034
Track Roller

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



2030-3034H
Hold Open Track Roller

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

Ordering information

How-to-order 2030 Series closers

1. Select cylinder size

- ☐ 2031
- ☐ 2032
- ☐ 2033
- ☐ 2034
- ☐ 2035

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark
Bronze (695), Statuary
Bronze (690), Light
Bronze (691), Black
(693), or Brass (696)

Closer will be shipped with:

- Standard cylinder with mounting plate
- Standard arm
- Standard track
- Wood and machine screws
(unless options listed below are selected)

Closer options

Track

- ☐ Track with Bumper (BUMP)
- ☐ Hold Open Track (H)
- ☐ Hold Open Track with Bumper (HBMP)

Finish

- ☐ Custom powder coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (use with powder coat finishes only)

Screw pack

- ☐ Torx Machine Screws (TORX)

Installation accessories

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

Special template

- ☐ ST- _____

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

Exterior (and vestibule) door width

	28" 711 mm	30" 762 mm	36" 914 mm	42" 1067 mm
	size 3	size 4	size 5	
2033	→	→	→	→
2034	→	→	→	→
2035	→	→	→	→
	Minimum door width			

Interior door width

	28" 711 mm	34" 864 mm	38" 965 mm	48" 1219 mm	54" 1372 mm
	size 2	size 3	size 4	size 5	
2032	→	→	→	→	→
2033	→	→	→	→	→
2034	→	→	→	→	→
2035	→	→	→	→	→
	Minimum door width				

→ Indicates recommended range of door width for closer size.

Reduced opening force 2030 Series closers

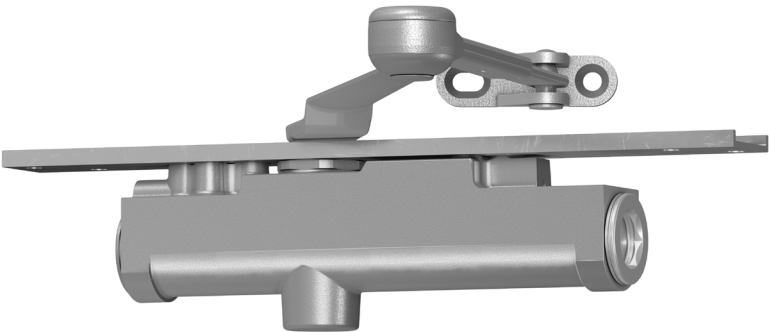
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

Door width	36"	42"	48"
8.5* lbs.	2033	2033	2034
5.0* lbs.	2031	2032	2032

* Maximum opening force.

3030 Series

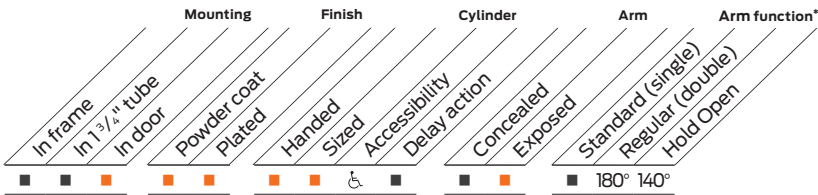


The concealed 3030 Series is designed to mount in a 1 3/4" interior door. The double lever arm provides superior door control and the choice of finishes and arm functions meet virtually all architectural requirements.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Mounting	Concealed (in door); consult factory for installations with pivots
Body construction	<ul style="list-style-type: none">Cast iron bodyFull complement bearing1 1/8" diameter piston	Arms	Regular arm
Fluid	All weather fluid	Finishes/colors/powder coat	<ul style="list-style-type: none">689 Aluminum690 Statuary bronze691 Light bronze693 Black695 Dark bronze696 BrassCustom colors optionalOptional SRI primer - powder coat onlyOptional plated finishes
Handing	Handed		
Size	Sized 1-4		
Warranty	15 years		
Fasteners	Wood Screws and Torx Security Screws (optional)		

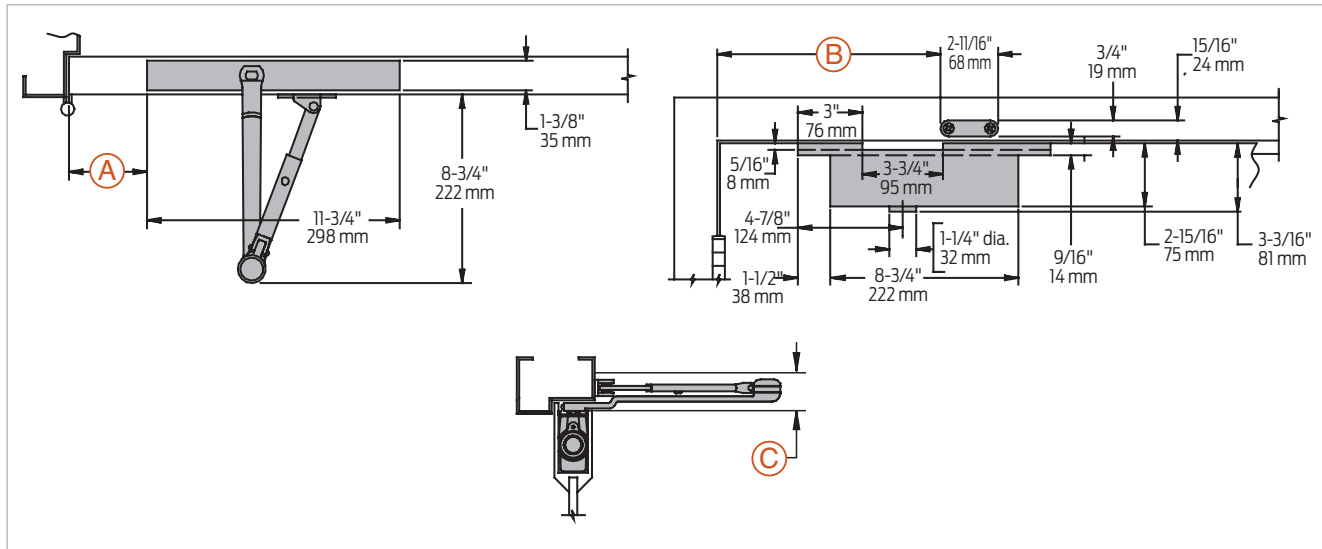
Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



■ 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.

Mounting details

Concealed mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°
Reveal	Minimum 4" (102 mm) required
Top rail	<ul style="list-style-type: none"> 1 3/4" (44 mm) minimum Please consult the door manufacturer to assure that the door integrity and warranty is maintained after installing the 3030 Series door closer in a 1 3/4" thick wood door
Clearance	2 13/16" (72 mm) behind door required for 90° installation
Delay action	Delays closing from 180°-70°. Delay time adjustable up to approximately 1 minute
Maximum opening	To 100°: A = 3 5/8" (92 mm) B = 10 1/4" (260 mm)
	130°: A = 2 5/8" (67 mm) B = 9 1/4" (235 mm)
	180°: A = 1 5/8" (41 mm) B = 8 1/4" (210 mm)
	Hold open points up to maximum opening or 140°, whichever is less, with Hold Open Arm (H)
	Arm clearance above door: C = 1 1/4" (32 mm)

Notes:

- For interior doors
- Single acting cylinder in top rail of door
- Exposed arm on hinge side of door

Accessories

Cylinders



3031(2)(3)(4)-3071
Cast iron cylinder assembly
with mounting plate (CYL)

- Handed
- With mounting plate
- Standard



3030-3077
Regular Arm (REGARM)

- Non-handed



3030-3049
Hold Open Arm (H)

- Handed
- Provides hold open
function, adjustable
at elbow
- Optional

Ordering information

How-to-order 3030 Series closers

- 1. Select cylinder size**

 - ☐ 3031
 - ☐ 3032
 - ☐ 3033
 - ☐ 3034
- 2. Specify hand**

 - ☐ Right Hand (RH)
 - ☐ Left Hand (LH)
- 3. Select finish**

Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer will be shipped with:

- Standard cylinder
- Regular arm
- Wood and machine screws

(unless options listed below are selected)

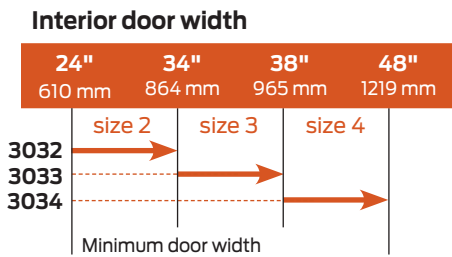
Closer options

- Arm**
- ☐ Hold Open Arm (H)
- Finish**
- ☐ Custom powder coat (RAL) _____
 - ☐ Plated finish _____
 - ☐ SRI primer (use with powder coat finishes only)

- Screw pack**
- ☐ Torx Machine Screws (TORX)
- Special template**
- ☐ ST- _____

Table of sizes

- Select closer based on width of door
- 3030 Series cylinders available in size 1, 2, 3, or 4
- Closing power of all 3030 Series closers may be increased 15%



→ Indicates recommended range of door width for closer size.

Reduced opening force 3030 Series closers

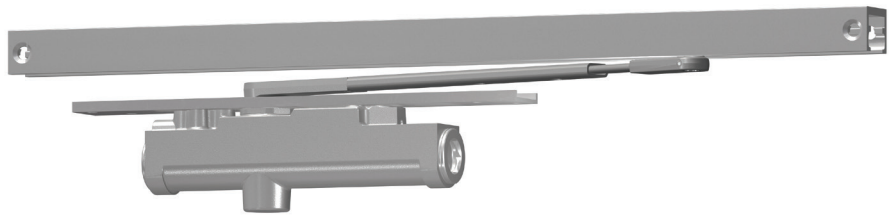
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog 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.	3031	3031	3032

* Maximum opening force.

3130 Series



The concealed 3130 Series 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.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Mounting	Concealed (in door); consult factory for installation with pivots
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/8" diameter piston 	Arms	Standard arm and track
Fluid	All weather fluid	Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
Handing	Handed		<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes
Size	Sized 1-3		
Warranty	15 years		
Fasteners	Wood Screws and Torx Security Screws (optional)		

Special templates

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

Mounting	Finish	Cylinder	Arm	Arm function*
In frame	Powder coat	Accessibility	Standard (single)	Regular (double)
In 1 3/4" tube	Plated	Delay action	Regular (double)	Hold Open
In door	Handed	Concealed	140°	
	Sized	Exposed	100°	

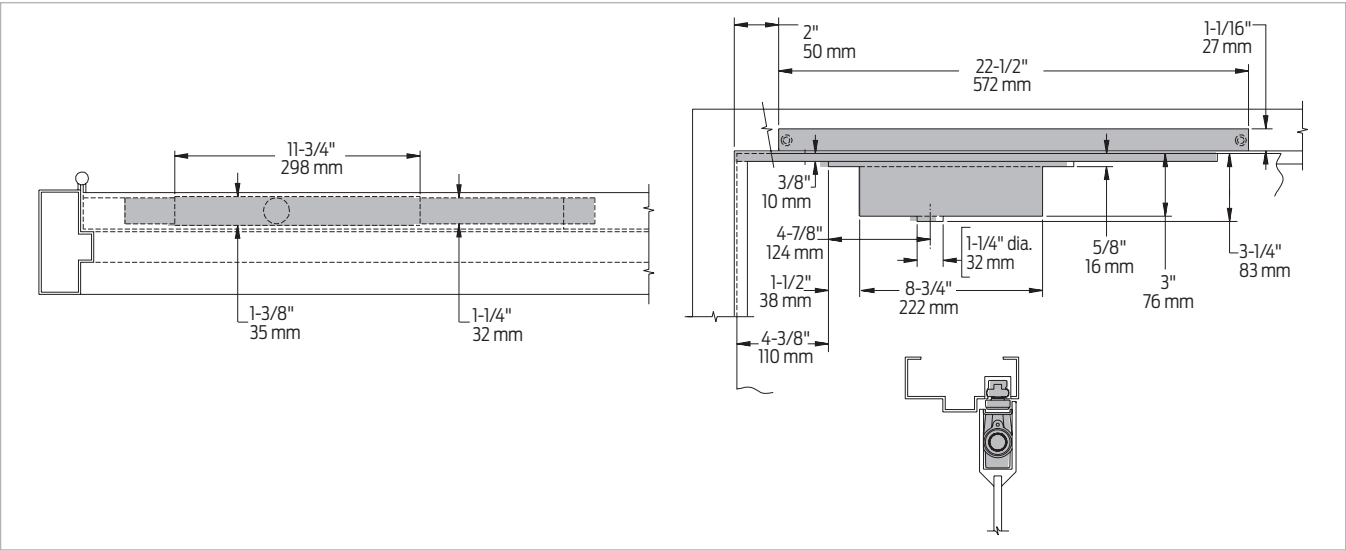
- Available
■ Not available

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.

Mounting details

Concealed mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 140°Optional track bumper assembly assists back check 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	<ul style="list-style-type: none">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
Maximum opening	<ul style="list-style-type: none">Templating allows 140°, trim permitting. 100° with optional bumper installedAdjustable hold open points from 85° to 100°, with Hold Open Track (H)

- Notes:
- For interior doors
 - Single acting cylinder and standard arm in top rail of door
 - Concealed track in head frame
 - Consult factory for installations with pivots

Accessories

Cylinders



3131(2)(3)-3071
Cast iron cylinder assembly
with mounting plate (CYL)

- Handed
- With mounting plate
- Standard

Arms



3130-3077T
Standard Arm (STDTRKARM)

- Handed
- Track roller not included with arm
- Standard

Tracks



3130-3038
Standard Track (STDTRK)

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard



3130-3038B
Track with Bumper (BUMP)

- Non-handed
- Non hold open
- Will accept hold open clip
- Optional



3130-3038H
Hold Open Track (H)

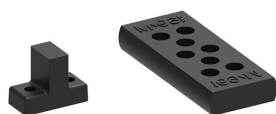
- Non-handed
- Will accept bumper assembly
- Optional



3130-3038HB
Hold Open Track with Bumper (HBMP)

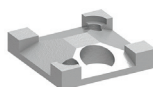
- Non-handed
- Optional

Installation accessories



3130-169
Track Bumper

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



3130-3054
Hold Open Clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Requires 3130-3034H Hold Open Track Roller



3130-3034
Track Roller

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



3130-3034H
Hold Open Track Roller

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

Ordering information

How-to-order 3130 Series closers

- 1. Select cylinder size**

 - ☐ 3131
 - ☐ 3132
 - ☐ 3133
- 2. Specify hand**

 - ☐ Right Hand (RH)
 - ☐ Left Hand (LH)
- 3. Select finish**

☐ Standard powder coat _____

Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Standard arm
- Track roller
- Standard track
- Self-reaming and tapping screws (unless options listed below are selected)

Closer options

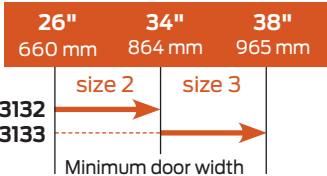
- Track**
- ☐ Track with Bumper (BUMP)
 - ☐ Hold Open Track (H)
 - ☐ Hold Open Track with Bumper (HBMP)
- Finish**
- ☐ Custom powder coat (RAL) _____
 - ☐ Plated finish _____
 - ☐ SRI primer (use with powder coat finishes only)

- Screw pack**
- ☐ Torx Machine Screws (TORX)
- Special template**
- ☐ ST- _____

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

Interior door width



➡ Indicates recommended range of door width for closer size.

Reduced opening force 3130 Series closers

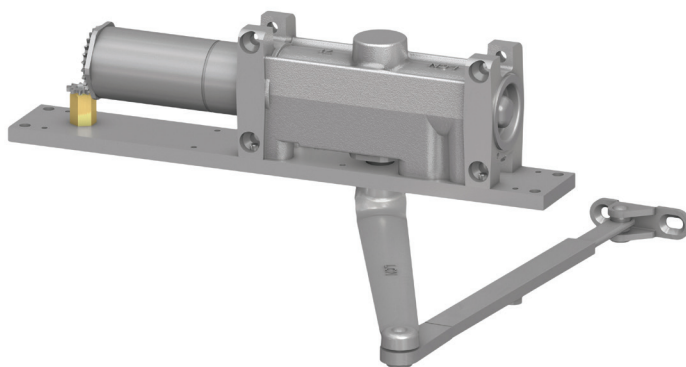
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog 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.	3131	3131	3132

* Maximum opening force.

5010 Series



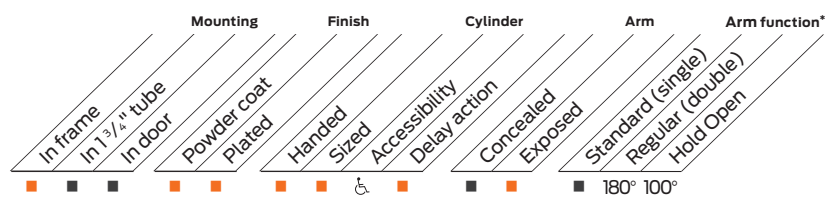
The concealed 5010 Series is a heavy duty closer designed for institutional, high traffic, or other applications exposed to weather or abuse. The double lever arm provides superior door control and a choice of finishes, cylinder functions, and arm functions that meet virtually all architectural requirements.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Mounting	Concealed (in frame); aluminum frame requires 4" (102 mm) x 4" tube
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1 1/16" diameter double heat treated pinion journal 	Arms	Regular Arm
Fluid	All weather fluid	Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes
Handing	Handed		
Size	Sized 1-6		
Warranty	15 years		
Fasteners	Wood Screws and Torx Security Screws (optional)		

Special templates

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



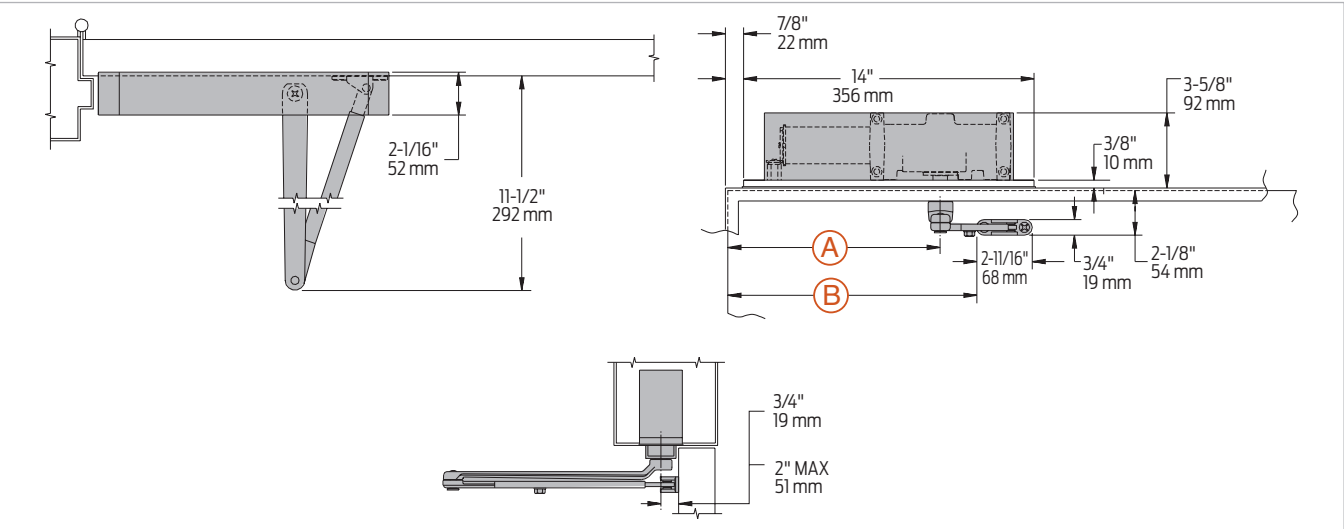
■ Available
■ Not available

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.

Mounting details

Concealed mounting

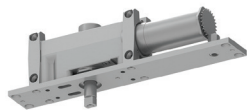


Butt hinges	Should not exceed 6" (152 mm) in width								
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°								
Top rail	Minimum 2 1/8" (54 mm) required								
Delay action	<ul style="list-style-type: none">▪ Add suffix "CYLDEL" to selected cylinder (not available with 5016 cylinder)▪ Delays closing from maximum opening to approximately 70°▪ Delay time adjustable up to approximately 1 minute								
Maximum opening	<p>Butt hung doors can be templated for:</p> <table><tr><td>100°:</td><td>A = 10 3/16" (259 mm)</td></tr><tr><td></td><td>B = 12" (305 mm)</td></tr><tr><td>180°:</td><td>A = 5 1/2" (140 mm)</td></tr><tr><td></td><td>B = 7 5/16" (186 mm) trim permitting</td></tr></table> <ul style="list-style-type: none">▪ Hold open points up to 100° only with Hold Open Arm (H)▪ Center pivot mounting restricts opening to 140°▪ Offset pivot mounting allows up to 180°, trim permitting	100°:	A = 10 3/16" (259 mm)		B = 12" (305 mm)	180°:	A = 5 1/2" (140 mm)		B = 7 5/16" (186 mm) trim permitting
100°:	A = 10 3/16" (259 mm)								
	B = 12" (305 mm)								
180°:	A = 5 1/2" (140 mm)								
	B = 7 5/16" (186 mm) trim permitting								

- Notes:
- For interior or exterior doors
 - Single acting cylinder in head frame
 - Exposed arm on hinge side of door

Accessories

Cylinders



5011(2)(3)(4)(5)(6)-3071
Cast iron cylinder assembly
with mounting plate (CYL)

- Handed
- With mounting plate
- Standard

Arms



5010-3077
Regular Arm (REGARM)

- Non-handed



5010-3049
Hold Open Arm (H)

- Handed
- Provides hold open function for 100° template, adjustment at elbow
- Optional

Ordering information

How-to-order 5010 Series closers

1. Select cylinder size

- ☐ 5011
- ☐ 5012
- ☐ 5013
- ☐ 5014
- ☐ 5015
- ☐ 5016 (CYLDEL not available)

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer will be shipped with:

- Standard cylinder with finish plate
- Standard arm
- Regular arm
- Wood and machine screws
(unless options listed below are selected)

Closer options

Cylinder function

- ☐ Delay Action Cylinder (CYLDEL)

Arm

- ☐ Hold Open Arm (H)

Finish

- ☐ Custom powder coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (use with powder coat finishes only)

Screw pack

- ☐ Torx Machine Screws (TORX)

Special template

- ☐ ST- _____

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
- Delay action not available with 5016 cylinder

Exterior (and vestibule) door width

	24" 610 mm	30" 762 mm	36" 914 mm	42" 1067 mm	48" 1219 mm
	size 3	size 4	size 5	size 6	
5013	→				
5014		→			
5015			→		
5016				→	
	Minimum door width				

Interior door width

	24" 610 mm	34" 864 mm	38" 965 mm	48" 1219 mm	54" 1372 mm	60" 1524 mm
	size 2	size 3	size 4	size 5	size 6	
5012	→					
5013		→				
5014			→			
5015				→		
5016					→	
	Minimum door width					

→ Indicates recommended range of door width for closer size.

Reduced opening force 5010 Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

Door width	36"	42"	48"
8.5* lbs.	5012	5013	5013
5.0* lbs.	5011	5011	5012

* Maximum opening force.

5030 Series



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.

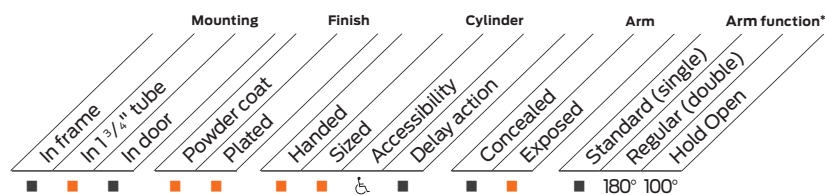
Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/8" diameter piston 1 1/16" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Handed
Size	Sized 1, 3, 4, 5, 6
Warranty	15 years

Fasteners	Wood Screws and Torx Security Screws (optional)
Mounting	Concealed (in tube); aluminum frame requires minimum 1 3/4" (44 mm) x 4 1/2" (114 mm) tube
Arms	Regular arm
Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes

Special templates

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



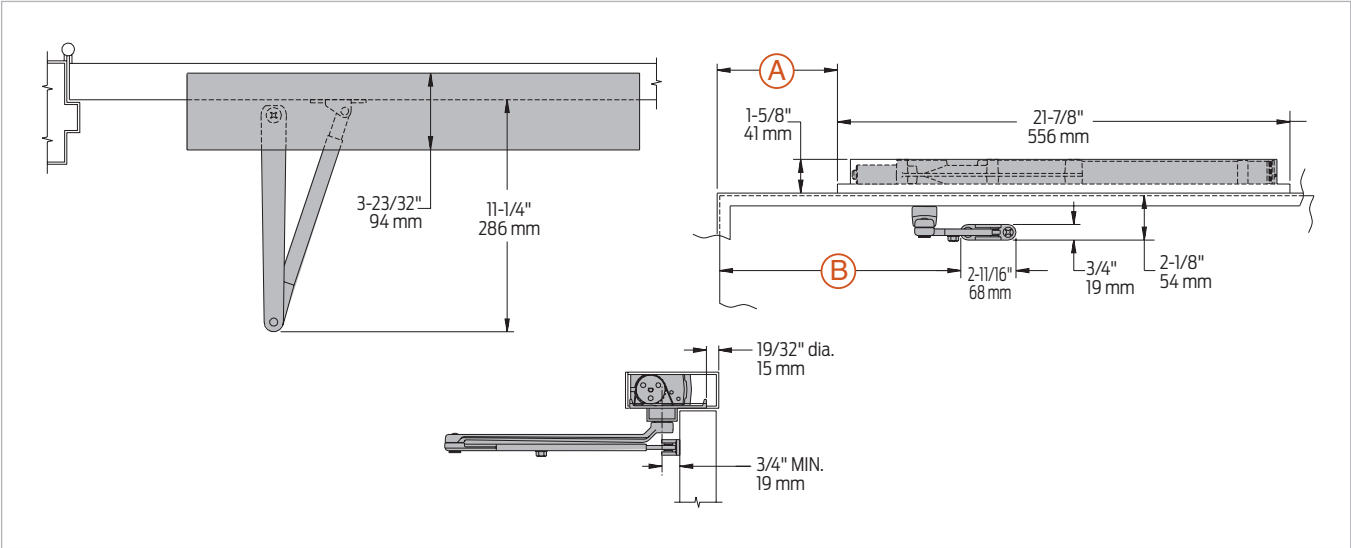
- Available
■ Not available

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.

Mounting details

Concealed mounting

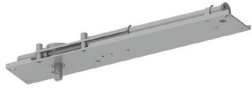


Butt hinges	Should not exceed 6" (152 mm) in width
Auxiliary stop	Recommended at hold open point or where the door cannot swing 180°
Top rail	Minimum 2 1/8" (54 mm) required
Door thickness	Maximum 1 3/4" (44 mm), for doors thicker than 1 3/4" consult factory
Wood frame	<ul style="list-style-type: none">Installation simplified by wood mounting clip set 5030-416 for center pivoted or 5030-417 for offset pivoted and butt hung installationsConsult factory for preparation details
Maximum opening	<p>Butt hung doors can be templated for:</p> <p>100°: A = 5 13/16" (148 mm) B = 11 13/16" (300 mm)</p> <p>180°: A = 2 1/16" (52 mm) B = 8 1/16" (205 mm) trim permitting</p> <ul style="list-style-type: none">Hold open points up to 100° only with Hold Open Arm (H)Center pivot mounting restricts opening to 120°. Hold open up to 120° with Hold Open Arm (H)Offset pivot mounting allows up to 115°, trim permitting. Hold open up to 115° with Hold Open Arm (H)

- Notes:
- For interior or exterior doors
 - Single acting cylinder in head frame
 - Exposed arm on push side of door

Accessories

Cylinders



5031(3)(4)(5)(6)-3071
Cast iron cylinder assembly
with mounting plate (CYL)

- Handed
- With mounting plate
- Standard

Arms



5030-3077
Regular Arm (REGARM)

- Non-handed

5030-3049
Hold Open Arm (H)

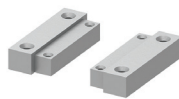
- Handed
- Provides hold open function for 100° template, adjustment at elbow
- Optional

Installation accessories



5030-416
Wood Mounting Clip Set

- Simplifies mounting center pivoted 5030 closer in wood frame
- Includes latch stile clip, hinge stile clip and cover
- For use with Ives center pivots
- Consult factory for special template



5030-417
Wood Mounting Clip Set

- Simplifies mounting offset pivoted or butt hung 5030 closer in wood frame
- Includes two clips
- For use with offset pivots
- Consult factory for special template

Ordering information

How-to-order 5030 Series closers

1. Select cylinder size

- ☐ 5031
- ☐ 5033
- ☐ 5034
- ☐ 5035
- ☐ 5036

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat _____
- Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer will be shipped with:

- Standard cylinder with mounting plate
- Regular arm
- Wood and machine screws
(unless options listed below are selected)

Closer options

Arm

- ☐ Hold Open Arm (H)

Finish

- ☐ Custom powder coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (use with powder coat finishes only)

Screw pack

- ☐ Torx Machine Screws (TORX)

Installation accessories

- ☐ Wood clip set, 5030-416
- ☐ Wood clip set, 5030-417

Special template

- ☐ ST- _____

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

Exterior (and vestibule) door width

	28" 711 mm	30" 762 mm	36" 914 mm	42" 1067 mm	48" 1219 mm
	size 3	size 4	size 5	size 6	
5033	→				
5034		→			
5035			→		
5036				→	
	Minimum door width				

Interior door width

	28" 711 mm	34" 864 mm	38" 965 mm	48" 1219 mm	54" 1372 mm	60" 1524 mm
		size 3	size 4	size 5	size 6	
5033		→				
5034			→			
5035				→		
5036					→	
	Minimum door width					

→ Indicates recommended range of door width for closer size.

Reduced opening force 5030 Series closers

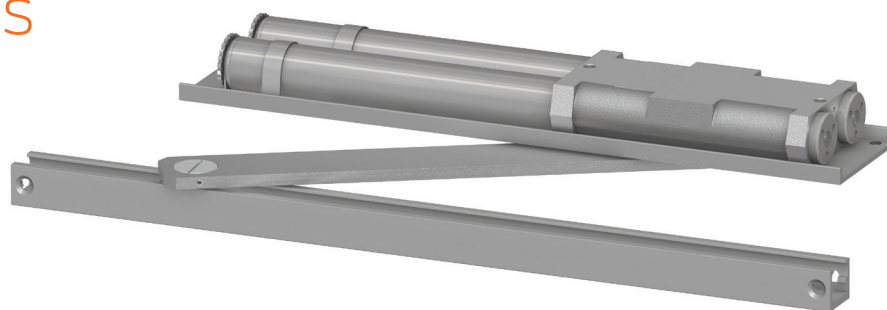
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

Door width	36"	42"	48"
8.5* lbs.	5033	5033	5033
5.0* lbs.	5031	5031	5033

* Maximum opening force.

6030 Series



The concealed 6030 Series PACER® is a heavy duty double acting closer designed to fit in a narrow, minimum 1 3/4" header. 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.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/8" diameter piston 1 1/16" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Non-handed
Size	Sized 1-5
Warranty	15 years

Fasteners	Wood Screws and Torx Security Screws (optional)
Mounting	Concealed (in tube); double acting
Arms	Standard arm with track
Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
	<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

Mounting	Finish	Cylinder	Arm	Arm function*
In frame	Powder coat	Accessibility	Standard (single)	95°
In 1 3/4" tube	Plated	Delay action	Regular (double)	95°
In door	Handed	Concealed	Hold Open	
	Sized	Exposed		

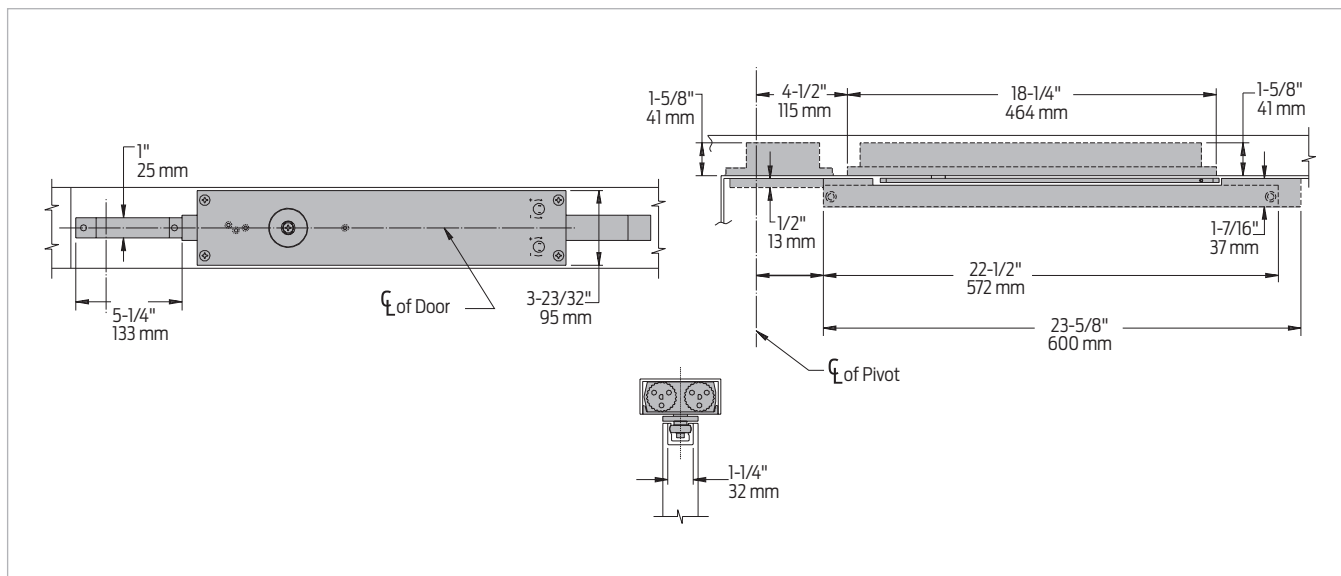
- Available
■ Not available

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.

Mounting details

Hinge (pull) side mounting



Auxiliary stop	Recommended where a door cannot swing 95°
Center pivot set	Must be used but ordered separately
Top rail	<ul style="list-style-type: none"> 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
Door width	30" (762 mm) minimum with 1 3/4" (44 mm) pivot centers
Centering adjustment	Centering is provided by rotating the track roller to center the door in the opening
Wood frame	<ul style="list-style-type: none"> Installation simplified by wood mounting clip set, 6030-416 Consult product support for special template
Maximum opening	<ul style="list-style-type: none"> Center pivot template allows 95° Adjustable hold open points from 85° to 95°, with Hold Open Track (H)

Notes:

- For interior or exterior doors
- Double acting cylinder in cased frame
- Concealed arm and track in door top rail
- Center pivots only

Accessories

Cylinders



6031(2)(3)(4)(5)-3071
Cast iron cylinder assembly
with mounting plate (CYL)

- Non-handed
- With mounting plate
- Standard

Arms



6030-3077T
Standard Arm (STDTRKARM)

- Non-handed
- $\frac{5}{16}$ " (8 mm) thick arm
- Track roller not included with arm

Tracks



6030-3038B
Track with Bumper (BUMP)

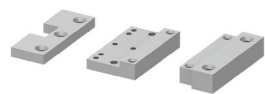
- Non-handed
- Non hold open
- Will accept hold open clip
- Standard



6030-3038HB
Hold Open Track with
Bumper (HBMP)

- Non-handed
- Optional

Installation accessories



6030-416
Wood Mounting Clip Set

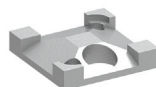
- Simplifies mounting closer in wood frame
- Includes latch stile clip, hinge stile clip and cover
- For use with Ives center pivots
- Consult factory for special template



6030-169
Track Bumper

- Mounts to track to assist back check
- Limits maximum opening
- Consists of bumper, bumper post, and mounting screw

Note: Track bumper does not replace auxiliary stop.



6030-3054
Hold Open Clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Requires 6030-3034H Hold Open Track Roller



6030-3034
Track Roller

- Quiet, low friction roller assembly includes eccentric with $\frac{3}{4}$ " (19 mm) adjustment to center 36" (914 mm) door



6030-3034H
Hold Open Track Roller

- Hold open roller
- Quiet, low friction roller assembly

Ordering information

How-to-order 6030 Series closers

1. Select cylinder size

- ☐ 6031
- ☐ 6032
- ☐ 6033
- ☐ 6034
- ☐ 6035

2. Select finish

- ☐ Standard powder coat _____
- Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer will be shipped with:

- Standard cylinder with mounting plate
- Standard arm
- Standard track with bumper
- Wood and machine screws
(unless options listed below are selected)

Closer options

Track

- ☐ Hold Open Track with Bumper (HBMP)

Finish

- ☐ Custom powder coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (use with powder coat finishes only)

Screw pack

- ☐ Torx Machine Screws (TORX)

Installation accessories

- ☐ Wood Clip Set, 6030-416

Special template

- ☐ ST- _____

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

Exterior (and vestibule) door width

	30"	34"	36"	42"
	762 mm	864 mm	914 mm	1067 mm
	size 3	size 4	size 5	
6033	→	→	→	→
6034	→	→	→	→
6035	→	→	→	→
	Minimum door width			

Interior door width

	30"	34"	38"	48"	54"
	762 mm	864 mm	965 mm	1219 mm	1372 mm
	size 2	size 3	size 4	size 5	
6032	→	→	→	→	→
6033	→	→	→	→	→
6034	→	→	→	→	→
6035	→	→	→	→	→
	Minimum door width				

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

Reduced opening force 6030 Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

Door width	36"	42"	48"
8.5* lbs.	6033	6034	6035
5.0* lbs.	6031	6032	6032

* Maximum opening force.

[illegible]

About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions. Allegion had \$2.9 billion in revenue in 2019 and sells products in almost 130 countries.

For more, visit www.allegion.com

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN

LCN®

Automatic
operators





Improving accessibility through superior door control

Since 1877, LCN has been a leader in delivering safety and security through superior door control. Building on our pioneering past, LCN continues investing in innovations to ensure superior performance and expertise at every point of the customer journey.

Manufactured with pride in Princeton, Ill., U.S.A., by our highly skilled and tenured craftsmen. Our solutions are specifically designed for enhanced durability, consistency and longevity. From meticulous engineering to strict quality control, LCN accepts no less than the best. We require review and approval of supplier materials, adhere to in-house testing, and assemble a customized solution for your application's needs. Our quality control focuses on producing products that conform to industry standards and exceed customer expectations.

LCN automatic operators have been improving accessibility in schools and health care facilities for over 20 years. Provided at a reliable factory setting, LCN operators allow for field adjustability to tailor performance to individual needs. Our Sales and Technical Services teams provide support throughout every step of our process, whether consulting on code, advising a door specification or answering installation questions. We are focused on making your LCN experience positive.

Automatic operator features

- Easily retrofitted into existing doors and frames, as well as new construction
- Breadth of offerings are certified to ANSI156.19 and meet ADA requirements
- Electrohydraulic offerings are best for primarily manual applications; they feature a heavy duty closer to handle closing function and electronics to perform automatic opening
- Electromechanical offerings are best for primarily automatic operations; they include a motor gearbox and controller that perform the opening and closing function
- All operators allow for smooth manual operation and reliable automatic operation for a variety of pedestrian and accessibility needs and preferences
- LCN provides replacement parts for purchase in order to ensure continued performance and extended life of the product

**Information and customer care**us.allegion.com

US 877.671.7011
Canada 800.900.4734



support@allegion.com
Closers_TechProdSupport@allegion.com

www.youtube.com/LCNHardware**Ordering**Allegion_Orders@allegion.com

eFax: 1.800.248.1460

Automatic operators

Product selection guide

LCN automatic operators have been improving accessibility in schools and health care facilities for over 20 years. All automatic operator systems are easily retrofitted into existing doors and frames, as well as new construction. Low energy electrohydraulic and pneumatic automatic operators feature a heavy duty closer with a slow opening function. Electromechanical automatic operators utilize a motor gearbox and control box to perform the opening and closing function.

Low energy powered systems



1. Electrohydraulic
2. Electromechanical
3. Pneumatic

Concealed mount

2610³ 2850²
2810² 2860²

Surface mounted pull side

4630¹ 9530²
4810³ 9550²
9130² 9560²

Surface mounted push side

4640¹ 9150²
4820³ 9540²
4840³ 9550²
9140² 9560²

Surface mounted double egress

9550² 9560²

Electrohydraulic/pneumatic product comparison

This chart shows a basic features comparison of the LCN electrohydraulic and pneumatic automatic operator systems designed to provide easy access without sacrificing closing power. Refer to the specific closer chapter for complete details.

	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	Automatic operator	Hold open	DPS	Standard (single)	Regular (double)	EDA	CUSH	SCUSH
2610	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	■	■	■	■	
4630	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	■	■	■	■	
4630CS	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	■	■	■	■	
4640	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	■	■	■	■	
4640CS	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	■	■	■	■	
4810	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	■	■	■	■	
4820	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	■	■	■	■	
4840	■	■	■	■	■	■	■	■	■	■	■	■	■	90°	90°	90°	90°	90°	

■ Available

■ Not available

♿

Meets ADA requirements (power mode).

* See individual series for maximum manual opening.

** Switch provided for continuous Hold Open (4630 and 4640 only).

Electromechanical product comparison

This chart shows a basic features comparison of the LCN electromechanical automatic operator systems designed to provide easy access without sacrificing closing power. Refer to the specific operator chapter for complete details.

	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	Metal	Standard (single lever)	Regular (double lever)	Double egress (push/pull)	Offset pivot arm	Center pivot arm
2810	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2850	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2860	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9130	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9140	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9150	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9530	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9540	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9550	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
9560	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

■ Available

■ Not available

* Handed for 2850 and 2860, double egress only.

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.

The intent of ADA, Title III

Essentially, businesses of all types must comply with accessible design standards to provide people with disabilities with access equal to, or similar to, that available to the general public. Businesses that serve the public must also remove barriers to existing facilities where readily achievable. 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 ADA affects doors

The ADA requires an “accessible” opening which means, among other things, providing a door with a minimum 32" (813 mm) clear width opening, easily manipulated handles, a maximum opening force, a minimum closing time, and the capability to open 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”

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.

How the door is measured

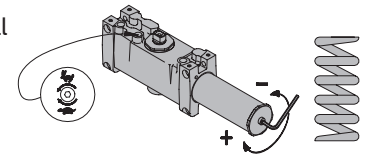
Two ADA criteria affect the door closer selection, adjustments, opening force, and time to close. Since the law does not clearly define the method of measurement, this is LCN’s recommendation.

1. On the push side of the door, locate a point at the center line of the push plate/lock trim or 34" (864 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.

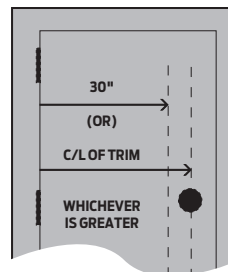
3. Open the door so the latch is clear of the strike and the door is slightly off the stop.
4. Using a force gauge on the mark determined in Step #1, push the door open to the 70° mark established in Step #2. Observe the force readings. (Accuracy of the readings varies with the gauge quality.)
5. Adjust 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”.

Finishes

- Available in six standard or a wide selection of optional custom powder coat finishes to blend with door and frame
- LCN’s powder coat finishes surpass 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance
- For installations where a higher level of corrosive resistance is required, LCN offers an optional Special Rust Inhibitor (SRI) pretreatment
- Closers that combine the exclusive LCN powder coat finish and the SRI pre-treatment exceed the ANSI standard for corrosion resistance even further
- Plated finishes are available as an option to accent door and frame



NOTE: Delay 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.

Choices for ADA compliant door controls

LCN offers both surface and concealed mountings for powered systems or manual closers.

Powered systems

LCN Automatic Operator Systems offer easy access for the disabled and resolve the problem of obtaining reduced opening force while providing adequate closing force.

How the door is measured

Manual closers rely on reduced spring power to meet opening force requirements. Automatic operators provide solutions to overcome challenges that may arise with a mechanical closer regarding opening and closing force. Four principle factors affect the performance of closers:

1. Door width:

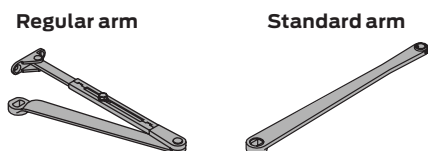
A wider door provides more leverage for the user, thus reducing the opening force required.

2. Spring power:

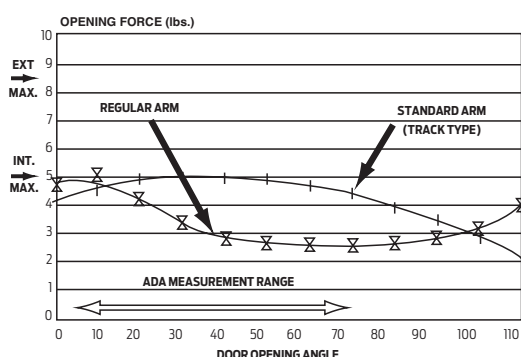
Adjusting spring power to achieve a lower opening force also reduces the closing force available.

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.



TYPICAL ARM POWER CURVE



• "RESERVED", TYPICALLY 8.6 POUNDS

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: 877-671-7011
Fax: 800-248-1460

<https://us.allegion.com/en/home/products/brands/lcn.htm>

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
Phone: 202-514-0301

The U.S. Architectural and Transportation Barriers Compliance Board

1111 18th Street N.W., Suite 501,
Washington, D.C. 20036
Phone: 800-872-2253

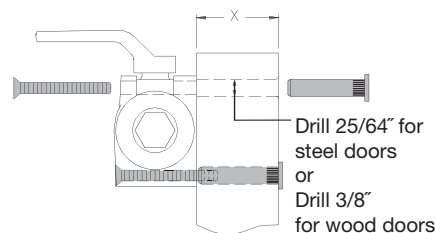
American National Standards Institute

11 West 42nd Street, New York, N.Y. 10036
Phone: 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 and pneumatic fasteners

Standard Wood and Machine Screws (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.



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 automatic operator systems considers 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 an automatic operator that incorporates a heavy duty LCN 4040XP Series door closer and peripheral actuators. Our electromechanical automatic operators utilize a motor gearbox and a control box to perform the opening and closing function. LCN offerings include electrohydraulic, electromechanical and pneumatic low energy automatic 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
- Dedicated handicap access
- Stand alone or larger multi-door systems
- Surface and concealed mountings
- Installation accessories available for non-standard 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 automatic 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 400 pounds, consult factory before specifying or installing LCN Senior Swing
- 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 Benchmark

A156.19 System Design Parameters

- Cycle test standard of 300,000 full load operating cycles.
- Power opening plus full door control.
- Open to back check 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 lb to stop doors motion.
- Kinetic energy must not exceed 1.25 lb-ft.
- In event of failure, less than 15 lb to release latch, less than 30 lb to put door in motion, less than 15 lb 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
- All LCN operators are ADA compliant with actuated opening
- Electrohydraulic and pneumatic systems feature adjustable back check that slows opening swing at about 70°
- Electromechanical systems feature electronic back check 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 six standard finishes 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
- UL and 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 Information catalog for complete details.

Maintenance

- For best performance, mount operators according to the LCN installation instructions
- Periodic visual inspections are recommended

Pneumatic powered systems

LCN Pneumatic Auto Equalizer systems use the power of pressurized air to do the work of automatically opening the door. A basic pneumatic system consists of an automatic operator to provide the door control, a control box that contains the valves and electrical timing circuits, actuators to start the system, and a compressed air source.

Multi-door and single-door solutions

A single control box may power up to two pairs of doors simultaneously making pneumatic automatic operators a cost-effective solution for single or multi-door applications. This flexibility results in significant savings in material and installation costs.

Quiet operation

Since the pneumatic automatic operators are powered by pressurized air, they are quiet, efficient, and very reliable. Flexible LCN pneumatic tubing is the only connection between the control box and the door frame. There is no need for high-voltage wiring at the door frame since all of the power for operation is generated by pressurized air located away from the door frame. (Note: special fittings are available so $\frac{3}{16}$ " metal tubing (by others) can be used in fire rated plenums).

Standards, listings and approvals

- Meets ADA opening force requirements
- Consult the factory for other listings

Pneumatically (air) powered

All pneumatic automatic operators require a compressed air source. LCN's pneumatic systems have the flexibility to run as an independent unit (7980 Series has a compressor built into the control box) or to run off an existing air supply (7900 Series has connections for utilizing existing air supply).

Using a self-contained

7980 Series control box for single or double door leaf applications eliminates the need for an independent compressor. Existing building air compressors with a storage tank can be used to reduce the cost of multi-door systems and must utilize the 7900 Series control boxes.

Easy adjustment/installation

The air pressure and timing cycle are easily adjustable to meet the need of a specific installation. Because the control box can be located anywhere within 100 linear tubing feet from the controlled door for the 7900 Series or within 50 linear tubing feet for the 7980 Series, they can be placed in easily accessible locations. Convenient features such as sequential operation of vestibule doors are available.

Multiple mounting configurations

Available in three different mounting configurations:

- Concealed in the frame (2610 Series)
- Top jamb surface mounted on the pull side of the door (4810 Series)
- Top jamb surface mounted on the push side of the door (4820 Series)
- Door mounted, parallel arm on the push side of the door (4840 Series)

Hazardous location use

Since there is no high-voltage wiring at the door frame, pneumatically powered systems are ideal for use in hazardous areas. The control box, which contain the valves and electrical timing circuits, is remotely located.

Blow-open (smoke evacuations systems)

An auxiliary "blow-open" box is available and is controlled by the building smoke evacuation system. When activated, the normal pneumatic automatic operator functions are not available. The 7949 Series "blow-open" box works with or without the 7900 Series control boxes. (Limited to 50 linear foot of tubing).

Warranty

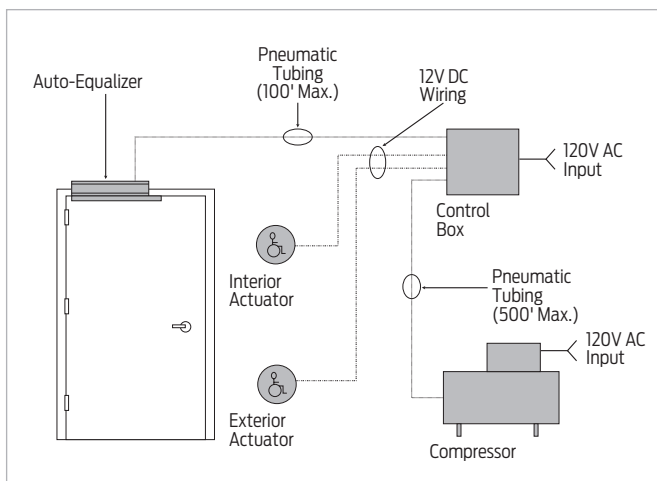
2 year limited warranty. See General Information catalog for complete details.

Maintenance

- For best performance, mount operators according to the LCN installation instructions
- Periodic visual inspections are recommended
- Inspect and service filter assembly in 7900 Series control boxes as required
- No service contracts required

Wiring diagrams

These pages illustrate examples of typical Pneumatic LCN systems. Please consult your local RSO representative or LCN for assistance with specific installations and material requirements.



Single interior door system (wired)

- Slow opening interior door leaf
- System may be expanded to include an additional simultaneous door
- No guide rails or safety devices

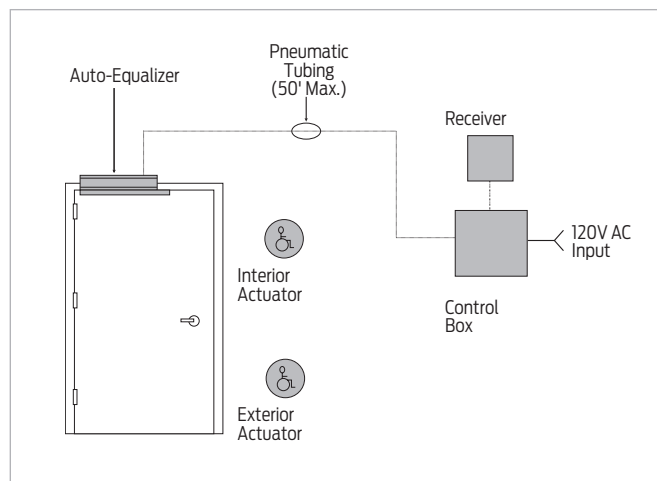
How it works

- A person requiring assistance triggers the system using either actuator
- The control box supplies pressurized air to the auto equalizer which opens the door slowly to 90°, holds it for up to 30 seconds, then applies full spring power to reliably close and latch the door
- If not actuated, the auto equalizer functions as a full featured door closer

Bill of materials

Qty	Part number	Description
1	4811	Auto equalizer
1	8310-856	Hard wired wall mount, logo
1	8310-856	Hard wired wall mount, logo
1	7901	Control box
1		Compressor*
As needed	925	Tubing

* Contact Technical Support to verify compressor requirements.



Single interior door system (wireless)

- Slow opening automatic door on door leaf
- Wireless actuators
- Stand alone system, no planned expansion
- No guide rails or safety devices

How it works

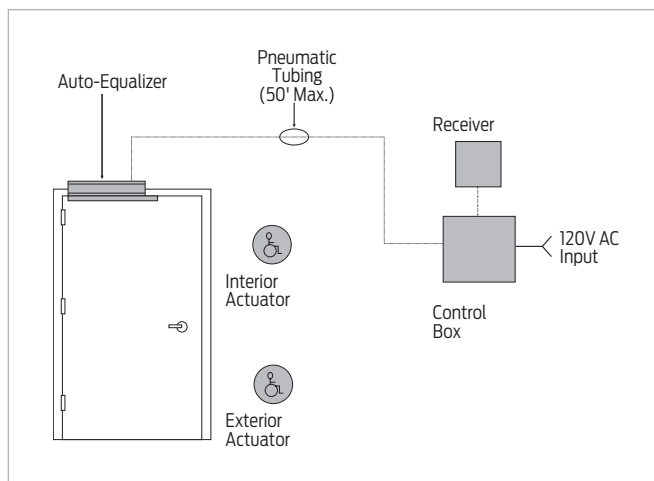
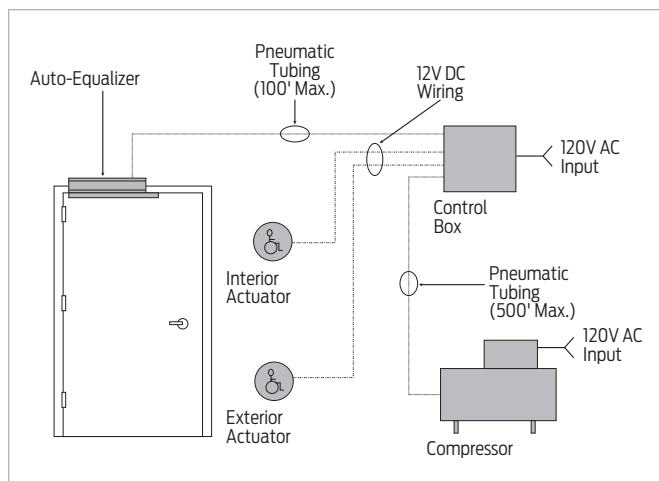
- A person requiring assistance triggers the system using either actuator
- The wireless transmitter in the actuator sends a signal to the wireless receiver which triggers the control box
- The control box supplies pressurized air to the auto equalizer which slowly swings door to 90°, holds it for up to 30 seconds, then applies full spring power to reliably close and latch the door.
- If not actuated, the auto equalizer functions as a full featured door closer

Bill of materials

Qty	Part number	Description
1	4811	Auto equalizer
2	8310-3856WS	Wireless actuator, wall mount and surface, logo, 4 1/2" round
1	8310-865	Wireless receiver
1	7981	Control box
As needed	925	Tubing

Wiring diagrams

These pages illustrate examples of typical Pneumatic LCN systems. Please consult your local RSO representative or LCN for assistance with specific installations and material requirements.



Alternate vestibule door system (wired)

- Slow opening automatic doors with sequential operation for exterior and vestibule pairs of doors
- No guide rails or safety devices

How it works

- People requiring assistance press exterior actuator for entry
- The exterior pair opens and after a short sequential delay the interior pair opens
- As the system times out, first the exterior, then the interior doors close
- Pressing the interior actuator reverses the process to exit the building
- This allows passage through the vestibule without all doors open for the entire cycle
- If a person stops in the vestibule and the system times out before they exit, pressing either vestibule actuator opens the appropriate doors
- Compressor is sized for multiple systems.; sequential operation is not recommended with scanners or motion sensors
- If not actuated, the auto equalizer functions as a full feature door closer

Bill of materials

Qty	Part number	Description
2	4822	Auto equalizer (exterior)
2	4811	Auto equalizer (interior)
1	7902S	Control box with sequencer card
1		Compressor*
4	8310-856	Hard wired wall mount, logo
As needed	925	Tubing

* Contact Technical Support to verify compressor requirements.

Vestibule door system (wireless)

- Slow opening automatic doors with sequential operation for single exterior and vestibule doors
- No guide rails or safety devices

How it works

- People requiring assistance press exterior actuator for entry
- The exterior door opens and after a short delay the interior door opens
- When the system times out, first the exterior, then the interior door closes
- Pressing the interior actuator reverses the process to exit the building
- This allows passage through the vestibule without both doors open for the entire cycle
- If a person stops in the vestibule and the system times out before they exit, pressing either vestibule actuator opens the appropriate door
- Sequential operation is not recommended with scanners or motion sensors
- If not actuated, the auto equalizer functions as a full featured door closer

Bill of materials

Qty	Part number	Description
1	4822	Auto equalizer (exterior)
1	4811	Auto equalizer (interior)
1	7902S	Control box with sequencer card
4	8310-3856WS	Wireless actuator, wall mount and surface, logo, 4 1/2" round
2	8310-865	Wireless receiver
As needed	925	Tubing

[illegible]

2610 Series



The 2610 Auto Equalizer™ is LCN's pneumatically powered multi-door solution. This low-energy automatic operator provides easy access for people with disabilities, or the elderly. Designed primarily for manual opening applications that occasionally require automatic opening.

Features

Certifications	ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Mounting	Concealed in frame
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal 	Arms	Single lever arm, mounting/finish plate, standard track
Fluid	All weather fluid	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes
Handing	Handed		
Size	Sized 3 and 4		
Warranty	2 years		
Fasteners	Wood and Machine Screws (WMS)		

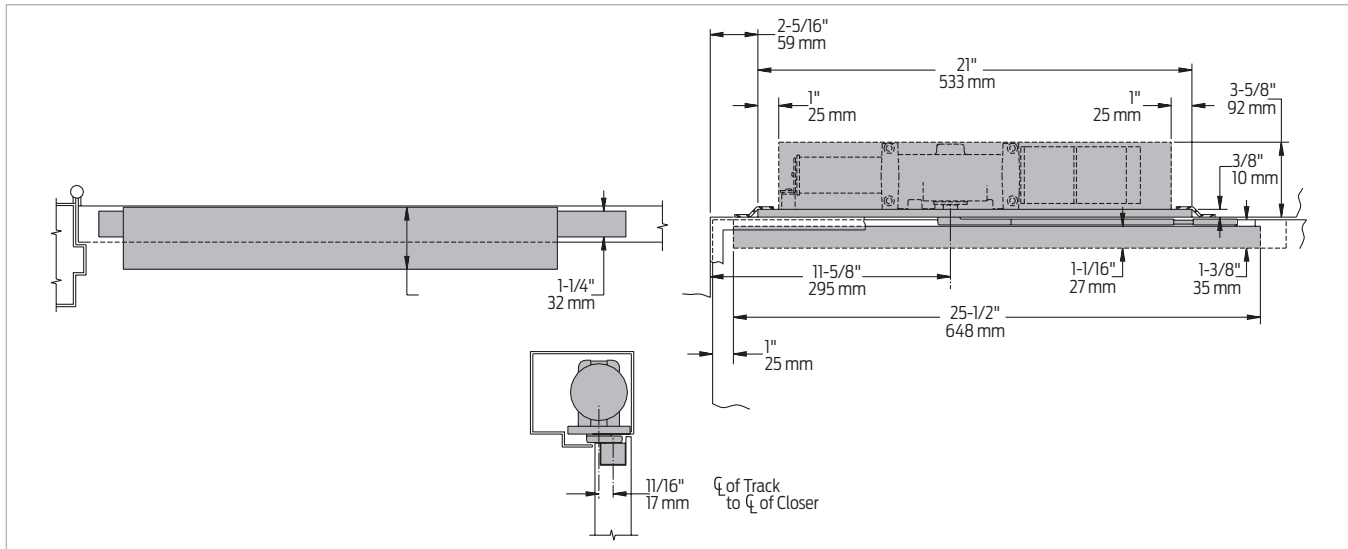
Special templates

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

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 Accessible Automatic operator Hold Open DPS	Standard (single) Regular (double) EDA CUSH SCUSH	
■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available ♿ Meets ADA requirements (power mode). * See individual series for maximum manual opening.	90° ■ Available ■ Not available	

Mounting details

Concealed mounting



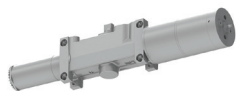
Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended
Top rail	<ul style="list-style-type: none"> 1 3/8" (35 mm) mortise required 5/16" (8 mm) cutout required at top of the door, push side only
Head frame	Minimum 4" (102 mm) x 4" for hollow metal or aluminum tube construction
System diagram	See pages 9-10 for typical system wiring, and pages 28-29 for electrical and pneumatic data for control boxes
Maximum opening	<ul style="list-style-type: none"> Butt hinge template allows 90° power opening and 160° manual opening Please note that many track style door closers are capable of allowing 180° of door swing Track style closers are at their weakest closing force at 180° Consult factory for applications where exterior or large/heavy door must swing 180° Consult factory for all pivot mounted installations

Notes:

- For interior or exterior doors
- Single acting cylinder in head frame
- Concealed arm and track in door top rail
- Requires control box with integral compressor or control box using auxiliary air supply (see control box pages 28-29 and actuators and accessories, pages 100-117)
- Guard rails/safety mats not required

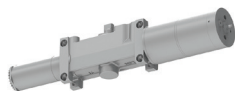
Accessories

Cylinders



2610-3971
Cast Iron Cylinder
Assembly (CYL)

- Handed
- Standard



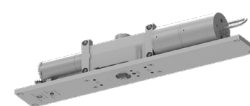
2610-3971 DPS
Cast Iron Cylinder Assembly
(CYL)

- Handed
- With Door Position Switch (DPS) which sends signal when door is closed
- Standard



2610-3071
Cast Iron Cylinder
Assembly (CYL)

- Handed
- Mounting plate
- Standard



2610-3071 DPS
Cast Iron Cylinder Assembly
(CYL)

- Handed
- Mounting plate with Door Position Switch (DPS) which sends signal when door is closed
- Standard

Arms



2610-3077T
Standard Arm (STDTRKARM)

- Handed
- Track roller not included with arm

Tracks



2610-3038
Standard Track (STDTRK)

- Non-handed
- Standard

Installation accessories



2610-3034
Track roller

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

Ordering information

How-to-order 2610 Series operators

1. Select cylinder size

 - ☐ 2613
 - ☐ 2613 DPS
 - ☐ 2614
 - ☐ 2614 DPS
2. Specify hand

 - ☐ Right Hand (RH)
 - ☐ Left Hand (LH)
3. Select finish

 - ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), Brass (696)

Operator will be shipped with:

- Standard arm
- Track roller
- -Standard track
- Wood and machine screw pack (unless options listed below are selected)

Operator options

Finish

- ☐ Custom Powder Coat (RAL) _____
- ☐ Plated finish _____

Screw pack

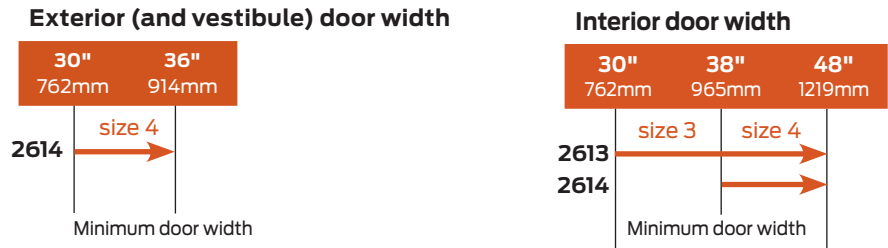
- ☐ Wood and Machine Screws (WMS)

Special template

- ☐ ST- _____

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 operator.
Note: Minimum door width 30" (762mm).

Introduction	Product selection guide	Pneumatic systems Auto equalizers 2610/4810/4820/4840/7900 Series	Electrohydraulic systems Auto equalizers 4630/4640 Series	Electromechanical systems Benchmark 9130/9140/9150 Series	Electromechanical systems Senior Swing 2810/2850/2860/9530/9540/9550/9560 Series	Actuators and accessories
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4810 Series



The 4810 Auto Equalizer™ is LCN's pneumatically powered multi-door solution. This low-energy automatic operator provides easy access for people with disabilities, or the elderly. Designed primarily for manual opening applications that occasionally require automatic opening.

Features

Certifications	ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 3/4" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Non-handed
Size	Adjustable spring size 1-4
Warranty	2 years
Cover	Metal Cover (MC)
Fasteners	Wood and Machine Screws (WMS)
Mounting	Top jamb (pull side)
Arms	Single lever arm with standard track
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

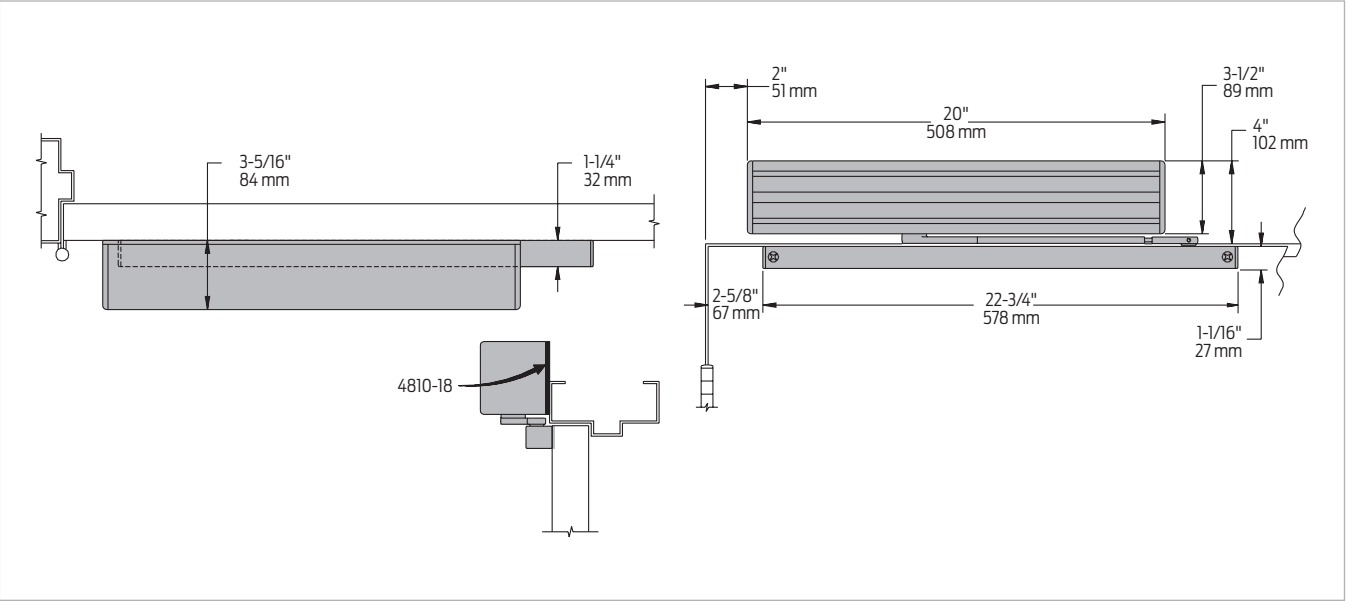
Mounting	Finish	Cover	Cylinder	Arm function*
Top jamb (pull) side	Plastic	Non-handed	Standard (single)	Standard (single)
Top jamb (push) side	Metal	Non-sized	Regular (double)	Regular (double)
Parallel arm		Accessibility	EDA	EDA
Concealed		Automatic operator	CUSH	CUSH
Powder coat		Hold open	SCUSH	SCUSH
Plated		DPS		
		90°		

■ Available
 ■ Not available

♿ Meets ADA requirements (power mode).
 * See individual series for maximum manual opening.

Mounting details

Top jamb (pull side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended
Reveal	Should not exceed 1/8" (3 mm)
Top rail	Minimum 1 1/8" (29 mm)
Head frame	Minimum 2" (51 mm)
System diagram	See pages 9-10 for typical system wiring, and pages 28-29 for electrical and pneumatic data for control boxes
Maximum opening	<ul style="list-style-type: none"> Templating allows 90° power opening and 170° manual opening Please note that many track style door closers are capable of allowing 180° of door swing Track style closers are at their weakest closing force at 180° Consult factory for applications where exterior or large/heavy door must swing 180°

- Notes:
- Requires control box with integral compressor or control box using auxiliary air supply
 - See control box pages 28-29 and actuators and accessories, pages 100-117
 - Guard rails/safety mats not required

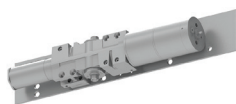
Accessories

Cylinders



4811-3971
Cast Iron Cylinder
Assembly (CYL)

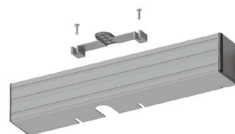
- Non-handed
- Standard



4811-3071
Cast Iron Cylinder
Assembly (CYL)

- Non-handed
- Mounting plate
- Standard

Covers



4810-72MC
Metal Cover (MC)

- Non-handed
- With black end caps
- Standard

Arms



4810-3077T
Standard Arm (STDTRKARM)

- Non-handed
- Track roller not included with arm

Tracks



4810-3038
Standard Track (STDTRK)

- Non-handed
- Standard

Installation accessories



4810-3034
Track roller

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

Ordering information

How-to-order 4810 Series operators

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze
(691), Black (693), Brass (696).

Operator will be shipped with:

- Standard cylinder
- Metal cover
- Standard arm
- Track roller
- Standard track
- Wood and machine screws
(unless options listed below are selected)

Operator options

Finish

- ☐ Custom Powder Coat (RAL) _____
☐ Plated finish _____ (cover only)

Screw packs

- ☐ Through Bolt¹ Wood and Machine Screws
(TBWMS)

Special template

- ☐ ST- _____

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

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%

Exterior (and vestibule) door width

28"	30"	36"
711mm	762mm	914mm
<div> <div>4811</div> <div> <div>size 3</div> <div>size 4</div> </div> <div>Minimum door width</div> </div>		

Interior door width

28"	34"	38"	48"
711mm	864mm	965mm	1219mm
<div> <div>4811</div> <div> <div>size 2</div> <div>size 3</div> <div>size 4</div> </div> <div>Minimum door width</div> </div>			

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

4820 Series



The 4820 Auto Equalizer™ is LCN's pneumatically powered multi-door solution. This low-energy automatic operator provides easy access for people with disabilities, or the elderly. Designed primarily for manual opening applications that occasionally require automatic opening.

Features

Certifications	ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	Metal Cover (MC)
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 3/4" diameter double heat treated pinion journal 	Fasteners	Wood and Machine Screws (WMS)
Fluid	All weather fluid	Mounting	Top jamb (push side)
Handing	Non-handed	Arms	<ul style="list-style-type: none"> Regular Arm (REGARM), standard Long Arm (LONG), optional
Size	Adjustable spring size 2-5	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes
Warranty	2 years		

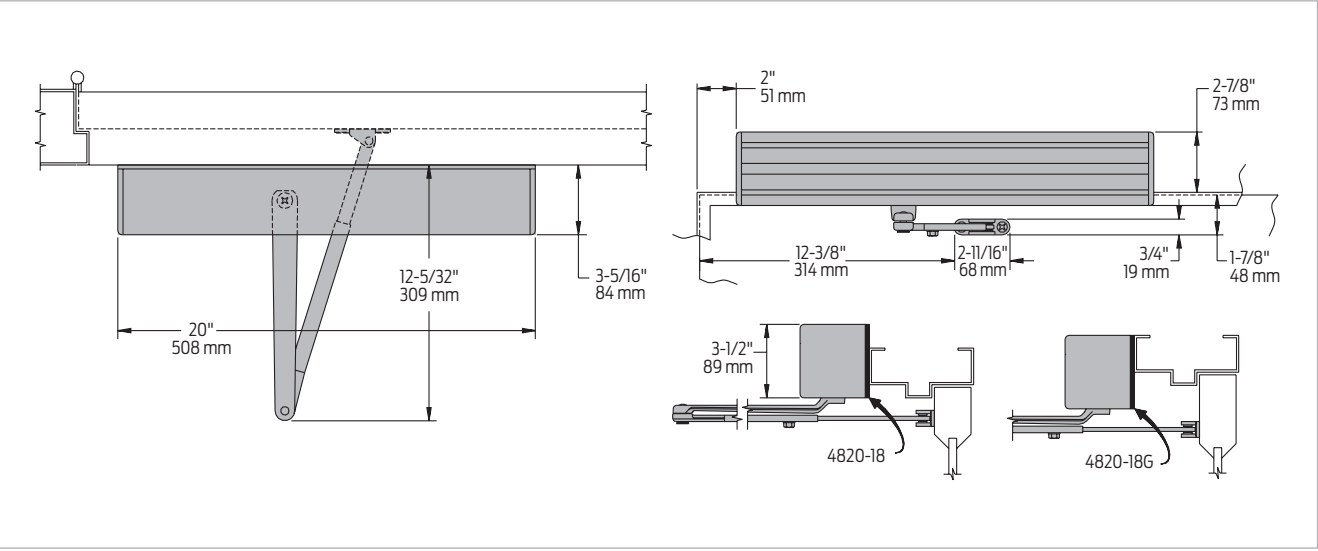
Special templates

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

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 Automatic operator Hold open DPS	90°	Standard (single) Regular (double) EDA CUSH SCUSH
■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available ♿ Meets ADA requirements (power mode). * See individual series for maximum manual opening.		

Mounting details

Top jamb (push side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended
Reveal	<ul style="list-style-type: none">4 1/2" (114 mm) allows up to 90° power opening and 100° manual opening8" (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
Top rail	<ul style="list-style-type: none">Minimum 1 3/4" (44 mm)Closer on 4820-18G plate requires 3" (76 mm) minimum
Head frame	<ul style="list-style-type: none">Minimum 1 3/4" (44 mm)With flush ceiling use plate, 4820-18G substituted for standard plate
System diagram	See pages 9-10 for typical system wiring, and pages 28-29 for electrical and pneumatic data for control boxes
Maximum opening	Templating allows 90° power opening and 100° manual opening
Options	Door Position Switch (DPS) kit that signals when the door has reached the open position

- Notes:
- Requires control box with integral compressor or control box using auxiliary air supply
 - See control box pages 27-29 and actuators and accessories, pages100-117
 - Guard rails/safety mats not required

Accessories

Cylinders

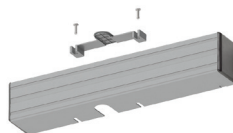


- 4822-3971**
Cast Iron Cylinder Assembly (CYL)
- Non-handed
 - Standard



- 4822-3071**
Standard Cylinder with 18G mounting plate (CYL18G)
- Non-handed
 - Includes; 4820-18 Mounting Plate or 4820-18G Mounting Plate (must specify)
 - Standard

Covers



- 4820-72MC**
Metal Cover (MC)
- Non-handed
 - With black end caps
 - Standard

Arms



- 4820-3077**
Regular Arm (REGARM)
- Non-handed
 - Standard



- 4820-3077L**
Long Arm (LONG)
- Includes long rod and shoe, 4820-79LR for deep reveals
 - Optional

Installation accessories



- 4820-18**
Plate
- Requires minimum 1 3/4" (44 mm) minimum head frame and 2" (51 mm) top rail
 - Standard



- 4820-18G**
Plate
- Requires minimum 1 3/4" (44 mm) minimum head frame and 2" (51 mm) top rail
 - Standard



- 4820-3377**
Door Position Switch Kit
- Provides feedback when the door reaches the fully opened position
 - Specify RH or LH when ordering

Ordering information

How-to-order 4820 Series operators

1. Select finish

- ☐ Standard powder coat _____
 Aluminum (689), Dark Bronze (695),
 Statuary Bronze (690), Light Bronze
 (691), Black (693), Brass (696).

Operator will be shipped with:

- Standard cylinder
- Metal cover
- Regular arm
- Wood and machine screws
(unless options listed below are selected)

Operator options

Finish

- ☐ Custom Powder Coat (RAL) _____
☐ Plated finish _____

Arm

- ☐ Long Arm (LONG)

Screw packs

- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)

Installation accessories

- ☐ Plate, 4820-I8
☐ Plate, 4820-I8G
☐ Door Position Switch Kit, 4820-3377 LH
☐ Door Position Switch Kit, 4820-3377 RH

Special template

- ☐ ST- _____

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

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%

Exterior (and vestibule) door width



Interior door width



➔ Indicates recommended range of door width for operator.

4840 Series



The 4840 Auto Equalizer™ is LCN's pneumatically powered multi-door solution. This low-energy automatic operator provides easy access for people with disabilities, or the elderly. Designed primarily for manual opening applications that occasionally require automatic opening.

Features

Certifications	ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Fasteners	Adjustable Spring Size 1-5
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 3/4" diameter double heat treated pinion journal 	Mounting	Parallel arm (push side)
Fluid	All weather fluid	Arms	Extra duty, standard; Cush-n-Stop and Spring Cush-n-Stop, optional
Handling	Non-handed	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes*
Size	Adjustable spring size 1-5	*End caps are black	
Warranty	2 years		
Cover	Metal Cover (MC)		

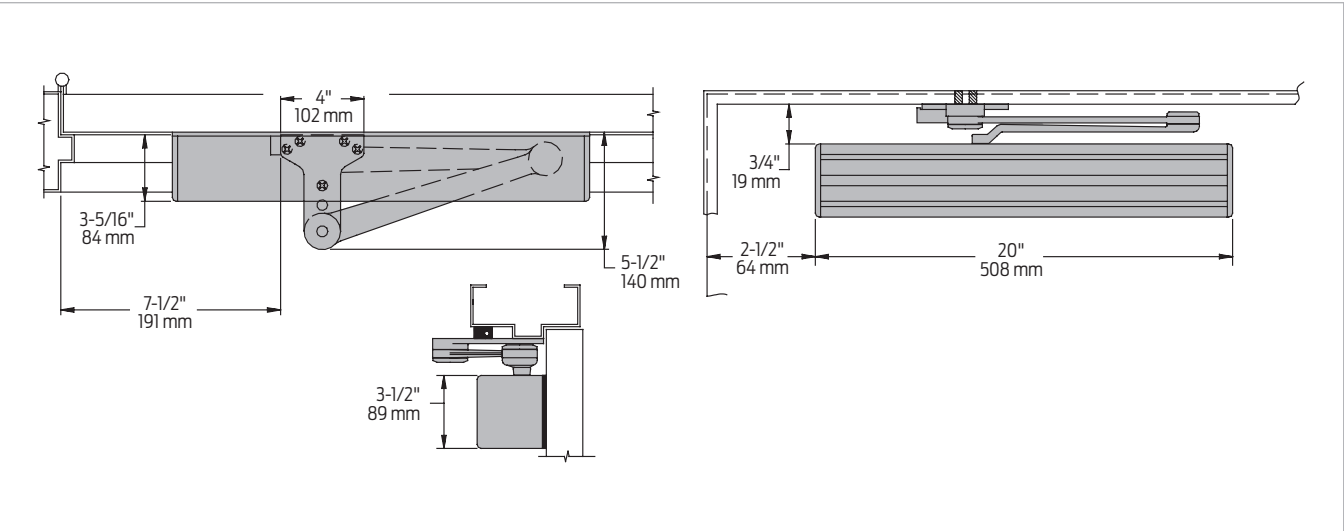
Special templates

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

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 Automatic operator Hold open DPS	Standard (single) Regular (double) EDA CUSH SCUSH	90° 90° 90°
■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available ♿ Meets ADA requirements (power mode). * See individual series for maximum manual opening.		

Mounting details

Parallel arm (push side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended when Cush-n-Stop (CUSH) or Spring Cush-n-Stop (SCUSH) arms are not used
Clearance	EDA or CUSH shoes is 5-1/2" (140 mm) from door face
Top rail	Minimum 4-1/8" (105 mm). 6" minimum top rail for screw not to show in glass
Head frame	(Flush) requires PA shoe adapter, 4840-419
Stop width	Minimum 1" (25 mm)
Blade stop	Clearance requires 1/2" (13 mm) blade stop spacer, 4840-61
System diagram	See pages 9-10 for typical system wiring, and pages 28-29 for electrical and pneumatic data for control boxes
Maximum opening	<ul style="list-style-type: none"> Maximum power opening is 90° with all arms Maximum manual opening is 105° with EDA or SCUSH arms Maximum manual opening is 100° with CUSH arm

- Notes:
- For CUSH or SCUSH arm installations with maximum opening less than listed above, consult factory for special template
 - Requires control box with integral compressor or control box using auxiliary air supply
 - See control box pages 28-29 and actuators and accessories, pages 100-117
 - Guard rails/safety mats not required

Accessories

Cylinders



4841-3971 Cast Iron Cylinder Assembly (CYL)

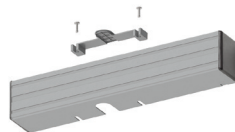
- Non-handed
- Standard



4841-3071 Cast Iron Cylinder Assembly (CYL)

- Non-handed
- Mounting plate
- Standard

Covers



4840-72MC Metal Cover (MC)

- Non-handed
- With black end caps
- Standard

Arms



4840-3077EDA Extra Duty Arm (EDA)

- Non-handed
- Features forged solid steel main arm and forearm for potentially abusive installations
- Standard



4840-3077CNS Cush-n-Stop Arm (CUSH)

- Non-handed
- Features forged solid steel main arm and forearm with stop in soffit shoe
- Optional



4840-3077SCNS Spring Cush-n-Stop Arm (SCUSH)

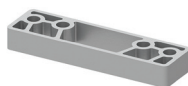
- Non-handed
- For abusive applications features forged solid steel main arm and forearm with spring loaded stop in soffit shoe
- Optional

Installation accessories



4840-30 CUSH Shoe Support

- Provides anchorage for fifth screw used with EDA and CUSH arms, where reveal is less than 3 1/16" (78 mm)



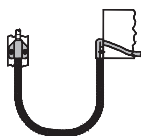
4840-61 Blade Stop Spacer

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop



4840-419 PA Flush Panel Adapter

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



4840-459 Door Loop Kit

- 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



4840-460 Pneumatic Transfer Hinge

- 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

Ordering information

How-to-order 4840 Series operators

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze
(691), Black (693), Brass (696).

Operator will be shipped with:

- Standard cylinder
- Metal cover
- Extra duty arm
- Wood and machine screws
(unless options listed below are selected)

Operator options

Finish

- ☐ Custom Powder Coat (RAL) _____
☐ Plated finish _____

Arm

- ☐ Cush-n-Stop arm (CUSH)
☐ Spring Cush-n-Stop arm (SCUSH)

Screw packs

- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)

Installation accessories

- ☐ CUSH Shoe Support, 4840-30
☐ Blade Stop Spacer, 4840-61
☐ PA Flush Panel Adapter, 4840-419
☐ Door Loop Kit, 4840-459
☐ Pneumatic Transfer Hinge, 4840-460

Special template

- ☐ ST- _____

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

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%

Exterior (and vestibule) door width

	24"	30"	36"	42"
	610mm	762mm	914mm	1067mm
4841	<div> <div>size 3</div> <div>size 4</div> <div>size 5</div> </div>			
	Minimum door width			

Interior door width

	24"	34"	38"	48"	54"
	610mm	864mm	965mm	1219mm	1372mm
4841	<div> <div>size 2</div> <div>size 3</div> <div>size 4</div> <div>size 5</div> </div>				
	Minimum door width				

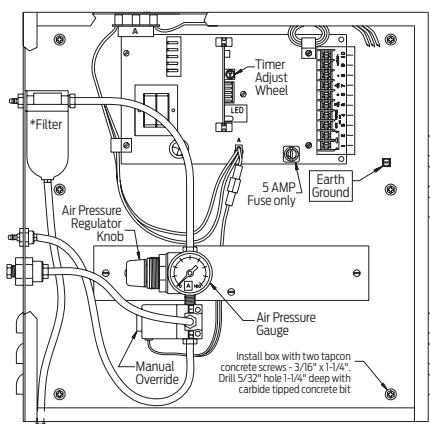


Indicates recommended range of door width for operator.

7900 Series control boxes

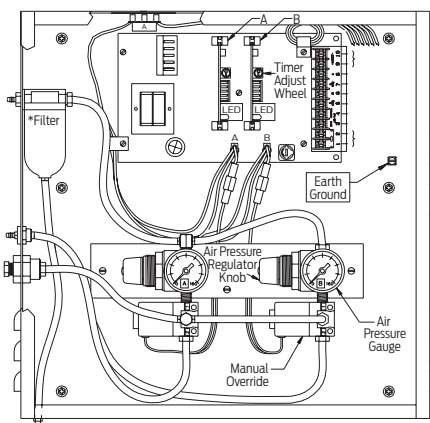
A heavy duty, surface mounted control box contains one or two electrically controlled pneumatic circuits. Air filtration, pneumatic regulation, and system timing is performed by the control box. 7980 Series control boxes also contain a built-in air pump to power the system. Each pneumatic circuit can 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 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.



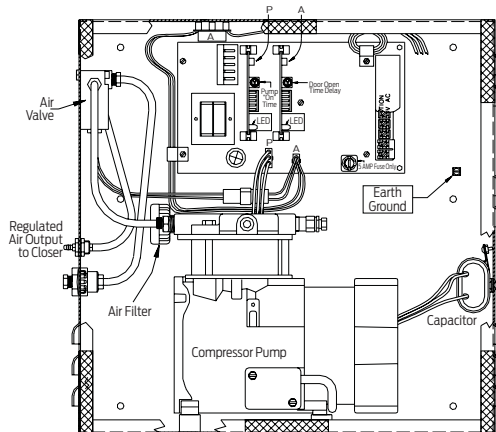
7901 and ES7901 control box

- 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

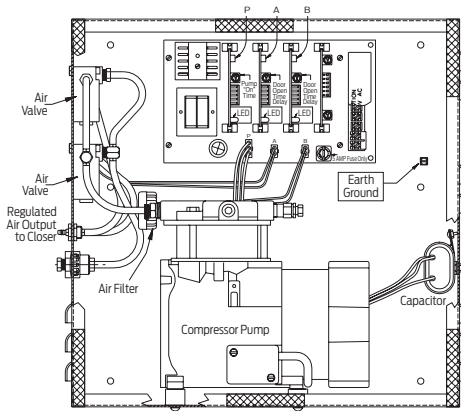
- For independent operation of two door or four door leaves, if pairs are actuated simultaneously
- Two independent pneumatic circuits accept Normally Open (N.O.) inputs from hardwired or RF (wireless) actuator/receiver combinations
- Sequential operation (add suffix "S") is available for 7902
- The 7902 control box requires a separate compressor



7981 and ES7981 control box

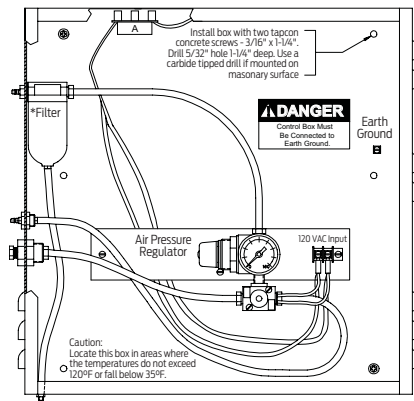
- Self-contained control box/compressor combination for single door leaf applications
- The single pneumatic circuit accepts Normally Open (N.O.) inputs from hardwired or RF (wireless) actuator/receiver combinations
- The 7981 control box does not require a separate compressor

7900 Series control boxes



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



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 “blowopen” box is activated

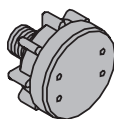
Optional “ES” boxes

- 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

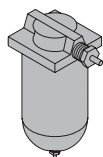
- Locate a 7900 Series control box so no more than 100 linear feet of LCN 925 pneumatic tubing is required between the control box and door. Maximum 50 linear feet for a 7980 and 7949 Series
- Locate a 7900/7980/7949 Series control box where the temperatures do not exceed 120°F or fall below 35°F
- 7901, 7902 and 7949 control box input 120V AC @ 1 amp. 7981 and 7982 control boxes input 120V AC @ 5 amp
- Output voltage is 12V DC @ 0.25 amp. max
- Air pressure input, 80 PSI minimum/100 PSI maximum, required for 7901, 7902 and 7949
- Regulated air output up to 80 PSI for Auto Equalizer
- Auto Equalizers require approximately 0.5 cfm airflow in heavy traffic
- All control boxes are 15" x 15" x 6"

Accessories



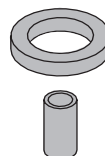
**-329
Air Filter**

- Replacement inlet air filter for 7981 or 7982 Series control boxes



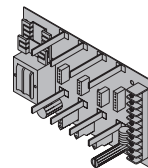
**-329G
Air Filter**

- Replacement inlet air filter assembly for 7901 or 7902 Series control boxes



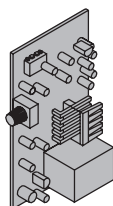
**-929
Filter and Seal**

- Internal filter and seal component to the Air Filter -329G assembly



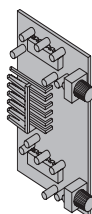
**-900
Power Supply Board**

- Main power supply/input board for the 7901, 7902, 7981, or 7982 Series control boxes



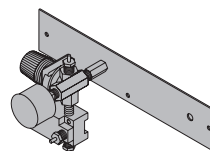
**-903
Timer Card**

- 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



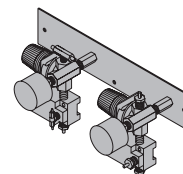
**-3426
Sequencer Card**

- 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



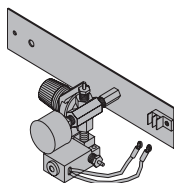
**-941
Valve Assembly**

- Regulator valve assembly for 7901 Series control box



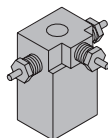
**-942
Valve Assembly**

- Regulator valve assembly for 7902 Series control box



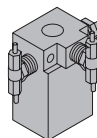
**-941C
Valve Assembly**

- Regulator valve assembly for 7949 Series blow open control box



**-3299A
Solenoid Valve Assembly**

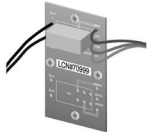
- Air valve assembly for 7981 Series control box or the 'A' circuit valve assembly for the 7982 Series control box



**-3299B
Solenoid Valve Assembly**

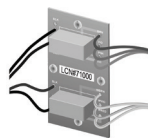
- Air valve assembly for the 'B' circuit in the 7982 Series control box

Accessories



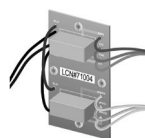
-3390A Relay Package "A"

- 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



-3390B Relay Package "B"

- 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



-3390C Relay Package "C"

- 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



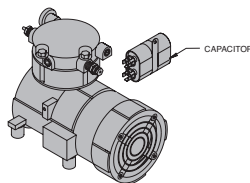
-962 Isolator

- Rubber isolators for 7981/7982 Compressor Assembly, -3960



-293G Muffler

- Exhaust muffler for 7901, 7902, 7949, 7981 and 7982 Series control boxes



-3960 Compressor Assembly

- Internal air pump assembly for 7981 or 7982 Series control box
- Includes starter capacitor, -962 Isolators, and -329 Air Filter



-3592 Compressor Service Kit

- Internal component for pressure release valve on
 - 3960 Compressor Assembly



925 Pneumatic Tubing

- 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
- 925 tubing is not plenum rated
- Contact LCN for applications where tubing must run through rated plenums

Electric auto equalizers

In addition to the original pneumatic drive system, LCN offers Automatic Electronic Equalizers. People moving through a door can use it as a normal rack and 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. 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 4040XP Series cast iron cylinder.

Electric auto equalizer systems

- Exceeds proposed ANSI cycle test standard of 300,000 full load automatic operating cycles
- Power operation plus full door control
- For all applications, single or multi-door projects
- Opening time to back check 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

Digital control box

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

A sophisticated built-in diagnostics program monitors the system microprocessor, power supplies, drive system and actuators circuitry. This 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.

"No Destruct" drive system

Specially designed motor and clutch assembly 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 has improved control because the heavy duty 4040XP closer is always operable.

Electronic circuit protection

The high voltage input circuit is protected by a one amp slow blow fuse. 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 of 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

Standards, listings and approvals

- UL listed for Fire Door Operator (GUJY) and Door Operator System (FDDR) file R18222
- 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
- Listed for positive pressure plus UL 10B and UL 10C
- Wiring is compliant with both UL 325 and the NEC (Separation of high and low voltage)
- Consult the factory for other listings such as; State and Local Government regulations
- UL 10 C Listed for Fire Rated Door Operators with Automatic Closers, File No. (GUJY)

Warranty

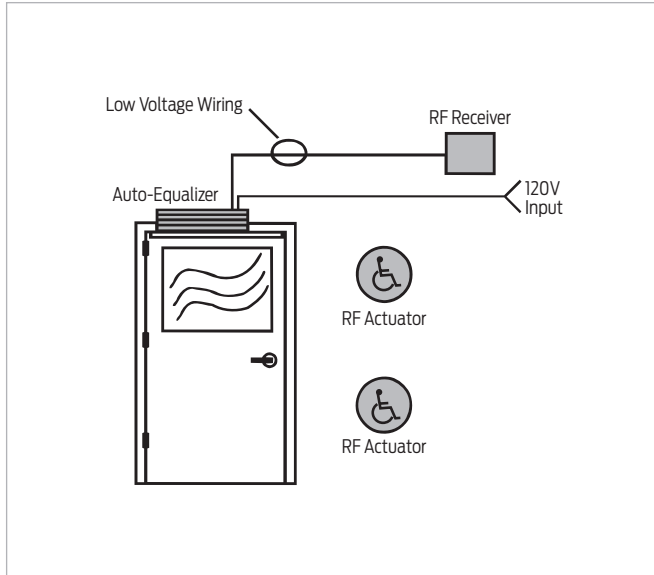
2 year limited warranty. See General Information catalog for complete details.

Maintenance

- For best performance, mount operators according to the LCN installation instructions
- Periodic visual inspections are recommended
- No service contracts

Wiring diagrams

This page illustrates examples of typical electric LCN systems. Please consult your local RSO representative or LCN for assistance with specific installations and material requirements.



Single door system (wireless)

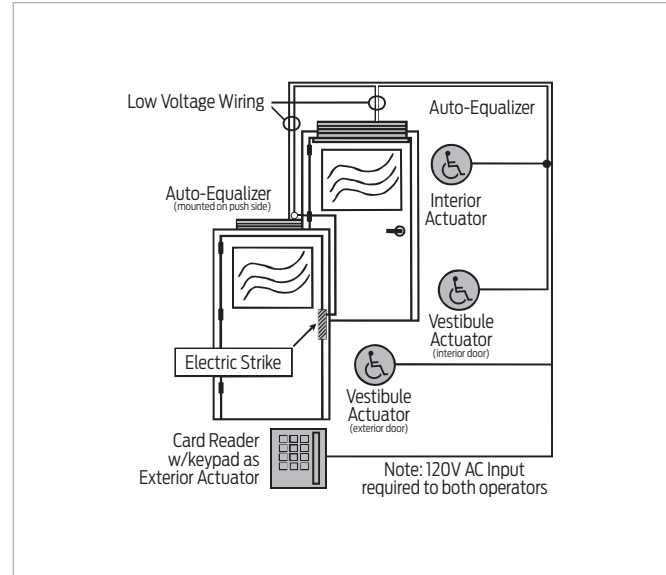
- An Interior Door
- No guide rails or safety devices
- Free swinging (or dogged) door

How it works

- Wireless RF actuators and 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 number	Description
1	4631	Auto equalizer
2	8310-3856WS	Wireless actuator, wall mount and surface, logo, 4 1/2" round
1	8310-865	Wireless receiver



Vestibule door system (wired)

- Exterior and vestibule doors
- Sequential operation
- No guide rails or safety devices
- Controlled access, free egress

How it works

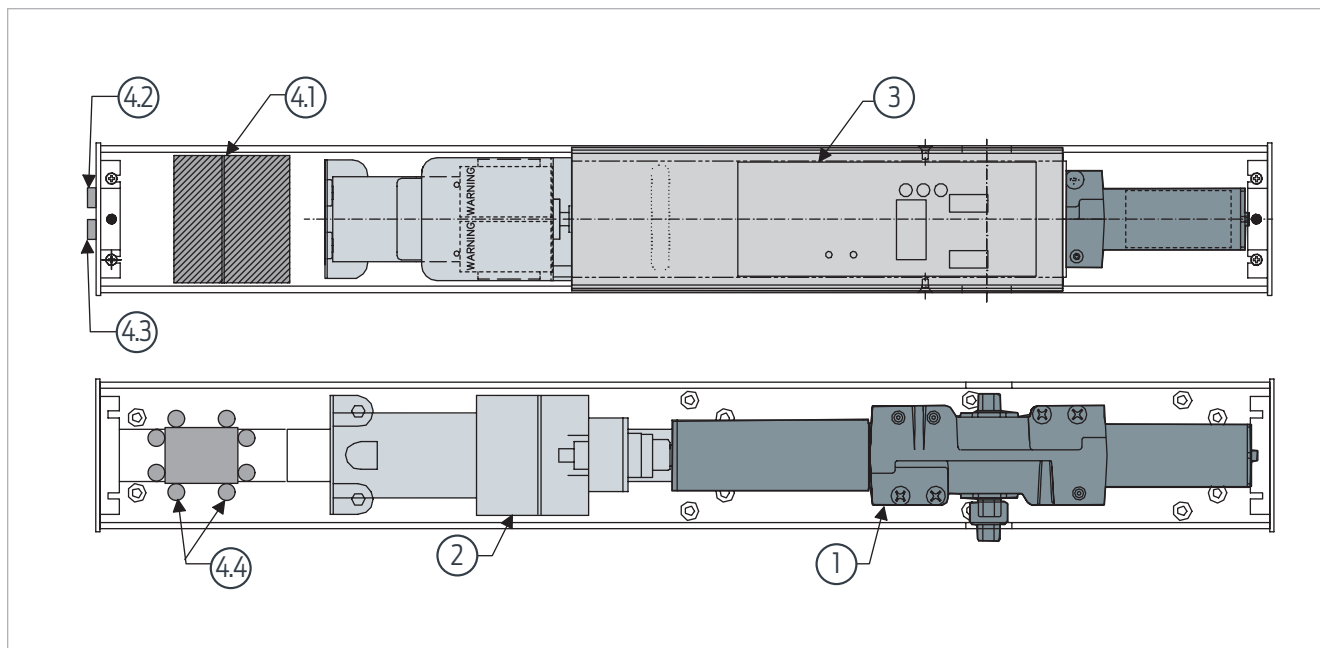
- This installation provides both accessibility and security for building occupants
- The Auto Equalizer controller module provides both the power and coordination for card reader and electric strike applications
- A built-in delay allows the strike to release before the door begins to open
- Two interconnected Auto Equalizers provide sequential operation in both directions
- Vestibule actuators allow single door ingress/egress from the vestibule as needed

Bill of materials

Qty	Part number	Description
1	4642	Auto equalizer (exterior)
1	4631	Auto equalizer (interior)
3	8310-856	Hard wired wall mount, logo, 4 3/4" x 4 3/4"
Other products from Von Duprin and Locknetics		

Note: An EL device requires a separate power supply. If not actuated, the auto equalizer functions as a full featured door closer.

Electrohydraulic powered systems

**1. Door closer assembly**

- Based on a heavy duty 4040XP, cast iron cylinder with allweather 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 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
- Slow blow and self-resetting fuses protect input and output power from voltage spikes
- Terminal strips simplify field wiring

4.2

- On/Off switch

4.3

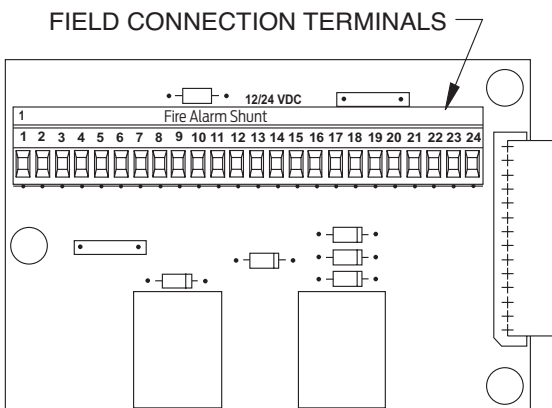
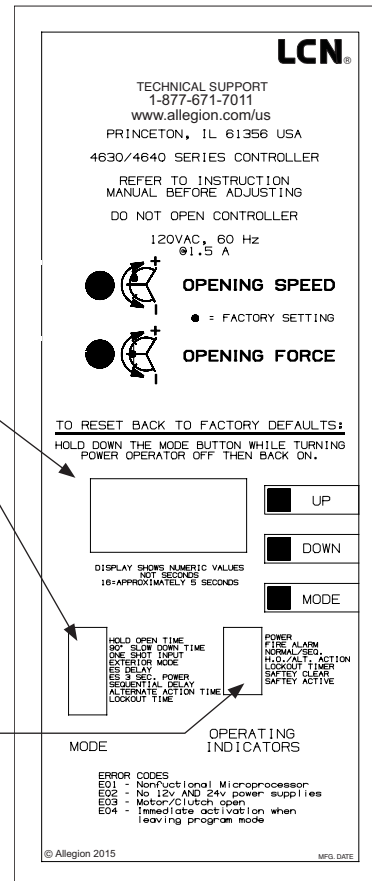
- Hold open switch

4.4

- Separate conduits for high voltage power and low voltage power and signal wiring meet UL and National Electrical Code requirements

Control box and electrical connections

Digital control box	
Opening speed adjustment	Limited to a minimum of 3 seconds to back check (approx. 70°)
Opening force adjustment	Maximum of 15 lb-f to stop door swing adjustment
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



Low voltage (Class 2 NEC) electrical connections

Function	Terminal
Actuator - Normal Input (N.O.)	16 and 17 or 18 and 1
Actuator - Sequential Input (N.O.)	8 and 19
Actuator - Alternate Action (N.O.)	15 and 17
Actuator - Continuous (N.O.)	6 and 17
Sequential Output	9
Stop Side Safety (N.O.)	19 and 2
Swing Side Safety (N.O.)	19 and 21
Fire Alarm Contact (N.C.)	13 and 14 (fire shunt)
Auxiliary Relay Contacts (5 amp max)	10 - Common 11 - N.O. 12 - N.C.
E.S. Relay Contacts (5 amp max)	22 - Common 23 - N.O. 24 - N.C.
12V DC and 24V DC Negative*	2, 4, 13, 17, and 19
12V DC Positive*	5 and 7
24V DC Positive*	1 and 3

* 1 Amp max load between 12V and 24V DC outputs.

4630 Series



The 4630 auto equalizer is LCN's smart and reliable electrically powered low-energy automatic operator. It provides easy access for people with disabilities, or the elderly. Designed primarily for manual opening applications that occasionally required automatic opening.

Features

Certifications	Grade 1 - ANSI A117.1, A156.19, UL 10C, UL 325/228, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	Metal Cover (MC)
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 3/4" diameter double heat treated pinion journal 	Fasteners	Wood and Machine Screws (WMS)
Fluid	All weather fluid	Mounting	Top jamb (pull side)
Handling	Non-handed	Arms	Standard single lever arm and track
Size	Adjustable spring size 1-4	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes*
Warranty	2 years		*End caps are black

Special templates

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

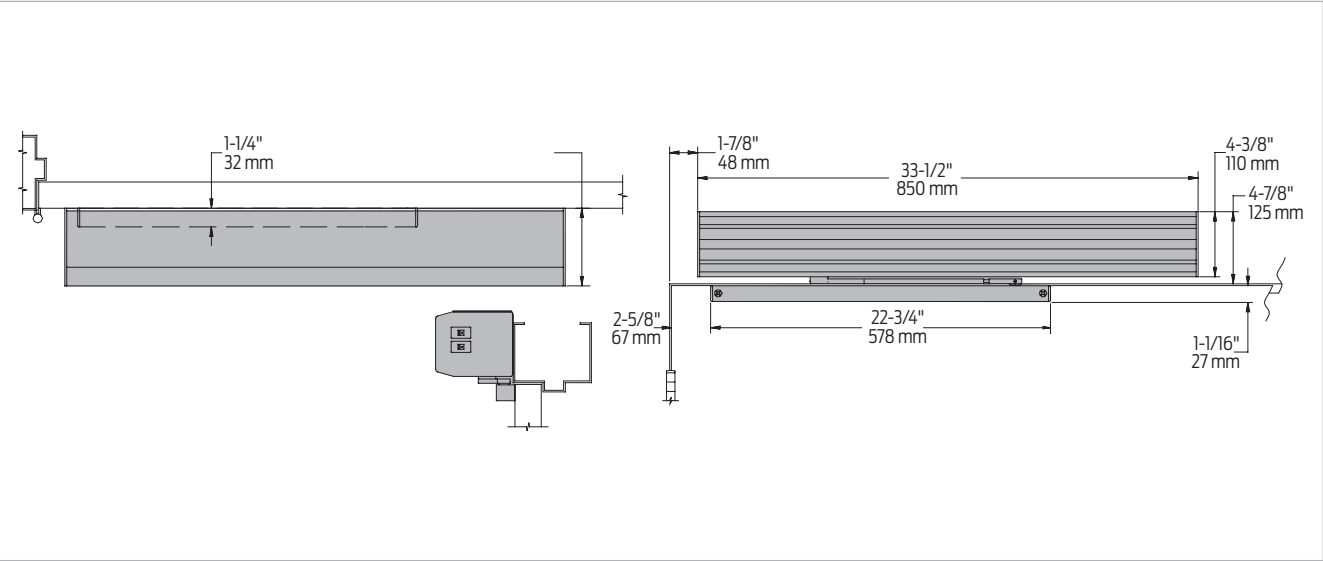
	Mounting	Finish	Cover	Cylinder	Arm function*
	Top jamb (pull) side Top jamb (push) side Parallel arm Concealed	Powder coat Plated	Plastic Metal	Non-handed Non-sized Accessibility Automatic operator Hold open DPS	Standard (single) Regular (double) EDA CUSH SCUSH
4630	■ ■ ■ ■	■ ■	■ ■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	90° ■ ■ ■ ■

- Available
- Not available

■ Meets ADA requirements (power mode).
 * See individual series for maximum manual opening.
 ** Switch provided for continuous Hold Open (4630 only).

Mounting details

Top jamb (pull side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended
Reveal	Should not exceed 1/8" (3 mm)
Top rail	Minimum 1 1/8" (29 mm)
Head frame	Minimum 2" (51 mm)
Opening time and force	<ul style="list-style-type: none"> 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 page 33 for typical system wiring and pages 34-35 for electrical data
Maximum opening	<ul style="list-style-type: none"> Templating allows 90° power opening and 170° manual opening Please note that many track style door closers are capable of allowing 180° of door swing Track style closers are at their weakest closing force at 180° Consult factory for applications where exterior or large/heavy door must swing 180°

- Notes:
- Actuators are sold separately, see pages 100-117
 - Comes with a digital control box utilizing a 4040XP heavy duty door closer with on-board diagnostics and power supply
 - Has a factory default memory that include "No Destruct" drive system
 - Guard rails or safety mats not required
 - 4630 has easily accessible switches to provide on/off and continuous hold open functions
 - CS options provides concealed on/off power switch
 - Control module provides timing and sequential door functions, electric strike controls and adjustments for opening speed and force

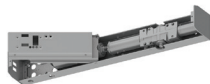
Accessories

Cylinders



4631-3971
Cast Iron Cylinder
Assembly (CYL)

- Non-handed
- Standard



4631-3071
Cast Iron Cylinder Assembly
(CYL)

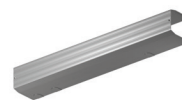
- Non-handed
- Mounting plate
- Includes 4630-3454 Motor Clutch, 4630-3180 I/O Board Assembly and 4630-3462 Controller
- Standard



4631-3071CS
Cast Iron Cylinder Assembly (CYL)

- Non-handed
- Mounting plate
- Includes 4630-3454 Motor Clutch, 4630-3180 I/O Board Assembly and 4630-3462 Controller
- Same as a 4630-3071 assembly except on/ off switch is concealed in endcap and no hold open switch is included (Separate key switches suggested)
- Optional

Covers



4630-72MC
Metal Cover (MC)

- Non-handed
- Standard

Arm



4630-3077T
Standard Arm (STDTRKARM)

- Non-handed
- Track roller not included with arm

Tracks



4630-3038
Standard Track (STDTRK)

- Non-handed
- Standard

Installation accessories



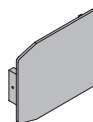
4630-3034
Track roller

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



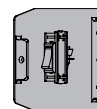
4630-334
Switch End Cap

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



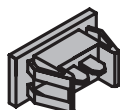
4630-334-2
Blank End Cap

- Black powder coat only



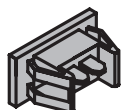
4630-334CS
Switch End Cap

- End cap and switch (black powder coat only) for concealed switch option



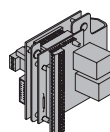
4630-3179-1
On/Off Switch Assembly

- Black rocker switch (plugs into high voltage PC board)



4630-3179-2
Hold Open Switch Assembly

- Black rocker switch
- Field wired to low voltage PC board



4630-3180
PC Board Assembly

- High and low voltage PC boards connected to mounting bracket



4630-3454
Motor/Clutch Assembly

- A geared assembly in an LCN automatic operator that incorporates a "no destruct" feature



4630-3462
Control Box Assembly

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



4630-3498-1
Ribbon Cable Connector

- 16 wire ribbon cable connecting PC board assembly to controller



4630-3498-2
AC Power Cable

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

Ordering information

How-to-order 4630 Series operators

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze
(691), Black (693), Brass (696).

Operator will be shipped with:

- Standard cylinder
- Metal cover
- Standard arm
- Track roller
- Standard track
- Wood and machine screws
(unless options listed below are selected)

Operator options

Cylinder assembly

- ☐ Cast Iron Cylinder Assembly (CYL)
(concealed on/off switch)
(separate key switches suggested)

Finish

- ☐ Custom Powder Coat (RAL) _____
- ☐ Plated finish _____

Screw packs

- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Special template

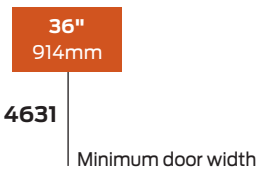
- ☐ ST- _____

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

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%

Exterior (and vestibule) door width



Interior door width



➔ Indicates recommended range of door width for operator.
Note: Minimum door width 36" (914mm).

4640 Series



The 4640 auto equalizer is LCN's smart and reliable electrically powered low-energy automatic operator. It provides easy access for people with disabilities, or the elderly. Designed primarily for manual opening applications that occasionally required automatic opening.

Features

Certifications	Grade 1 - ANSI A117.1, A156.19, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 3/4" diameter double heat treated pinion journal
Fluid	All weather fluid
Handling	Non-handed
Size	Adjustable spring size 2-5
Warranty	2 years

Cover	Metal Cover (MC)
Fasteners	Wood and Machine Screws (WMS)
Mounting	Top jamb (push side)
Arms	<ul style="list-style-type: none"> Regular Arm (REGARM), standard Long Arm (LONG), optional
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes*

*End caps are black

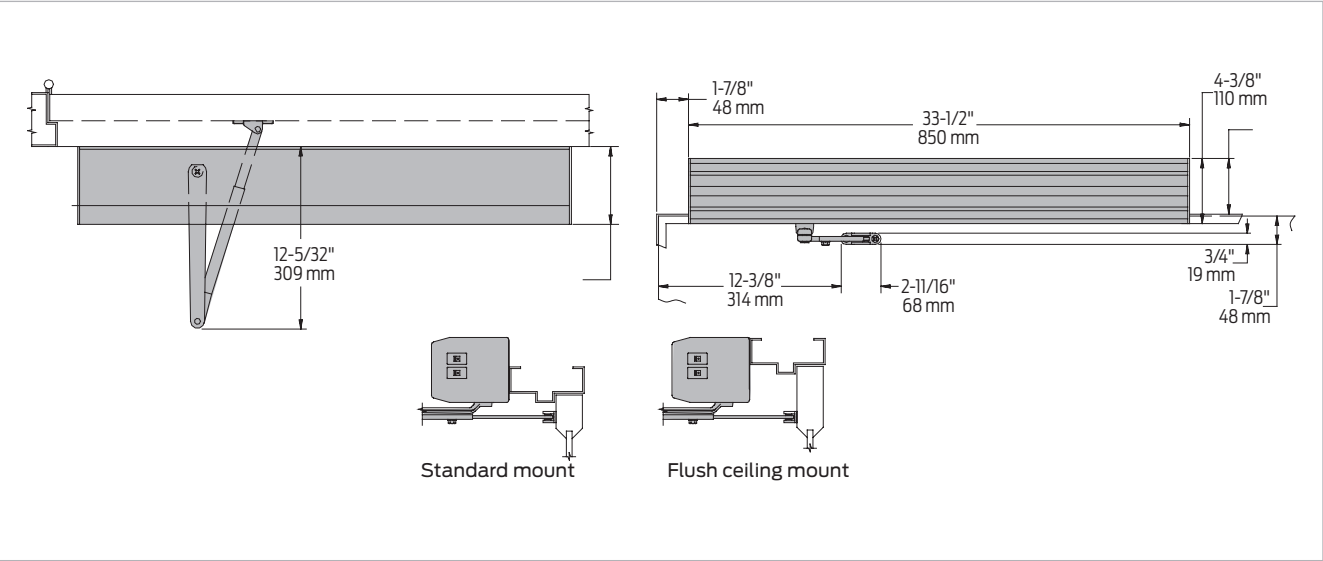
Special templates

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

	Mounting	Finish	Cover	Cylinder	Arm function*
4640	Top jamb (pull) side Top jamb (push) side Parallel arm Concealed Powder coat Plated	Plastic Metal	Non-handed Non-sized Accessibility Automatic operator Hold open DPS	90° Standard (single) Regular (double) EDA CUSH SCUSH	
	■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available ♿ Meets ADA requirements (power mode). * See individual series for maximum manual opening. ** Switch provided for continuous Hold Open (4640 only).		

Mounting details

Top jamb (push side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended
Reveal	<ul style="list-style-type: none">4 1/2" (114 mm) allows up to 90° power opening and 100° manual opening8" (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
Top rail	<ul style="list-style-type: none">Minimum 1 3/4" (44 mm)Flush ceiling installation requires 3 3/4" (95 mm) minimum
Head frame	Minimum 1 3/4" (44 mm) (the standard mounting plate is also used to meet flush ceiling conditions)
Opening time and force	<ul style="list-style-type: none">Variable by adjustments to the electronic control module located on the operator assemblyMaximum hold open time adjustable up to approximately five minutes
System diagram	See page 33 for typical system wiring and pages 34-35 for electrical data
Maximum opening	<ul style="list-style-type: none">Templating allows 90° power opening and 100° manual openingConsult factory for all pivot mounted installations

- Notes:
- Actuators are sold separately, see pages 100-117
 - Comes with a digital control box utilizing a 4040XP heavy duty door closer with on-board diagnostics and power supply
 - Has a factory default memory that include "No Destruct" drive system
 - Guard rails or safety mats not required
 - 4640 has easily accessible switches to provide on/off and continuous hold open functions
 - CS options provides concealed on/off power switch
 - Control module provides timing and sequential door functions, electric strike controls and adjustments for opening speed and force

Accessories

Cylinders



**4642-3971
Cast Iron Cylinder
Assembly (CYL)**

- Non-handed
- Standard



**4642-3071
Cast Iron Cylinder
Assembly (CYL)**

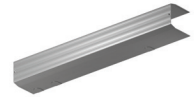
- Non-handed
- Mounting plate
- Includes; 4640-3454 Motor Clutch, 4640-3180 I/O Board Assembly and 4640-3462 Controller
- Standard



**4642-3071CS
Cast Iron Cylinder Assembly (CYL)**

- Non-handed
- Mounting plate
- Includes; 4640-3454 Motor Clutch, 4640-3180 I/O Board Assembly and 4640-3462 Controller
- Same as a 4640-3071 assembly except on/ off switch is concealed in endcap and no hold open switch is included (Separate key switches suggested)
- Optional

Covers



**4640-72MC
Metal Cover (MC)**

- Non-handed
- Standard

Arm



**4640-3077
Regular Arm (REGARM)**

- Non-handed



**4640-3077L
Long Arm (LONG)**

- Includes long rod and shoe, 4640-79LR for deep reveals



**4640-79
Rod and Shoe**

- For use with regular arm



**4640-79LR
Long Rod and Shoe**

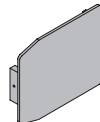
- Used for long arm with deep reveals

Installation accessories



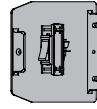
**4640-334
Switch End Cap**

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



**4640-334-2
Blank End Cap**

- Black powder coat only



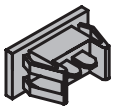
**4640-334CS
Switch End Cap**

- End cap and switch (black powder coat only) for concealed switch option



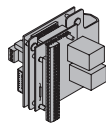
**4640-3179-1
On/Off Switch Assembly**

- Black rocker switch
- Plugs into high voltage PC board



**4640-3179-2
Hold Open Switch Assembly**

- Black rocker switch
- Field wired to low voltage PC board



**4640-3180
PC Board Assembly**

- High and low voltage PC boards connected to mounting bracket



**4640-3454
Motor/Clutch Assembly**

- A geared assembly in an LCN automatic operator that incorporates a "no destruct" feature



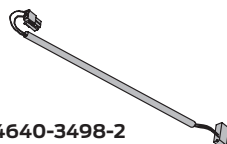
**4640-3462
Control Box Assembly**

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



**4640-3498-1
Ribbon Cable Connector**

- 16 wire ribbon cable connecting PC board assembly to controller



**4640-3498-2
AC Power Cable**

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

Ordering information

How-to-order 4640 Series operators

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze
(691), Black (693), Brass (696).

Operator will be shipped with:

- Standard cylinder
- Metal cover
- Regular arm
- Wood and machine screws
(unless options listed below are selected)

Operator options

Cylinder assembly

- ☐ Cast Iron Cylinder Assembly (CYL)
(concealed on/off switch)
(separate key switches suggested)

Finish

- ☐ Custom Powder Coat (RAL) _____
- ☐ Plated finish _____

Screw packs

- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Special template

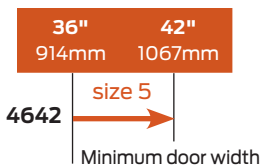
- ☐ ST- _____

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

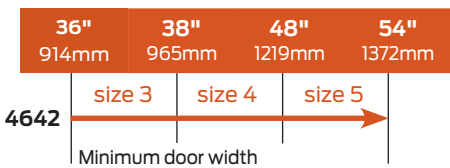
Table of sizes

- 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%

Exterior (and vestibule) door width



Interior door width



➔ Indicates recommended range of door width for operator.
Note: Minimum door width 36" (914mm).

Electromechanical automatic 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 with two standard anodized finishes – Aluminum and Dark Bronze.

Low energy electromechanical automatic operators

- Complies with ANSI 156.19
- Opening time from full close to back check is no faster than 3 seconds
- Less than 15 lbs of force to open door manually

General electrical data

- The 115/240 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.
- Location of conduits determined by mounting. See installation instructions for location.

2800/9500 Series electrical data

- 120 VAC 60Hz input @ 2.5 amps (2800 and 9500 Series).
- 240 VAC 50/60 Hz @ 2.5 amps (2800 and 9500 Series).
- 24 VDC output @ 1 amp (protected by self-resetting thermal fuse).

9100 Series electrical data

- 120 VAC input @ 1 amp.
- 24 VDC output @ 2.5 amps.

On-board power supply

Provides 24V DC output to power card readers, manual actuators and other peripherals.

Electronic circuit protection

Fused input circuit protection and fused output protection for 24 VDC peripherals.

Visual function indicators

There are 2 LED's for installation and trouble shooting feedback. The motor LED will illuminate when the motor drive circuit energizes. This is when the operator is activated it will remain on only during the opening of the door and the power LED this will illuminate when power is applied to the board and remains illuminated as long as there is power applied to the board.

Programming mode

Allows tailoring of the following functions to meet specific site conditions:

- Power boost
- Opening speed
- Back check speed
- Hold open time delay
- Back check position
- Closing speed
- Latch position
- Push 'N Go
- Delayed activation

Standards, listings and approvals

- UL listed for self-closing doors without hold open
- UL 325 tested and certified under ANSI
- Low Energy Electromechanical Operators ANSI 156.19.
- ADA Compliant
- Wiring is compliant with both UL 325 and the NEC. (separation of high and low voltage)
- Consult the factory for other listings

Warranty

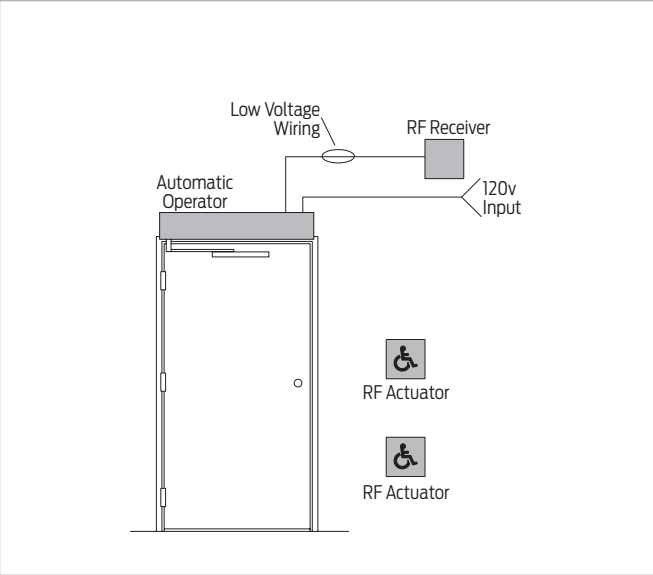
2 year limited warranty. See General Information catalog for complete details.

Maintenance

- For best performance, mount operators according to the LCN installation instructions
- Periodic visual inspections are recommended
- No service contracts

Wiring diagrams

This page illustrates examples of typical electric LCN systems. Please consult your local RSO representative or LCN for assistance with specific installations and material requirements.



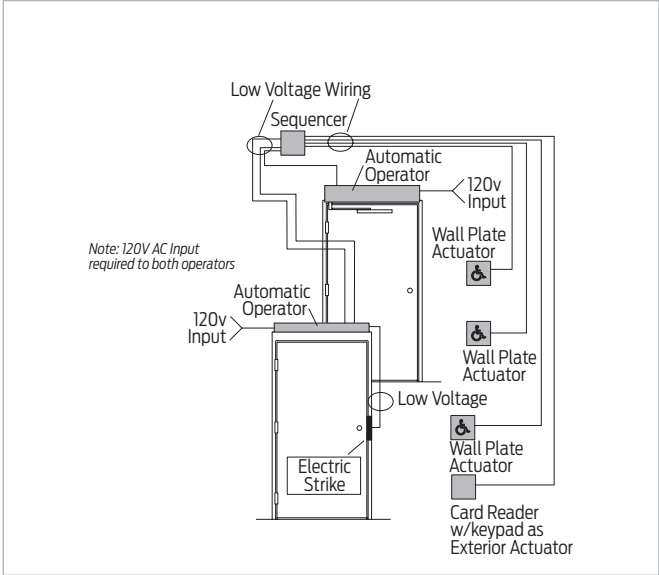
Single door system (wireless)

- An interior door
- Guide rails or safety devices not required
- Free swinging (or dogged) door

How it works

- Wireless actuators with receiver, powered by the transformer allows for easy installation
- For automatic door operation, touching either actuator signals the receiver and automatic 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 automatic operator functions as a manual door

Bill of materials		
Qty	Part number	Description
1	9531	Auto operator (RH)
2	8310-3853WS	Wireless actuator, wall mount and surface, logo, 4 3/4" x 4 3/4"
1	8310-865	Wireless receiver



Vestibule door system (wired)

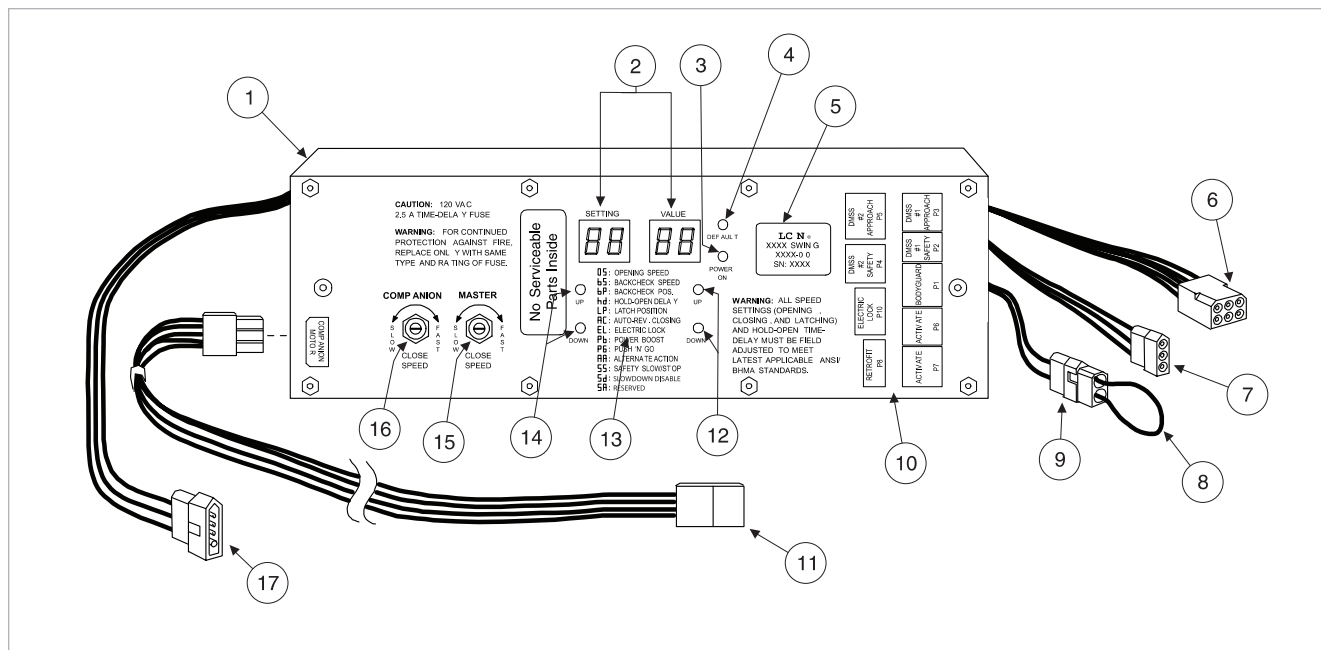
- Exterior and vestibule doors
- Sequential operation
- Guide rails or safety devices not required
- Controlled access, free egress

How it works

- This installation provides both accessibility and security for building occupants
- It allows for the integration of multiple automatic operators, a card reader and electric strike
- A sequencer allows sequential operation of the two automatic operators
- Vestibule actuators allow single door ingress/ egress from the vestibule as needed
- If not actuated the automatic operator functions as a manual door

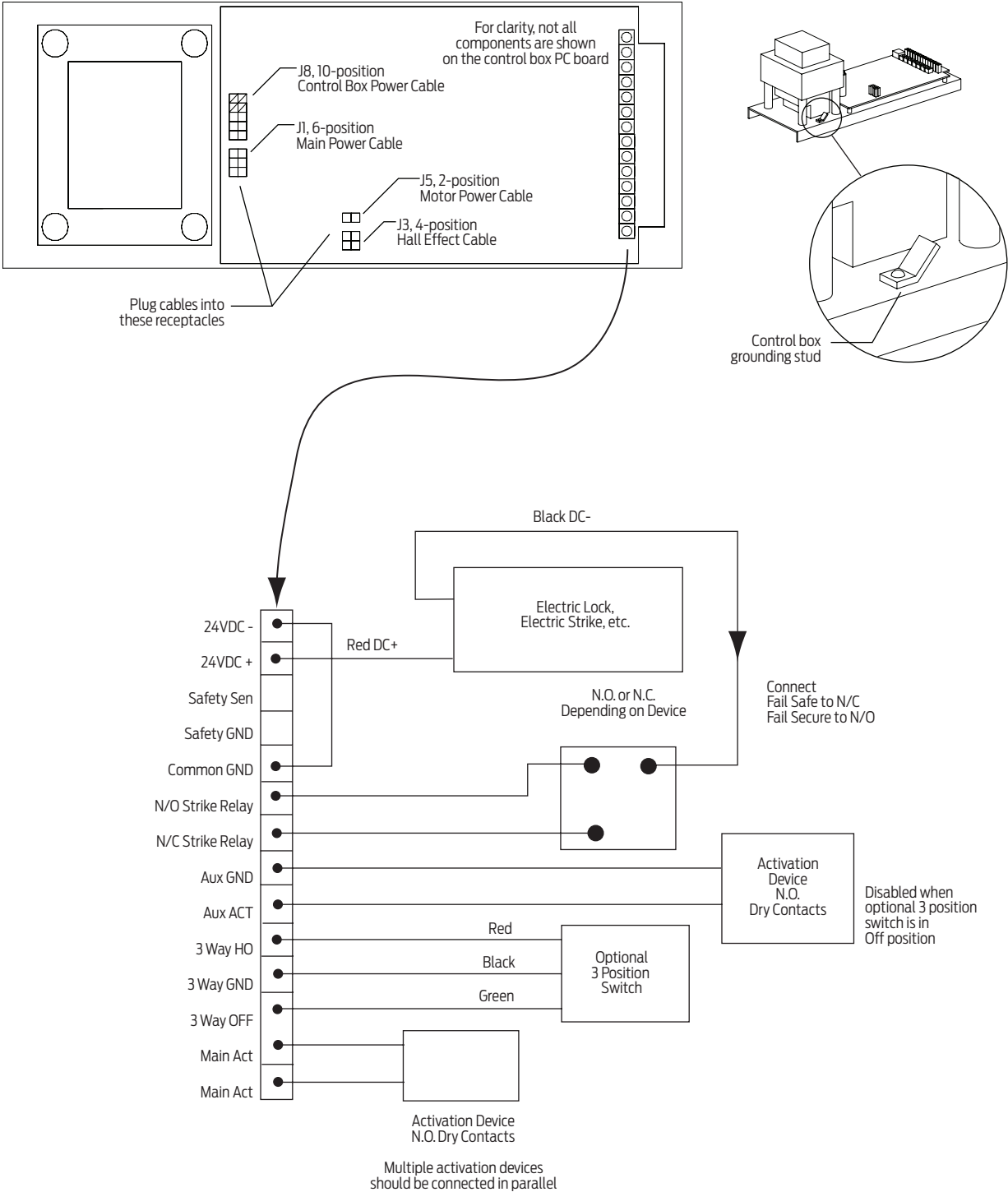
Bill of materials		
Qty	Part number	Description
1	9542	Auto operator (RH)
1	9531	Auto operator (RH)
3	8310-853	Hard wired wall mount, logo, 4 3/4" x 4 3/4"
1	8310-849	Sequencer
Other products from Von Duprin and Schlage Electronics		

Control box diagram

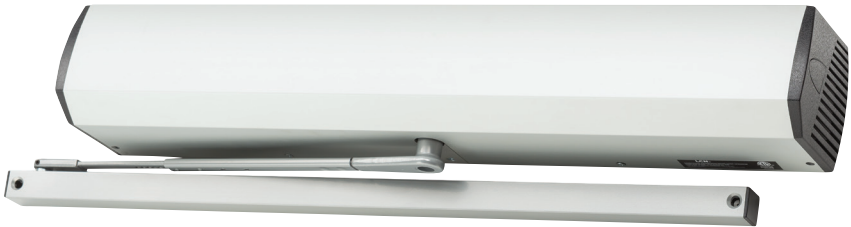
**2800/9500 Series**

1. Control box, 115VAC 60Hz, or 240 VAC 50/60 Hz
2. Seven segment display
3. Power indicator
4. Factory default push button
5. Model identification label
6. 6-pin connector for master motor
7. 3-pin connector for 3 position switch
8. Breakaway jumper cable
9. 2-pin connector for breakaway switch
10. Accessory direct connect diagram
11. 6-pin connector for companion motor (supply only w/simultaneous pairs)
12. Value adjustment push buttons
13. Setting adjustment menu
14. Function adjustment push buttons
15. Closing speed adjustment dial (master)
16. Closing speed adjustment dial (companion)
17. 3-pin connector for AC power

Control box diagram



9130 Series

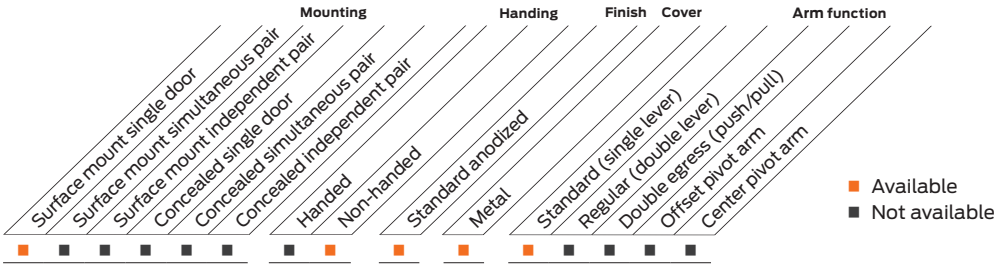


The 9130 Benchmark by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, or the elderly. Designed primarily for automatic opening applications that occasionally require manual opening. The Benchmark is a cost-effective solution for retrofitting an activated or manual door.

Features

Certifications	Grade 1 - A156.19, UL325/228, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	<ul style="list-style-type: none">▪ Metal 27", standard▪ Metal 36", optional
Handing	Non-handed	Fasteners	Wood and Machine Screws (WMS)
Cover	<ul style="list-style-type: none">▪ 30" - 48"▪ 30" minimum door width for 27"▪ 36" door width only for full length pull operator	Mounting	Single interior door, surface mount, offset pivot/butt hinge (pull side)
Warranty	2 years	Arms	Standard arm and track
		Finishes/colors/powder coat	<ul style="list-style-type: none">▪ 628 Aluminum, Anodized▪ 710 Dark Brown, Anodized

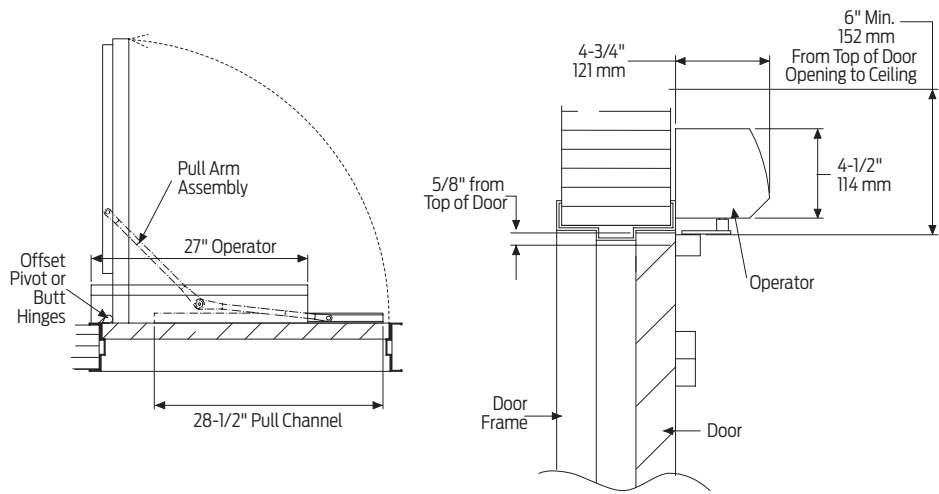
Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



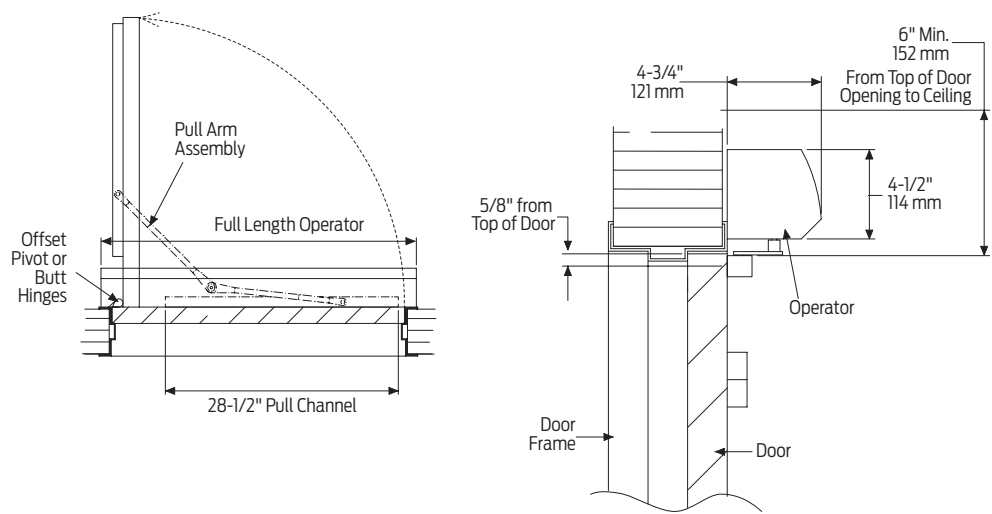
Mounting details

Top jamb (single door) mounting

Offset/butt hinge, center pivot, pull, standard cover



Offset/butt hinge, center pivot, pull, full cover



Butt hinges	Should not exceed 5" (127 mm) in width
Reveal	Should not exceed 1/8" (3 mm)
Top rail	Minimum 2" (51 mm)
Head frame	Minimum 2" (51 mm)
Opening and closing time	<ul style="list-style-type: none">Variable by adjustments to the electronic control module located on the operator assemblyMaximum hold open time adjustable up to approximately 30 seconds
System diagram	See page 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

- Notes:
- Push 'N Go permits non-switch activation with a microprocessor control box that ensures reliability and maintains customer settings
 - Power boost allows for increased closing force near latch
 - On/off switch is included as standard
 - All potentiometers are clearly labeled with their functions
 - LED lights indicate power to control box and motor gearbox

Accessories

Motor gearbox



9130-3454S
Standard Motor Gearbox (MGB)

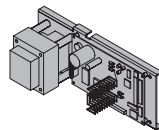
- Driving mechanism for operator (switch not included)
- For 27" unit



9130-3454
Standard Motor Gearbox (MGB) (W/O Switch)

- Driving mechanism for operator (switch not included)
- For full length 36" unit

Control box



9130-3462
Standard Controller (120 volts) (CTRL)

- Electronic controlling device with power supply output and power boost feature

Arm



9130-3077T
Standard Arm (STDTRKARM)

- Non-handed
- Track roller not included



9130-3077PLCM
Standard Arm (STDTRKARM)

- Non-handed
- Standard non-handed track

Track



9130-3038
Standard Track (STDTRK)

- Non-handed
- Standard



9130-73
Track End Cap

- Black plastic

Installation accessories



9130-3034
Roller assembly

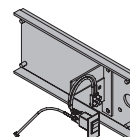
- Quiet low friction

Brackets



9130-3018
Mounting Bracket

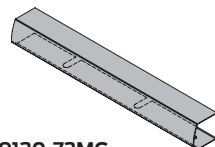
- Standard



9130-3351-2
Switch bracket

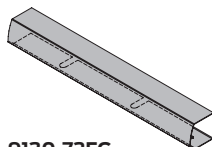
- 41" cable
- Bracket used to locate switch at end of cover on full length unit

Covers



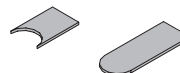
9130-72MC
Standard 27" Metal Cover (MC27)

- Non-handed
- 27"
- Extruded aluminum
- Standard



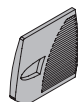
9130-72FC
Full Metal Cover 36" (FMC)

- Non-handed
- 36"
- Extruded aluminum



9130-163
Cover Insert

- Used to cover operator shaft opening (includes 2 pieces)



9130-163-1
Cover End Cap Insert

- Used to cover switch hole opening



9130-334
Cover End Cap

- Black plastic
- Includes 9130-163-1 cover and cap insert

Ordering information

How-to-order 9130 Series operators

1. Select finish

- ☐ Standard anodized finish _____
Aluminum, Clear Anodized (628) or
Dark Brown, Anodized (710).

Operator will be shipped with:

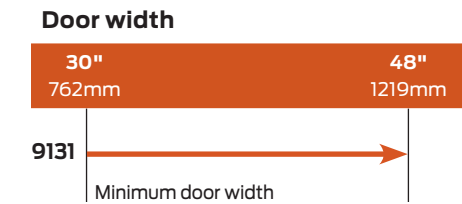
- Standard motor gearbox
- Standard control box
- Mounting bracket
- 27" metal cover
- Standard arm (3077t)
- Standard track w/track roller
- Wood and machine screws
(unless options listed below are selected)

Operator options

Cover

- ☐ Full Metal Cover 36" (FMC)

Table of sizes



Indicates recommended range of door width for operator.
Note: For all Benchmark series. 30" minimum door width for 27" pull operator. 36" door width only for full length pull operator.

9140 Series



The 9140 Benchmark by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, or the elderly. 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.

Features

Certifications	Grade 1 - A156.19, UL325/228, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Handing	Non-handed
Door width	<ul style="list-style-type: none">26" - 48"26" minimum door width for 27"36" door width only for full length pull operator
Warranty	2 years

Fasteners	Wood and Machine Screws (WMS)
Mounting	Single interior door, surface mount, offset pivot/butt hinge (push side)
Arms	Regular Arm (REGARM)
Finishes/colors/ powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized

Special templates

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

Mounting	Handing	Finish	Cover	Arm function
Surface mount single door	Standard anodized	Standard (single lever)	Offset pivot arm	Center pivot arm
Surface mount simultaneous pair	Metal	Regular (double lever)	Double egress (push/pull)	
Surface mount independent pair				
Concealed single door				
Concealed simultaneous pair				
Concealed independent pair				
Handed				
Non-handed				

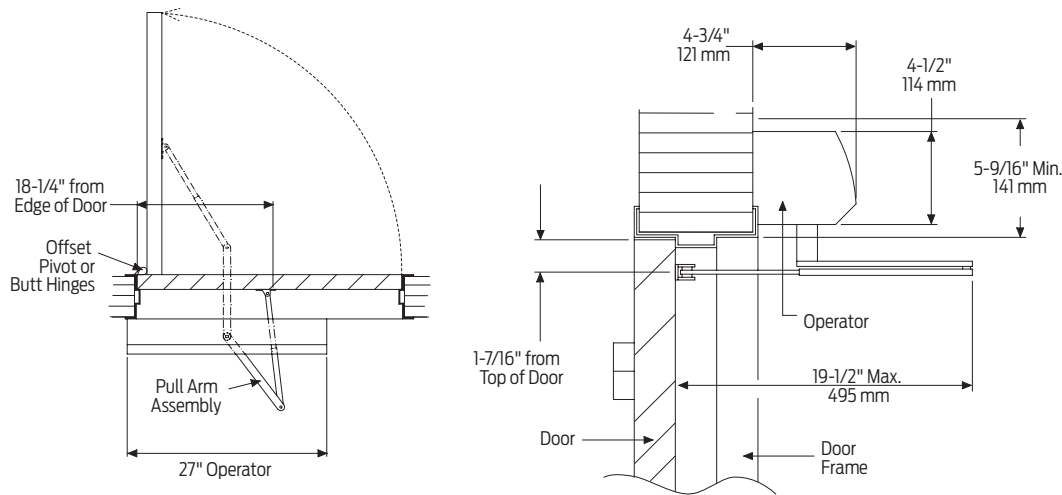
Available

Not available

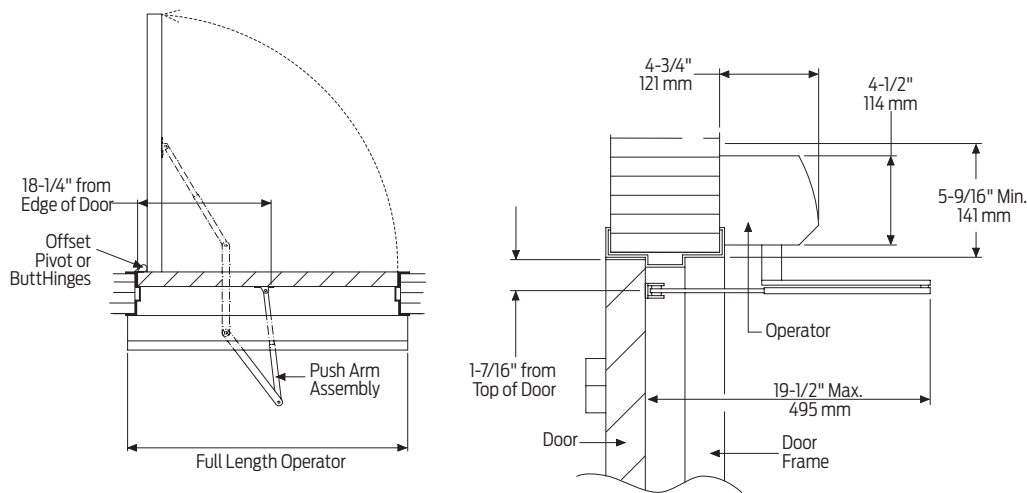
Mounting details

Top jamb (single door) mounting

Offset/butt hinge, center pivot, push, standard cover



Offset/butt hinge, center pivot, push, full cover



Butt hinges	Should not exceed 5" (127 mm) in width
Reveal	Push installations should not exceed 6" (152 mm) for regular arm and 9 3/4" (248 mm) for long arm
Top rail	<ul style="list-style-type: none">Minimum 2" (51 mm)Flush ceiling installation requires 5 1/4" (133 mm) minimum
Head frame	Minimum 2" (51 mm)
Opening and closing time	<ul style="list-style-type: none">Variable by adjustments to the electronic control module located on the operator assemblyMaximum hold open time adjustable up to approximately 30 seconds
System diagram	See page 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

- Notes:
- Push 'N Go permits non-switch activation with a microprocessor control box that ensures reliability and maintains customer settings
 - Power boost allows for increased closing force near latch
 - On/off switch is included as standard
 - All potentiometers are clearly labeled with their functions
 - LED lights indicate power to control box and motor gearbox

Accessories

Motor gearbox



**9140-3454S
Standard Motor Gearbox
(MGB)**

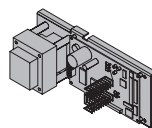
- Driving mechanism for operator (switch not included)
- For 27" unit



**9140-3454
Standard Motor Gearbox
(MGB) (W/O Switch)**

- Driving mechanism for operator (switch not included)
- For full length unit (36")

Control box



**9140-3462
Standard Controller (120 volts)
(CTRL)**

- Electronic controlling device with power supply output and power boost feature

Arm



**9140-3077
Regular Arm (REGARM)**

- Non-handed



**9140-3077L
Long Arm (LONG)**

- Non-handed



**9140-79
Rod and shoe**

- For use with regular arm



**9140-79LR
Long rod and shoe**

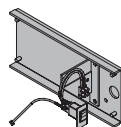
- Used with long arm, for deep reveals

Brackets



**9140-3018
Mounting Bracket**

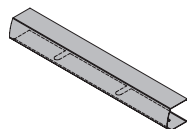
- Standard



**9140-3351-1
Switch bracket**

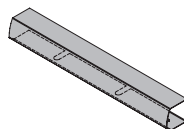
- 29" cable
- Used with a 36" door
- Used to locate switch at end of cover on full length unit

Covers



**9140-72MC
Standard 27" Metal Cover (MC27)**

- Non-handed
- 27"
- Extruded aluminum cover
- Standard



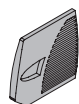
**9140-72FC
Full 36" Cover (FC36)**

- Non-handed
- 36"
- Extruded aluminum cover



**9140-163
Cover Insert**

- Used to cover operator shaft opening (includes 2 pieces)



**9140-163-1
Cover End Cap Insert**

- Used to cover switch hole opening



**9140-334
Cover End Cap**

- Black plastic
- Includes 9130-163-1 cover and cap insert

Ordering information

How-to-order 9140 Series operators

1. Select finish

- ☐ Standard anodized finish _____
Aluminum, Clear Anodized (628) or
Dark Brown, Anodized (710).

Operator will be shipped with:

- Standard motor gearbox
- Standard control box
- Mounting bracket
- 27" metal cover
- Standard arm (3077t)
- Standard track w/track roller
- Wood and machine screws
(unless options listed below are selected)

Operator options

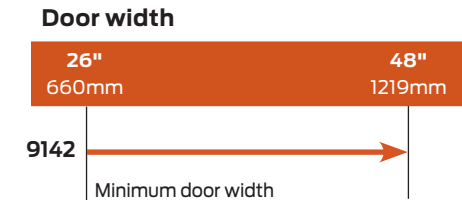
Cover

- ☐ Full Metal Cover 36" (FMC)

Arm

- ☐ Long Arm (LONG) (reveals 6" to 9 3/4")

Table of sizes



Indicates recommended range of door width for operator.
Note: For all Benchmark series. 30" minimum door width for 27" pull operator. 36" door width only for full length pull operator.

9150 Series

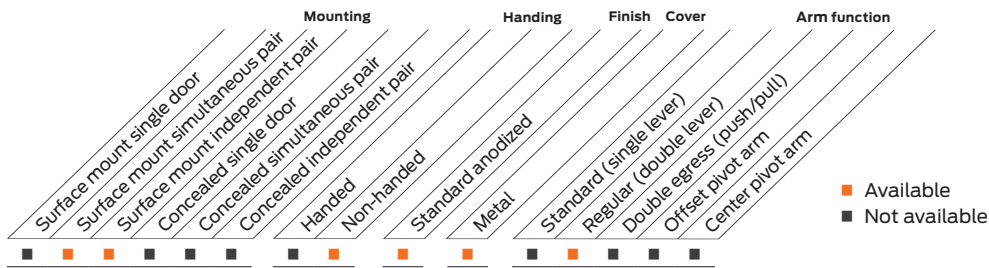


The 9150 Benchmark by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, or the elderly. Designed primarily for automatic opening applications that occasionally require manual opening. The Benchmark is a cost-effective solution for retrofitting an activated or manual door.

Features

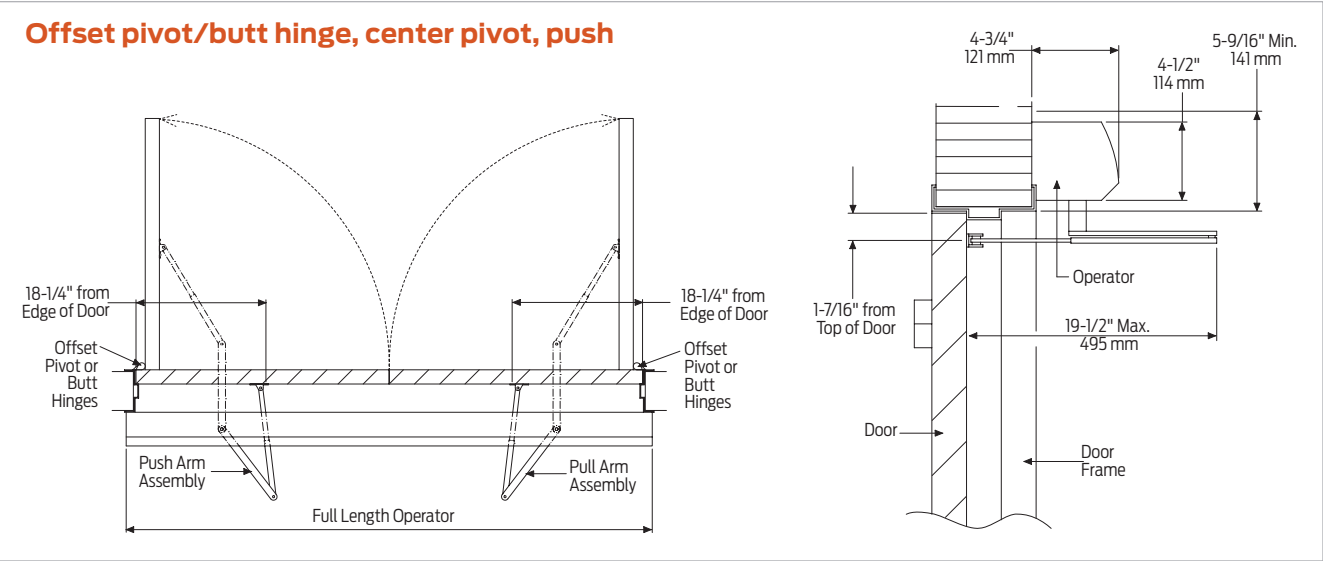
Certifications	Grade 1 - ANSI A156.19, UL325/228, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	Metal Cover (MC)
Handing	Non-handed	Fasteners	Wood and Machine Screws (WMS)
Templating	Peel-n-Stick templates - 2 3/8" x 6 3/4" mounting hole pattern	Mounting	Pair of doors, surface mount, offset pivot/butt hinges (push side)
Door width	<ul style="list-style-type: none">Minimum door width 52" - 96"72" door width only for full length double operator	Arms	Regular Arm (REGARM)
Warranty	2 years	Finishes/colors/powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized

Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



Mounting details

Top jamb, independent/simultaneous pair mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Reveal	Push installations should not exceed 6" (152 mm) for regular arm and 9 3/4" (248 mm) for long arm
Top rail	<ul style="list-style-type: none">Minimum 2" (51 mm)Flush ceiling installation requires 5 1/4" (133 mm) minimum
Head frame	Minimum 2" (51 mm)
Opening and closing time	<ul style="list-style-type: none">Variable by adjustments to the electronic control module located on the operator assemblyMaximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

- Notes:
- Determined by wiring
 - Push N' Go permits non-switch activation with a microprocessor control box that ensures reliability and maintains customer settings
 - Power boost allows for increased closing force near latch
 - All potentiometers clearly labeled with their functions
 - LED lights indicate power to control box and motor gearbox

Accessories

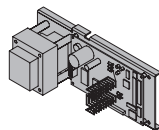
Motor gearbox



9150-3454S
Standard Motor Gearbox
(MGB)

- Driving mechanism for operator (switch included)

Control box



9150-3462
Standard Controller (120
volts) (CTRL)

- Electronic controlling device with power supply output and power boost feature

Arm



9150-3077
Regular Arm (REGARM)

- Non-handed



9150-3077L
Long Arm (LONG)

- Non-handed



9150-79
Rod and shoe

- For use with regular arm



9150-79LR
Long rod and shoe

- Used with long arm, for deep reveals

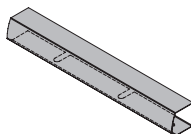
Brackets



9150-3018
Mounting Bracket

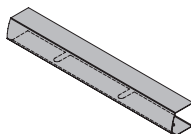
- Standard

Covers



9150-72MC
Standard 72" Metal Cover
(MC72)

- Non-handed
- 72"
- Extruded aluminum cover
- Standard



9150-163
Cover Insert

- Used to cover operator shaft opening (includes 2 pieces)



9150-163-1
Cover End Cap Insert

- Used to cover switch hole opening



9150-334
Cover End Cap

- Black plastic
- Includes 9130-163-1 cover and cap insert

Ordering information

How-to-order 9150 Series operators

1. Select finish

- ☐ Standard anodized finish _____
Aluminum, Clear Anodized (628) or
Dark Brown, Anodized (710).

Operator will be shipped with:

- Standard motor gearbox (2 ea)
- Standard control box (2 ea)
- Mounting bracket (2 ea)
- 27" metal cover
- Standard arm (2 ea)
- Wood and machine screws
(unless options listed below are selected)

Operator options

Arm

- ☐ Long Arm (LONG) (reveals 6" to 9 3/4")

Table of sizes

Notes: For 9150 Benchmark series. 72" door width only for full length push double door operator.

Senior Swing unique features

Digital control suite

Provides precise control of a range of built-in functions. 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 microprocessor, power supplies, drive systems, actuators and safety circuits. Simplifying the process of verifying a correct and complete installation.

On-board power supply

Provides 24VDC to power card readers, manual actuators and other peripherals.

Plug and play sensors

Motion sensors and safety sensors feature a "plug and play" concept allowing fast and accurate wiring connections in only seconds.

Electronic circuit protection

High voltage (primary AC input) is protected by replaceable fuse. Low voltage is protected by self-resetting fuses.

Visual function indicators

LED Display allows direct observation of these inputs while in visual function indicator mode:

- Key switch - set to Auto, OFF or HOLD
- Activate
- DMSS approach
- DMSS safety
- Bodyguard
- Power Boost Disable

Programming mode

Allows tailoring of the following functions to meet specific site conditions:

- Opening speed
- Back check speed
- Back check position
- Hold open delay
- Latch position
- Auto reverse - closing
- Electric lock delay
- Power boost
- Push 'N' Go
- Alternate action
- Safety slow/stop
- Slow down disable

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.

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.

Safety slow/stops 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.

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.

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.

Electric lock delay

Causes a 1 second delay between activate signal and door opening to allow time for most electric locks to disengage before operator opens door.

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2810 Series



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.

Features

Certifications	Grade 1 - ANSI A156.19, UL325, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Fasteners	Wood and Machine Screws (WMS)
Handing	Handed	Mounting	Single door, overhead concealed, center pivot, offset pivot, butt hinge
Door width	Minimum door width 33"- 48"; 49" with finger guard <small>Note: Single door width per leaf 33" minimum, 48" maximum.</small>	Arms	Center pivot arm or offset pivot arm
Warranty	2 years	Finishes/colors/ powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized

Special templates

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

Mounting	Handing	Finish	Cover	Arm function
Surface mount single door	Handed	Standard anodized	Standard (single lever)	Center pivot arm
Surface mount simultaneous pair	Non-handed	Metal	Regular (double lever)	Offset pivot arm
Surface mount independent pair			Double egress (push/pull)	
Concealed single door				
Concealed simultaneous pair				
Concealed independent pair				

Available

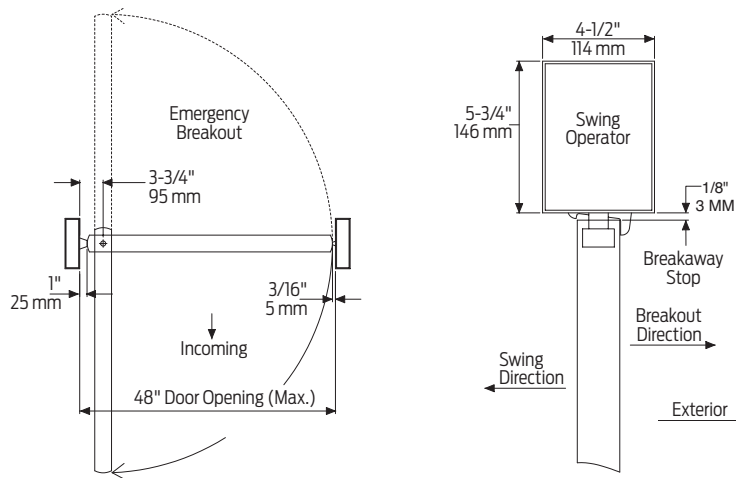
Not available

Mounting details

Concealed single door mounting

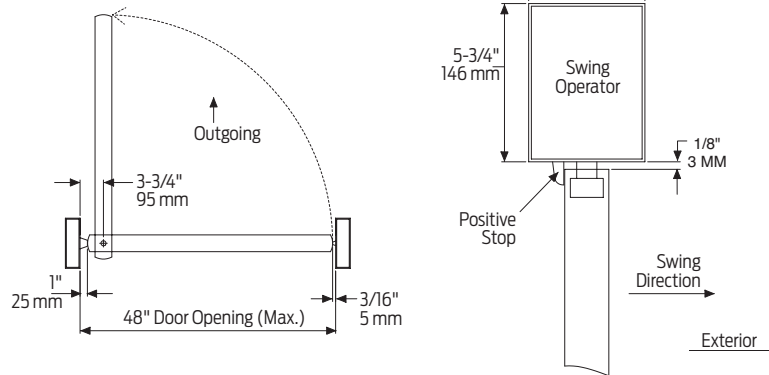
Center pivot, breakaway stop, pull

Shown with 3 3/4" pivot and finger guard



Center pivot, positive stop, push

Shown with 3 3/4" pivot and finger guard



Top rail	Minimum 2" (51 mm)
Head frame	Minimum 36" (L) x 5 3/4" (H) x 4 1/2" (W) (914 mm x 146 mm x 114 mm)
Opening and closing time	<ul style="list-style-type: none">Variable by adjustments to the electronic control boxMaximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening
Minimum header length	33" with applied stop by others and 36" with LCN positive or breakaway stop

Notes:

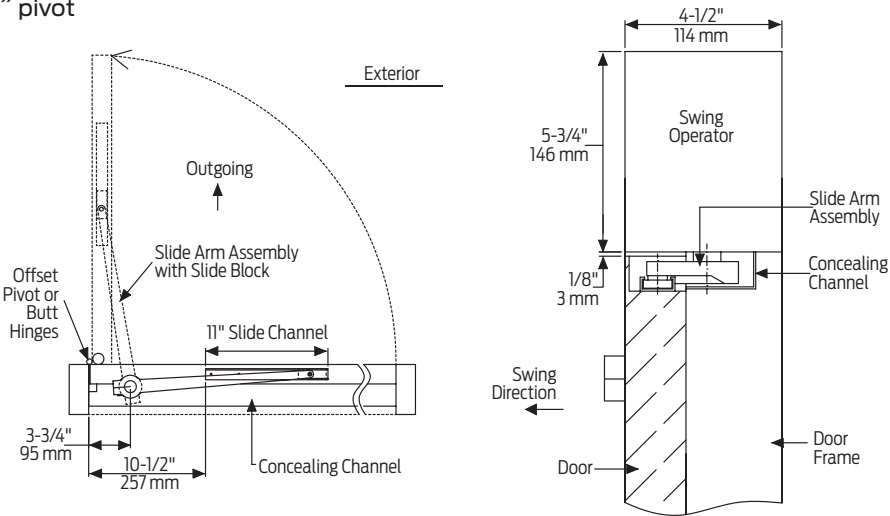
- Push N' Go permits non-switch activation
- Power boost provides additional latch forcing for electromechanical unit with microprocessor control
- Double Door Header available up to 98", specify length 49" to 98" maximum (consult factory regarding this option)
- Positive or breakaway stop available with center pivot arm
- Adjustable hold open time of 1-32 seconds

Mounting details

Concealed single door mounting

Offset pivot or butt hinge, slide arm, push

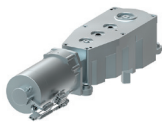
Shown with 3 3/4" pivot



Top rail	Minimum 2" (51 mm)
Head frame	Minimum 33" (L) x 5-3/4" (H) x 4-1/2" (W) (838 mm x 146 mm x 114 mm)
Opening and closing time	<ul style="list-style-type: none">Variable by adjustments to the electronic control boxMaximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening <ul style="list-style-type: none">Minimum header length 33"Installations require bottom pivot and two intermediate pivots
Notes: <ul style="list-style-type: none">Push N' Go permits non-switch activationPower boost provides additional latch forcing for electromechanical unit with microprocessor controlDouble door header available up to 98", specify length 49" to 98" maximum (consult factory regarding this option)Positive or breakaway stop available with center pivot armAdjustable hold open time of 1-32 seconds	

Accessories

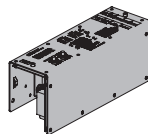
Motor gearbox



2810-3454 Standard Motor Gearbox (MGB)

- Senior Swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Control box



2810-3462 Standard Controller (CTRL)

- Senior Swing
- Electronic controlling device for Senior Swing

Arm



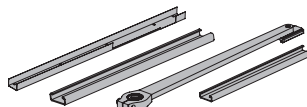
2810-3077CP 2 3/4" Center Pivot Arm (ARMCP)

- Center pivot installations only
- Used with overhead concealed operators and center pivoted doors



2810-3077OP 3 3/4" Offset Pivot Arm (ARMOP)

- Offset pivot or butt hung installations only
- Used with overhead concealed operators



2810-3077OPCM Offset Pivot Arm Assembly

- Offset arm with track and concealing channel (includes 3072 concealing channel, 168 slide channel and 3077OP offset pivot arm)

Brackets



2810-375 Mounting Bracket

- Motor gearbox mounting bracket for 3 3/4" offset pivot, butt hinge or center pivot with finger guard installations
- Front bracket



2810-275 Mounting Bracket

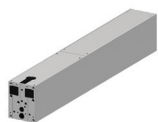
- Motor gearbox mounting bracket for 2 3/4" center pivot installations
- Front bracket



2810-3018 Rear Mounting Bracket

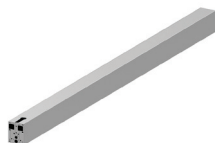
- Motor gearbox mounting bracket
- Rear bracket

Header



2810-3572HL Standard Mounting Header (HDR)

- Standard
- Single door, single operator
- Specify length 33" to 49" maximum



2810-3572DD Double Door Header (HDR2)

- Standard
- Double door, single operator
- Specify length 49" to 98" maximum

End cap

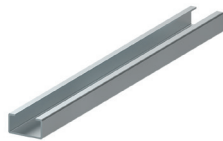


2810-334 Header End Caps

- With openings for wiring

Accessories

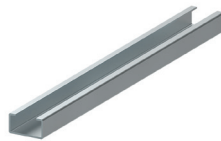
Channels



2810-3072

Concealing Channel

- Offset arm with track and concealing channel (includes 3072 concealing channel, 168 slide channel and 3077OP offset pivot arm) Used to conceal arm in overhead concealed applications
- For offset pivot installations only
- If ordering separately specify length and hand

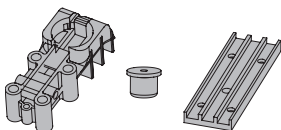


2810-168

Slide Channel

- Offset pivot or butt hinge installations only
- Mounts in top rail of door
- Allows arm to slide

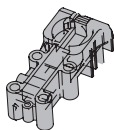
Pivots



2810-3107

Bottom Pivot Assembly

- Includes pivot body, pivot post and bottom pivot plate
- For overhead concealed, center pivoted installations
- Includes; 2810-107, 2810-110 and 2810-117



2810-107

Bottom Pivot Body

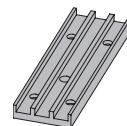
- For center pivoted installations



2810-110

Pivot Post

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

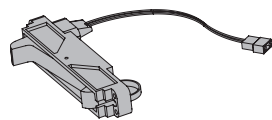


2810-117

Bottom Pivot Plate

- Applied to floor for center pivoted installations

Installation accessories



2810-384B

Breakaway Stop (BKY)

- Allows in-swinging door to swing out in case of emergency
- Disables operator in breakaway mode
- For center pivoted installations only



2810-384F

Positive Stop (POS)

- Prevents out-swinging door from swinging in
- For center pivoted installations only



2810-12

Filler Plate Blank

- Completes length of header box



2810-11A

Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 2 3/4" center pivot installations



2810-11B

Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 3 3/4" offset pivot, butt hinge or center pivot with finger guard installations

Ordering information

How-to-order 2810 Series operators

1. Select installation type

 - ☐ 2811
2. Specify arm

 - ☐ 3 3/4" Offset Pivot Arm (ARMOP)
 - ☐ 2 3/4" Center Pivot Arm (ARMCP)
3. Specify hand

 - ☐ Right hand (RH)
 - ☐ Left hand (LH)
4. Specify header/length

 - ☐ Standard Mounting Header (HDR) (Specify length 33" to 49" offset pivot)
 - ☐ Standard Mounting Header (HDR) (Specify length 36" to 49" center pivot)
 - ☐ Double Door Header (HDR2) (Specify length 49" to 98")
5. Select finish

 - ☐ Standard anodized finish _____ Aluminum, Clear Anodized (628) or Dark Brown, Anodized (710).

Operator will be shipped with:

- Standard motor gearbox
- Standard control box
- Header (at specified length, 36" standard)
- Wood and machine screws (unless options listed below are selected)

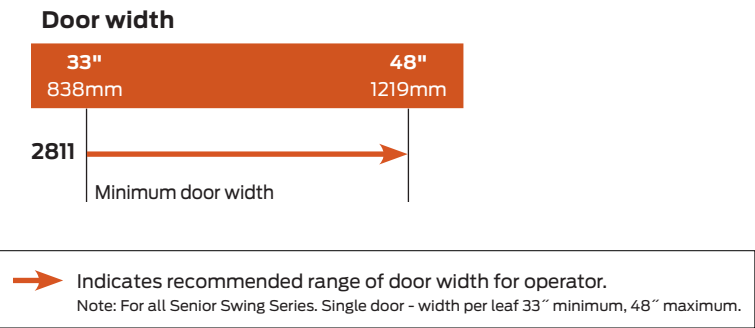
Operator options

Stops

- ☐ Positive Stop (POS)
- ☐ Breakaway Stop (BKY)

Note: Available with Center Pivoted installations only.

Table of sizes



Introduction	
Product selection guide	
Pneumatic systems	2610/4810/4820/4840/7900 Series
Electrohydraulic systems	4630/4640 Series
Electromechanical systems	9130/9140/9150 Series
Electromechanical systems	2810/2850/2860/9530/9540/9550/9560 Series
Actuators and accessories	

2850 Series



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.

Features

Certifications	Grade 1 - ANSI A156.19, UL325, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Fasteners	Wood and Machine Screws (WMS)
Fluid	All Weather Fluid	Mounting	Double door, overhead concealed, center pivot, offset pivot, butt hinge
Handing	Handed	Arms	Offset Pivot Arm or Center Pivot Arm
Door width	<ul style="list-style-type: none">Combined width min 52" - 96"Simultaneous pair - width per leaf 26" minimum to 48" maximum	Finishes/colors/powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized
Warranty	2 years		

Special templates

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

Mounting	Handing	Finish	Cover	Arm function
Surface mount single door	Handed*	Standard anodized	Standard (single lever)	Offset pivot arm
Surface mount simultaneous pair	Non-handed	Metal	Regular (double lever)	Center pivot arm
Surface mount independent pair			Double egress (push/pull)	
Concealed single door				
Concealed simultaneous pair				
Concealed independent pair				

Available

Not available

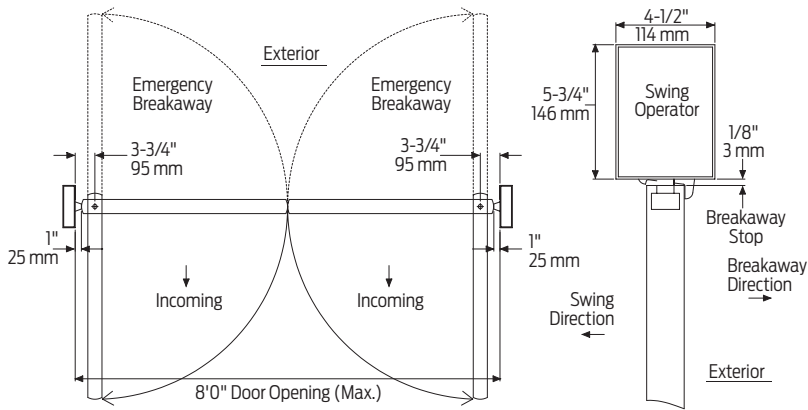
* Handed for 2850 and 2860, double egress only.

Mounting details

Concealed simultaneous pair

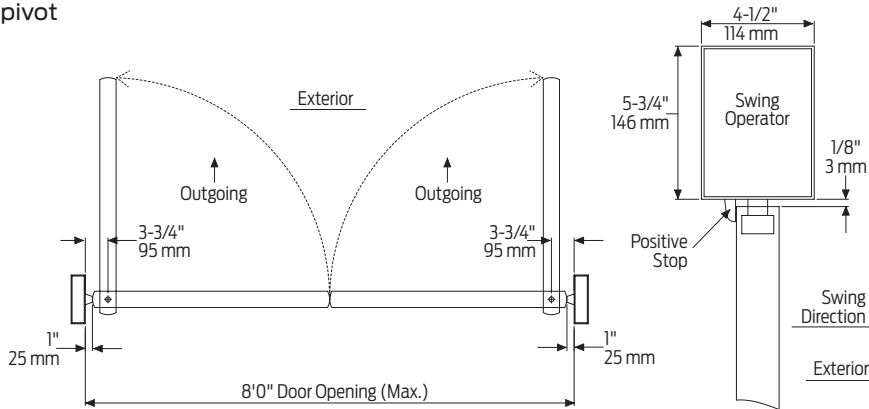
Center pivot, breakaway stop, pull

Shown with 3 3/4" pivot



Center pivot, positive stop, push

Shown with 3 3/4" pivot



Top rail	Minimum 2" (51 mm)
Head frame	Minimum 52" (L) x 5 3/4" (H) x 4 1/2" (W) (1524 mm x 146 mm x 114 mm)
Opening and closing time	<ul style="list-style-type: none">Variable by adjustments to the electronic control boxMaximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

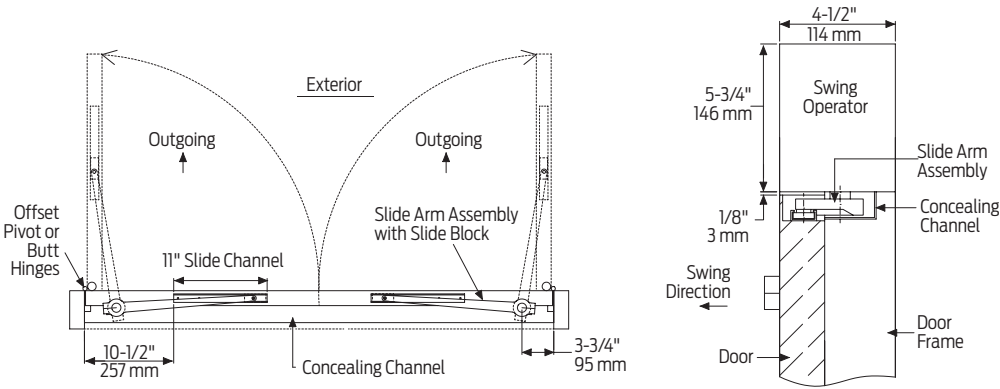
- Notes:
- Push N' Go permits non-switch activation with power boost providing additional latching force
 - Electromechanical unit with microprocessor control
 - 36" header length is standard, specify length 33" - 49" max
 - Double Door Header available 98", specify length 49" - 98" max
 - Positive or Breakaway Stop available with Center Pivot Arm
 - Adjustable hold open time of 1-32 seconds
 - Actuators available separately, see pages 100-117

Mounting details

Concealed simultaneous pair

Offset pivot or butt hinge, slide arm, push

Shown with 3 3/4" pivot

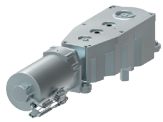


Top rail	Minimum 2" (51 mm)
Head frame	Minimum 52" (L) x 5 3/4" (H) x 4 1/2" (W) (1524 mm x 146 mm x 114 mm)
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

- Notes:
- Push N' Go permits non-switch activation with power boost providing additional latching force
 - Electromechanical unit with microprocessor control
 - 36" header length is standard, specify length 33" - 49" max
 - Double Door Header available 98", specify length 49" - 98" max
 - Positive or Breakaway Stop available with Center Pivot Arm
 - Adjustable hold open time of 1-32 seconds
 - Actuators available separately, see pages 100-117

Accessories

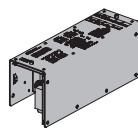
Motor gearbox



2850-3454 Standard Motor Gearbox (MGB)

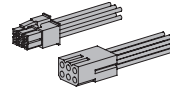
- Senior Swing
- Driving mechanism for operator
- Provides maximum 15 lbs opening force
- Handed

Control box



2850-3462 Standard Controller (CTRL)

- Senior Swing
- Electronic controlling device for Senior Swing



2850-982 Companion Cable

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

Arm



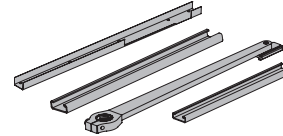
2850-3077CP 2 3/4" Center Pivot Arm (ARMCP)

- Center pivot installations only
- Used with overhead concealed operators and center pivoted doors



2850-3077OP 3 3/4" Offset Pivot Arm (ARMOP)

- Offset pivot or butt hung installations only
- Handed
- Used with overhead concealed operators



2850-3077OPCM Offset Pivot Arm Assembly

- Offset Pivot Arm with track and concealing channel
- Includes 3072 Concealing Channel, 168 Slide Channel and 3077OP offset pivot arm

Brackets



2850-375 Mounting Bracket

- Motor gearbox mounting bracket for 3 3/4" offset pivot, butt hinge or center pivot with finger guard installations
- Front bracket



2850-275 Mounting Bracket

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



2850-3018 Rear Mounting Bracket

- Motor gearbox mounting bracket
- Rear bracket

Header



2850-3572HL Standard Mounting Header (HDR)

- Mounting header
- Pair door, two operators
- Specify length 52" to 98" maximum
- Standard

End cap

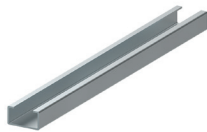


2850-334 Header End Caps

- End cap with openings for wiring

Accessories

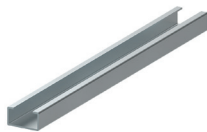
Channels



2850-3072

Concealing Channel

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

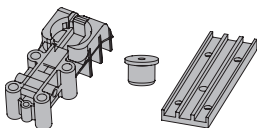


2850-168

Slide Channel

- Offset pivot or butt hinge installations only
- Mounts in top rail of door
- Allows arm to slide

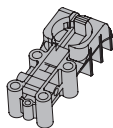
Pivots



2850-3107

Bottom Pivot Assembly

- Includes pivot body, pivot post and bottom pivot plate
- For overhead concealed, center pivoted installations
- Includes: 2850-107, 2850-110 and 2850-117



2850-107

Bottom Pivot Body

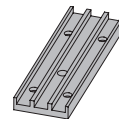
- Pivot body for center pivoted installations



2850-110

Pivot Post

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

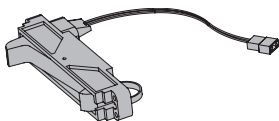


2850-117

Bottom Pivot Plate

- Applied to floor for center pivoted installations

Installation accessories



2850-384B

Breakaway Stop (BKY)

- Allows in-swinging door to swing out in case of emergency
- For center pivoted installations only



2850-384F

Positive Stop (POS)

- Prevents out-swinging door from swinging in
- For center pivoted installations only



2850-12

Filler Plate Blank

- Completes length of header box



2850-11A

Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 2 3/4" center pivot installations



2850-11B

Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 3 3/4" offset pivot, butt hinge or center pivot with finger guard installations

Ordering information

How-to-order 2850 Series operators

- 1. **Select installation type**
 - ☐ 2853
- 2. **Specify arm**
 - ☐ 3 3/4" Offset Pivot Arm (ARMOP)
 - ☐ 2 3/4" Center Pivot Arm (ARMCP)
 - ☐ 3 3/4" Center Pivoted Arm (3077CP)
- 3. **Specify hand**
 - ☐ Right hand (RH)
 - ☐ Left hand (LH)
- 4. **Specify header/length**
 - ☐ Standard Mounting Header (HDR)
(Specify length 52" to 98")
- 5. **Select finish**
 - ☐ Standard anodized finish _____
Aluminum, Clear Anodized (628) or
Dark Bronze, Anodized (710).

Operator will be shipped with:

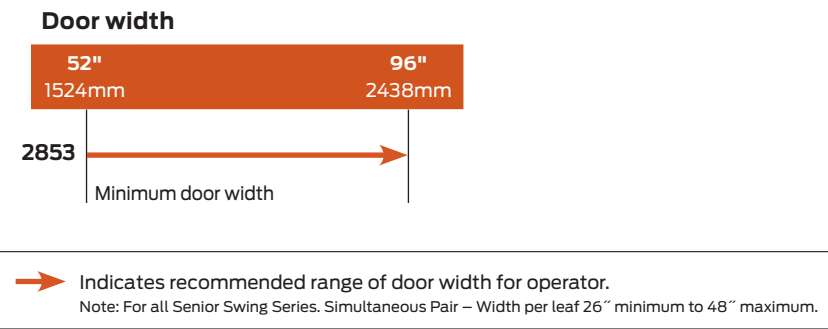
- Standard motor gearbox (1 LH and 1 RH)
- Standard control box
- Companion cable
- Header (at specified length - 72" standard)
- 2 3/4" pivot point
- Wood and machine screws
(unless options listed below are selected)

Operator options

- Stops**
- ☐ Positive Stop (POS)
 - ☐ Breakaway Stop (BKY)

Note: Available with Center Pivoted installations only.

Table of sizes



Introduction	
Product selection guide	
Pneumatic systems Auto equalizers 2610/4810/4820/4840/7900 Series	
Electrohydraulic systems Auto equalizers 4630/4640 Series	
Electromechanical systems Benchmark 9130/9140/9150 Series	
Electromechanical systems Senior Swing 2810/2850/2860/9530/9540/9550/9560 Series	
Actuators and accessories	

2860 Series



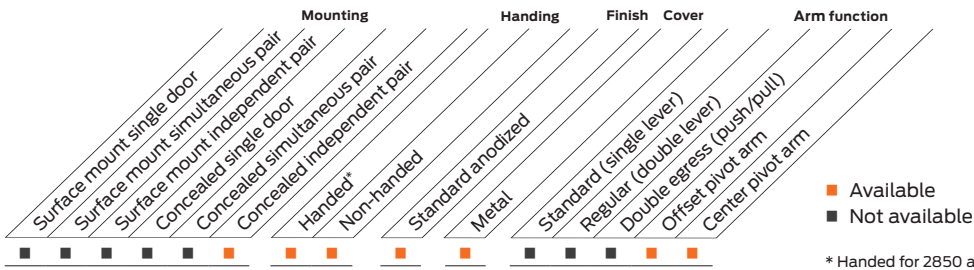
The 2860 Senior Swing by LCN is an ADA door operator that is a two-in-one swing door operator. Senior swing operator when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

Features

Certifications	Grade 1 - ANSI A156.19, UL325/228, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Handing	Handed
Door width	<ul style="list-style-type: none">Combined width min 52" - 96"Simultaneous pair - width per leaf 26" minimum to 48" maximum
Warranty	2 years

Fasteners	Wood and Machine Screws (WMS)
Mounting	Independent pair, overhead concealed, center pivot, offset pivot, butt hinge
Arms	Offset Pivot Arm or Center Pivot Arm
Finishes/colors/ powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized

Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

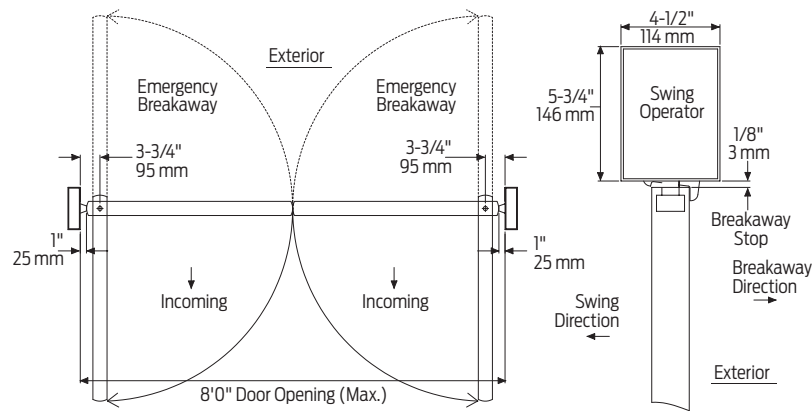


Mounting details

Concealed independent pair

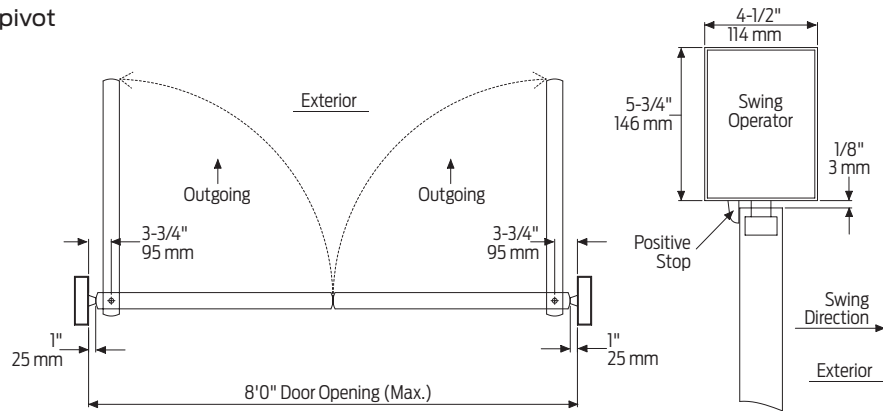
Center pivot, breakaway stop, pull

Shown with 3 3/4" pivot



Center pivot, positive stop, push

Shown with 3 3/4" pivot



Top rail	Minimum 2" (51 mm)
Head frame	Minimum 65" (L) x 5 3/4" (H) x 4 1/2" (W) (1651 mm x 146 mm x 114 mm)
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

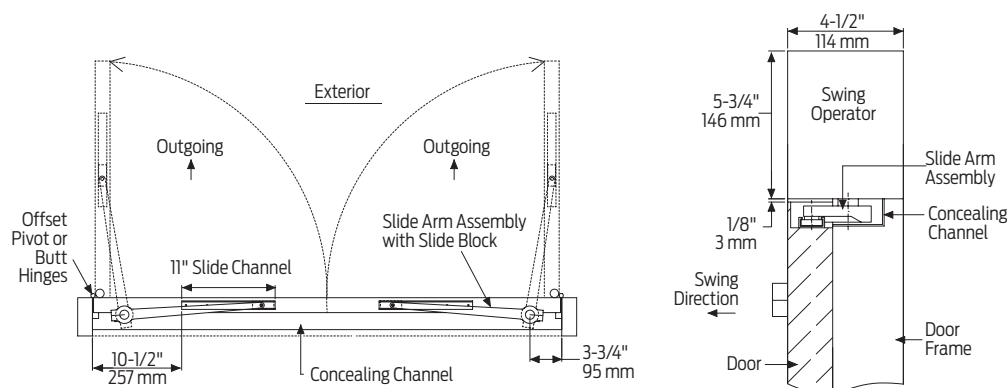
Notes:

- Push N' Go permits non-switch activation with power boosts providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify other length 65" - 98" max (consult factory with this option)
- Adjustable hold time of 1-32 seconds
- Actuators available separately, see pages 100-117

Mounting details

Concealed independent pair

Offset pivot or butt hinge, push



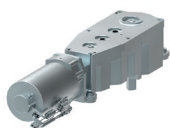
Top rail	Minimum 2" (51 mm)
Head frame	Minimum 65" (L) x 5 3/4" (H) x 4 1/2" (W) (1651 mm x 146 mm x 114 mm)
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

Notes:

- Offset pivot installations require a bottom pivot and two intermediate pivots
- Push N' Go permits non-switch activation with power boosts providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify other length 65" - 98" max (consult factory with this option)
- Optional Positive (POS) or Breakaway Stop (BKY) available (Center Pivot Arm)
- Header lengths 70" - 98" max with either POS or BKY
- Adjustable hold time of 1-32 seconds
- Actuators available separately, see pages 100-117

Accessories

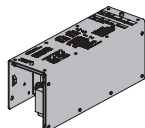
Motor gearbox



2860-3454 Standard Motor Gearbox (MGB)

- Senior Swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Control box



2860-3462 Standard Controller (CTRL)

- Electronic controlling device for Senior Swing

Arm



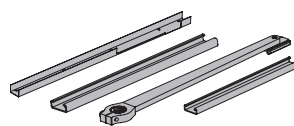
2860-3077CP 2 3/4" Center Pivot Arm (ARMCP)

- Center pivot installations only
- Used with overhead concealed operators and center pivoted doors



2860-3077OP 3 3/4" Offset Pivot Arm (ARMOP)

- Offset pivot or butt hung installations only
- Used with overhead concealed operators



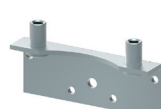
- #### 2860-3077OPCM Offset Pivot Arm Assembly
- Offset arm with track and concealing channel
 - Includes 3072 Concealing Channel, 168 Slide Channel and 30770P Offset Pivot Arm

Brackets



2860-375 Mounting Bracket

- Motor gearbox mounting bracket for 3 3/4" offset pivot, butt hinge or center pivot with finger guard installations
- Front bracket



2860-275 Mounting Bracket

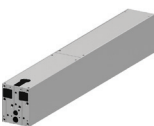
- Motor gearbox mounting bracket for 3 3/4" center pivot installations
- Front bracket



2860-3018 Rear Mounting Bracket

- Motor gearbox mounting bracket
- Rear bracket

Header



2860-3572HL Standard Mounting Header (HDR)

- Pair door, two operators
- Specify length 65" to 98" maximum
- Standard

End cap

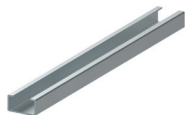


2860-334 Header End Caps

- With openings for wiring

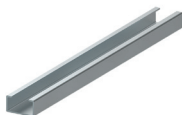
Accessories

Channels



2860-3072
Concealing Channel

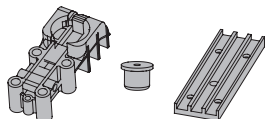
- Used to conceal arm in overhead concealed applications
- For offset pivot installations only
- If ordering separately specify length and hand



2860-168
Slide Channel

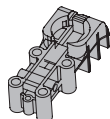
- Offset pivot or butt hinge installations only
- Mounts in top rail of door
- Allows arm to slide

Pivots



2860-3107
Bottom Pivot Assembly

- Includes pivot body, pivot post and bottom pivot plate
- For overhead concealed, center pivoted installations
- Includes: 2860-107, 2860-110 and 2860-117



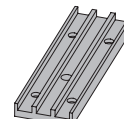
2860-107
Bottom Pivot Body

- Pivot body for center pivoted installations



2860-110
Pivot Post

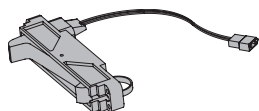
- Connects pivot body to bottom pivot plate for center pivoted installations



2860-117
Bottom Pivot Plate

- Applied to floor for center pivoted installations

Installation accessories



2860-384B
Breakaway Stop (BKY)

- Allows in-swinging door to swing out in case of emergency
- For center pivoted installations only



2860-384F
Positive Stop (POS)

- Prevents out-swinging door from swinging in
- For center pivoted installations only



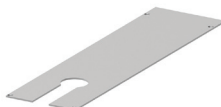
2860-12
Filler Plate Blank

- Completes length of header box



2860-11A
Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 2 3/4" center pivot installations



2860-11B
Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 3 3/4" offset pivot, butt hinge or center pivot with finger guard installations

Ordering information

How-to-order 2860 Series operators

1. Select installation type
- ☐ 2863
2. Specify arm
- ☐ 3 3/4" Offset Pivot Arm (ARMOP)
- ☐ 2 3/4" Center Pivot Arm (ARMCP)
3. Specify hand
- ☐ Right hand (RH)
- ☐ Left hand (LH)
4. Specify header/length
- ☐ Standard Mounting Header (HDR)
(Specify length 65" to 98")
5. Select finish
- ☐ Standard anodized finish _____
Aluminum, Clear Anodized (628) or
Dark Bronze, Anodized (710).

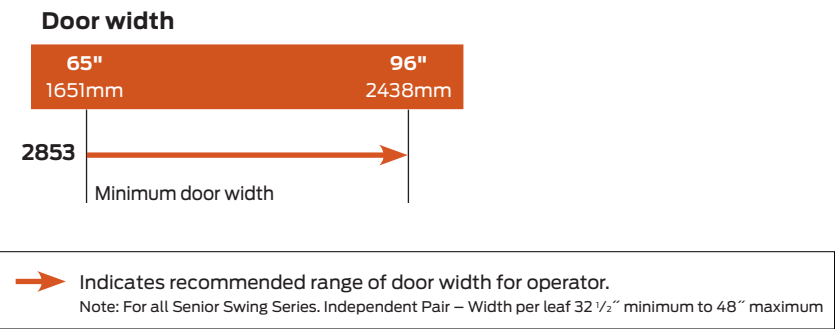
- Operator will be shipped with:
- Standard motor gearbox (1 LH and 1 RH)
 - Standard control box (2 ea)
 - Header (at specified length - 72" standard)
 - 2 3/4" pivot point
 - Wood and machine screws
(unless options listed below are selected)

Operator options

- Stops
- ☐ Positive Stop (POS)
- ☐ Breakaway Stop (BKY)

Note: Available with Center Pivoted installations only.

Table of sizes



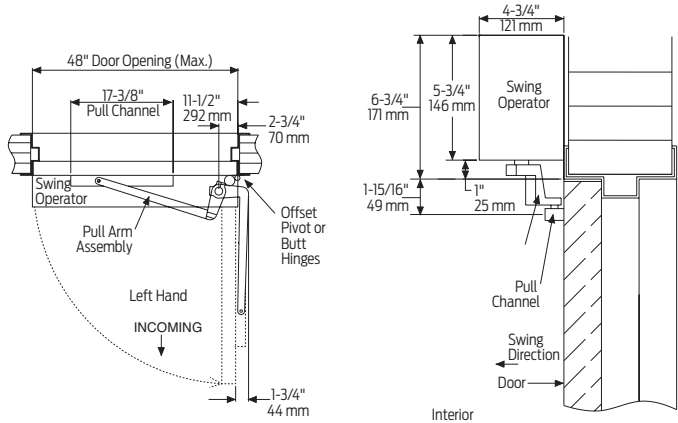
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Electromechanical systems Benchmark 9130/9140/9150 Series	
Electromechanical systems Senior Swing 2810/2850/2860/9530/9540/9550/9560 Series	
Actuators and accessories	

Mounting details

Top jamb single door mounting

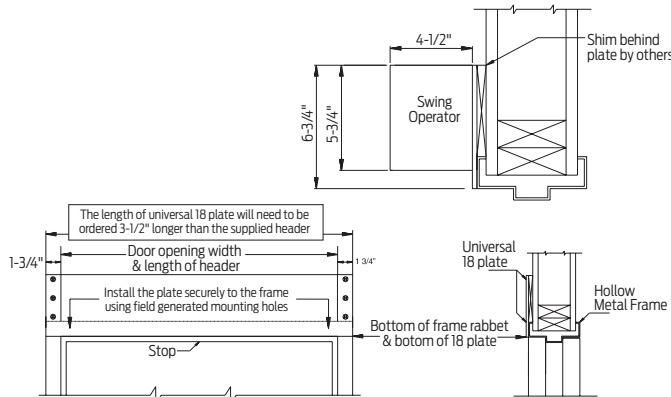
Offset pivot/butt hinge, center pivot, pull

Note: Cannot be used with swing clear hinges, pocket pivots or balanced doors.



Hollow metal frame

The 18 plate is 1/4" thick and will need to be ordered 3 1/2" longer than the header to allow for mounting the angle brackets to the vertical side jambs. See illustration below.



Note: Suggested installation.

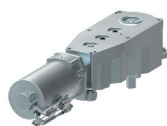
Butt hinges	Should not exceed 5" (127 mm) in width
Reveal	Should not exceed 4" (102 mm)
Top rail	Minimum 2 3/4" (70 mm)
Head frame	Minimum 1 3/4" (44 mm); face frame 6 3/4" (171 mm) total operator clearance
Opening and closing time	<ul style="list-style-type: none">Variable by adjustments to the electronic control boxMaximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 36" header length is standard. Specify 33" - 48" max
- Double Door Header available up to 98", specify other length 49"- 98" max
- Consult factory regarding this option
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 100-117

Accessories

Motor gearbox

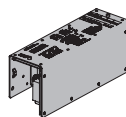


9530-3454

Standard Motor Gearbox (MGB)

- Senior Swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Control box



9530-3462

Standard Controller (CTRL)

- Electronic controlling device for Senior Swing

Arm



9530-3077PLCM

Standard Arm Assembly with Track Roller (STDTRKARM2)

- Handed
- Track roller included (includes 3038, 3077T, 3034 and 73)



9530-3077T

Standard Arm (STDTRKARM)

- Handed
- Track roller not included

Track



9530-3038

Track

- Non-handed
- Includes 3034 and 73



9530-73

Track End Cap

- Black plastic end caps

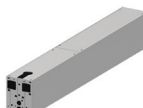


9530-3034

Roller

- Quiet low friction roller assembly

Header



9530-3572HL

Standard Mounting Header (HDR)

- Standard
- Single door, single operator
- Specify length 33" to 48" maximum



9530-3572DD

Double Door Header (HDR2)

- Standard
- Double door, single operator
- Specify length 49" to 48" maximum

Brackets



9530-275

Mounting Bracket

- Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations
- Front bracket



9530-3018

Rear Mounting Bracket

- Motor gearbox mounting bracket
- Rear bracket



9530-334-1

Angle Brackets (HLB)

- Mounting bracket for surface applications (includes 2 mounting brackets)

End cap



9530-334

Header End Caps

- With openings for wiring



9530-334-2

Dress plates (HLD)

- Metal finish end cap

Installation accessories



9530-11A

Spindle Plate

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



9530-12

Filler

- Plate blank
- Completes length of header box (specify length)



9530-18

Mounting Plate

- Optional mounting plate for standard hollow metal door frames
- Specify length 36 1/2" to 101 1/2" maximum, when angle brackets
- Specify length 33" to 98" maximum when using dress plates

NOTE: The length of a universal 18 plate will need to be ordered 3-1/2" longer than the supplied header when using angle brackets

Ordering information

How-to-order 9530 Series operators

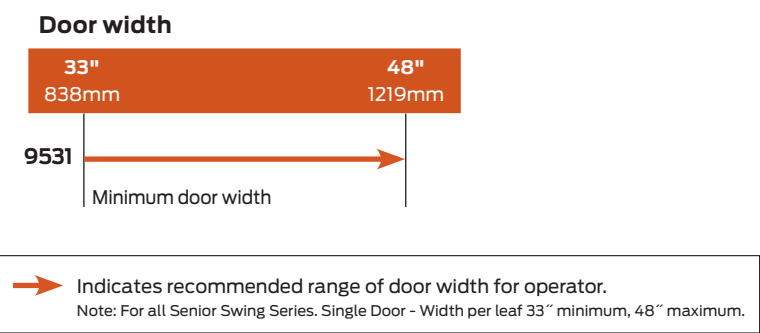
1. **Specify hand**
- ☐ Right hand (RH)
 - ☐ Left hand (LH)
2. **Specify header/length**
- ☐ Standard Mounting Header (HDR) (Specify length 33" to 48")
 - ☐ Double Door Header (HDR2) (Specify length 49" to 98")
3. **Select finish**
- ☐ Standard anodized finish _____ Aluminum, Clear Anodized (628) or Dark Bronze, Anodized (710).

- Operator will be shipped with:**
- Standard motor gearbox (1 LH and 1 RH)
 - Standard control box (2 ea)
 - Header (at specified length, 36" standard)
 - Standard Arm (3077T)
 - Standard track with track roller
 - Machine screws (unless options listed below are selected)

Operator options

- Mounting plate**
- ☐ Plate, ____ (Specify Length 33" to 101 1/2")

Table of sizes



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Electromechanical systems Senior Swing 2810/2850/2860/9530/9540/9550/9560 Series	
Actuators and accessories	

9540 Series



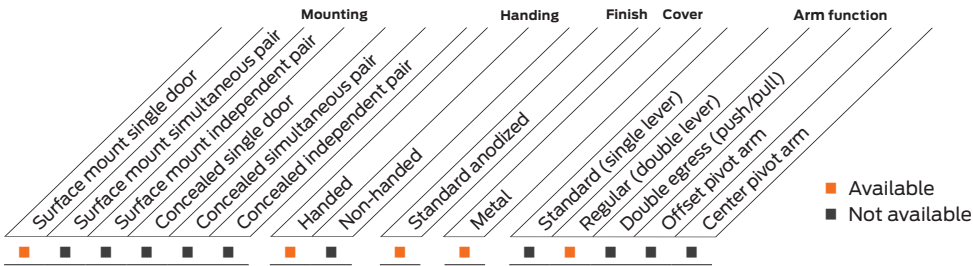
The 9540 Senior Swing by LCN is an ADA door operator that is a two-in-one swing door operator. Senior swing operator when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

Features

Certifications	Grade 1 - ANSI A156.19, UL325/228, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Fluid	All Weather Fluid
Handing	Handed
Door width	<ul style="list-style-type: none">Combined width min 33" - 48"Single door - width per leaf 33" minimum to 48" maximum
Warranty	2 years

Fasteners	Machine Screws (MS)
Mounting	Single door, surface mount, offset pivot, butt hinge, push side
Arms	Regular Arm (3077)
Finishes/colors/ powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized

Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

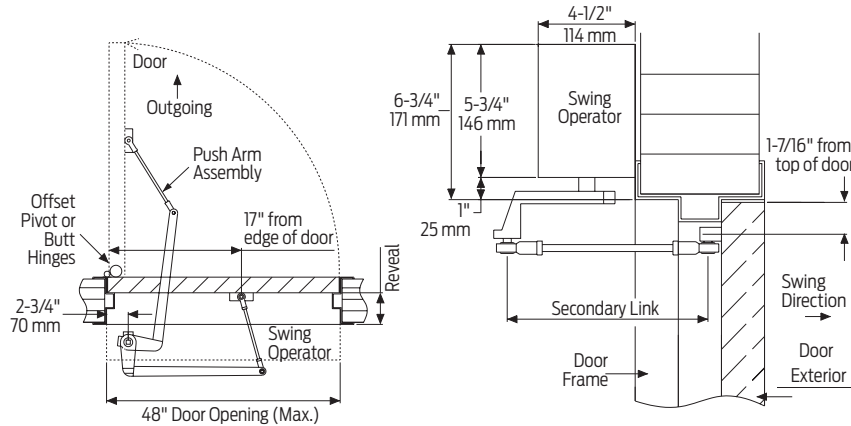


Mounting details

Top jamb single door mounting

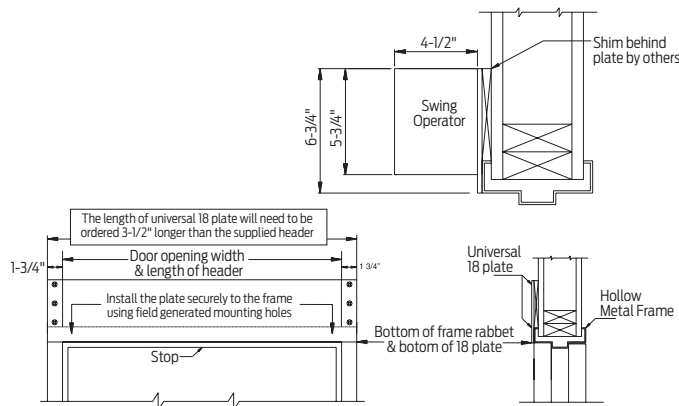
Offset pivot/butt hinge, center pivot, push

Note: Consult factory for all balance door installations.



Hollow metal frame

The 18 plate is $\frac{1}{4}$ " thick and will need to be ordered $3\frac{1}{2}$ " longer than the header to allow for mounting the angle brackets to the vertical side jambs. See illustration below.



Note: Suggested installation.

Butt hinges	Should not exceed 5" (127 mm) in width
Reveal	Push installations should not exceed 10" (254 mm) for regular arm and 20" (508 mm) for long arm
Top rail	Minimum 2 $\frac{3}{4}$ " (70 mm)
Head frame	Minimum 1 $\frac{3}{4}$ " (44 mm); face frame 6 $\frac{3}{4}$ " (171 mm) total operator clearance
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 36" header length is standard. Specify 33" - 48" max
- Double Door Header available up to 98", specify other length 49"- 98" max
- Consult factory regarding this option
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 100-117

Accessories

Motor gearbox

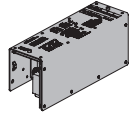


9540-3454

Standard Motor Gearbox (MGB)

- Senior Swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Control box



9540-3462

Standard controller (CTRL)

- Electronic controlling device for Senior Swing

Brackets



9540-275

Mounting Bracket

- Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations
- Front bracket



9540-3018

Rear Mounting Bracket

- Motor gearbox mounting bracket
- Rear bracket

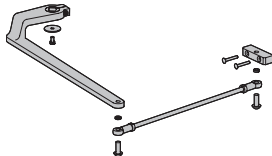


9540-334-1

Angle Brackets (HLB)

- Mounting bracket for surface applications (includes 2 mounting brackets)

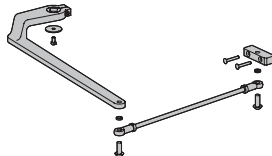
Arm



9540-3077

Regular Arm (REGARM)

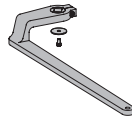
- Handed
- Includes 77 main arm assembly and 79 linkage assembly



9540-3077L

Long Arm (LONG)

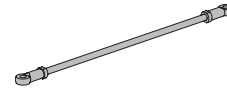
- Handed
- Includes 77 main arm assembly and 79LR linkage assembly



9540-77

Main Arm

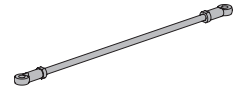
- Handed
- Attaches to motor gearbox



9540-79

Linkage Assembly - 15"

- Threaded rod attaches to door
- Extends from main arm



9540-79LR

Linkage Assembly - 32"

- Threaded long rod attaches to door
- Extends from main arm
- Used for reveal 10" to 20"

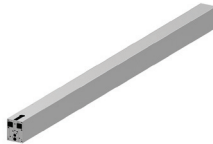
Header



9540-3572HL

Standard Mounting Header (HDR)

- Single door, single operator
- Specify length 33" to 48" maximum
- Standard



9540-3572DD

Double Door Header (HDR2)

- Double door, single operator
- Specify length 49" to 98" maximum
- Standard

End cap



9540-334

Header End Caps

- With openings for wiring



9540-334-2

Dress plates (HLD)

- Metal finish end cap

Installation accessories



9540-11A

Spindle Plate

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



9540-12

Filler Plate Blank

- Completes length of header box (specify length)



9540-18

Mounting Plate

- For standard hollow metal door frames
- Specify length 55 1/2" to 101 1/2" maximum when using angle brackets
- Specify length 52" to 98" maximum when using dress plates
- Optional

Note: The length of a universal 18 plate will need to be ordered 3 1/2" longer than the supplied header when using angle brackets.

Ordering information

How-to-order 9540 Series operators

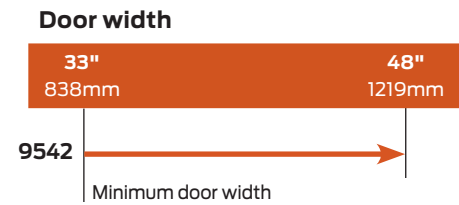
- 1. **Specify hand**
 - ☐ Right hand (RH)
 - ☐ Left hand (LH)
- 2. **Specify header/length**
 - ☐ Standard Mounting Header (HDR) (Specify length 33" to 48")
 - ☐ Double Door Header (HDR2) (Specify length 49" to 98")
- 3. **Select finish**
 - ☐ Standard anodized finish _____ Aluminum, Clear Anodized (628) or Dark Bronze, Anodized (710).

- Closer will be shipped with:
- Standard motor gearbox
 - Standard control box
 - Header (at specified length, 36" standard)
 - Regular Arm (3077)
 - 2 3/4" pivot point
 - Machine screws
- (unless options listed below are selected)

Operator options

- Mounting plate**
- ☐ Plate, ____ (Specify Length 33" to 101 1/2")
- Arm**
- ☐ Long Arm (LONG)

Table of sizes



➡ Indicates recommended range of door width for operator.
Note: For all Senior Swing Series. Single Door - Width per leaf 33" minimum, 48" maximum.

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Electromechanical systems Senior Swing 2810/2850/2860/9530/9540/9550/9560 Series	
Actuators and accessories	

9550 Series



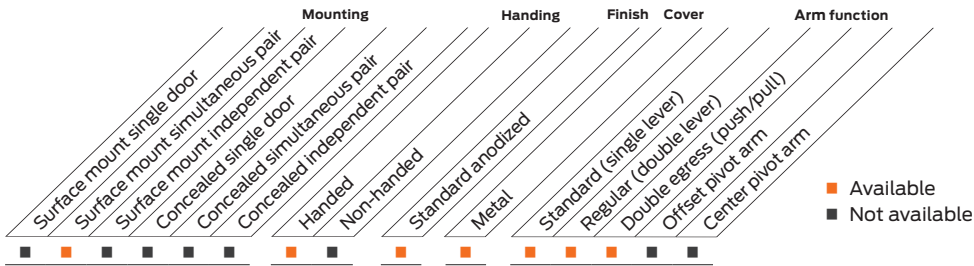
The 9550 Senior Swing by LCN is an ADA door operator that is a two-in-one swing door operator. Senior swing operator when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

Features

Certifications	Grade 1 - ANSI A156.19, UL325/228, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Handing	Handed
Door width	<ul style="list-style-type: none">Minimum combined door width 52"- 98" (push)Minimum combined door width 60"- 98" (pull; double egress)Simultaneous pair - width per leaf 30" minimum - 48" maximum
Warranty	2 years

Fasteners	Machine Screws (MS)
Mounting	Simultaneous pair, surface mount, pull side, push side, double egress
Arms	<ul style="list-style-type: none">2 Regular Arms (push)2 Standard Arms (pull)1 Regular and 1 Standard (double egress)
Finishes/colors/ powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized

Special templates Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

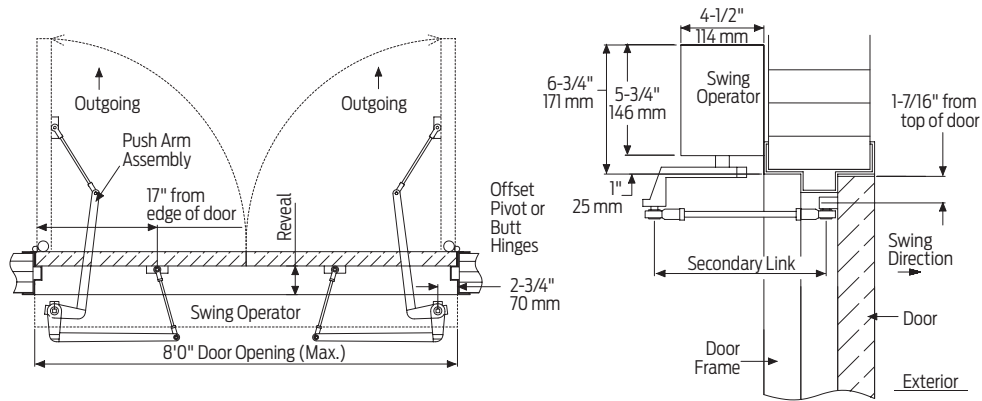


Mounting details

Top jamb simultaneous pair mounting

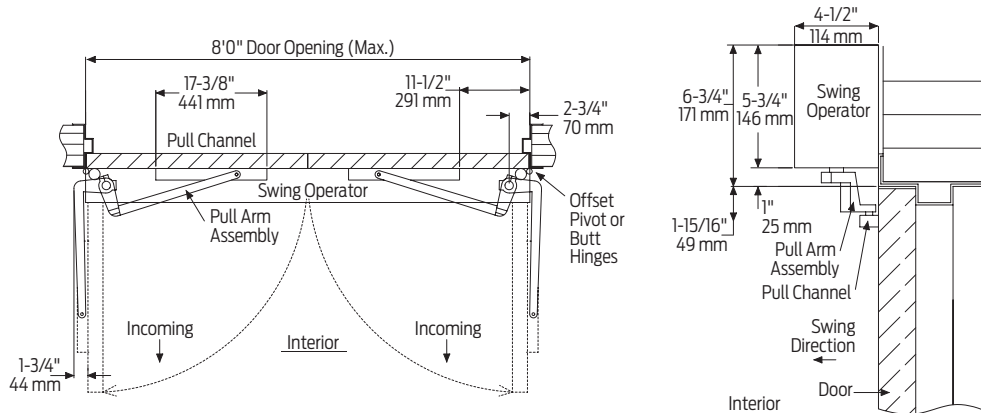
Offset pivot/butt hinge, center pivot, push

Note: Consult factory for all balanced door installations.



Offset pivot/ butt hinge, center pivot, pull

Note: Cannot be used with swing clear hinges, pocket pivots or balanced doors.



Butt hinges	Should not exceed 5" (127 mm) in width
Reveal for push	Should not exceed 10" (254 mm) for Regular Arm and 20" (508 mm) for Long Arm
Reveal for pull	Should not exceed 4" (102 mm)
Reveal	Double egress installations should not exceed 4" (102 mm)
Top rail	Minimum 2 3/4" (70 mm)
Head frame	<ul style="list-style-type: none"> Minimum 1 3/4" (44 mm) Face frame 6 3/4" (171 mm) total operator clearance
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify other length 52" - 98" (push), specify other length 60" - 98" (pull; double egress) (consult factory regarding this option)
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 100-117

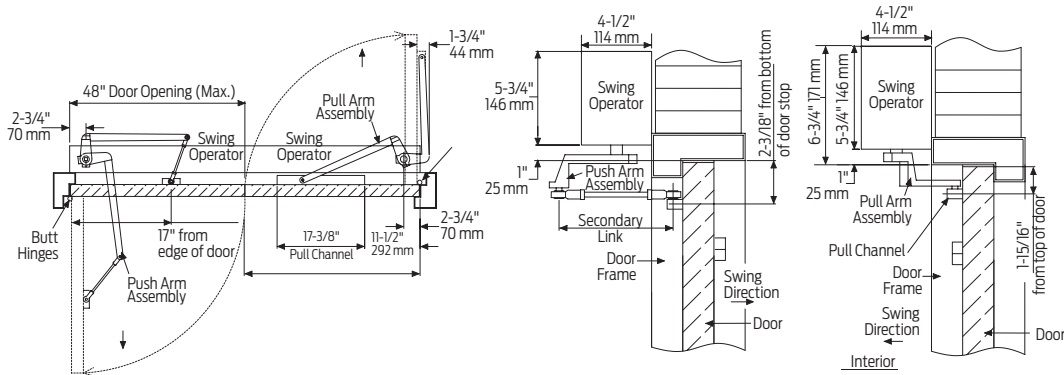
Mounting details

Top jamb simultaneous pair mounting

RH double egress

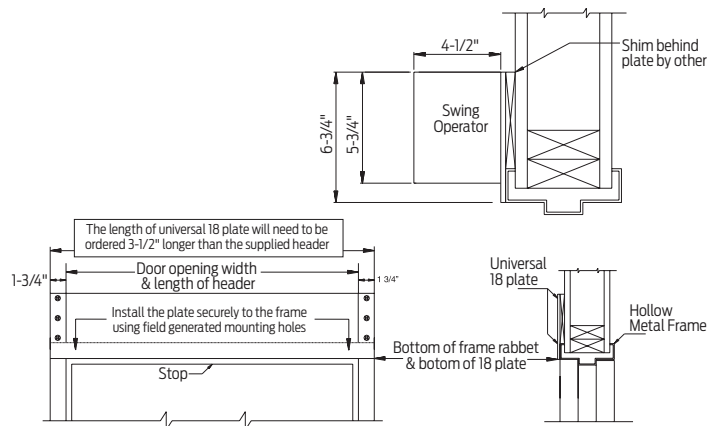
Double egress applications with safety sensors require LCN 9560 Series.

Note: Cannot be used with swing clear hinges, pocket pivots or balanced door.



Hollow metal frame

The 18 plate is 1/4" thick and will need to be ordered 3 1/2" longer than the header to allow for mounting the angle brackets to the vertical side jambs. See illustration below.



Note: Suggested installation.

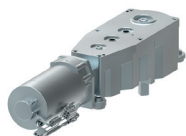
Butt hinges	Should not exceed 5" (127 mm) in width
Reveal for push	Should not exceed 10" (254 mm) for Regular Arm and 20" (508 mm) for Long Arm
Reveal for pull	Should not exceed 4" (102 mm)
Reveal	Double egress installations should not exceed 4" (102 mm)
Top rail	Minimum 2 3/4" (70 mm)
Head frame	<ul style="list-style-type: none"> Minimum 1 3/4" (44 mm) Face frame 6 3/4" (171 mm) total operator clearance
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify other length 52" - 98" (push), specify other length 60" - 98" (pull; double egress) (consult factory regarding this option)
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 100-117

Accessories

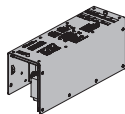
Motor gearbox



9550-3454 Standard Motor Gearbox (MGB)

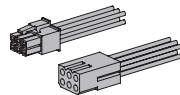
- Senior Swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Control box



9550-3462 Standard Controller (CTRL)

- Electronic controlling device for Senior Swing



9550-982 Companion Cable

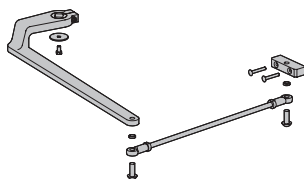
- Cable that allows one control box to run two motor gear boxes
- For use with Senior Swing

Arm



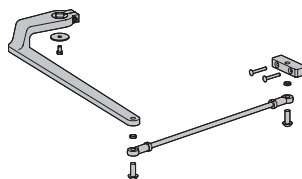
9550-3077PLCM Standard Arm Assembly with Track Roller (STDTRKARM2)

- Handed
- Includes 3077 regular arm assembly, 3038 track, and 3034 track roller



9550-3077L Long Arm (LONG)

- Handed
- Includes 77 main arm assembly and 79LR linkage assembly



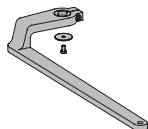
9550-3077 Regular Arm (REGARM)

- Handed
- Includes 77 main arm assembly and 79 linkage assembly



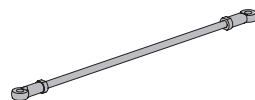
9550-3077T Standard Arm (STDTRKARM)

- Handed
- Track roller not included



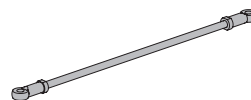
9550-77 Main Arm

- Handed
- Attaches to motor gearbox



9550-79 Linkage Assembly

- 15"
- Threaded rod attaches to door
- Extends from main arm



9550-79LR Linkage Assembly

- 32"
- Threaded long rod attaches to door
- Extends from main arm
- Used for reveal 10" to 20"

Track



9550-3038 Track

- Non-handed
- Standard



9550-73 Track End Cap

- Black plastic end caps



9550-3034 Roller

- Quiet low friction roller assembly

Accessories

Brackets



**9550-275
Mounting Bracket**

- Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations
- Front bracket



**9550-3018
Rear Mounting Bracket**

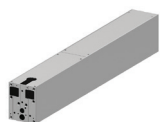
- Motor gearbox mounting bracket



**9550-334-1
Angle Brackets (HLB)**

- Mounting bracket for surface applications (includes 2 mounting brackets)

Header



**9550-3572HL
Standard Mounting Header (HDR)**

- Pair door, two operators
- Specify other length 52" to 98" (push)
- Specify other length 54" to 98" (pull; double egress)
- Standard

End cap



**9550-334
Header End Caps**

- With openings for wiring



**9550-334-2
Dress plates (HLD)**

- Metal finish end cap

Installation accessories



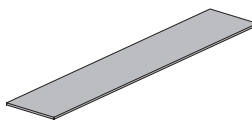
**9550-11A
Spindle Plate**

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



**9550-12
Filler Plate**

- Blank
- Completes length of header box
- Specify length



**9550-18
Mounting Plate**

- Optional mounting plate for standard hollow metal door frames
- Specify length 68 1/2" to 101 1/2" maximum when using angle brackets
- Specify length 65" to 98" maximum when using dress plates

Note: The length of a universal 18 plate will need to be ordered 3 1/2" longer than the supplied header when using angle brackets.

Ordering information

How-to-order 9550 Series operators

1. Specify hand
- ☐ Right hand (RH)
- ☐ Left hand (LH)
2. Specify header/length
- ☐ Standard Mounting Header (HDR)
(Specify length 52" to 98" regular or long arm)
- ☐ Standard Mounting Header (HDR)
(Specify length 60" to 98" for standard or DE arm)
3. Select finish
- ☐ Standard anodized finish _____
Aluminum, Clear Anodized (628) or
Dark Bronze, Anodized (710).

- Operator will be shipped with:
- Standard motor gearbox (SF) (2 ea)
 - Standard control box (SC)
 - Metal cover (at specified length - 72" standard)
 - Regular arm (2 ea)
 - 2 3/4" pivot point
 - Machine screws
(unless options listed below are selected)

Operator options

- Mounting plate
- ☐ Plate, ____ (Specify Length 52" to 101 1/2")
- Arm
- ☐ Standard Arm Assembly with track roller (Handed) (STDTRKARM2)
- ☐ Regular Arm and 1 Standard Arm (Double Egress) (REGSTDDE)
- ☐ Long Arm (LONG)

Table of sizes

Door width	
	52" 1321mm
	60" 1524mm
	98" 2489mm
9550 (push)	
9550 (pull; double egress)	
	Minimum door width

➡ Indicates recommended range of door width for operator.
Note: For all Senior Swing Series. Simultaneous Pair – Width per leaf 26" minimum (push) 30" minimum (pull) to 48" maximum.

9560 Series



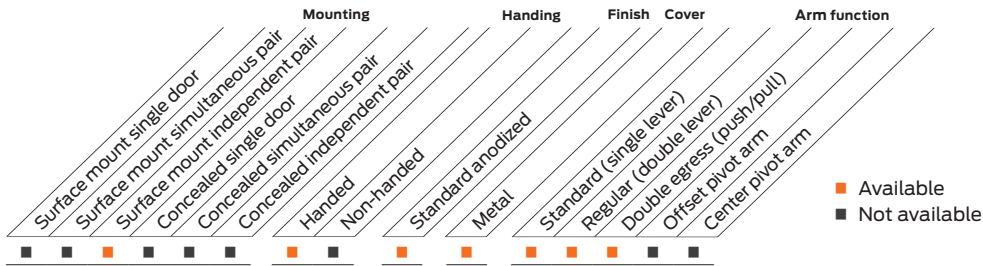
The 9560 Senior Swing by LCN is an ADA door operator that is a two-in-one swing door operator. Senior swing operator when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

Features

Certifications	Grade 1 - ANSI A156.19, UL325/228, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Handing	Handed
Warranty	2 years
Cover	Metal Cover (MC)

Fasteners	Machine Screws (MS)
Mounting	Independent pair, surface, pull, push, double egress
Arms	Single lever (push side), double lever (Pull side), double egress (push/pull)
Finishes/colors/ powder coat	<ul style="list-style-type: none">628 Aluminum, Anodized710 Dark Brown, Anodized

Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

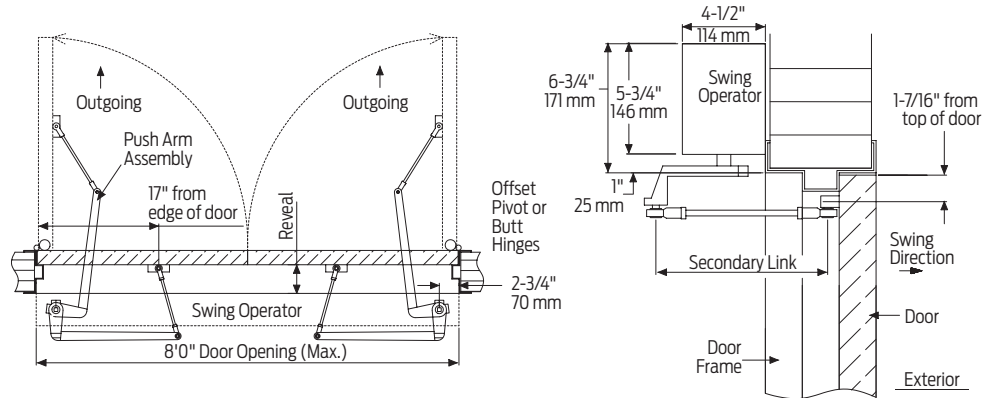


Mounting details

Top jamb independent pair mounting

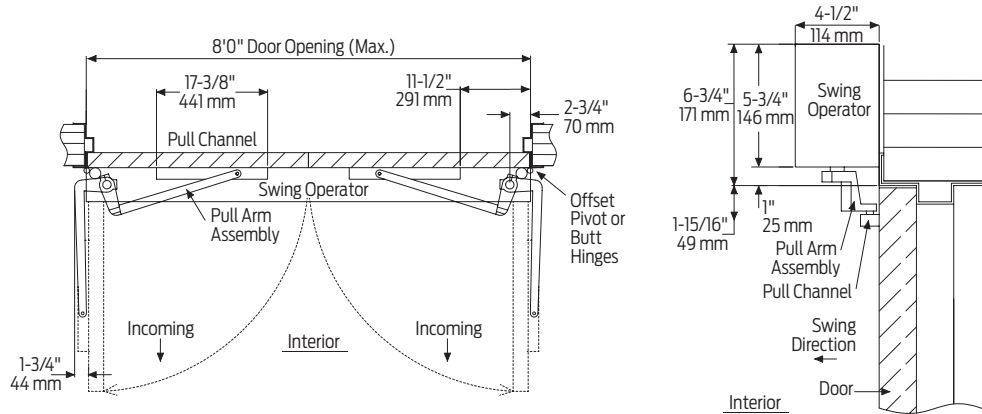
Offset pivot/butt hinge, center pivot, push

Note: Consult factory for all balanced door installations.



Offset pivot/ butt hinge, center pivot, pull

Note: Cannot be used with swing clear hinges, pocket pivots or balanced doors.



Butt hinges	Should not exceed 5" (127 mm) in width
Reveal for push	Should not exceed 10" (254 mm) for Regular Arm and 20" (508 mm) for Long Arm
Reveal for pull	Should not exceed 4" (102 mm)
Reveal	Double egress installations should not exceed 4" (102 mm)
Top rail	Minimum 2 3/4" (70 mm)
Head frame	<ul style="list-style-type: none"> Minimum 1 3/4" (44 mm) Face frame 6 3/4" (171 mm) total operator clearance
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

Notes:

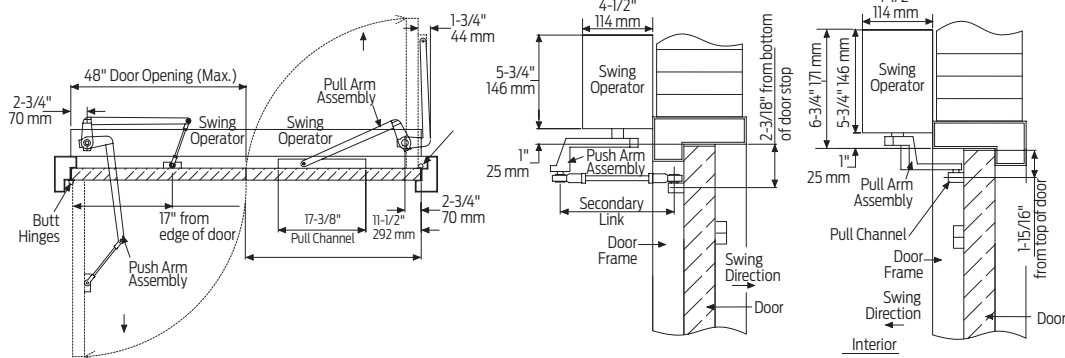
- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify 65" - 98" max
- Pull, push, or double egress applications available
- Actuators available separately, see pages 100-117

Mounting details

Top jamb independent pair mounting

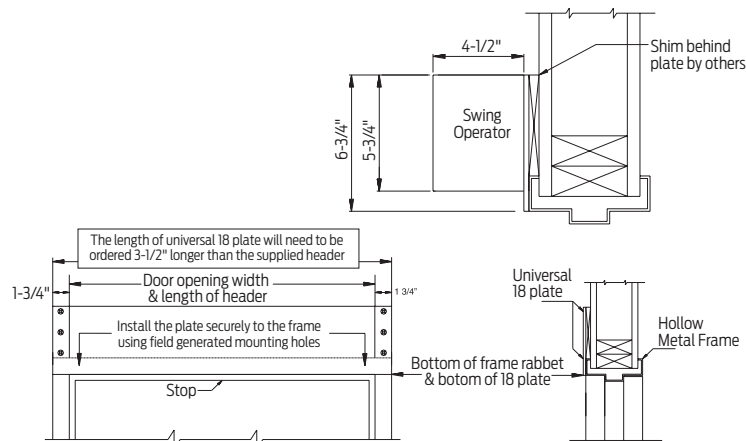
RH double egress

Note: Cannot be used with swing clear hinges, pocket pivots or balanced door.



Hollow metal frame

The 18 plate is $\frac{1}{4}$ " thick and will need to be ordered $3\frac{1}{2}$ " longer than the header to allow for mounting the angle brackets to the vertical side jambs. See illustration below.



Note: Suggested installation.

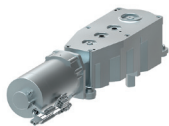
Butt hinges	Should not exceed 5" (127 mm) in width
Reveal for push	Should not exceed 10" (254 mm) for Regular Arm and 20" (508 mm) for Long Arm
Reveal for pull	Should not exceed 4" (102 mm)
Reveal	Double egress installations should not exceed 4" (102 mm)
Top rail	Minimum 2 $\frac{3}{4}$ " (70 mm)
Head frame	<ul style="list-style-type: none"> Minimum 1 $\frac{3}{4}$" (44 mm) Face frame 6 $\frac{3}{4}$" (171 mm) total operator clearance
Opening and closing time	<ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds
System diagram	See pages 45 for typical system wiring and page 44 for electrical data
Maximum opening	Template allows 90 degree power opening and 90 degree manual opening

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify 65" - 98" max
- Pull, push, or double egress applications available
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 100-117

Accessories

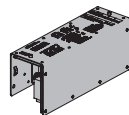
Motor gearbox



9560-3454 Standard Motor Gearbox (MGB)

- Senior Swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Control box



9560-3462 Standard Controller (CTRL)

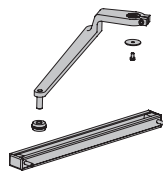
- Electronic controlling device for Senior Swing

Arm



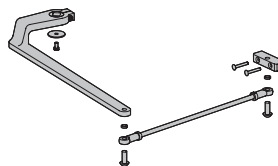
9560-3077T Standard Arm (STDTRKARM)

- Handed
- Track roller not included



9560-3077 Regular Arm (REGARM)

- Handed
- Includes 77 main arm assembly and 79 linkage assembly



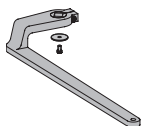
9560-3077L Long Arm (LONG)

- Handed
- Includes 77 main arm assembly and 79LR linkage assembly



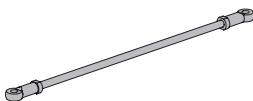
9560-3077PLCM Standard Arm Assembly with Track Roller (STDTRKARM2)

- Handed
- Includes 3077 regular arm assembly, 3038 track, and 3034 track roller



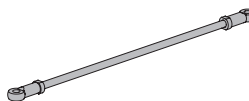
9560-77 Main Arm

- Handed
- Attaches to motor gearbox



9560-79 Linkage Assembly

- 15"
- Threaded rod attaches to door
- Extends from main arm
- Used for reveal 1" to 10"



9560-79LR Linkage Assembly

- 32"
- Threaded long rod attaches to door
- Extends from main arm
- Used for reveal 10" to 20"

Track



9560-3038 Track

- Non-handed
- Standard



9560-73 Track End Cap

- Black plastic end caps



9560-3034 Roller

- Quiet low friction roller assembly

Accessories

Brackets



**9560-275
Mounting Bracket**

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



**9560-3018
Rear Mounting Bracket**

- Motor gearbox mounting bracket



**9560-334-1
Angle Brackets (HLB)**

- Mounting bracket for surface applications
- Includes 2 mounting brackets

Header



**9560-3572HL
Standard Mounting Header (HDR)**

- Pair door, two operators
- Specify length 65" to 98" maximum
- Standard

End cap



**9560-334
Header End Caps**

- With openings for wiring



**9560-334-2
Dress plates (HLD)**

- Metal finish end cap

Installation accessories



**9560-11A
Spindle Plate**

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



**9560-12
Filler Plate**

- Blank
- Completes length of header box
- Specify length



**9560-18
Mounting Plate**

- Optional mounting plate for standard hollow metal door frames
- Specify length 68 1/2" to 101 1/2" maximum when using angle brackets
- Specify length 65" to 98" maximum when using dress plates

Note: The length of a universal 18 plate will need to be ordered 3 1/2" longer than the supplied header when using angle brackets.

Ordering information

How-to-order 9560 Series operators

- 1. Specify hand**
- ☐ Right hand (RH)
 - ☐ Left hand (LH)
- 2. Specify header/length**
- ☐ Standard Mounting Header (HDR)
(Specify length 65" to 98" regular or long arm)
- 3. Select finish**
- ☐ Standard anodized finish _____
Aluminum, Clear Anodized (628) or
Dark Bronze, Anodized (710).

Operator will be shipped with:

- Standard motor gearbox (SF) (2 ea)
- Standard control box (SC)
- Metal cover (at specified length - 72" standard)
- Regular arm (2 ea)
- 2 3/4" pivot point
- Machine screws
(unless options listed below are selected)

Operator options

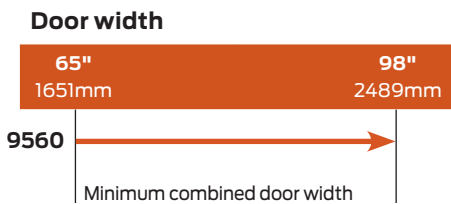
Mounting plate

- ☐ Plate, ____ (Specify Length 65" to 101 1/2")

Arm

- ☐ Standard Arm Assembly with track roller (Handed) (STDTRKARM2)
- ☐ Regular Arm and 1 Standard Arm (Double Egress) (REGSTDDE)
- ☐ Long Arm (LONG)

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.

Actuators and accessories

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.

4 1/2" Surface and flush mounts



8310-856

Hard Wired Wall Mount, Logo

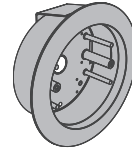
- Hardwired low voltage actuator with round, stainless steel touch plate in 4 1/2" (114mm) diameter
- Engraved blue filled handicap symbol conforms to most accessibility codes
- Designed to mount in a flush or surface mount box (sold separately) in/on a vertical surface near the controlled door
- Optional mounting in single gang electrical box (by others)
- Heavy industrial grade components provide vandal resistant mounting and weather resistant switch standard



8310-856T

Hard Wired Wall Mount, Logo and Text

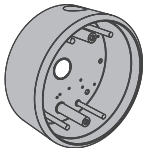
- Same as the 8310-856, with the added engraving of "Push to Open"



8310-868F

Flush Mount Box

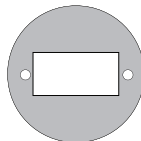
- Rugged Plastic Box, 4 1/2" Round
- Optional accessory - can be used w/ any 4 1/2" round actuator



8310-868S

Surface Mount Box

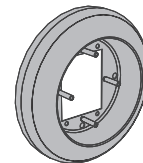
- Rugged Plastic Box, 4 1/2" Round
- Optional accessory - can be used w/any 4 1/2" round actuator



8310-800

Weather/Trim Ring

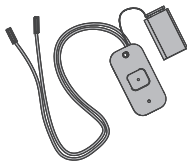
- Weather/Trim Ring, 4 1/2" Round
- Optional accessory - must be used w/any 4 1/2" round plastic mounting box



8310-874

Escutcheon

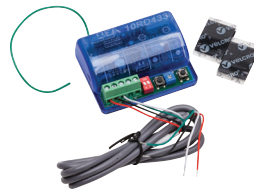
- Tapered stainless steel escutcheon covers the gap between the wall and the back of the wall plate actuators when mounted in electrical boxes (by others) to minimize cart damage or vandalism
- Optional accessory - can be used w/any 4 1/2" round actuator
- Not to be used with wireless function



8310-844

Transmitter, Wireless, 1 Channel, Wall Mount, 9V

- Transmitter, Wireless, 1 Channel, 9V battery included
- Use to convert standard wall mount actuator to wireless
- Requires 8310-865 Receiver

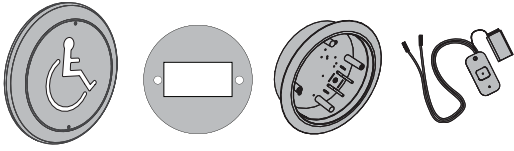


8310-865

Wireless Receiver

- Receiver, Wireless, 1 Channel, w/Sequencing Feature
- Used in conjunction w/ Wireless Actuators and Transmitter(s) for push plate applications

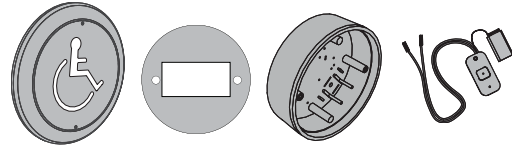
4 1/2" Surface and flush mounts



8310-3856WF

Wireless Actuator, Wall Mount and Flush, Logo, 4 1/2 inch round

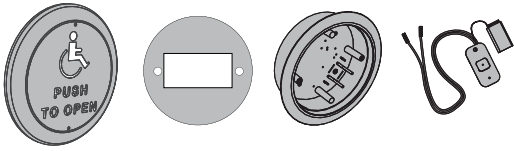
- Actuator, 4 1/2" Round, Logo, Wireless
- Includes 8310-856 Actuator, 8310-844 Transmitter, 8310-868F Flush Box, 8310-800 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3856WS

Wireless Actuator, Wall Mount and Surface, Logo, 4 1/2 inch round

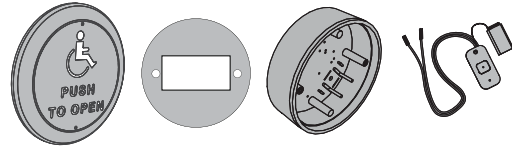
- Actuator, 4 1/2" Round, Logo, Wireless
- Includes 8310-856 Actuator, 8310-844 Transmitter, 8310-868S Surface Box, 8310-800 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3856TWF

Wireless Actuator, Wall Mount and Flush, Logo and Text, 4 1/2 inch round

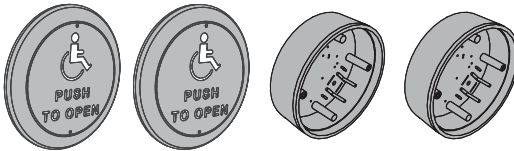
- Actuator, 4 1/2" Round, Logo, Text, Wireless
- Includes 8310-856T Actuator, 8310-844 Transmitter, 8310-868F Flush Box, 8310-800 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3856TWS

Wireless Actuator, Wall Mount and Surface, Logo and Text, 4 1/2 inch round

- Actuator, 4 1/2" Round, Logo, Text, Wireless
- Includes 8310-856T Actuator, 8310-844 Transmitter, 8310-868S Surface Box, 8310-800 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)

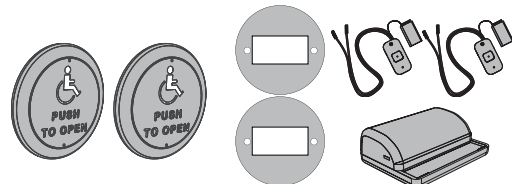


8310-3860T

Hard Wired Actuator Package, Logo and Text, 4 1/2 inch round

- Actuator Package, 4 1/2" Round
- Includes 8310-856T (2) Wall Mount Actuator, 8310-868S Surface Mount Box

Note: Weather/Trim Rings are sold separately.



8310-3860TW

Hard Wired Actuator Package, Logo and Text, 4 1/2 inch round

- Includes 8310-856T (2) Wall Mount Actuator, 8310-868S (2) Surface Mount Box, 8310-800 (2) Weather/Trim Ring, 8310-844 (2) Transmitter, 8310-865 Receiver

6" Surface and flush mounts



8310-852

Hard Wired Wall Mount Actuator, Logo, 6 inch round

- 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.



8310-852WP

Wireless Wall Mount Actuator Package, Logo, 6 inch round

- 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
- Requires 8310-865 Receiver



8310-852T

Hard Wired Wall Mount Actuator, Logo and Text, 6 inch round

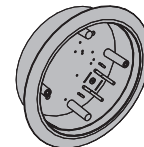
- Same as the 8310-852, with the added engraving of "Push to Open"



8310-852TWP

Wireless Wall Mount Actuator Package, Logo and Text, 6 inch round

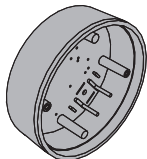
- Same as the 8310-852WP, with the added engraving of "Push to Open"



8310-869F

Flush Mount Box

- Rugged Plastic Box, 6" Round
- Optional accessory - can be used w/any 6" round actuator



8310-869S

Surface Mount Box

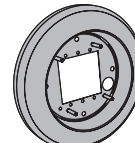
- Rugged Plastic Box, 6" Round
- Optional accessory - can be used w/any 6" round actuator



8310-802

Weather/Trim Ring

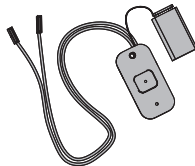
- Plastic Weather/Trim Ring, 6" Round
- Optional accessory - can be used w/ any 6" round plastic mounting box



8310-876

Escutcheon

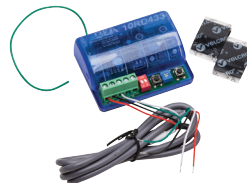
- Tapered stainless steel escutcheon covers the gap between the wall and the back of the wall plate actuators when mounted in electrical boxes (by others) to minimize cart damage or vandalism
- Optional accessory - Can be used w/any 6" round actuator
- Not to be used with wireless function



8310-844

Transmitter, Wireless, 1 Channel, Wall Mount, 9V

- Transmitter, Wireless, 1 Channel, 9V battery included
- Use to convert standard wall mount actuator to wireless
- Requires 8310-865 Receiver

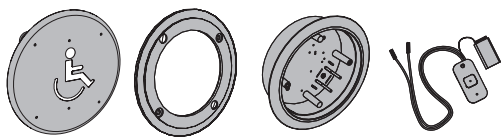


8310-865

Wireless Receiver

- Receiver, Wireless, 1 Channel, w/ Sequencing Feature
- Used in conjunction w/ Wireless Actuators and Transmitter(s) for push plate applications

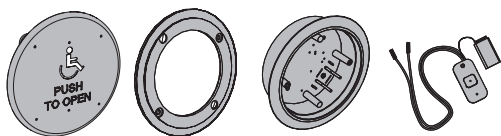
6" Surface and flush mounts



8310-3852WF

Wireless Actuator, Wall Mount and Flush, Logo, 6 inch round

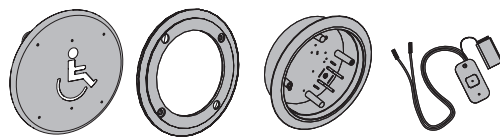
- 6" Round, Logo, Wireless
- Includes 8310-852 Actuator, 8310-844 Transmitter, 8310-869F Flush Box, 8310-802 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3852TWF

Wireless Actuator, Wall Mount and Flush, Logo and Text, 6 inch round

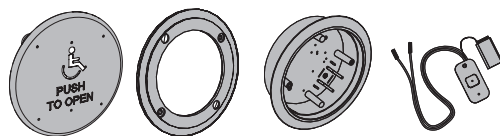
- 6" Round, Logo, Text, Wireless
- Includes 8310-852T Actuator, 8310-844 Transmitter, 8310-869F Flush Box, 8310-802 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3852WS

Wireless Actuator, Wall Mount and Surface, Logo, 6 inch round

- 6" Round, Logo, Wireless
- Includes 8310-852 Actuator, 8310-844 Transmitter, 8310-869S Surface Box, 8310-802 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3852TWS

Wireless Actuator, Wall Mount and Surface, Logo and Text, 6 inch round

- 6" Round, Logo, Text, Wireless
- Includes 8310-852T Actuator, 8310-844 Transmitter, 8310-869S Surface Box, 8310-802 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)

1 1/2" x 4 3/4" Surface and flush mounts



8310-818

Hard Wired Jamb Mount Actuator, Logo, 1 1/2" x 4 3/4"

- 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



8310-818T

Hard Wired Jamb Mount Actuator, Logo and Text, 1 1/2" x 4 3/4"

- Same as the 8310-818, with the added engraving of "Push to Open"



8310-819F

Box Only, Jamb Mount and Flush Mount, 1 1/2" x 4 3/4"

- 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



8310-819S

Box Only, Jamb Mount and Surface Mount, 1 1/2" x 4 3/4"

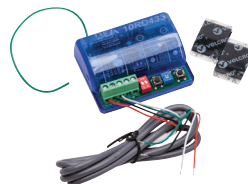
- Rugged Plastic Jamb Box
- 1 1/2" x 4 3/4", rectangle
- Optional accessory - can be used w/any 1 1/2" x 4 3/4" jamb mount plastic mounting box



8310-844J

Transmitter, Wireless, 1 Channel, Jamb Mount, 3V

- 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)



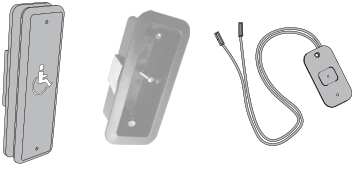
8310-865

Wireless Receiver

- Receiver, Wireless, 1 Channel, w/ Sequencing Feature
- Used in conjunction w/ Wireless Actuators and Transmitter(s) for push plate applications

Note: LCN recommends for all jamb mount actuators be used on an interior installation only.

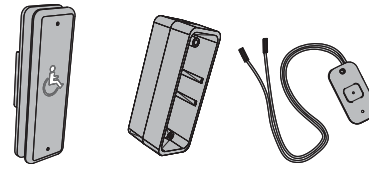
1 1/2" x 4 3/4" Surface and flush mounts



8310-3818WF

Wireless Actuator, Jamb Mount and Flush, Logo, 1 1/2" x 4 3/4"

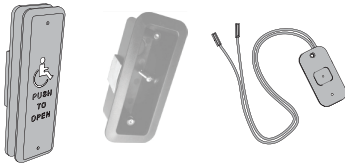
- Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
- Includes 8310-818 Actuator, 8310-844J Transmitter, 8310-819F Flush Box
- Requires 8310-865 Receiver (not part of kit)



8310-3818WS

Wireless Actuator, Jamb Mount and Surface, Logo, 1 1/2" x 4 3/4"

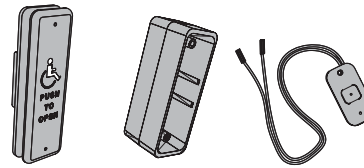
- Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
- Includes 8310-818 Actuator, 8310-844J Transmitter, 8310-819S Surface Box
- Requires 8310-865 Receiver (not part of kit)



8310-3818TWF

Wireless Actuator, Jamb Mount and Flush, Logo and Text, 1 1/2" x 4 3/4"

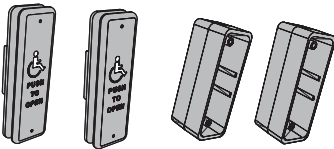
- Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
- Includes 8310-818T Actuator, 8310-844J Transmitter, 8310-819F Flush Box
- Requires 8310-865 Receiver (not part of kit)



8310-3818TWS

Wireless Actuator, Jamb Mount and Surface, Logo and Text, 1 1/2" x 4 3/4"

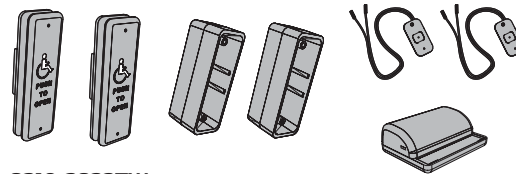
- Actuator, 1 1/2" x 4 3/4" Rectangle, Logo, Wireless
- Includes 8310-818T Actuator, 8310-844J Transmitter, 8310-819S Surface Box
- Requires 8310-865 Receiver (not part of kit)



8310-3822T

Hard Wired Actuator Package, Logo and Text, 1 1/2" x 4 3/4"

- Actuator Package, 1 1/2" x 4 3/4", Jamb Mount
- Includes 8310-818T (2) Jamb Mount Actuator, 8310-819S (2)
- Surface Mount Box



8310-3822TW

Wireless Actuator Package, Logo and Text, 1 1/2" x 4 3/4"

- 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

Note: LCN recommends for all jamb mount actuators be used on an interior installation only.

4 3/4" Square surface and flush mounts



8310-853

Hard Wired Wall Mount, Logo, 4 3/4" x 4 3/4"

- 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



8310-853WP

Wireless Wall Mount Actuator Package, Logo, 4 3/4" x 4 3/4"

- Wireless, low profile, low voltage actuator with square, 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
- Requires 8310-865 Receiver



8310-853T

Hard Wired Wall Mount, Logo and Text, 4 3/4" x 4 3/4"

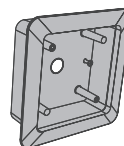
- Same as the 8310-853, with the added engraving of "Push to Open"



8310-853TWP

Wireless Wall Mount Actuator Package, Logo and Text, 4 3/4" x 4 3/4"

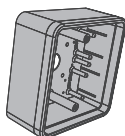
- Same as the 8310-853WP, with the added engraving of "Push to Open"



8310-867F

Flush Mounted Actuator

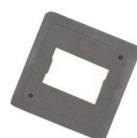
- Rugged Plastic Box, 4 3/4" Square
- Optional accessory - can be used w/any 4 3/4" square actuator



8310-867S

Surface Mount Box

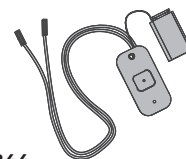
- Rugged Plastic Box, 4 3/4" Square
- Optional accessory - can be used w/any 4 3/4" square actuator



8310-801

Weather/Trim Ring

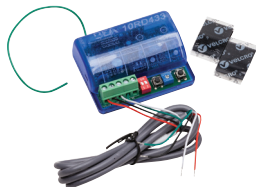
- Plastic Weather Ring, 4 3/4" Square
- Optional accessory - can be used w/any 4 3/4" square plastic mounting box



8310-844

Transmitter, Wireless, 1 Channel, Wall Mount, 9V

- Transmitter, Wireless, 1 Channel, 9V battery included
- Use to convert standard wall mount actuator to wireless
- Requires 8310-865 Receiver

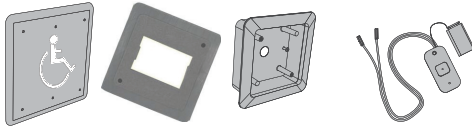


8310-865

Wireless Receiver

- Receiver, Wireless, 1 Channel, w/Sequencing Feature
- Used in conjunction w/ Wireless Actuators and Transmitter(s) for push plate applications

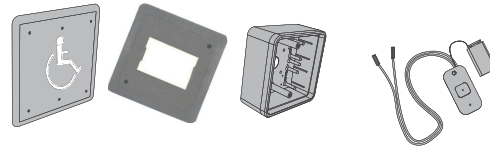
4 3/4" Square surface and flush mounts



8310-3853WF

Wireless Actuator, Wall Mount and Flush, Logo, 4 3/4" x 4 3/4"

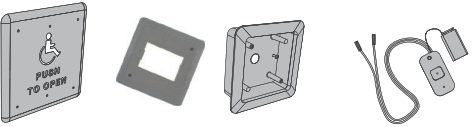
- Actuator, 4 3/4" Square, Logo, Wireless
- Includes 8310-853, 8310-844 Transmitter, 8310-867F Flush Box, 8310-801 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3853WS

Wireless Actuator, Wall Mount and Surface, Logo, 4 3/4" x 4 3/4"

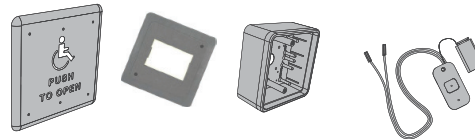
- Actuator, 4 3/4" Square, Logo, Wireless
- Includes 8310-853, 8310-844 Transmitter, 8310-867S Surface Box, 8310-801 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3853TWF

Hard Wired Actuator, Wall Mount and Flush, Logo and Text, 4 3/4" x 4 3/4"

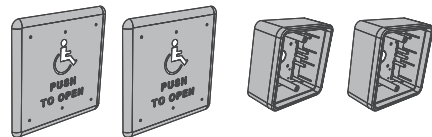
- Actuator, 4 3/4" Square, Logo, Text, Wireless
- Includes 8310-853T, 8310-844 Transmitter, 8310-867F Flush Box, 8310-801 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)



8310-3853TWS

Hard Wired Actuator, Wall Mount and Surface, Logo and Text, 4 3/4" x 4 3/4"

- Actuator, 4 3/4" Square, Logo, Text, Wireless
- Includes 8310-853T, 8310-844 Transmitter, 8310-867S Surface Box, 8310-801 Weather/Trim Ring
- Requires 8310-865 Receiver (not part of kit)

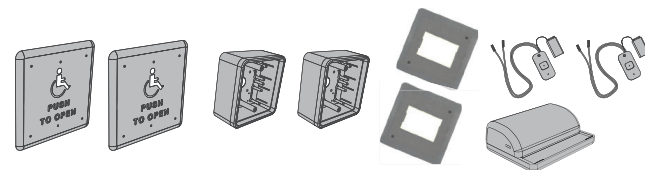


8310-3857T

Hard Wired Actuator Package, Logo and Text, 4 3/4" x 4 3/4"

- Actuator Package, 4 3/4" Square
- Includes 8310-853T (2) Wall Mount Actuator, 8310-867S (2)
- Surface Mount Box

Note: Weather/Trim Rings are sold separately



8310-3857TW

Wireless Actuator Package, Logo and Text, 4 3/4" x 4 3/4"

- Actuator Package, 4 3/4" Square
- Includes 8310-853T (2) Wall Mount Actuator, 8310-867S (2) Surface Mount Box, 8310-801 (2) Weather/Trim Ring, 8310-844 (2) Transmitter, 8310-865 Receiver

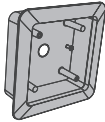
4 3/4" Dual square surface and flush mounts



8310-855

Hard Wired Wall Mount Actuator, Logo, Double Vestibule

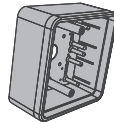
- Hardwired low voltage actuator with dual rectangle, stainless steel touch plate in 4 3/4" (121mm) square
- Engraved blue filled handicap symbol w/text, conforms to most accessibility codes
- Designed to mount in a flush or surface mount box (sold separately) in/on a vertical surface near the controlled 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



8310-867F

Flush Mounted Actuator

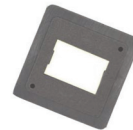
- Rugged Plastic Box, 4 3/4" Square
- Optional accessory - can be used w/any 4 3/4" square actuator



8310-867S

Surface Mount Box

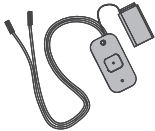
- Rugged Plastic Box, 4 3/4" Square
- Optional accessory - can be used w/any 4 3/4" square actuator



8310-801

Weather/Trim Ring

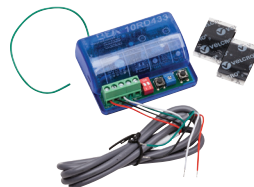
- Plastic Weather Ring, 4 3/4" Square
- Optional accessory - can be used w/any 4 3/4" square plastic mounting box



8310-844

Transmitter, Wireless, 1 Channel, Wall Mount, 9V

- Transmitter, Wireless, 1 Channel, 9V battery included
- Use to convert standard wall mount actuator to wireless
- Requires 8310-865 Receiver

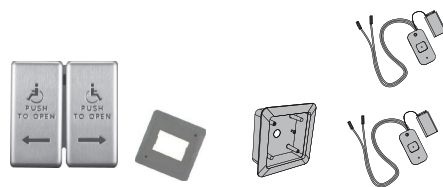


8310-865

Wireless Receiver

- Receiver, Wireless, 1 Channel, w/Sequencing Feature
- Used in conjunction w/ Wireless Actuators and Transmitter(s) for push plate applications

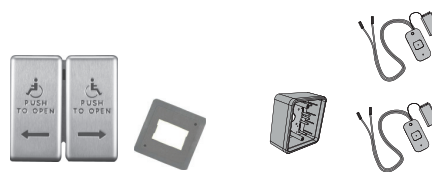
4 3/4" Dual square surface and flush mounts



8310-3855WF

Wireless Actuator, Wall Mount and Flush, Dual Vestibule, Logo, 4 3/4" x 4 3/4"

- 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/Trim Ring
- Requires 8310-865 Receiver (2) (not part of kit)



8310-3855WS

Wireless Actuator, Wall Mount and Surface, Dual Vestibule, Logo, 4 3/4" x 4 3/4"

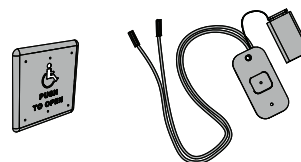
- Actuator, 4 3/4" Square, Logo, Text, Dual Vestibule, Wireless
- Includes 8310-855 Actuator, 8310-844 Transmitter (2), 8310-867S Surface Box, 8310-801 Weather/Trim Ring
- Requires 8310-865 Receiver (2) (not part of kit)



8310-3853WB

Wireless Bollard Actuator, Logo, 4 3/4" Square

- 4 3/4" Squarew/Logo, Wireless actuator
- Use w/ 8310-866 Bollard (not included)
 - Includes 8310- 853 actuator, 8310-844 transmitter
- Requires 8310-865 Receiver (not part of kit)



8310-3853TWB

Wireless Bollard Actuator, Logo and Text, 4 3/4" Square

- 4 3/4" Square w/Logo, Wireless actuator
- Use w/8310-866 Bollard (not included) - Includes 8310- 853T actuator, 8310-844 Transmitter
- Requires 8310-865 Receiver (not part of kit)

36" x 6" Full length actuators



8310-836T

Hard Wired Full Length Actuator, Logo and Text, 36" x 6"

- Hardwired low voltage actuator with stainless steel touch plate with 36" x 6" activation surface
- Blue handicap symbol conforms with most accessibility codes
- Added "PUSH TO OPEN" lettering for enhanced identification
- Designed to meet California building codes and increase accessibility for wheelchair bound entrants
- Can easily be mounted to any flat surface or a bollard post



8310-836TW

Wireless Full Length Actuator, Logo and Text, 36" x 6"

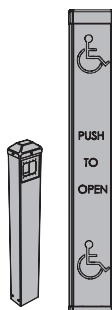
- Same as the 8310-836T with a built in wireless transmitter and 3v battery
- Use in conjunction with 8310-865 Receiver (not included)



8310-866FLA

FLA Bollard Post

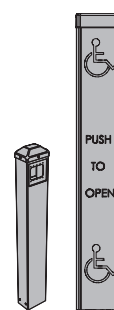
- A powder coated steel 42" x 4" x 6": Bollard Post, mounting base pre prepped for the 8310-836T
- Includes 8310-866CAP, 2 mounting screws and spacer for installation



8310-3836T

Full Length Actuator/Bollard Package

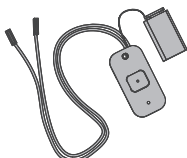
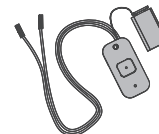
- 36" x 6" Actuator with 8310- 866FLA Bollard for wired applications



8310-3836TW

Wireless Full Length Actuator/Bollard Package

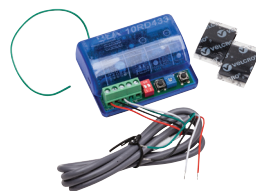
- 36" x 6" Actuator with 8310-866FLA Bollard and 8310-844 wireless transmitter
- Transmitter requires 8310-865 Receiver (not included)



8310-844

Transmitter, Wireless, 1 Channel, Wall Mount, 9V

- Transmitter, Wireless, 1 Channel, 9V battery included
- Use to convert standard wall mount actuator to wireless
- Requires 8310-865 Receiver



8310-865

Wireless Receiver

- Receiver, Wireless, 1 Channel, w/Sequencing Feature
- Used in conjunction w/ Wireless Actuators and Transmitter(s) for push plate applications

Touchless actuators



8310-810D
Touchless Actuator, Double Gang

- Stainless steel
- 2 - 24" range
- Heavy duty applications
- Compatible with -880 receiver



8310-810R
Touchless Actuator, Round

- Stainless steel
- 2 - 24" range
- Heavy duty applications
- Compatible with -880 receiver



8310-810S
Touchless Actuator, Single Gang

- Stainless steel
- 2 - 24" range
- Heavy duty applications
- Compatible with -880 receiver



8310-813
Touchless Actuator, Single Gang and Double Gang

- Black: ASA, Nylon, PC
- 4-24" Range
- Medium duty applications
- Compatible with -880 receiver



8310-813J
Touchless Actuator, Jamb

- Black: ASA, Nylon, PC
- 4-24" Range
- Medium duty applications
- Compatible with -880 receiver



8310-813JWH
Touchless Actuator, Jamb

- White: ASA, Nylon, PC
- 4-24" Range
- Medium duty applications
- Compatible with -880 receiver



8310-813R
Touchless Actuator, Round

- Black: ASA, Nylon, PC
- 4-24" Range
- Medium duty applications
- Compatible with -880 receiver



8310-813RWH
Touchless Actuator, Round

- White: ASA, Nylon, PC
- 4 - 24" range
- Medium duty applications
- Compatible with -880 receiver



8310-813WH
Touchless Actuator, Single Gang and Double Gang

- White: ASA, Nylon, PC
- 4-24" Range
- Medium duty applications
- Compatible with -880 receiver



8310-815
Touchless Actuator, Square

- External Mounting Box not required
- 4 - 24" range
- Harsh condition applications
- Compatible with -880 receiver



8310-816R
Touchless Actuator, Round, 7"

- 0 - 4" range
- Stainless steel
- Proximity applications



8310-816S
Touchless Actuator, Square, 6"

- 0 - 4" range
- Stainless steel
- Proximity applications

Touchless wireless receivers



8310-880

Wireless Receiver, 900 mHz

- Receiver, wireless
- Program instant or delayed actuation
- Used in conjunction with touchless actuators for wireless signal transmission



8310-881

900 mHz Transmitter, 1 Button

- Handheld transmitter
- 3V battery powered
- Line of sight ~500 ft



8310-882

900 mHz Transmitter, 2 Buttons

- Handheld transmitter
- 3V battery powered
- Line of sight ~500 ft



8310-883

900 mHz Transmitter, 3 Buttons

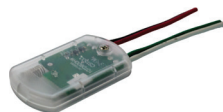
- Handheld transmitter
- 3V battery powered
- Line of sight ~500 ft



8310-884

900 mHz Transmitter, 4 Buttons

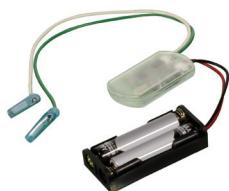
- Handheld transmitter
- 3V battery powered
- Line of sight ~500 ft



8310-885

Retrofit 900 mHz Transmitter

- Push plate conversion to touchless application
- Line of sight ~500 ft



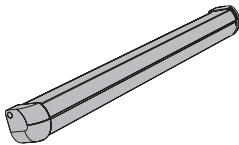
8310-886

900 mHz Hardwired Transmitter

- 900 mHz transmitter for hardwired applications

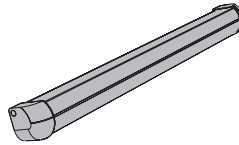
Sensors

The sensors and accessories on the following pages are to be used only with LCN automatic operators. When using sensors supplied by others, consult the factory. The desired function, traffic patterns and physical design of the opening will determine the type of sensors used.



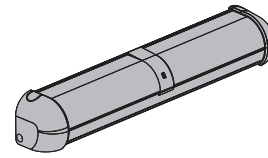
8310-804-1
(1) Door Mount Safety Sensor for Leading Edge

- Contains one active sensor module to detect obstruction(s) on leading edge of door



8310-804-2
(1) Door Mount Safety Sensor for Full Face

- Contains two active sensor modules to detect obstruction(s) on full face of door



8310-877
(1) Header Mount Safety Sensor

- Safety Sensor, 'Diffused Infrared' Technology
- Used to detect obstructions during door open and door closed position
- Nine selectable patterns
- 8310-859 Handheld Remote Control required to program 8310-877 sensor from a distance
- Includes 8310-846 Harness



8310-877S
Header Mount Safety Sensor Spacer

- Required when 8310-804-1 or 8310-804-2 Door Mount Safety
- Spacers are used w/8310-877 Header Mount Safety Sensor



8310-859
Handheld Remote Control

- Used to program 8310-877 Header Mount Safety Sensor or 8310-854 Header Mount Motion Sensor



8310-846
Header Mount Harness

- Comes with 8310-877 Header Mount Safety Sensor



8310-847
Door Mount Harness

- Used with 8310-804-1 or 8310-804-2 Door Mount Safety Sensor, must order separately.
- Used with Senior Swing only, must order separately



8310-878
Single Door Safety Package - (2) Door Mounted Safety Sensors with ANSI .10 Monitoring

- Contains two door-mounted sensors and a control hub that perform the swing door safety functions and provides the sensor monitoring required by A156.10
- All wire harnesses and mounting hardware included



8310-879
Double Door Safety Package - (4) Door Mounted Safety Sensors with ANSI .10 Monitoring

- Contains four door-mounted sensors and a control hub that perform the swing door safety functions and provides the sensor monitoring required by A156.10
- All wire harnesses and mounting hardware included

Packages



8310-3881

Single Door Package - (1) Activation and (2) Safety Sensors with ANSI .10 Monitoring

- Activation/Safety Sensor Package, Single Door
- Includes 8310-854 (2) Header Mount Activation Sensor, 8310-878 Monitored Safety Sensor kit (Used with Senior Swing only)

Alert: After November 2017, this package must be purchased for unknowing-act activation requirements in A156.10 for single door.



8310-3883

Senior Swing Single Door Package - (1) Safety Sensor and (1) Concealed Door Position Switch and (1) Relay Module

- Activation/Safety Sensor Package, Low Energy Convenience
- Single Door, Includes 8310-804-1 Door Mount Safety Sensor (approach side), 8310-805C Door Position Switch (Concealed), 8310-845 Programmable Relay Module (Used with Senior Swing only)

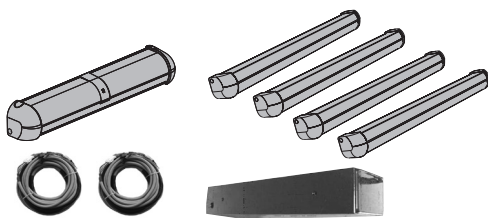


8310-3882

Double Door Package - (2) Activation and (4) Safety Sensors with ANSI .10 Monitoring

- Activation/Safety Sensor Package, Double Door
- Includes 8310-854 (2) Header Mount Sensor, 8310-879 Monitored Safety Sensor kit (Used with Senior Swing only)

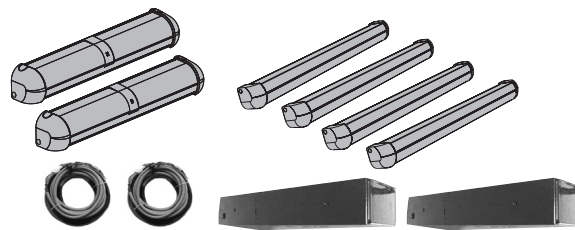
Alert: After November 2017, this package must be purchased for unknowing-act activation requirements in A156.10 for single door.



8310-3891

Senior Swing Simultaneous Pair Package - (1) Header Safety Sensor and (1) Spacer and (4) Door Mount Safety Sensors and (2) Harnesses

- Activation/Safety Sensor Package, Health Care I, Simultaneous Pair
- Includes 8310-877 Header Mount Sensor, 8310-877S Header Mount Spacer, 8310-804-2 (4) Door Mount Sensor (approach/ safety side), 8310-847 (2) Harness (Used with Senior Swing only)



8310-3892

Senior Swing Independent Pair Package - (2) Header Sensors and (2) Spacers and (4) Door Safety Sensors and (2) Harnesses

- Activation/Safety Sensor Package, Health Care II, Independent Pair, Includes 8310-877 (2) Header Mount Sensor, 8310-877S (2) Header Mount Spacer, 8310-804-2 (4) Door Mount Sensor (approach/safety side), 8310-847 (2) Harness (Used with Senior Swing only)

NOTE: Not for use with Double Egress These two sensor packages must be used on installations with knowing-act activation only

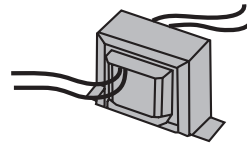
Sensor accessories



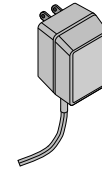
- 8310-805**
Door Position Switch (DPS)
- Surface mount
 - Used when 8310-804-1 or 8310-804-2 Door Mounted Safety Sensor and 8310-845 Relay Module is installed in conjunction w/either a electrohydraulic, pneumatic or Benchmark Automatic Operator
 - Disables approach side sensor when door is closed



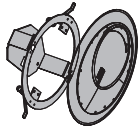
- 8310-805C**
Door Position Switch (DPS)
- Concealed
 - Used when 8310-804-1 or 8310-804-2 Door Mounted Safety Sensor and 8310-845 Relay Module is installed in conjunction w/ either a electrohydraulic, pneumatic or Benchmark Automatic Operator
 - Disables approach side sensor when door is closed



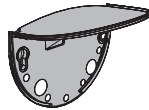
- 8310-824**
24V Hardwired Transformer
- Hardwired
 - Optional accessory - Used to remotely power any 24v sensor/receiver



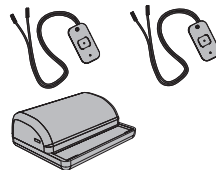
- 8310-824P**
24V Plug In Transformer
- 24v, plug in
 - Optional accessory - Used to remotely power any 24v sensor/receiver



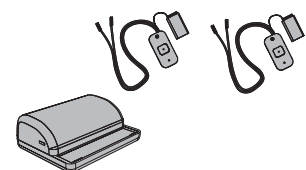
- 8310-854ECA**
Drop Ceiling Bracket
- Bracket used w/8310-854 Header Mount Activation Sensor
 - Optional



- 8310-854ERA**
Protective Cover
- Cover used w/8310-854 Header Mount Activation Sensor
 - Optional



- 8310-3803**
3v Wireless Conversion Kit Jamb Mount
- Jamb mount, 3v
 - Converts standard jamb actuator to wireless version
 - Includes 8310-865 Receiver, 8310-844J (2) Jamb Mounted
 - Transmitter - Requires 8310-819S or 8310-819F Jamb Box



- 8310-3809**
9v Wireless Conversion Kit Wall Mount
- Jamb mount, 9v
 - Converts standard wall mount actuator to wireless version
 - Includes 8310-865 Receiver, 8310-844 (2) Wall Mount Transmitter
 - Requires Surface or Flush Box and Weather Ring



- 8310-3889**
Safety Module Kit for pneumatic control box
- Used w/7901, 7902, 7981, 7982 Control Boxes
 - Includes 8310-3888 Safety Module Harness; required when 8310-877 Header Mount Safety Sensor is used w/Pneumatic
 - Automatic Operators (2610, 4810, 4820 or 4840 Series)

- 8310-3888**
Safety Module Harness for pneumatic control box
- Safety module, service part
 - Safety Module Harness for pneumatic control box

Accessories



8310-861

Transmitter, Wireless, 1 Channel, Handheld, 9v

- Wireless
- 1 Channel, Handheld, 9v; requires 8310-865 Receiver



8310-862

Transmitter, Wireless, 2 Channel, Handheld, 9v

- Wireless
- 2 Channel, Handheld, 9v; requires 8310-865 Receiver



8310-863

Transmitter, Wireless, 3 Channel, Handheld, 9v

- Wireless
- 3 Channel, Handheld, 9v; requires 8310-865 Receiver



8310-864

Transmitter, Wireless, 4 Channel, Handheld, 9v

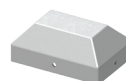
- Wireless
- 4 Channel, Handheld, 9v; requires 8310-865 Receiver



8310-866

Bollard Post with Mounting Base and Actuator Cut-Out, 42" x 4" x 6"

- A powder coated steel 42" x 4" x 6" Bollard Post, Mounting Base and 8310-866CAP
- Actuator cut out accepts 8310-3853WB or 8310-3853TWB wireless actuators 4 3/4" square hard wired actuator



8310-866CAP

Bollard Post Protective Cap

- Plastic Cap, Protective Cover, Service Part for 8310-866 Bollard Post

Sensor accessories



8310-806K Key Switch

- Type, 3 Position (On/Off/Hold Open)
- Optional switch used w/Senior Swing, Benchmark, or 4630/4640 operators with (CS) option

8310-806R Rocker Switch

- Type, 3 Position (On/Off/Hold Open)
- Optional switch used w/Senior Swing, Benchmark, or 4630/4640 operators with (CS) option

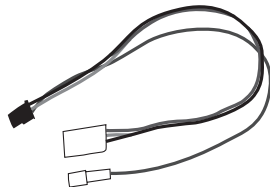


8310-845 Programmable Relay Module

- Used to sequence door operation in Senior Swing and Benchmark for hard wired applications

8310-807 Line Filter

- AC, 120v, Optional filter used w/Senior Operators to reduce 'line noise'



8310-887 Retrofit Cable

- Allows newer style Senior Swing digital control to be activated by existing switches when replacing older control purchased prior to September, 2006



8310-3134 Retrofit Cable Kit

- Allows newer style Senior Swing Digital Control to be activated by existing switches when replacing older control purchased prior to September, 2006
- Also includes cables to allow Safety Sensors to activate
- Includes 8310-887 plus Safety Sensor Cables

Notes

[illegible]

Notes

About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions. Allegion had \$2.9 billion in revenue in 2019 and sells products in almost 130 countries.

For more, visit www.allegion.com

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN

LCN®

1000 Series

Surface mounted closers





Top-of-its-class performance that gets the job done

Slamming church doors mark the beginning of LCN's rich history. In 1877, our founder was hired to solve this problem for the Trinity Church in Boston, MA. It led to the world's first door check and launched the beginning of the door closer industry.

Through investment in state-of-the-art equipment, processes and people, we believe LCN will continue to provide the best solutions for our customers. Reliability means control over door speed, latch engagement and, ultimately, how well a door with an LCN closer operates in the field.

Built from the inside out, the LCN portfolio combines tougher, bolder construction with proven technology – setting the standards for reliability, longevity and value in high-use applications. To provide door closers that are free from defects and manufactured to LCN's rigorous standards, every person from the engineer to the plant floor operator plays a role in the quality control process. We own quality control as a plant – defining standards, monitoring production, conducting quality checks and responding to any needs that arise.

With millions of door closers installed in facilities across the world and backed by support at every point of interaction no matter your role in the industry, you can be confident in choosing LCN.

1000 Series features

- Slim line design for easy installation on narrow head frames and top rails
- Closers mount three ways – hinge side, top jamb, and stop face
- Non-handed for right and left swinging doors

Information and customer care



us.allegion.com



US 877.671.7011
Canada 800.900.4734



support@allegion.com
Closers_TechProdSupport@allegion.com



www.youtube.com/LCNHardware

Ordering



Allegion_Orders@allegion.com

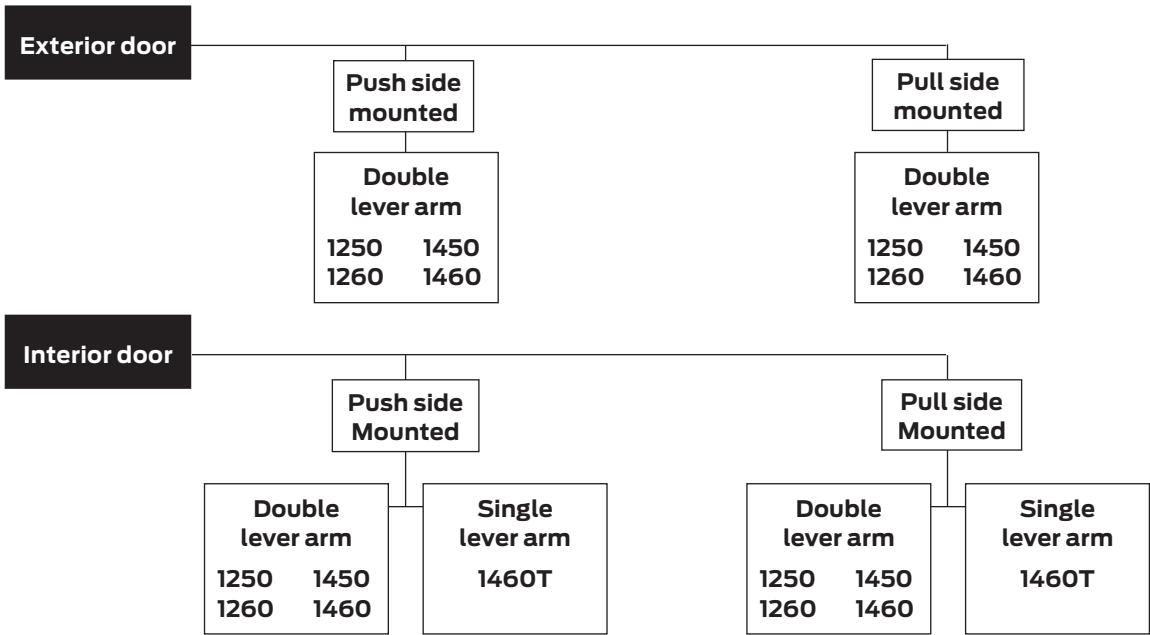


eFax: 1.800.248.1460

1000 Series surface mounted closers

Product selection guide

Surface mounted 1000 Series LCN closers feature a modern slim line design for easy installation on narrow head frames and top rails. This guide is based on the desired mounting of the closer.



Note: For parallel mounts order "P" version to also receive PA Shoe.

Product comparison

This chart shows a basic comparison of LCN 1000 Series closers. Refer to the specific closer chapter for complete details.

	Mounting					Finish			Cover			Cylinder		Arm function*								
	Hinge (pull) side	Top jamb (pull)	Top jamb (push)	Parallel arm	Stop face	Paint	Powder coat	Plated	Plastic	Metal	Designer series	Non-handed	Non-sized	Accessibility	Delay action	Regular (double)	Standard (single)	Heavy duty	Hold Open	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH
1250	■	■	■	■	■	■	■	■	■	■	■	■	■	■	180°	■	■	180°	180°	110°	110°	
1260	■	■	■	■	■	■	■	■	■	■	■	■	■	■	180°	■	■	180°	120°	110°	110°	
1450	■	■	■	■	■	■	■	■	■	■	■	■	■	■	180°	■	■	180°	180°	110°	110°	
1460	■	■	■	■	■	■	■	■ ^D	■	■	■	■	■	■	180°	■	180°	180°	110°	100°	100°	
1460T	■	■	■	■	■	■	■	■ ^D	■	■	■	■	■	■	■	180°	■	115°	■	■	■	

■ 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.
D For designer series only

Product selection guide

Applications

- For aluminum, hollow metal, or wood swinging doors and frames.
- Can be used with hinge or pivot mounted door.
- Mounts on 1 3/4" transom without adapter plates.
- Adapter plates and other installation accessories available for non-standard conditions.

Features common to 1000 Series

- 1000 series closers mount three ways. Closers with regular or holdopen arm mount hinge side or top jamb. Parallel arm, closers include - 62PA SHOE required for parallel arm mount. 1460T mounts hinge side, top jamb (pull side) and stop face.
- Non-handed for right and left swinging doors.
- Closers to meet ADA reduced opening force requirements.
- Adjustable hydraulic backcheck cushions opening swing prior to 90°.
- Separate regulation of general closing speed and latching speed.

Design assistance

LCN has been providing reliable solutions to unique door control problems since 1925. Design and specification assistance are only a phone call away. Contact LCN for assistance or technical information at 877-671-7011 or fax 800-248-1460 (Order Entry), Fax 815-879-1495 for Product Support.

Warranty

- 30 year limited warranty (1460 Series) and 20 year limited warranty (1260 Series) on cast iron closers.
- 15 year limited warranty (1250 series) and 25 year limited warranty (1450 series) on cast aluminum closers.

See General Information catalog for full warranty details.

Specifications

Refer to specifications section for suggested architectural specifications.

Materials

- High strength cast iron (1260, 1460, 1460T) or cast aluminum (1250, 1450) cylinder.
- Forged steel main arm for all EDA, CUSH, 1460HD and 1460T arms.
- One piece forged steel piston.
- Heat treated pinion.
- LCN's standard all weather fluid performs to temperature ranges from 120°F (49°C) to -30°F (-35°C).
- High efficiency, full complement, low friction bearings.
- Tamper resistant regulating screws.
- Full rack and pinion hydraulic action.
- Low friction track and roller combination for all single lever arm closers.

Finishes

- Available in six standard or a wide selection of optional custom powder coat finishes to blend with door and frame.
- LCN's powder coat finish surpasses 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
- Painted finishes on cast aluminum closers (1250, 1450).
- For installations where a higher level of corrosion resistance is required, LCN offers an optional Special Rust Inhibitor (SRI) pretreatment (cast iron). Closers that combine the exclusive LCN powder coat finish and the SRI pretreatment exceed the ANSI standard for corrosion resistance even further.
- Plated finishes are available as an option to accent door and frame for the 1460 Series closers.

Listings and approvals

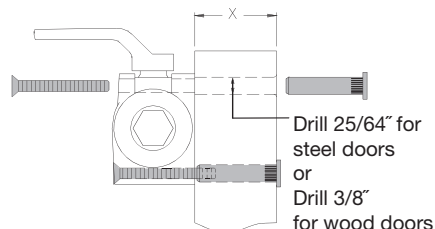
UL listed for self-closing doors without hold open under "swinging door closers" (GVEV) file R 1943. Tested and certified under ANSI Standard A156.4 grade one. Consult factory for details. Consult factory for other listings such as; cUL, California State Fire Marshal, Bureau of Standards and Appeals.

Positive pressure

LCN closers have been certified for three hours by UL to be in compliance with UL 10 C. Contact LCN for specific details on door closer fire ratings.

Fasteners

1260, 1460, 1460T series closers are shipped with: A standard Self Reaming and Tapping Screws (SRT) pack that contains Phillips head SRT screws to install the closer. 1250 and 1450 series closers are shipped with: A universal screw pack to include Self Reaming and Tapping Screws (SRT), machine and wood screws. Standard LCN Through Bolts (TB) can be installed on 1 3/4" (44 mm) thick doors with 1/4" - 20 machine screws. Optional Through Bolt (TB) sizes are available for 1 5/8" (41 mm) or 1 3/8" (35 mm) door thickness, but this must be specified when ordering.



Notes:

- For Through Bolts, specify door thickness if other than 1 3/4" (44mm), represented in diagram as dimension "X".
- Phillips head, metric machine screws are available, please specify.
- LCN recommends the use of wood screws for wood door applications.

1250 Series



The 1250 Series cast aluminum closer is designed for low-frequency and low-abusive traffic areas. Combining dependable operation, low maintenance and a stylish look this closer is ideal for aluminum storefronts and interior offices.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast aluminum body Full complement bearing 1 3/8" diameter piston 5/8" diameter single heat treated pinion journal
Fluid	All weather fluid
Handing	Non-handed
Templating	Peel-n-Stick templates - 3/4" x 9 1/16" mounting hole pattern
Size	Adjustable spring size 1-5
Warranty	15 years

Cover	Slim line cover, optional
Fasteners	Universal screw pack (UNIV)
Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Arms	Tripack includes regular, top jamb, and parallel arm (RWPA)
Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only

Special templates

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

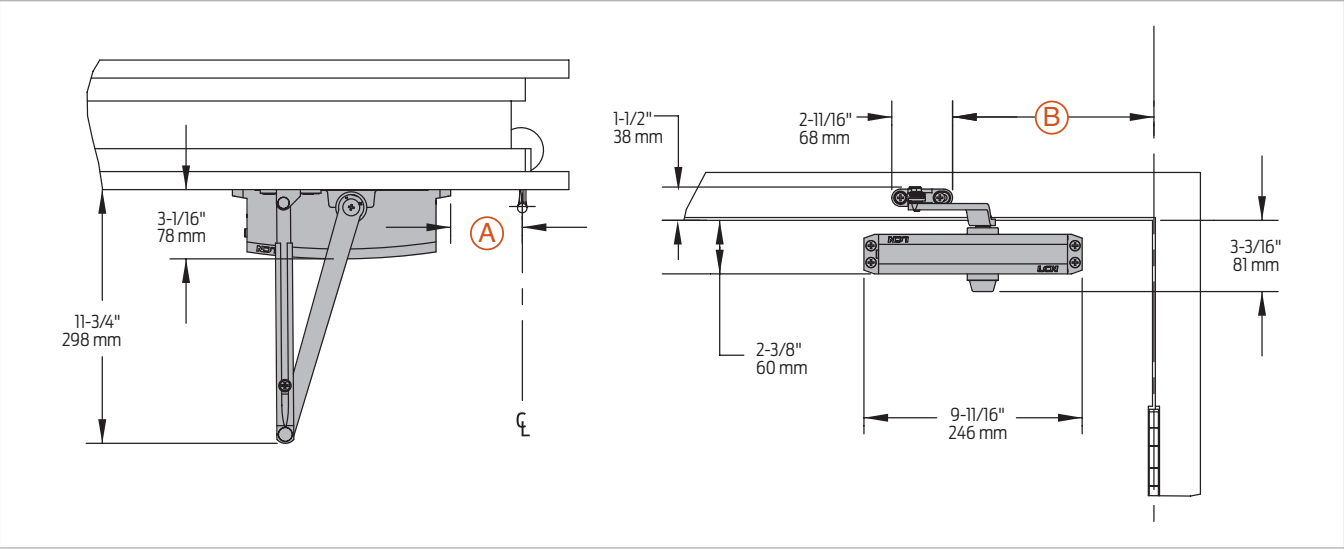
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Paint	Non-handed	Regular (double)	180°
Top jamb (pull)	Powder coat	Non-sized	Standard (single)	180°
Top jamb (push)	Plated	Accessibility	Heavy duty	180°
Parallel arm	Plastic	Delay action	Hold Open	110°
Stop face	Metal		EDA/HEDA	110°
			CUSH/HCUSH	
			SCUSH/SHCUSH	

■ Available
 ■ Not available

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

Mounting details

Hinge (pull) side mounting

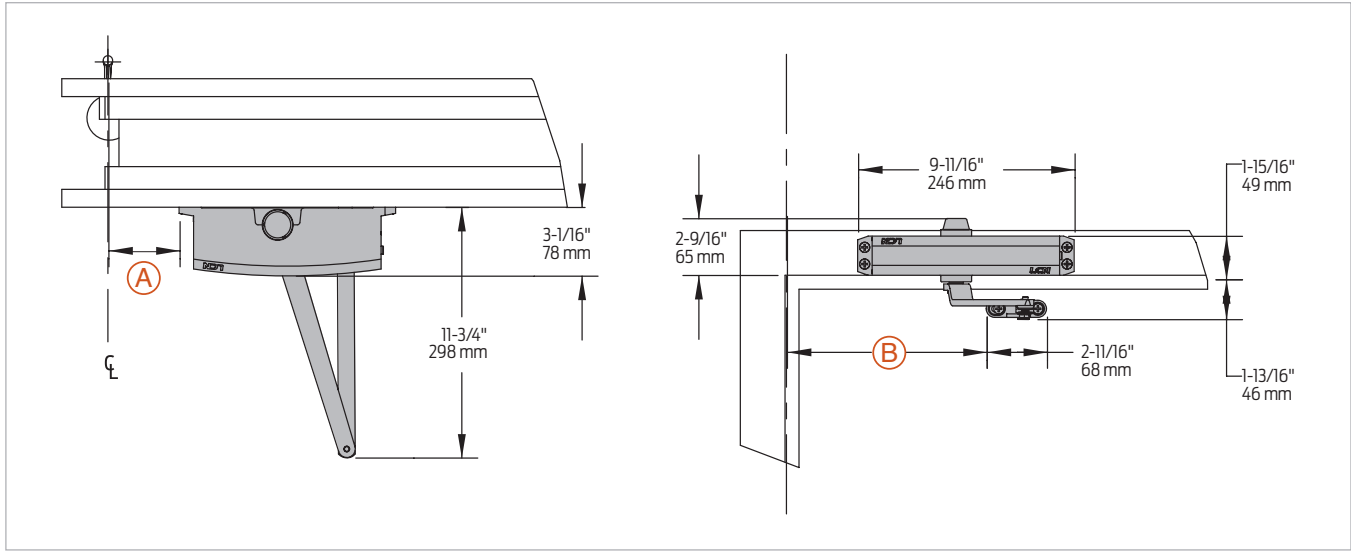


Butt hinges	Should not exceed 5" (127 mm) in width	
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°	
Reveal	Should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for Hold Open Arm (H)	
Top rail	Less than 2 3/8" (60 mm) requires plate, 1250-18	
Clearance	3 1/16" (78mm) behind door required for installation	
Maximum opening	100°:	A = 6 11/16" (170mm) B = 12 7/16" (316 mm)
	101° to 120°:	A = 5 11/16" (144mm) B = 11 7/16" (291 mm)
	or 121° to 180°:	A = 3 1/16" (78 mm) B = 8 15/16" (227 mm)

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting.

Mounting details

Top jamb (push side) mounting

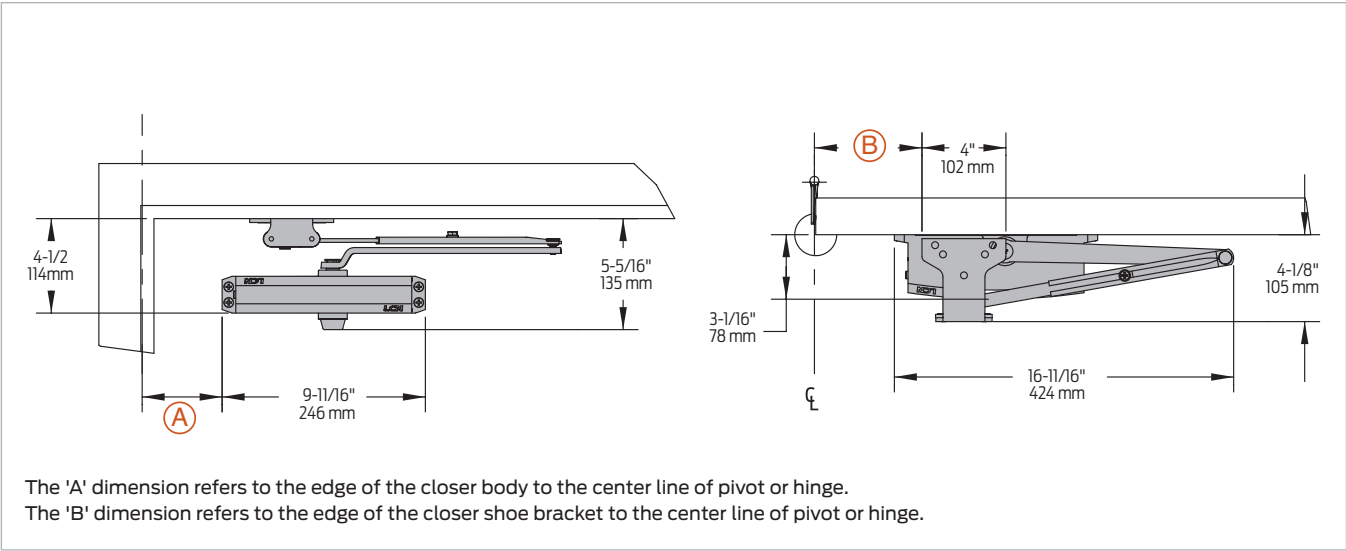


Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°		
Reveal	Arm type	Maximum reveal	Opening
	Regular Arm	0" to 5"	180°
	Long Arm	4" to 8"	165°
	Hold Open Arm	0" to 2 3/4"	180°
	Hold Open Long Arm	2" to 6 1/2"	180°
Top rail	Requires 1 3/4" (44 mm) minimum. 2 1/2" (64 mm) minimum with closer on plate, 1250-18		
Head frame	Less than 1 3/4" (44 mm) requires plate, 1250-18. For flush ceiling condition with 2" (51 mm) head frame, use plate, 1250-18. (Plate requires 1 3/8" (35 mm) minimum.)		
Maximum opening	100°:	A = 7 3/16" (183 mm) B = 12 15/16" (329 mm)	
	101° to 120°:	A = 5 11/16" (144 mm) B = 11 7/16" (291 mm)	
	or *121° to 180°:	A = 3 1/16" (78 mm) B = 8 15/16" (227 mm)	

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting.

Mounting details

Parallel arm (push side) mounting



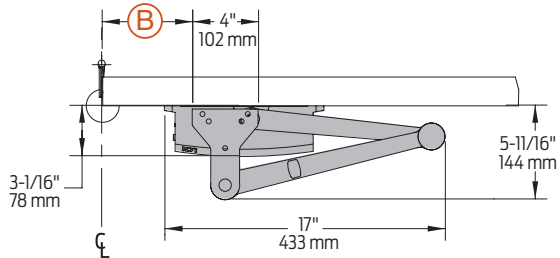
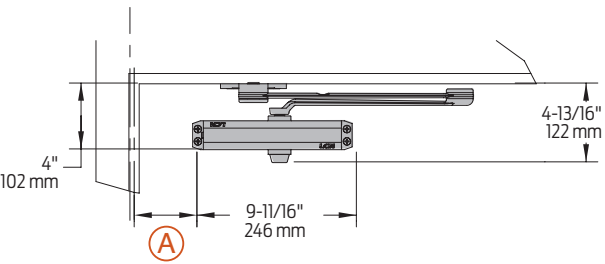
Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point, where a door cannot swing 180°, or where Cush-n-Stop Arm is not used
Top rail	Less than 4 1/2" (114 mm) measured from the stop requires plate, 1250-18PA
Clearance	1250-62PA shoe projects 4 1/8" (105 mm) from door face
Stop width	Minimum 1" (25 mm)
Blade stop	Clearance, requires 1/2" (13 mm) blade stop spacer, 1250-61
Auxiliary shoe	1250-62A allows installation of regular arm with overhead holder/stop
Maximum opening	Regular or Hold Open Arm can be templated to 100°: A = 7 5/16" (186 mm) B = 8 5/8" (219 mm) or 101° to 130°: A = 5 13/16" (148 mm) B = 7 1/8" (181 mm) or *131° to 180°: A = 3 13/16" (97 mm) B = 5 1/8" (130 mm)

Note: Hold open points up to maximum opening with Hold Open Arm. 1250 Parallel arm closer includes 1250-201 fifth hole spacer to support PA shoe.
* Frame and trim permitting.

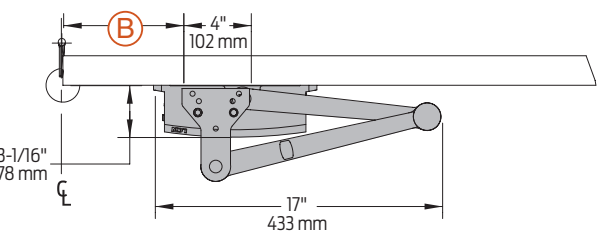
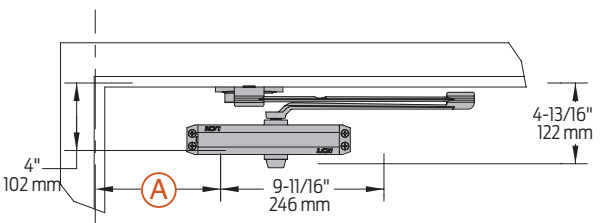
Mounting details

EDA and Cush-n-Stop mounting

EDA mount



CUSH/SCUSH mount



The 'A' dimension refers to the edge of the closer body to the center line of pivot or hinge.
The 'B' dimension refers to the edge of the closer shoe bracket to the center line of pivot or hinge.

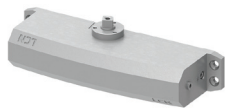
Clearance	1250-62EDA or CUSH shoe projects 5 11/16" (144mm) from door face	
Head frame	Flush or rabbeted requires CUSH flush panel adapter, 1250-419	
EDA or CUSH Arm	Requires soffit shoe support, 1250-30 for fifth screw anchorage where reveal is less than 2 3/4" (70mm)	
SCUSH	Dead stop points are approximately 5° more than templated stop point.	
Maximum opening	EDA template allows 180°. Hold open point up to maximum opening	CUSH arms can be templated for maximum opening/hold open point at 85°
	100°: A = 7 5/16" (186mm) B = 9" (229 mm)	85°: A = 8 13/16" (224 mm) B = 10 1/2" (267 mm)
	or 130°: A = 5 13/16" (148 mm) B = 7 1/2" (191 mm)	90°: A = 8 1/16" (205 mm) B = 9 3/4" (248 mm)
	or 180°: A = 3 13/16" (97 mm) B = 5 1/2" (140 mm)	100°: A = 6 11/16" (170 mm) B = 8 3/8" (213 mm)
		105°: A = 6 1/16" (154 mm) B = 7 3/4" (197 mm)
		110°: A = 5 7/16" (138 mm) B = 7 1/8" (181 mm)

Note: 1250 closers ordered with EDA, CUSH or SCUSH arms include 1250-201 fifth hole spacer to support the shoe

1250 Series

Accessories

Cylinders



1250-3071
Cast aluminum cylinder assembly (CYL)

- Non-handed
- Standard

Covers



1250-72
Slim line plastic cover (SLIMPC)

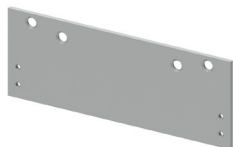
- Non-handed
- Optional

Installation accessories



1250-18
Plate

- Required for hinge side mount where top rail is less than $2\frac{3}{8}$ " (60mm)
- Required for top jamb mounting where head frame is less than $1\frac{3}{4}$ " (44 mm) or flush ceiling condition exists
- Requires minimum $1\frac{1}{2}$ " (38 mm) minimum top rail or $1\frac{1}{4}$ " (32 mm) head frame



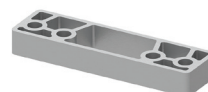
1250-18PA
Plate

- Required for parallel arm mounting where top rail is less than $4\frac{1}{2}$ " (114mm), measured from the stop
- Requires $1\frac{3}{4}$ " (44 mm) minimum top rail



1250-30
CUSH shoe support

- Provide anchorage for fifth screw used with CUSH arms where reveal is less than $2\frac{3}{4}$ " (70mm)



1250-61
Blade stop spacer

- Lowers parallel arm shoe to clear $\frac{1}{2}$ " (13 mm) blade stop



1250-62A
Auxiliary shoe

- Requires a top rail of $7\frac{1}{8}$ " (181mm). Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop



1250-419
PA flush panel adapter

- Provides horizontal mounting surface for PA, EDA or CUSH shoe on single rabbeted or flush frame



1250-62PA
PA shoe

- Required for parallel arm mounting

1250 Series

Accessories

Arms


**1250-3077
Regular Arm with Parallel Arm
Bracket (RWPA)**

- Non-handed
- Mounts hinge side or top jamb
- Parallel Arm includes PA shoe, 1250-62PA required for parallel arm mounting


**1250-3077L
Long Arm (LONG)**

- Non-handed
- Includes long rod and shoe, 1250-79LR for top jamb mount with deep reveals
- Optional


**1250-3077EDA
Extra Duty Arm (EDA)**

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations
- Optional


**1250-3049EDA
Hold Open Extra Duty
Arm (HEDA)**

- Handed
- Provides hold open function adjustable at shoe
- Optional


**1250-3049
Hold Open Arm with Parallel
Arm Bracket (HWPB)**

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


**1250-3049L
Hold Open Long Arm (HLONG)**

- Non-handed
- Includes long head and tube, 1250-3048L for top jamb mount with deep reveals
- Optional


**1250-3077CNS
Cush-n-Stop Arm (CUSH)**

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe
- Optional


**1250-3049CNS
Hold Open Cush-n-Stop
Arm (HCUSH)**

- Non-handed
- Provides hold-open function with templated stop/hold open points
- Handle controls hold open function
- Optional


**1250-3077SCNS
Spring Cush-n-Stop Arm
(SCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional


**1250-3049SCNS
Spring Hold Open Cush-n-Stop
Arm (SHCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Ordering information

How-to-order 1250 Series closers

1. Select finish

- ☐ Standard powder coat _____
 Aluminum (689), Dark Bronze (695),
 Statuary Bronze (690), Light Bronze (691),
 Black (693), Brass (696).

Closer options

Cover

- ☐ Slim line plastic cover (SLIMPC)

Finish

- ☐ Custom Powder Coat (RAL) _____
☐ SRI primer (for use with powder coat finishes only)

Arm

- ☐ Regular Arm with 62A Auxiliary Shoe (RW62A)
☐ Long Arm (LONG)
☐ Regular with 62A Auxiliary Shoe (RW62A)
☐ Hold Open with Parallel Arm Bracket (HWPB)
☐ Hold Open Long Arm (HLONG)
☐ Extra Duty Arm (EDA)
☐ Hold Open Extra Duty Arm (HEDA)
☐ Cush-n-Stop Arm (CUSH)
☐ Hold Open Cush-n-Stop Arm (HCUSH)
☐ Spring Cush-n-Stop Arm (SCUSH)
☐ Spring Hold Open Cush-n-Stop Arm (SHCUSH)

Closer will be shipped with:

- Standard cylinder
- Tripack arm (RWPA)
- Universal screw pack
(unless options listed below are selected)

Optional screw packs

- ☐ Torx Machine Screws (TORX)
☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- ☐ Plate, 1250-18
☐ Plate, 1250-18PA
☐ CUSH Shoe Support, 1250-30
☐ Blade Stop Spacer, 1250-61
☐ Auxiliary Shoe, 1250-62A
☐ PA Flush Panel Adapter, 1250-419

Special template

- ☐ ST- _____

Meets Buy American Act

- ☐ BAA

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

Table of sizes

- Select closer based on width of door.
- The spring power of a 1250 cylinder is field adjustable from size 1 through size 5 and is shipped adjusted to size 3.

Exterior (and vestibule) door width

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm
1250*	size 3	size 4	size 5	
	Minimum door width			

Interior door width


	24" 610mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm
1250*	size 2	size 3	size 4	size 5	
	Minimum door width				

➔ Indicates recommended range of door width for closer size.
 * Adjustable Size 1 thru 5.

Reduced opening force 1250 Series closers

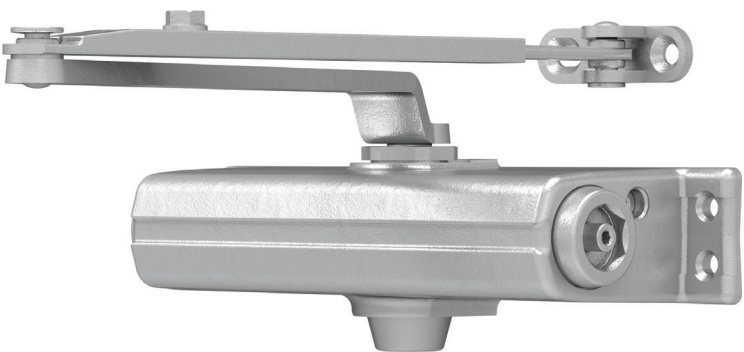
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	1250	1250	1250
	5.0* lbs.	1250	1250	1250

* Maximum opening force.

1260 Series



The 1260 is a light to medium duty cast iron closer designed to fit the most common commercial foot print. It's adjustable for spring sizes 1-5, features a complete line of regular and extra duty arms, and an optional Quick Fix™ bracket kit.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	Slim line plastic cover, optional
Body construction	<ul style="list-style-type: none">Cast iron bodyFull complement bearing1 3/8" Diameter piston5/8" diameter single heat treated pinion journal	Fasteners	Self reaming and tapping screws (SRT)
Fluid	All weather fluid	Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Handing	Non-handed	Arms	Regular arm
Templating	Peel-n-Stick templates - 3/4" x 9 1/16" mounting hole pattern	Finishes/colors/ powder coat	<ul style="list-style-type: none">689 Aluminum690 Statuary Bronze691 Light Bronze693 Black695 Dark Bronze696 BrassCustom colors optionalOptional SRI primer - powder coat only
Size	Adjustable spring size 1-5		
Warranty	20 years		

Special templates

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

Hinge (pull) side	Top jamb (pull)	Top jamb (push)	Parallel arm	Stop face	Mounting	Finish	Cover	Cylinder	Arm function*
Available	Available	Available	Available	Available	Available	Plastic	Designer series	180°	Regular (double)
Not available	Not available	Not available	Not available	Not available	Powder coat	Metal	Non-handed	180°	Standard (single)
					Plated		Non-sized	120°	Heavy duty
							Accessibility	110°	Hold Open
							Delay action		EDA/HEDA
									CUSH/HCUSH
									SCUSH/SHCUSH

Available

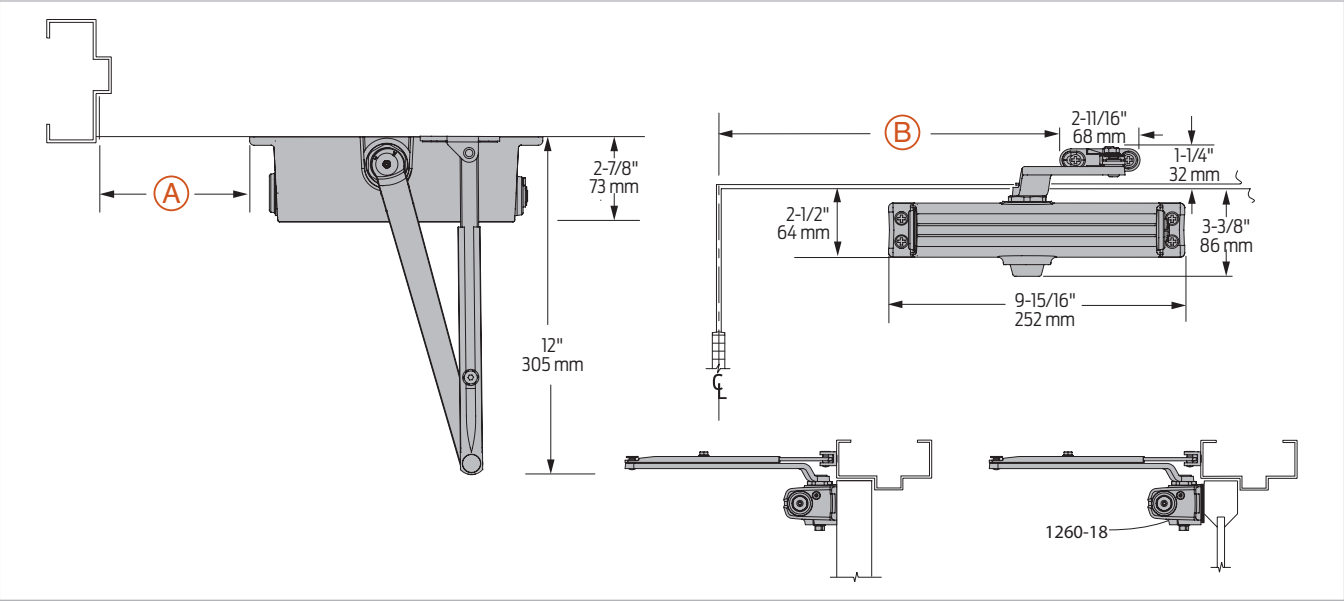
Not available

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

* Maximum opening/hold open point with standard template.

Mounting details

Hinge (pull) side mounting

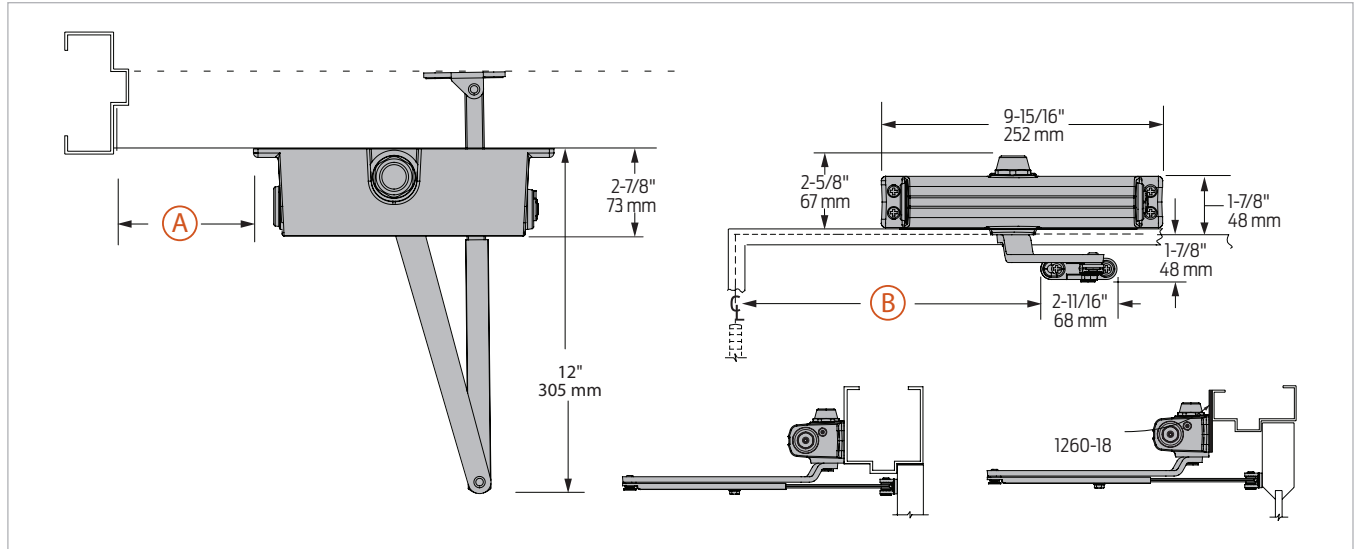


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°
Reveal	Should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for Hold Open Arm
Top rail	Less than 2 1/2" (64 mm) requires plate, 1260-18
Clearance	2 7/8" (73 mm) behind door required for installation
Maximum opening	110°: A = 6 9/16" (167 mm) B = 12 7/16" (316 mm) 101° to 120°: A = 5 9/16" (141 mm) B = 11 7/16" (291 mm) or *121° to 180°: A = 3 1/16" (78 mm) B = 8 15/16" (227 mm)

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting.

Mounting details

Top jamb (push side) mounting



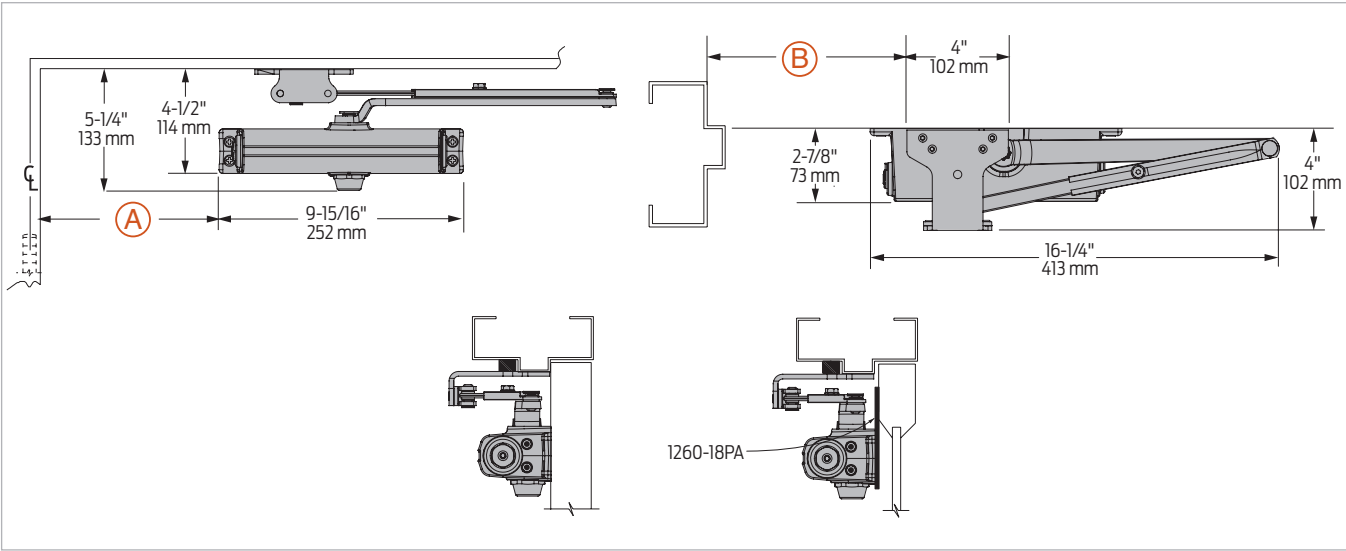
Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°		
Reveal	Arm type	Maximum reveal	Opening
	Regular Arm	3 1/2"	Up to 120°
	Regular Arm	2 1/4"	121° to 180°
	Long Arm	7 1/2"	Up to 120°
	Long Arm	3 1/2"	121° to 180°
	Hold Open Arm	2"	Up to 120°
	Hold Open Arm	2 1/4"	121° to 180°
	Hold Open Long Arm	4 1/2"	Up to 120°
	Hold Open Long Arm	4 1/2"	121° to 160°
Top rail	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) head frame, use plate, 1260-18. (Plate requires 1 3/8" (35 mm) minimum.)		
Maximum opening	110°:	A = 7 1/16" (179 mm) B = 12 15/16" (329 mm)	
	101° to 120°:	A = 5 9/16" (141 mm) B = 11 7/16" (291 mm)	
	or *121° to 180°:	A = 3 1/16" (78 mm) B = 8 15/16" (227 mm)	

Note: Hold open points up to maximum opening with Hold Open Arm.

* Frame and trim permitting.

Mounting details

Parallel arm (push side) mounting



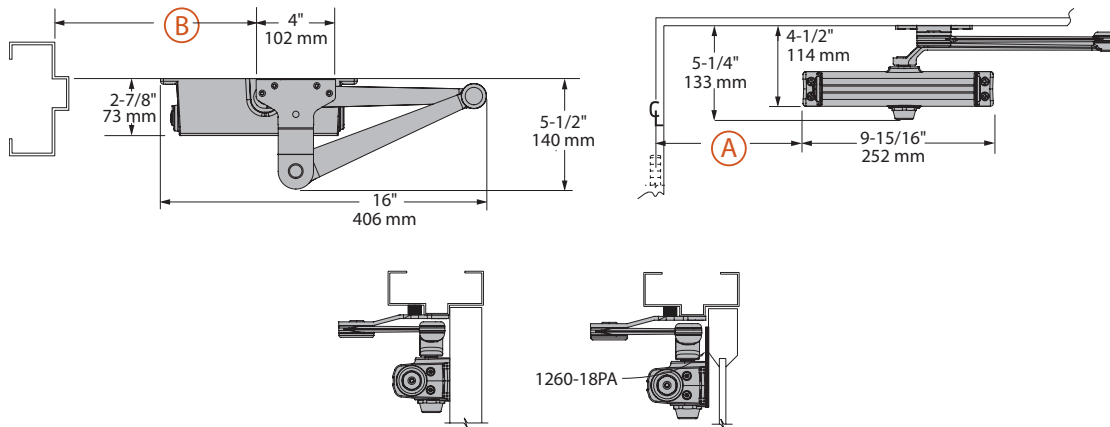
Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point, where a door cannot swing 180°, or where Cush-n-Stop Arm is not used
Top rail	Less than 4 3/8" (111 mm) measured from the stop requires plate, 1260-18PA
Clearance	1260-62PA shoe projects 4" (102 mm) from door face
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
Maximum opening	Regular or Hold Open Arm can be templated to 100°: A = 7 3/16" (183 mm) B = 8 5/8" (219 mm) or 101° to 130°: A = 5 11/16" (144 mm) B = 7 1/8" (181 mm) or *131° to 180°: A = 3 11/16" (94 mm) B = 5 1/8" (130 mm)

Note: Hold open points up to maximum opening with Hold Open Arm. Optional mounting requires PA shoe, 1260-62PA for Regular and Hold Open Arms. 1260 Parallel Arm closer includes 1260-201 fifth hole spacer to support PA shoe.
* Frame and trim permitting.

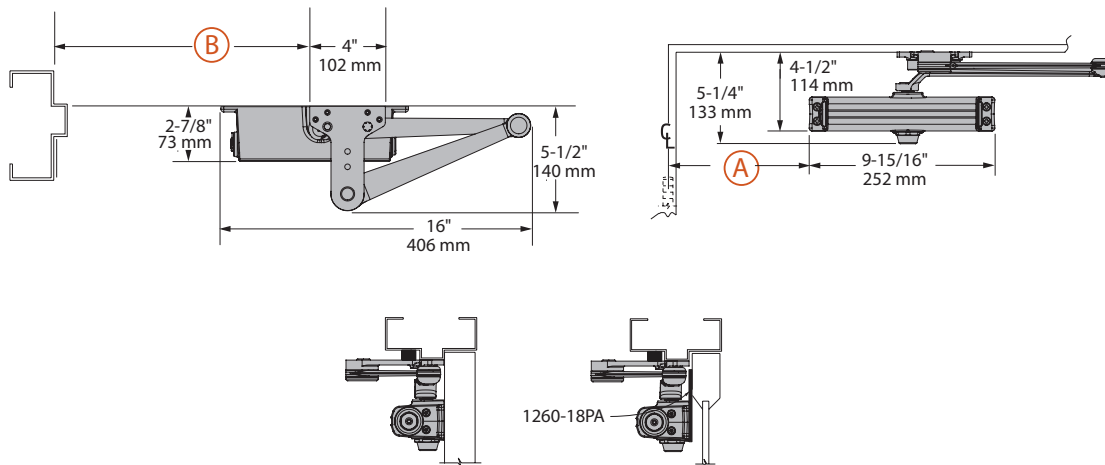
Mounting details

EDA and Cush-n-Stop mounting

EDA mount



CUSH mount



Clearance	1260-62EDA or CUSH shoe projects 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)	
Maximum opening	EDA template allows 120°. Hold open point up to maximum opening	CUSH arms can be templated for maximum opening/hold open point at
	90°: A = 4 13/16" (122 mm) B = 9 1/2" (241 mm)	85°: A = 5 5/16" (135 mm) B = 10" (254 mm)
	or 120°: A = 3 5/16" (84 mm) B = 8" (203 mm)	90°: A = 4 11/16" (119 mm) B = 9 3/8" (238 mm)
	Hold open points up to maximum opening with HEDA arm	100°: A = 3 9/16" (90 mm) B = 8 1/4" (210 mm)
		110°: A = 2 13/16" (71 mm) B = 7 1/2" (191 mm)

Note: 1260 closers ordered with EDA, CUSH or SCUSH arms include 1260-201 fifth hole spacer to support the shoe.

Accessories

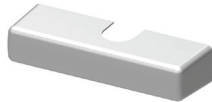
Cylinders



1261(2)(3)(4)(5)-3071
Cast iron cylinder
assembly (CYL)

- Non-handed
- Standard

Covers



1260-72
Slim line plastic cover
(SLIMPC)

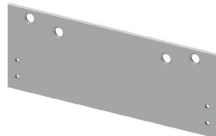
- Non-handed
- Optional

Installation accessories



1260-18
Plate

- 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
- Requires minimum 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame



1260-18PA
Plate

- Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum top rail



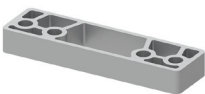
1260-18QF
Quick Fix™ bracket kit

- Optional kit includes retro-fit mounting plates for 1371 closer cylinder and shoe
- Useful in applications when previously drilled holes are damaged



1260-30
CUSH shoe support

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



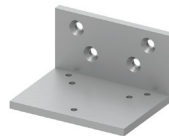
1260-61
Blade stop spacer

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



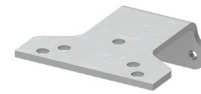
1260-62A
Auxiliary shoe

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



1260-419
PA flush panel adapter

- Provides horizontal mounting surface for PA, EDA or CUSH shoe on single rabbeted or flush frame



1260-62PA
PA shoe

- Required for parallel arm mounting

1260 Series

Accessories

Arms


**1260-3077
Regular Arm with Parallel Arm
Bracket (RWPB)**

- Non-handed
- Mounts hinge side or top jamb
- Parallel arm includes PA shoe, 1260-62PA required for parallel arm mounting


**1260-3077L
Long Arm (LONG)**

- Non-handed
- Includes long rod and shoe, 1260-79LR for top jamb mount with deep reveals
- Optional


**1260-3049
Hold Open Arm (H)**

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


**1260-3049L
Hold Open Long Arm
(HLONG)**

- Non-handed
- Includes long head and tube, 1260-3048L for top jamb mount with deep reveals
- Optional


**1260-3077EDA
Extra Duty Arm (EDA)**

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations
- Optional 1260-3077EDA/G for blade stop clearance


**1260-3077EDA/62G
Extra Duty Arm with 62G
Thick Hub Shoe (EDAW62G)**

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations


**1260-3049EDA
Hold Open Extra Duty Arm
(HEDA)**

- Handed
- Provides hold open function adjustable at shoe
- Optional


**1260-3077CNS
Cush-n-Stop Arm (CUSH)**

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe
- Optional


**1260-3049CNS
Hold Open Cush-n-Stop
Arm (HCUSH)**

- Non-handed
- Provides hold open function with templated stop/hold open points
- Handle controls hold open function
- Optional


**1260-3077SCNS
Spring Cush-n-Stop Arm
(SCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional


**1260-3049SCNS
Spring Hold Open Cush-n-Stop
Arm (SHCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Ordering information

How-to-order 1260 Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze (691),
Black (693), Brass (696).

Closer options

Cover

- ☐ Slim line plastic cover (SLIMPC)

Finish

- ☐ Custom Powder Coat (RAL) _____
- ☐ SRI primer (for use with powder coat finishes only)

Arm

- ☐ Regular Arm with Parallel Arm Bracket (RWPA)
- ☐ Long Arm (LONG)
- ☐ Regular Arm with 62A Auxiliary Shoe (RW62A)
- ☐ Hold Open Arm (H)
- ☐ Hold Open with Parallel Arm Bracket (HWPB)
- ☐ Hold Open Long Arm (HLONG)
- ☐ Extra Duty Arm (EDA) (optional -62G)
- ☐ Hold Open Extra Duty Arm (HEDA) -
specify handing (optional -62G)
- ☐ Cush-n-Stop Arm (CUSH)
- ☐ Hold Open Cush-n-Stop Arm (HCUSH)

Closer will be shipped with:

- Standard cylinder
- Regular arm
- Self reaming and tapping screws
(unless options listed below are selected)

Optional screw packs

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- ☐ Plate, 1260-18
- ☐ Plate, 1260-18PA
- ☐ CUSH shoe support, 1260-30
- ☐ Blade stop spacer, 1260-61
- ☐ Auxiliary shoe, 1260-62A
- ☐ PA flush panel adapter, 1260-419
- ☐ Quick Fix™ bracket kit, 1260-18QF

Special template

- ☐ ST- _____

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

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.

Exterior (and vestibule) door width

24"	30"	36"	42"
610mm	762mm	914mm	1067mm
size 3	size 4	size 5	
Minimum door width			

Interior door width

24"	34"	38"	48"	54"
610mm	864mm	965mm	1219mm	1372mm
size 2	size 3	size 4	size 5	
Minimum door width				

➡ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 1260 Series closers

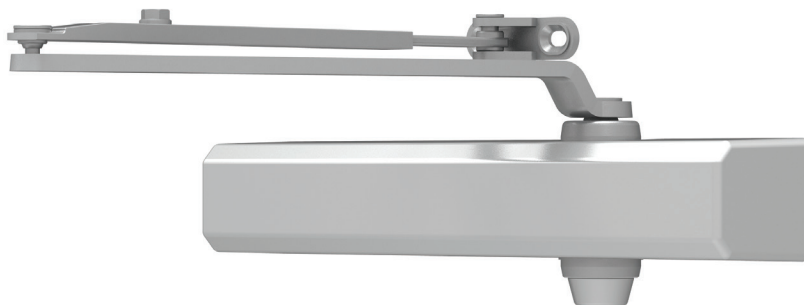
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	1261	1261	1261
	5.0* lbs.	1261	1261	1261

* Maximum opening force.

1450 Series



The 1450 Series cast aluminum closer was specially designed to deliver consistent, dependable, long-term performance in frequently-used, low-abusive traffic areas. With industry's most common hole pattern it can fit a range of applications like aftermarket replacement, aluminum storefronts and new construction projects.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> Slim line plastic, standard Full plastic and metal, optional
Body construction	<ul style="list-style-type: none"> Cast aluminum body Full complement bearing 1 1/4" diameter piston 5/8" diameter single heat treated pinion journal 	Fasteners	Universal screw pack (UNIV)
Fluid	All weather fluid	Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Handing	Non-handed	Arms	Standard regular pull side and top jamb
Templating	Peel-n-Stick templates - 3/4" x 12" mounting hole pattern	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only
Size	Adjustable spring size 1-6		
Warranty	25 years		

Special templates

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

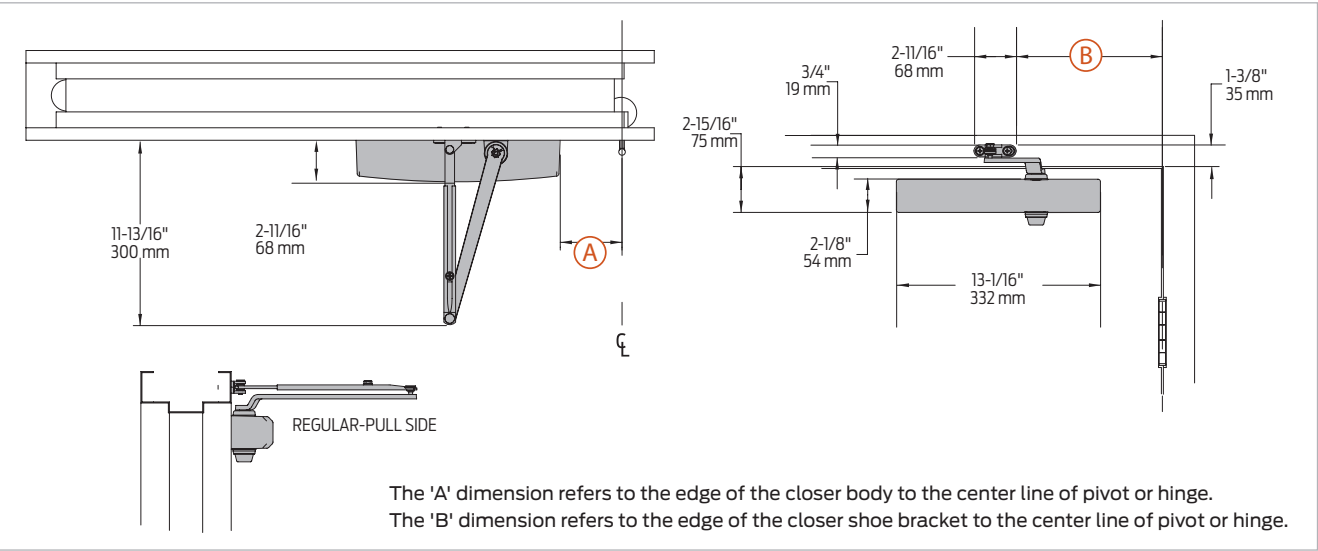
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Paint	Non-handed	Regular (double)	Hold Open*
Top jamb (pull)	Powder coat	Non-sized	Standard (single)	EDA/HEDA*
Top jamb (push)	Plated	Accessibility		CUSH/HCUSH
Parallel arm	Plastic	Delay action		SCUSH/SHCUSH
Stop face	Metal			

- 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

Mounting details

Hinge (pull side) mounting

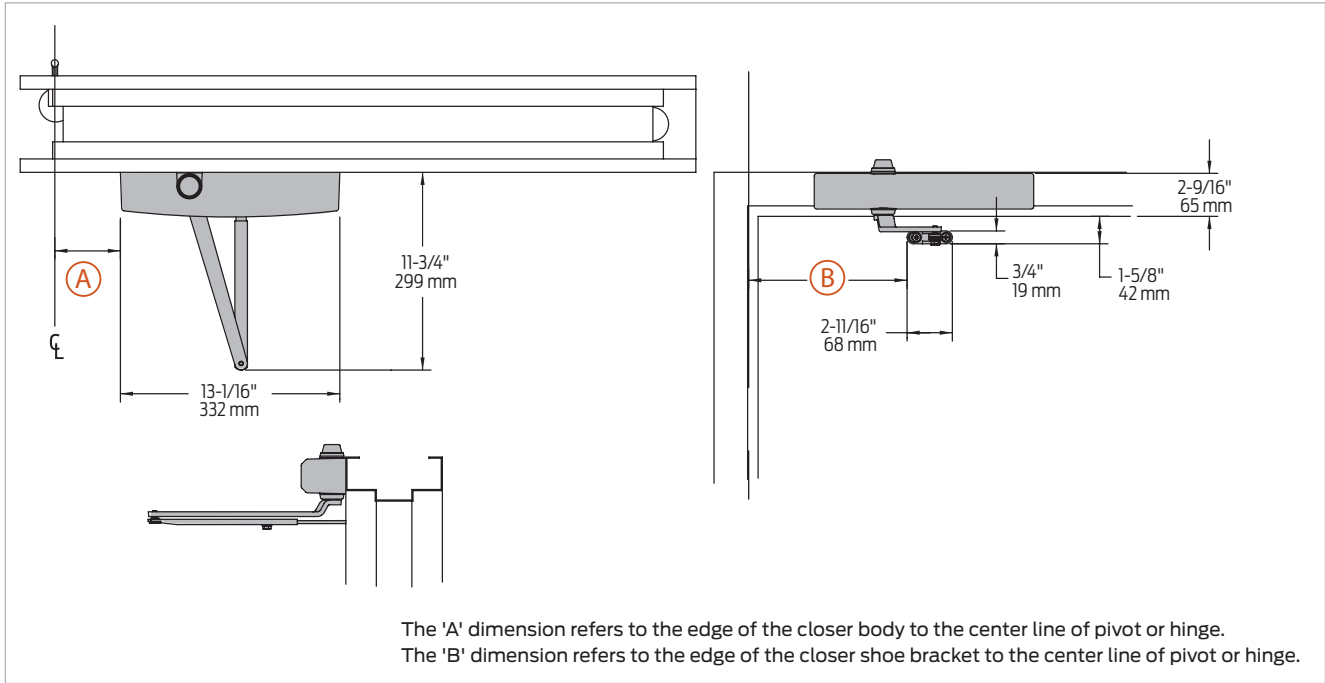


Butt hinges	Should not exceed 5" (127 mm) in width	
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°	
Reveal	Should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for Hold Open Arm	
Top rail	<ul style="list-style-type: none">Less than 2 1/2" (64 mm) requires plate, 1450-18With full cover, use plate, 1450-18FC. Plate requires 1 1/2" (38 mm) minimum	
Clearance	2 3/8" (60 mm) behind door required for installation	
Maximum opening	100°:	A = 7" (102 mm) B = 12 3/8" (314 mm)
	101° to 130°:	A = 5 1/2" (140 mm) B = 10 7/8" (276 mm)
	131° to 180°:	A = 4" (140 mm) B = 9 3/8" (238 mm)

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting

Mounting details

Top jamb (push side) mounting

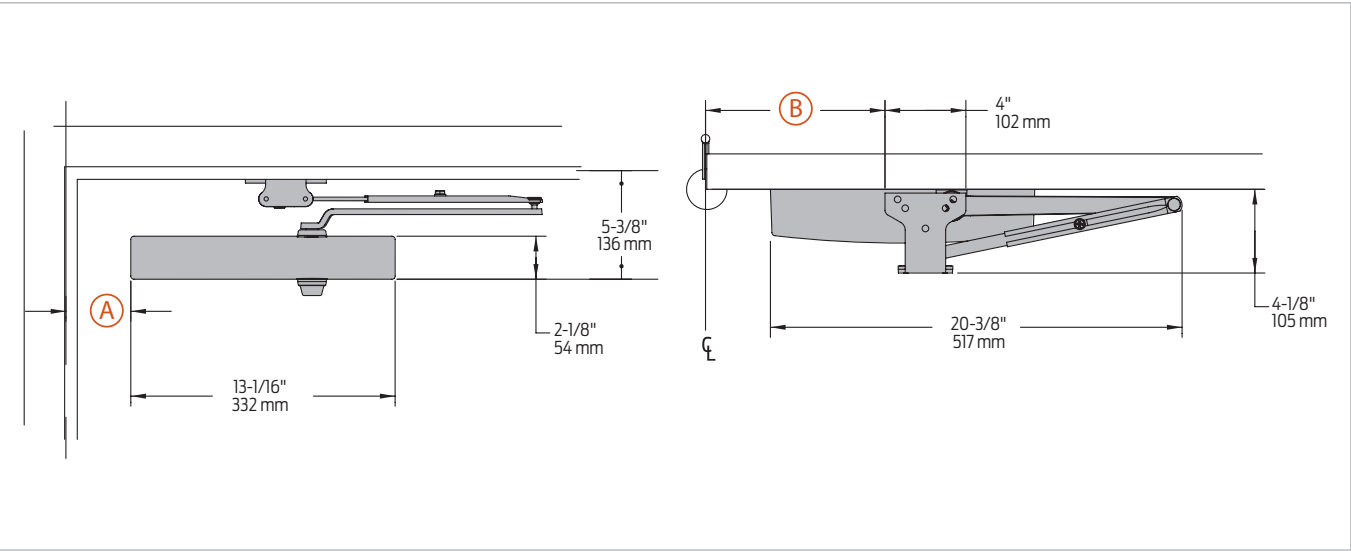


Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°		
Reveal	Arm type	Reveal	Max opening
	Regular Arm	5"	Up to 170°
	Regular Arm	3 3/4"	Up to 180°
	Long Arm	8"	Up to 155°
	Hold Open Arm	2 3/4"	Up to 180°
	Hold Open Long Arm	4 7/8"	Up to 140°
Top rail	Requires 2 1/8" (54 mm) minimum. 3 3/8" (86 mm) minimum with closer on plate, 1450-18.		
Head frame	Less than 1 3/4" (44 mm) requires plate, 1450-18. For flush ceiling condition with 1 3/4" (45 mm) head frame, use plate, 1450-18		
Maximum opening	100°:	A=7" (102 mm) B = 12 3/8" (314 mm)	
	101° to 130°:	A= 5 1/2" (140 mm) B = 10 7/8" (276 mm)	
	131° to 180°:	A= 4" (102 mm) B = 9 3/8" (238 mm)	

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting

Mounting details

Parallel arm (push side) mounting



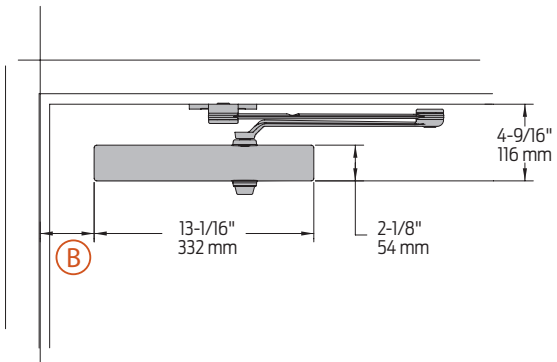
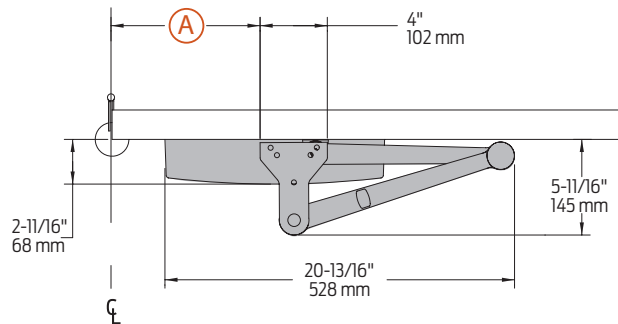
Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point, where a door cannot swing 180°, or where Cush-n-Stop Arm is not used		
Top rail	<ul style="list-style-type: none">Less than 5 1/4" (133 mm) measured from the soffit requiresPlate requires 1 1/4" (32 mm) minimum.		
	Cover	Minimum top rail (measured from soffit)	Plate required
	Plastic	3 1/2" (89 mm)	1450-18
		2 1/4" (57 mm)	1450-18PA
	Metal	3 1/2" (89 mm)	1450-18FC
		2 1/4" (57 mm)	1450-18PAFC
Clearance	1450-62PA shoe projects 4 1/8" (105 mm) from door face		
Head frame	Flush or single rabbeted requires PA shoe adapter, 1450-418		
Stop width	Minimum 1" (25 mm)		
Blade stop	Clearance, requires 1/2" (13 mm) blade stop spacer, 1450-61		
Auxiliary shoe	1450-62A allows installation of regular arm with overhead holder/stop		
Maximum opening	Regular or Hold Open Arm can be templated to		
	120°: A = 3 3/16" (81 mm) B = 8 7/8" (225 mm)		
	121° to 180°: A = 11/16" (17 mm) B = 6 3/8" (162 mm)		

Note: Note: Hold open points up to maximum opening with Hold Open Arm. PA shoe is included with RWPA Arm. 1450 closer includes 1450-201 fifth hole spacer to support PA shoe.

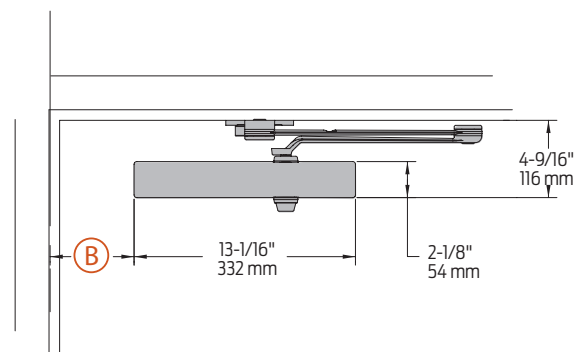
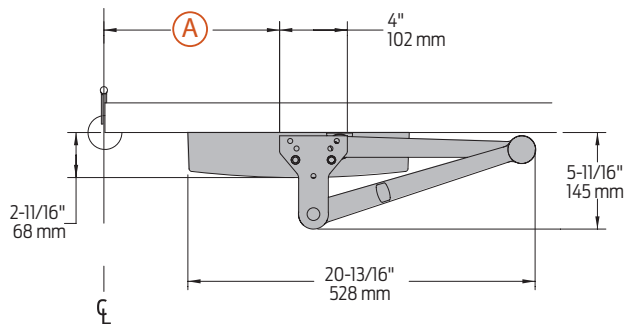
Mounting details

EDA and Cush-n-Stop mounting

EDA/HEDA mount



CUSH/HCUSH/SCUSH/SHCUSH mount



The 'A' dimension refers to the edge of the closer body to the center line of pivot or hinge.

The 'B' dimension refers to the edge of the closer shoe bracket to the center line of pivot or hinge.

Clearance	1450-62EDA or CUSH shoe projects 5 ¹¹ / ₁₆ " (144mm) from door face	
Head frame	Flush or rabbeted requires CUSH flush panel adapter, 1450-419	
EDA or CUSH ARM	Requires soffit shoe support, 1450-30 for fifth screw anchorage where reveal is less than 3 ¹ / ₁₆ " (78 mm)	
SCUSH	Dead stop points are approximately 5° more than templated stop points	
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°
	120°: A = 8 ⁷ / ₈ " (225 mm) B = 3 ³ / ₁₆ " (81 mm)	85°: A = 10 ³ / ₈ " (279 mm) B = 4 ¹⁵ / ₁₆ " (140 mm)
	over 120°: A = 6 ³ / ₈ " (162 mm) B = ¹¹ / ₁₆ " (17 mm)	90°: A = 9 ⁵ / ₈ " (244 mm) B = 4 ³ / ₁₆ " (106 mm)
		95°: A = 8 ⁷ / ₈ " (225 mm) B = 3 ⁷ / ₁₆ " (87 mm)
		100°: A = 8 ¹ / ₄ " (210 mm) B = 2 ¹³ / ₁₆ " (71 mm)
		105°: A = 7 ⁵ / ₈ " (194 mm) B = 2 ³ / ₁₆ " (56 mm)
		110°: A = 7" (178 mm) B = 1 ⁹ / ₁₆ " (40 mm)

Note: 1450 closers ordered with EDA, CUSH or SCUSH Arms include 1450-201 fifth hole spacer to support the shoe.

1450 Series

Accessories

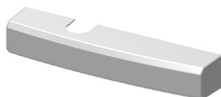
Cylinders



1450-3071
Cast aluminum cylinder (CYL)

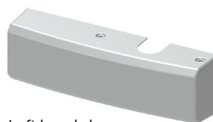
- Non-handed
- Standard

Covers



1450-72
Slim line plastic cover (SLIMPC)

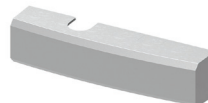
- Non-handed
- Standard



Left hand shown

1450-72MC
Metal Cover (MC)

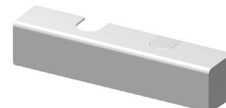
- Handed
- Optional



1450-72FC
Full Plastic Cover (FPC)

- Non-handed
- Optional

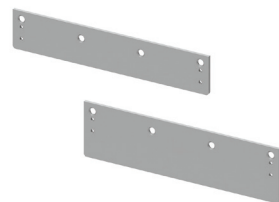
Alternate cover



1450-72ALT
Alternate cover

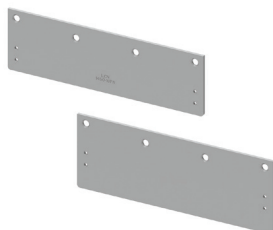
- Non-handed
- Optional, sold separately (not packed with closer)

Installation accessories



1450-18 / 1450-18FC
Plate

- 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
- Requires minimum 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame
- With full cover, use plate 1450-18FC



1450-18PA / 1450-18PAFC
Plate

- Required for parallel arm mounting where top rail is less than 4 3/8" (111mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum top rail
- With full cover, use plate 1450-18PAFC



1450-30
CUSH shoe support

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



1450-61
Blade stop spacer

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



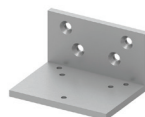
1450-62PA
PA shoe

- Required for parallel arm mounting



1450-62A
Auxiliary shoe

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



1450-419
PA flush panel adapter

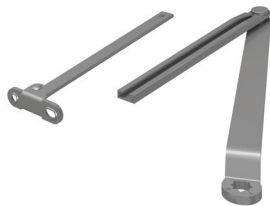
- Provides horizontal mounting surface for PA, EDA or CUSH shoe on single rabbeted or flush frame

Accessories



1450-3077
Regular Arm with Parallel
Arm Bracket (RWPA)

- Non-handed
- Mounts hinge side or top jamb
- Includes PA shoe, 1450-62PA required for parallel arm mounting



1450-3077L
Long Arm (LONG)

- Non-handed
- Includes long rod and shoe, 1450-79LR for top jamb mount with deep reveals
- Optional



1450-3049
Hold Open Arm with Parallel
Arm Bracket (HWPB)

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



1450-3049L
Hold Open Long Arm (HLONG)

- Non-handed
- Includes long head and tube, 1450-3048L for top jamb mount with deep reveals
- Optional



1450-3077EDA
Extra Duty Arm (EDA)

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations
- Optional 1450-3077EDA/G for blade stop clearance



1450-3077EDA/62G
Extra Duty Arm with 62G Thick
Hub Shoe (EDAW62G)

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations
- Optional 1450-3077EDA/G for blade stop clearance



1450-3049EDA
Hold Open Extra Duty Arm
(HEDA)

- Handed
- Provides hold open function adjustable at shoe
- Optional



1450-3077CNS
Cush-n-Stop Arm (CUSH)

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe
- Optional



1450-3049CNS
Hold Open Cush-n-Stop
Arm (HCUSH)

- Non-handed
- Provides hold-open function with templated stop/hold open points
- Handle controls hold open function
- Optional



1450-3077SCNS
Spring Cush-n-Stop Arm
(SCUSH)

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



1450-3049SCNS
Spring Hold Open Cush-n-Stop
Arm (SHCUSH)

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Ordering information

How-to-order 1450 Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze (691),
Black (693), Brass (696).

Closer options

Cover

- ☐ Full Plastic Cover (FPC)
- ☐ Metal Cover (MC)
- ☐ Alternate Cover (ALT) (sold separately from product)

Finish

- ☐ Custom powder coat (RAL) _____
(metal cover required)
- ☐ SRI primer
(use with powder coat finishes only)

Arm

- ☐ Regular Arm with Parallel Arm Bracket (RWPA)
- ☐ Long Arm (LONG)
- ☐ Regular Arm with 62A Auxiliary Shoe (RW62A)
- ☐ Hold Open with Parallel Arm Bracket (HWPB)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Tripack arm (RWPA)
- Universal screw pack
(unless options listed below are selected)

- ☐ Hold Open Long Arm (HLONG)
- ☐ Extra Duty Arm (EDA) (optional -62G)
- ☐ Hold Open Extra Duty Arm (HEDA) - specify handing
- ☐ Cush-n-Stop Arm (CUSH)
- ☐ Hold Open Cush-n-Stop Arm (HCUSH)
- ☐ Spring Cush-n-Stop Arm (SCUSH)
- ☐ Spring Hold Open Cush-n-Stop Arm (SHCUSH)

Optional screw packs

- ☐ Torx Machine Screw (TORX)
- ☐ Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- ☐ Plate, 1450-18
- ☐ Plate, 1450-18FC
- ☐ Plate, 1450-18PA
- ☐ Plate, 1450-18PAFC
- ☐ CUSH Shoe Support, 1450-30
- ☐ Blade Stop Spacer, 1450-61
- ☐ Auxiliary Shoe, 1450-62A
- ☐ PA Flush Panel Adapter, 1450-419

Special template

- ☐ ST- _____

Meets Buy American Act

- ☐ BAA

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

Table of sizes

- Select closer based on width of door
- The spring power of a 1450 cylinder is field adjustable from size 1 through size 6 and is shipped adjusted to size 3

Exterior (and vestibule) door width

	24"	30"	36"	42"	48"
	610mm	762mm	914mm	1067mm	1219mm
1450*	size 3	size 4	size 5	size 6	
	Minimum door width				

Interior door width


	24"	34"	38"	48"	54"	60"
	610mm	864mm	965mm	1219mm	1372mm	1524mm
1450*	size 2	size 3	size 4	size 5	size 6	
	Minimum door width					

➡ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 6.

Reduced opening force 1450 Series closers

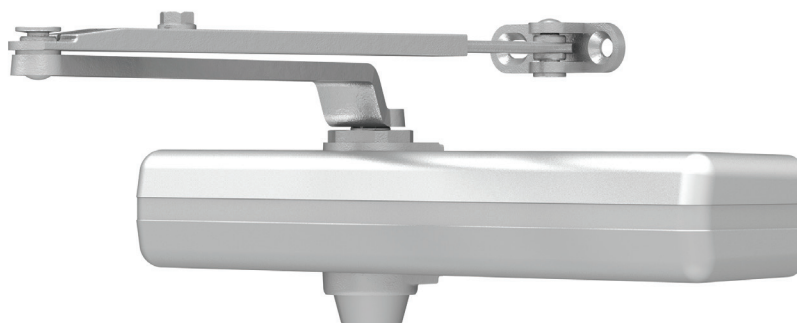
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	1450	1450	1450
	5.0* lbs.	1450	1450	1450

* Maximum opening force.

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 fast and accurate installation.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> Slim line plastic, standard Full plastic and metal designer series, optional
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/4" diameter piston 3/4" diameter single heat treated pinion journal 	Fasteners	Self reaming and tapping screws (SRT)
Fluid	All weather fluid	Mounting	Hinge (pull side), top jamb (push side), Parallel arm (push side)
Handing	Non-handed	Arms	Standard regular pull side, and top jamb
Templating	Peel-n-Stick templates - 1" x 7 1/2" mounting hole pattern	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional
Size	Adjustable Spring Size 1-6 (Includes patented Green Dial)		<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes
Warranty	30 years		

Special templates

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

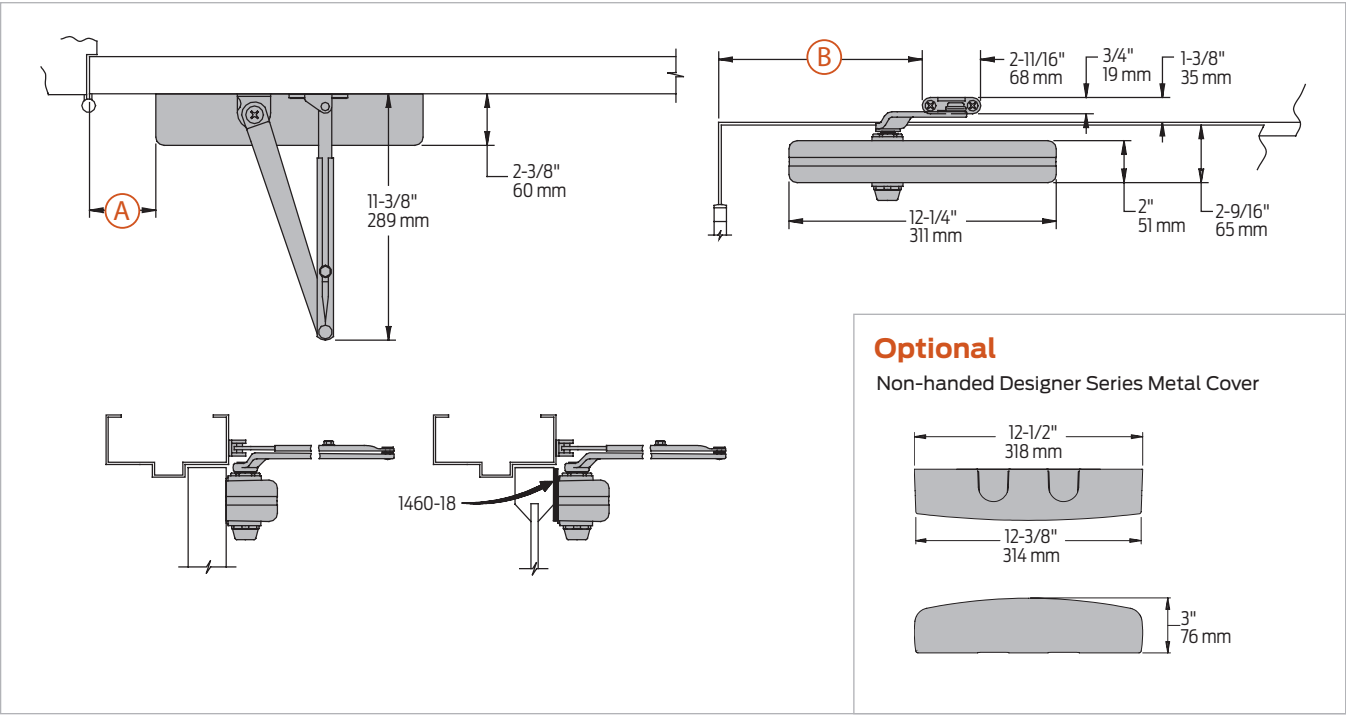
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Designer series	Regular (double)	EDA/HEDA
Top jamb (pull)	Metal	Non-handed	Standard (single)	CUSH/HCUSH
Top jamb (push)		Non-sized	Heavy duty	SCUSH/SHCUSH
Parallel arm		Accessibility	Hold Open	
Stop face		Delay action	180°	
Powder coat			180°	
Plated			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

Mounting details

Hinge (pull side) mounting

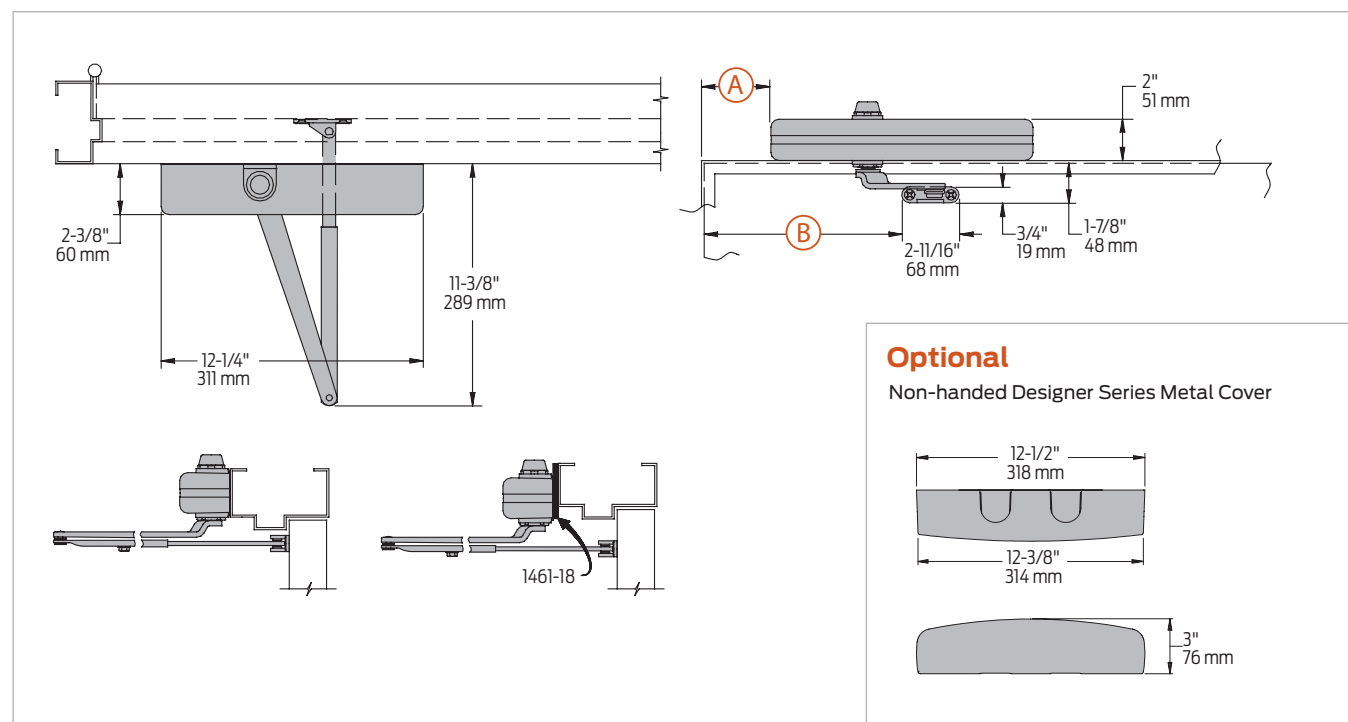


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°
Reveal	Should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for Hold Open Arm
Top rail	<ul style="list-style-type: none">Less than 2 1/2" (64 mm) requires plate, 1460-18With Full Plastic Cover, use plate, 1460-18FC. Plate requires 1 1/2" (38 mm) minimumWith Designer Series Metal Cover, use plate, 1460-18DS1
Clearance	2 3/8" (60 mm) behind door required for installation
Delay action	<ul style="list-style-type: none">Add suffix "CYLDEL" to selected cylinderDelays closing from:<ul style="list-style-type: none">110° to 65° (using 110° template)160° to 75° (using 180° template)Delay time adjustable up to approximately 1 minute
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)

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting

Mounting details

Top jamb (push side) mounting



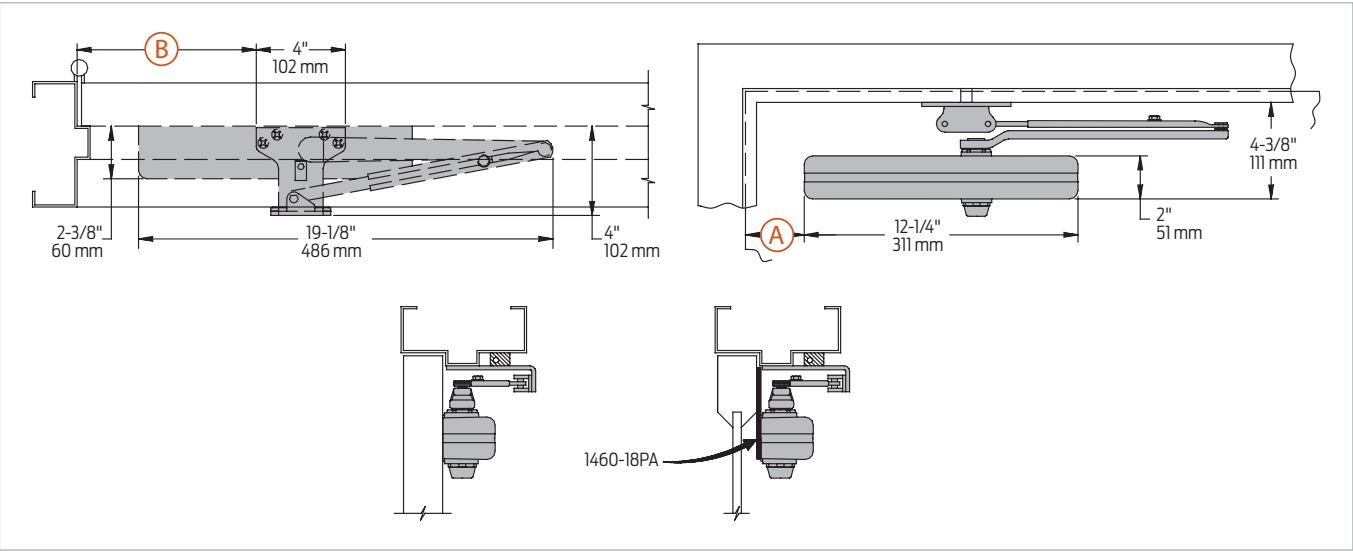
Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°		
Reveal	Arm type	Reveal	Max opening
	Regular Arm	4 7/8"	Up to 140°
	Regular Arm	3 1/2"	Up to 180°
	Long Arm	7"	Up to 140°
	Hold Open Arm	2 1/2"	Up to 180°
	Hold Open Long Arm	4 7/8"	Up to 140°
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) head frame, use plate, 1460-18		
Delay action	<ul style="list-style-type: none"> Add suffix "CYLDEL" to selected cylinder Delays closing: <ul style="list-style-type: none"> 110° to 75° (using 110° template) 180° to 95° (using 180° template) Delay time adjustable up to approximately 1 minute. 		
Maximum opening	110°:	A = 6 3/4" (169 mm) B = 11 1/4" (286 mm)	
	101° to 120°:	A = 3" (76 mm) B = 7 1/2" (191 mm)	

Note: Hold open points up to maximum opening with Hold Open Arm.

* Frame and trim permitting

Mounting details

Parallel arm (push side) mounting



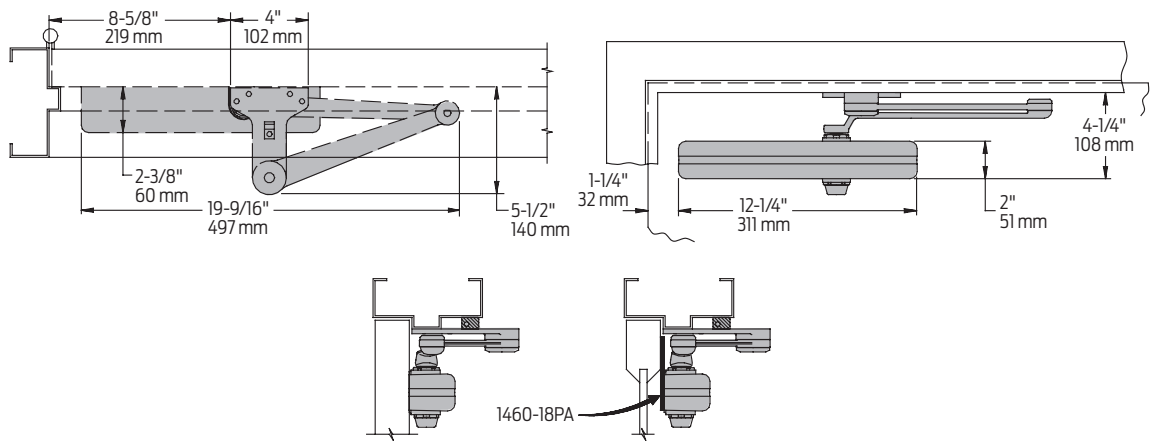
Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point, where a door cannot swing 180°, or where Cush-n-Stop Arm is not used
Top rail	<ul style="list-style-type: none">Less than 4 3/8" (111 mm) measured from the stop requires plate, 1460-18PA.With Full Cover, use plate, 1460-18PAFCPlate requires 1 3/4" (44 mm) minimum. Plate requires 1 1/4" (32 mm) minimumWith Designer Series Metal Cover, use plate, 1460-18PADS1
Clearance	1460-62PA shoe projects 4" (102 mm) from door face
Head frame	Flush or single rabbeted requires PA shoe adapter, 1460-419
Stop width	Minimum 1" (25 mm)
Blade stop	Clearance, requires 1/2" (13 mm) blade stop spacer, 1460-61
Auxiliary shoe	<ul style="list-style-type: none">1460-62A allows installation of regular arm with overhead holder/stopSpecial templating required
Delay action	<ul style="list-style-type: none">Add suffix "CYLDEL" to selected cylinderDelays closing from maximum opening to approximately 75°Delay time adjustable up to approximately 1 minute
Maximum opening	Regular or Hold Open Arm can be templated to 100°: A = 4 1/4" (108 mm) B = 9 1/4" (235 mm) or 180°: A = 1 3/4" (44 mm) B = 6 3/4" (171 mm)

Notes: Hold open points up to maximum opening with Hold Open Arm. 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.

Mounting details

EDA and CUSH mounting

EDA mount



CUSH mount



SCUSH	Hold open points are approximately 5° less than dead stop point	
Clearance	1460-62EDA or CUSH shoe projects 5 1/2" (140 mm) from door face	
Head frame	Flush or rabbeted requires PA 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)	
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°: A = 2 3/8" (60 mm) B = 9 9/16" (243 mm)
		90°: A = 1 5/8" (41 mm) B = 9 1/16" (230 mm)
		100°: A = 5/8" (16 mm) B = 8 1/16" (205 mm)

Note: 1460 closers ordered with EDA, CUSH or SCUSH Arms include 1460-201 fifth hole spacer to support the shoe.

1460 Series

Accessories

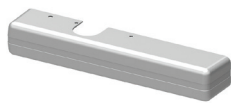
Cylinders



1461-3071
Cast iron cylinder assembly (CYL)

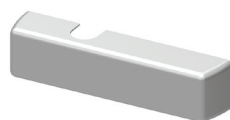
- Non-handed
- Standard

Covers



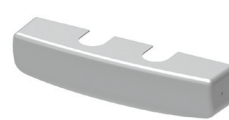
1460-72
Slim line plastic cover (SLIMPC)

- Non-handed
- Standard



1460-72FC
Full Plastic Cover (FPC)

- Non-handed
- Optional



1460-72DS
Designer Series Metal Cover (DS)

- Non-handed
- Provides complete enclosure with a stylish look
- Required for plating and custom powder coat option
- Optional

Installation accessories



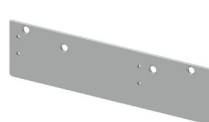
1460-18
Plate

- 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
- Requires 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame



1460-18DS1
Plate

- Required for hinge side mount where top rail is less than 2 1/2" (64 mm)
- Requires 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame
- For use with Designer Series Metal Cover
- Will not work in top jamb application



1460-18FC
Plate

- Required for hinge side mount where top rail is less than 2 1/2" (64 mm)
- Requires minimum 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame
- For use with full cover
- Will not work in top jamb application



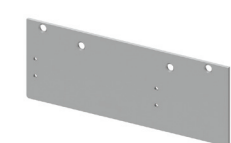
1460-18PA
Plate

- Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum top rail



1460-18PADS1
Plate

- Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum top rail
- For use with Designer Series Metal Cover



1460-18PAFC
Plate

- Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum top rail
- For use with full cover

Accessories

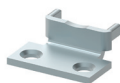
Installation accessories



1460-30

Cush shoe support

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



1460-30A

Mounting bracket

- Bracket to be used when installing cylinder body
- Included with cylinder when ordered



1460-61

Blade stop spacer

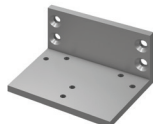
- Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop



1460-62A

Auxiliary shoe

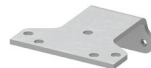
- Requires a top rail of 7" (178 mm)
- Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop



1460-419

PA flush panel adapter

- Provides horizontal mounting surface for PA, EDA, or CUSH shoe on single rabbeted or flush frame



1460-62PA

PA shoe

- Required for parallel arm mounting

Arms



1460-3077

Regular Arm (REGARM)

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



1460-3077L

Long Arm (LONG)

- Non-handed
- Includes long rod and shoe, 1460-79LR for top jamb mount with deep reveals
- Optional



1460-3077HD

Heavy Duty Arm (HD)

- Non-handed
- Mounts hinge side, top jamb or parallel arm
- Optional



1460-3077HDL

Heavy Duty Long Arm (HDLONG)

- Non-handed
- Includes long rod and shoe, 1460-79LR for top jamb mounts with deep reveals
- Optional

Accessories

Arms

**1460-3049****Hold Open Arm (H)**

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

**1460-3049L****Hold Open Long Arm (HLONG)**

- Non-handed
- Includes long head and tube, 1460-3048L for top jamb mount with deep reveals
- Optional

**1460-3077EDA****Extra Duty Arm (EDA)**

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations
- Optional 1460-3077EDA/62G for blade stop clearance

**1460-3077EDA/62G****Extra Duty Arm with 62G Thick Hub Shoe (EDAW62G)**

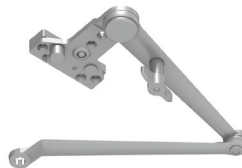
- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations

**1460-3049EDA****Hold Open Extra Duty Arm (HEDA)**

- Handed
- Provides hold open function adjustable at shoe
- Optional

**1460-3077CNS****Cush-n-Stop Arm (CUSH)**

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe
- Optional

**1460-3049CNS****Hold Cush-n-Stop Arm (HCUSH)**

- Non-handed
- Provides hold open function with templated stop/hold open points
- Handle controls hold open function
- Optional

**1460-3077SCNS****Spring Cush-n-Stop Arm (SCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional

**1460-3049SHCNS****Spring Hold Open Cush-n-Stop Arm (SHCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Ordering information

How-to-order 1460 Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), Brass (696).

Closer options

Cylinder

- ☐ Delay Action Cylinder (CYLDEL)

Cover

- ☐ Full Plastic Cover (FPC)
☐ Designer Series Metal Cover (DS)

Finish

- ☐ Custom powder coat (RAL) _____
(DS cover required)
☐ Plated finish, _____
(DS cover required)
☐ SRI primer
(use with powder coat finishes only)

Arm

- ☐ Regular Arm with Parallel Arm Bracket (RWPB)
☐ Long Arm (LONG)
☐ Regular Arm with 62A Auxiliary Shoe (RW62A)
☐ Hold Open Arm (H)
☐ Hold Open with Parallel Arm Bracket (HWPB)

- ☐ Hold Open Long Arm (HLONG)
☐ Heavy Duty Arm (HD)
☐ Heavy Duty with 62A Auxiliary Shoe (HD62A)
☐ Heavy Duty with Parallel Arm Bracket (HDPB)
☐ Heavy Duty Long Arm (HDLONG)
☐ Extra Duty Arm (EDA) (optional -62G)
☐ Hold Open Extra Duty (HEDA)
☐ (specify handing), (optional -62G)
☐ Cush-n-Stop Arm (CUSH)
☐ Hold Open Cush-n-Stop Arm (HCUSH)
☐ Spring Cush-n-Stop Arm (SCUSH)
☐ Spring Hold Open Cush-n-Stop Arm (SHCUSH)

Optional screw packs

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
☐ Wood and Machine Screws (WMS)
☐ Through Bolt¹ Wood and Machine Screws (TBWMS)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Regular arm
- Self reaming and tapping screws
(unless options listed below are selected)

- ☐ Torx Machine Screws (TORX)
☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 1460-18
☐ Plate, 1460-18DS
☐ Plate, 1460-18FC
☐ Plate, 1460-18PA
☐ Plate, 1460-18PADS
☐ Plate, 1460-18PAFC
☐ CUSH Shoe Support, 1460-30
☐ Blade Stop Spacer, 1460-61
☐ Auxiliary Shoe, 1460-62A
☐ PA Flush Panel Adapter, 1460-419

Special template

- ☐ ST- _____

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

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

Exterior (and vestibule) door width

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

1461*	size 3	size 4	size 5	size 6
	Minimum door width			

Interior door width

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

1461*	size 2	size 3	size 4	size 5	size 6
	Minimum door width				

➔ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 1460 Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

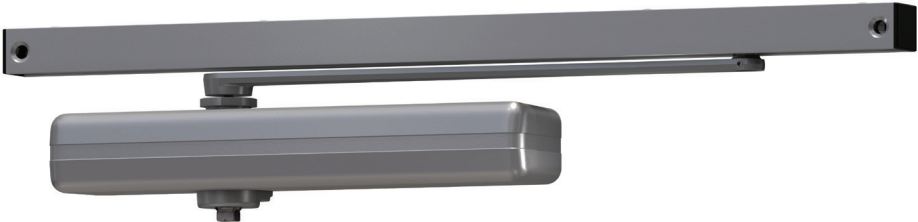


Door width	36"	42"	48"
8.5* lbs.	1461	1461	1461
5.0* lbs.	1461	1461	1461

* Maximum opening force.

Introduction	Product selection guide	1250 Series	1260 Series	1450 Series	1460 Series	1460T Series
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1460T Series

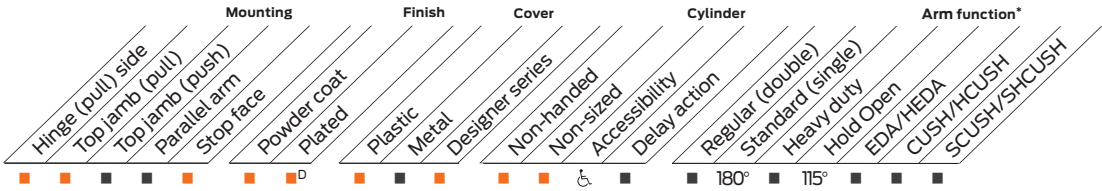


The 1460T is a fully universal slim line, single lever (track) arm closer designed for interior use on narrow head frames and top rails. The modern styling and small projection make it an excellent choice for interior doors.

Features

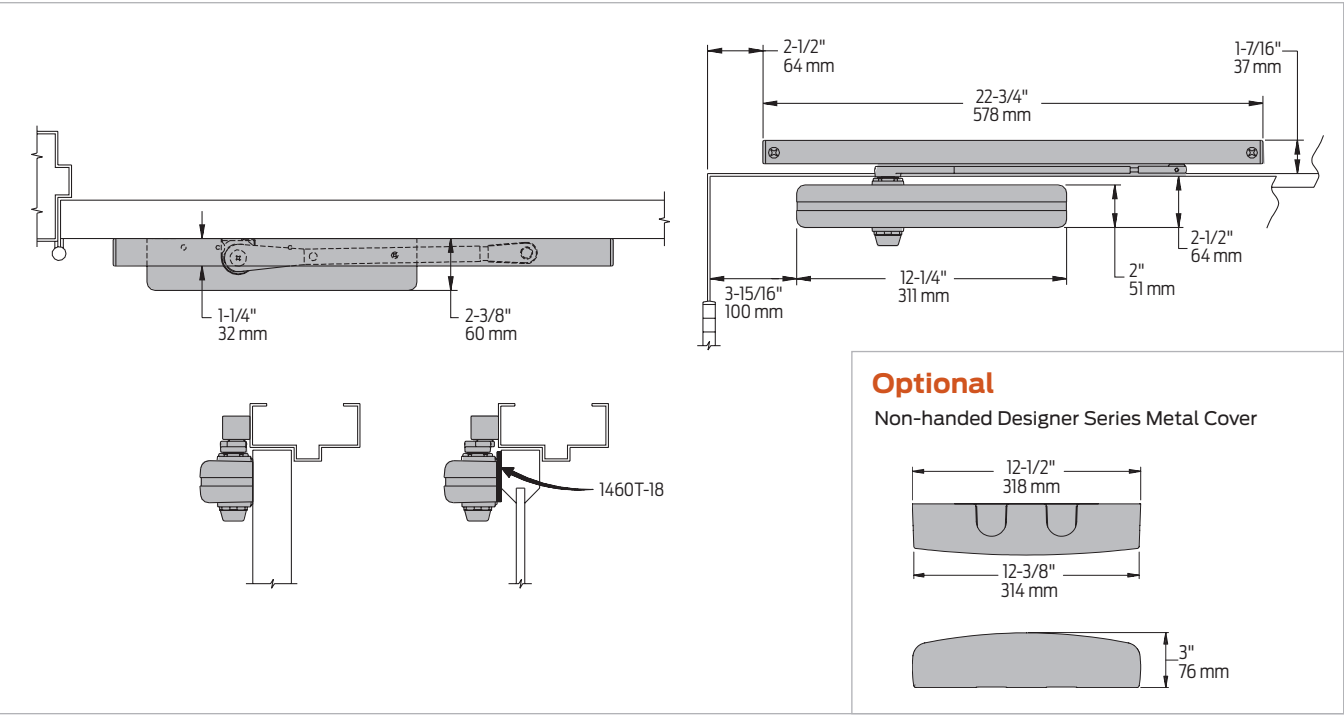
Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Cover	<ul style="list-style-type: none">▪ Slim line plastic cover, standard▪ Full plastic or full metal designers series, optional
Body construction	<ul style="list-style-type: none">▪ Cast iron body▪ Full complement bearing▪ 1 1/4" diameter piston▪ 5/8" diameter single heat treated pinion journal	Fasteners	Self reaming and tapping screws (SRT)
Fluid	All weather fluid	Mounting	Hinge (pull side), top jamb (pull side), stop face (push side)
Handing	Non-handed	Arms	Single level with track roller
Templating	Peel-n-Stick templates - 1" x 7 1/2" mounting hole pattern	Finishes/colors/ powder coat	<ul style="list-style-type: none">▪ 689 Aluminum▪ 690 Statuary Bronze▪ 691 Light Bronze▪ 693 Black▪ 695 Dark Bronze▪ 696 Brass▪ Custom colors optional <ul style="list-style-type: none">▪ Optional SRI primer - powder coat only▪ Optional plated finishes
Size	<ul style="list-style-type: none">▪ 1460T adjustable size 2-4▪ 1461T adjustable size 1-2		
Warranty	30 years		

Special templates | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



Mounting details

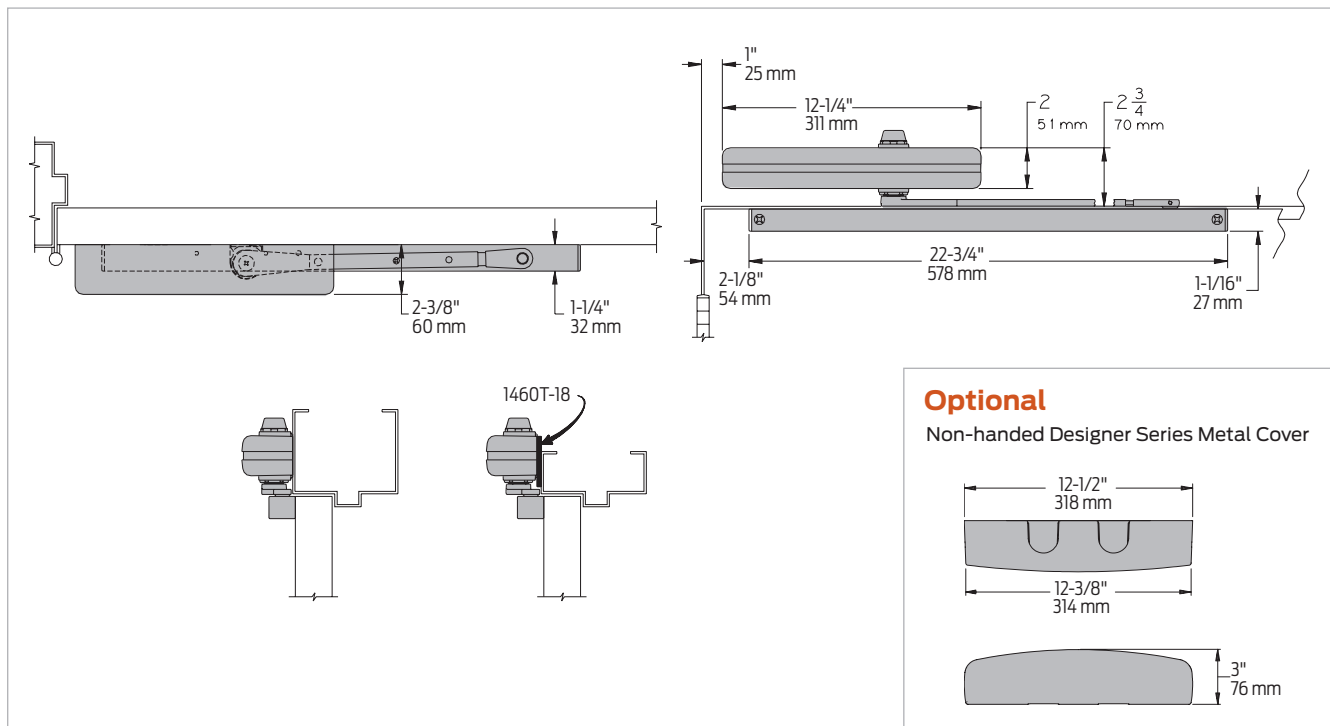
Hinge (pull side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">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
Reveal	Should not exceed 1/8" (3 mm)
Top rail	<ul style="list-style-type: none">Less than 2 1/2" (64 mm) requires plate, 1460T-18Plate requires 1 1/2" (38 mm) minimumWith Full Plastic Cover, use plate, 1460T-18FCWith Designer Series Metal Cover, use plate, 1460T-18DS
Clearance	2 3/8" (60 mm) behind door required for installation
Maximum opening	<ul style="list-style-type: none">Templating allows up to 180°, trim and frame permitting, limited to 115° when optional bumper is installedHold open points at 85°, 90°, 95°, 100°, 110° or 115° with Hold Open TracksPlease note that many track style door closers are capable of allowing 180° of door swingBe aware that the majority of track style closers are at their weakest closing force in the 180°-130° rangeConsult factory for applications where door must swing 180°

Mounting details

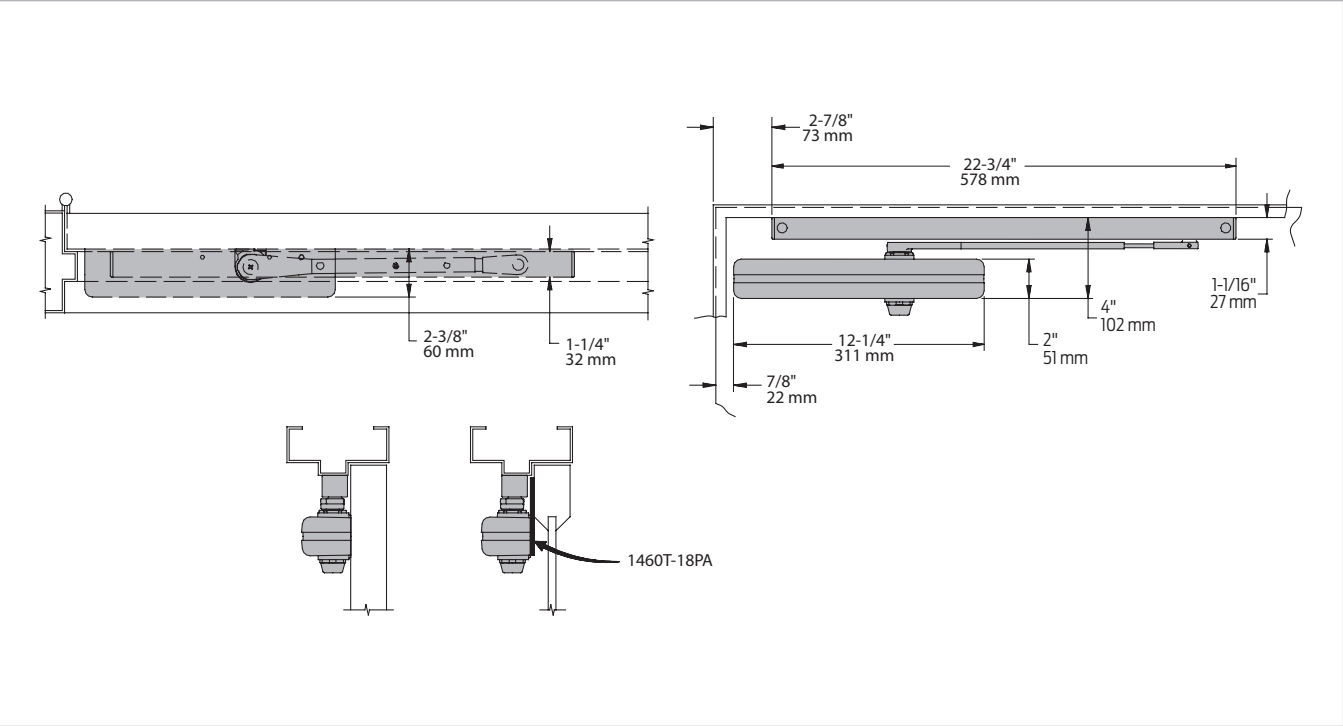
Top jamb (pull side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none"> Recommended where a door cannot swing 180° 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)
Top rail	Minimum 1 1/4" (32 mm)
Head frame	<ul style="list-style-type: none"> Less than 2 3/4" (70 mm) requires plate, 1460T-18 Plate requires 1 3/4" (44 mm) minimum With Full Plastic Cover, use plate, 1460T-18FC With Designer Series Metal Cover, use plate, 1460T-18DS
Clearance	1 1/4" (32 mm) behind door for installations
Maximum opening	<ul style="list-style-type: none"> Templating allows up to 180°, limited to 115° when optional bumper is installed Hold open ramp and roller design allows for variable angles Please note that many track style door closers are capable of allowing 180° of door swing Be aware that the majority of track style closers are at their weakest closing force in the 180° – 130° range Consult factory for applications where door must swing 180°

Mounting details

Stop face (push side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended where a door cannot swing 110°Track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop
Top rail	<ul style="list-style-type: none">Less than 4" (102 mm) measured from the stop face requires plate, 1460T-18PA. Plate requires 1 1/2" (38 mm) minimumWith Full Plastic Cover, use plate, 1460T-18PAFCWith Designer Series Metal Cover, use plate, 1460T-18PADS
Clearance	1460T projects 2 3/8" (60 mm) from door face
Stop width	Minimum 1 1/4" (32 mm)
Maximum opening	<ul style="list-style-type: none">Templating allows 110°, limited to 100° when optional bumper is installedVariable hold open angles with infinite options

Accessories

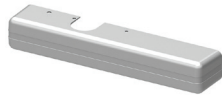
Cylinders



**1460(1)T-3071
Cast iron cylinder
assembly (CYL)**

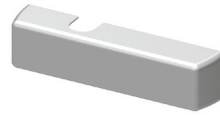
- Non-handed
- 1461T adjustable 1-2
- 1460T adjustable 2-4
- Standard

Covers



**1460T-72
Slim Line Plastic Cover
(SLIMPC)**

- Non-handed
- Standard



**1460T-72FC
Full Plastic Cover (FPC)**

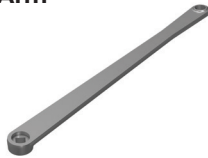
- Non-handed
- Optional



**1460T-72DS
Designer Series Metal Cover (DS)**

- Non-handed
- Required for plating option and custom powder coat finishes
- Optional

Arm



**1460T-3077T
Single Arm (STDTRKARM)**

- Non-handed
- Mounts hinge side, top jamb, or stop face
- Track roller not included with arm

Tracks



**1460T-3038
Standard Track (STDTRK)**

- Non-handed
- Non hold open
- Mounts on either side of the door
- Will accept hold open clip and/or bumper assembly
- Standard



**1460T-3038B
Track with Bumper (BUMP)**

- Non-handed
- Non hold open
- Mounts on either side of the door
- Will accept hold open clip
- Optional



**1460T-3038H
Hold Open Track (H)**

- Non-handed
- Hold open
- Mounts on either side of the door
- Will accept bumper assembly
- Optional



**1460T-3038HB
Hold Open Track with
Bumper (HBMP)**

- Non-handed
- Hold open
- Mounts on either side of the door
- Optional

Accessories

Installation accessories



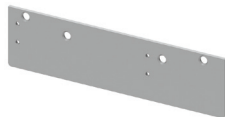
1460T-18 Plate

- Required for hinge side mount where top rail is less than 2 1/2" (64 mm)
- Required for top jamb mount when head frame is less than 2 3/4" (70 mm)
- Requires minimum 1 1/2" (38 mm) top rail or 1 3/4" (44 mm) head frame minimum



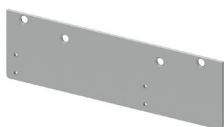
1460T-18DS Plate

- Required for hinge side mount where top rail is less than 2 1/2" (64 mm)
- Required for top jamb mount when head frame is less than 2 3/4" (70 mm)
- Requires minimum 1 1/2" (38 mm) top rail or 1 3/4" (44 mm) head frame minimum
- For use with Designer Series Metal Cover



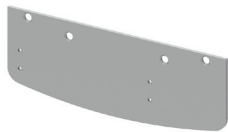
1460T-18FC Plate

- Required for hinge side mount where top rail is less than 2 1/2" (64 mm)
- Required for top jamb mount when head frame is less than 2 3/4" (70 mm)
- Requires minimum 1 1/2" (38 mm) top rail or 1 3/4" (44 mm) head frame minimum
- For use with Full Cover



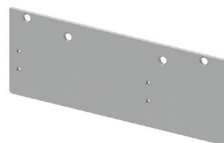
1460T-18PA Plate

- Required for stop face mounting where top rail is less than 4" (102 mm), measured from the stop
- Requires 1 1/2" (38 mm) minimum top rail



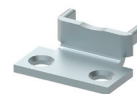
1460T-18PADS Plate

- Required for stop face mounting where top rail is less than 4" (102 mm), measured from the stop
- Requires 1 1/2" (38 mm) minimum top rail
- For use with Designer Series Metal Cover



1460T-18PAFC Plate

- Required for stop face mounting where top rail is less than 4" (102 mm), measured from the stop
- Requires 1 1/2" (38 mm) minimum top rail
- For use with Full Cover



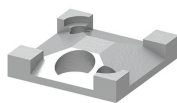
1460T-30A Mounting bracket

- Used when installing cylinder body
- Included with cylinder when ordered



1460T-169 Track bumper

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



1460T-3054 Hold open clip

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



1460T-3034 Track roller

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



1460T-3034H Hold open track roller

- Hold open roller
- Quiet, low friction roller assembly
- Shoulder dimension "X" = 1/8" (3 mm)
- Spring-loaded hold open mechanism

Ordering information

How-to-order 1460T Series closers

1. Select cylinder size

- ☐ 1461T (adjustable from size 1 to 2)
- ☐ 1460T (adjustable from size 2 to 4)

2. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze
(691), Black (693), Brass (696).

Closer will be shipped with:

- Standard cover
- Standard arm
- Standard track
- Track roller
- Self reaming and tapping machine screws
(unless options listed below are selected)

Closer options

Cover

- ☐ Full Plastic Cover (FPC)
- ☐ Designer Series Metal Cover (DS)

Finish

- ☐ Custom powder coat (RAL) _____
(DS cover required)
- ☐ Plated finish, _____ (DS cover required)
- ☐ SRI primer (use with powder coat finishes only)

Track

- ☐ Track with Bumper (BUMP)
- ☐ Hold Open Track (H)
- ☐ Hold Open Track with Bumper (HBMP)

Optional screw packs

- ☐ Through Bolt¹ Self Reaming And Tapping
Screws (TBSRT)

- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 1460T-18
- ☐ Plate, 1460T-18DS1
- ☐ Plate, 1460T-18FC
- ☐ Plate, 1460T-18PA
- ☐ Plate, 1460T-18PADS1
- ☐ Plate, 1460T-18PAFC

Special template

- ☐ ST- _____

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

Table of sizes

- Select closer based on width of door. The spring power of a 1460T cylinder is adjustable from size 2 to size 4 and is shipped adjusted to size 3
- The closing power of 1460T series cylinders may be increased 50%
- The spring power of a 1461T cylinder is adjustable from size 1 to size 2 and is shipped adjusted to size 1

Interior door width



→ Indicates recommended range of door width for closer size.
*Adjustable Size 2 thru 4

Interior door width



→ Indicates recommended range of door width for closer size.
*Adjustable Size 1 thru 2

Reduced opening force 1460T Series closers

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

Refer to Automatic Operators catalog 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.	1461T	1461T	1461T

* Maximum opening force.

Introduction	Product selection guide	1250 Series	1260 Series	1450 Series	1460 Series	1460T Series
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About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions. Allegion had \$2.7 billion in revenue in 2018, and sells products in almost 130 countries.

For more, visit www.allegion.com.

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN

LCN®

4000 Series

Surface mounted closers





Delivering reliable solutions for over a century

Slamming church doors are the beginning of LCN's rich history

In 1877, our founder was hired to solve this problem of a Boston church's swinging doors that slammed noisily shut. It led to the invention of the world's first door check. His innovation continued, leading to the formation of the LCN brand in 1926. A passion for quality has guided LCN ever since and continues to set it apart from other brands.

Manufactured with pride in Princeton, Ill., U.S.A., by our highly skilled and tenured craftsmen. Our solutions are specifically designed for enhanced durability, consistency and longevity. From meticulous engineering to strict quality control, LCN accepts no less than the best.

Every person in the LCN plant plays a role in the rigorous quality control process

This level of shared commitment is why, in part, our Princeton plant was honored with the 2017 Manufacturing Leadership Award from the Manufacturing Leadership Council. The award recognizes manufacturing companies that are shaping the future of global manufacturing by delivering clear and compelling value, return on investment and other tangible outcomes. With millions of door closers installed in facilities across the world, you can be confident in choosing LCN.

Features that set the 4000 Series apart

- Double heat-treated pinions gives proper hardness and strength to the parts where they need it
- Liquid X fluid performs in temperatures from -30°F to 120°F, reducing the need for seasonal adjustment
- Full complement bearings help withstand abuse in real-world applications because of increased surface contact
- The LCN Green Dial provides easy visual adjustments and indicator to dial in the strength needed for any environmental condition

Information and customer care



us.allegion.com



US 877.671.7011
Canada 800.900.4734



support@allegion.com
Closers_TechProdSupport@allegion.com



www.youtube.com/LCNHardware

Ordering



Allegion_Orders@allegion.com

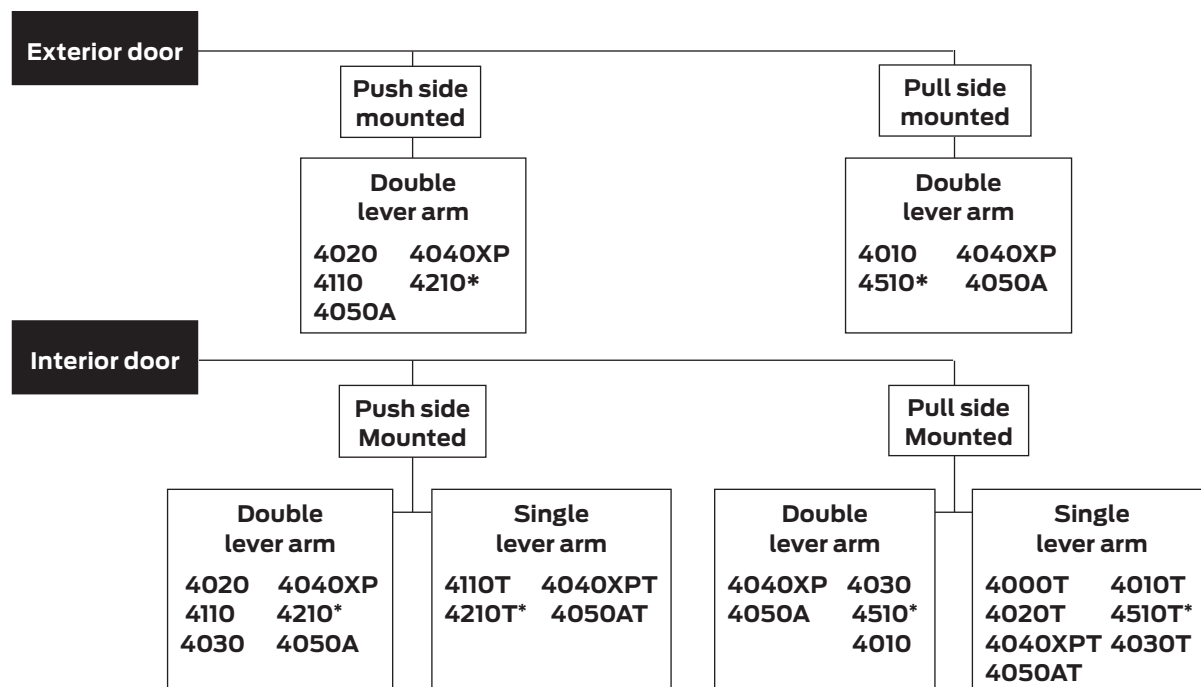


eFax: 1.800.248.1460

4000 Series surface mounted closers

Product selection guide

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



* Indicates high security closer. Refer to that section of the catalog.

Product comparison

This chart shows a basic comparison of 4000 Series closers.

Refer to the specific closer chapter for complete details.

	Mounting					Finish		Cover			Cylinder		Arm function*									
	Hinge (pull) side	Top jamb (pull)	Top jamb (push)	Parallel arm	Stop face	Powder coat	Plated	Plastic	Metal	Non-handed	Non-sized	Accessibility	Delay action***	CYLAVB***	Regular (double)	Standard (single)	Hold Open	Fusible Link	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH	Double Egress
4010	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	140°	■	140°	140°	■	■	■	■
4010T	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	180°	120°	■	■	■	■	100°
4020	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	180°	■	140°	140°	■	■	■	■
4020T	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	180°	100°	■	■	■	■	■
4030	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	180°	■	180°	■	110°	100°	100°	■
4030T	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	180°	180°	■	■	■	■	■
4040XP	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	120°	■	120°	■	180°	110	110°	■
4040XPT	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	120°	110°	■	■	■	■	95°
4050A	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	180°	■	180°	■	180°	110°	110°	■
4050AT	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	180°	180°	■	■	■	■	95°
4110	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	180°	180°	180°	110°	110°	■	■
4110T	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	110°	100°	■	■	■	■	■
4000T	■	■	■	■	■	■	■	■	■	■	■	♿	■	■	■	90°	■	■	■	■	■	■

■ 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 Back Check.

*** Delay action for 4040XP incorporates standard 4041 cylinder.

Applications

- For aluminum, hollow metal, or wood swinging doors and frames.
- Can be used with hinge or pivot mounted door.
- Adapter plates and other installation accessories available for non-standard conditions.

Features common to 4000 Series

- Each closer (except 4050A, 4050AT, 4040XP, 4040XPT, 4030, 4030T) is designed for a specific mounting; hinge side, top jamb, or parallel arm. 4040XP closer with regular or Hold Open Arm mounts hinge side or top jamb. 4030, 4040XP and 4050A regular parallel arm closers include 62PA shoe required to parallel arm mount either Regular or Hold Open Arm.
- Handed for right or left swinging doors, except for 4000T, 4030, 4030T, 4040XP, 4050A, 4050AT and 4040XPT.
- Adjustable hydraulic back check cushions opening swing prior to 90°.
- Separate regulation of general closing speed and latching speed.
- Joints in regular arm and shoe adapt to uneven trim.
- Reversible shoe to boost latching power on double lever arms.
- Not designed for exterior mounting or exposure to elements.

Design assistance

LCN has been providing reliable solutions to unique door control problems since 1925. Design and specification assistance are only a phone call away. Contact LCN for assistance or technical information at 877-671-7011 or fax 800-248-1460 (Order Entry), Fax 815-879-1495 for Product Support.

Warranty

30 year limited warranty; 25 year limited warranty (4050A). See General Information catalog for complete warranty details.

Specifications

Refer to "Specifications" section for suggested architectural specifications.

Materials

- High strength cast iron or cast aluminum (4050A) cylinder.
- Forged steel main arms.
- One piece forged steel piston.
- Double heat treated pinion.
- LCN's all weather "Liquid X" fluid performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) without any seasonal adjustment.
- High efficiency, full complement, low friction bearings.
- Tamper resistant regulating screws.
- Full rack and pinion hydraulic action.
- Low friction track and roller combination for all single lever arm (track style) closers.

Finishes

- Available in six standard or optional custom powder coat finishes to blend with door and frame.
- LCN's powder coat finishes surpass 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
- For installations where a higher level of corrosive resistance is required, LCN offers an optional Special Rust Inhibitor (SRI) pre-treatment. Closers that combine the exclusive LCN powder coat finish and the SRI pre-treatment exceed the ANSI standard for corrosion resistance even further.
- Plated finishes are available as an option to accent door and frame. (SRI not available with plated finishes).

Listings and approvals

UL listed for self-closing doors without hold open under "swinging door closers" (GVEV) file R1943. Tested and certified under ANSI Standard A156.4 Grade One. Consult factory for details. Consult factory for other listings such as; cUL, California State Fire Marshal, Bureau of Standards and Appeals.

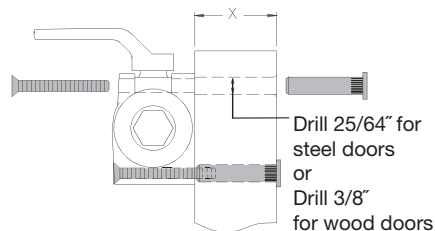
Positive pressure



LCN closers have been certified for three hours by UL to be in compliance with UL 10C. Contact LCN for specific details on door closer fire ratings.

Fasteners

- 4010, 4010T, 4020, 4020T, 4040XP, 4040XPT, 4050A, 4050AT, 4110, 4110T series closers are shipped with a standard Self Reaming and Tapping Screw (SRT) with Phillips head SRT screws.
- 4000T series closers are shipped with Wood and Machine Screws (WMS) with Phillips head wood and machine screws.
- 4030, 4030T series closers are shipped with a standard Wood and Self-Tapping Machine Screws (WMS) pack with Phillips head wood and self-tapping machine screws.
- Standard LCN Through Bolts (TB) can be installed on 1 3/4" (44 mm) thick doors with 1/4"-20 machine screws. Optional Through Bolt (TB) sizes are available for 1 5/8" (41 mm) or 1 3/8" (35 mm) door thickness, but this must be specified when ordering.



Notes:

- For through bolts, specify door thickness if other than 1 3/4" (44mm), represented in diagram as dimension "X".
- Phillips head, metric machine screws are available, please specify.
- LCN recommends the use of wood screws, available in optional WMS screw packs, for wood door applications.

4010 Series



The 4010 is LCN's best performing heavy duty closer designed specifically for institutional and other rugged high traffic applications.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal 	Fasteners	Self Reaming and Tapping Screws (SRT)
Fluid	All weather fluid	Mounting	Hinge (Pull side)
Handing	Handed	Arms	Regular arm
Templating	Peel-n-Stick templates - 2 1/2" x 6" mounting hole pattern	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes
Size	Adjustable 1-5 or sized 6		
Warranty	30 years		

Special templates

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

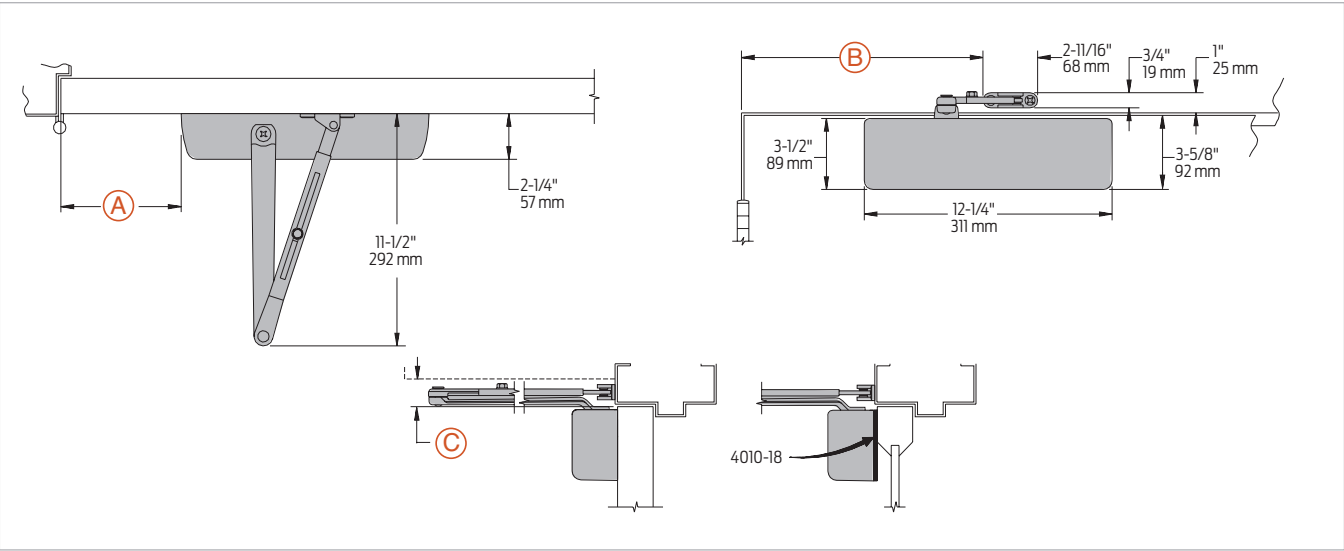
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Non-handed	Regular (double)	Regular (double)
Top jamb (pull)	Metal	Non-sized	Standard (single)	Standard (single)
Top jamb (push)		Accessibility	Hold Open	Hold Open
Parallel arm		Delay action**	Fusible Link	Fusible Link
Stop face	Powder coat	CYLAVB***	EDA/HEDA	EDA/HEDA
	Plated		CUSH/HCUSH	CUSH/HCUSH
			SCUSH/SHCUSH	SCUSH/SHCUSH
			Double Egress	Double Egress

■ 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 Back Check.
 *** Delay action for 4040XP incorporates standard 4041 cylinder.

Mounting details

Hinge (pull) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing 140°		
Reveal	Should not exceed 3/4" (19 mm). Should not exceed 1/8" (3 mm) for Fusible Link Arm		
Top rail	<ul style="list-style-type: none"> 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 		
Delay action	<ul style="list-style-type: none"> Add suffix "CYLDEL" to selected cylinder Not available with 4016 cylinder Delays closing from maximum opening to approximately 70° Delay time adjustable up to approximately 1 minute 		
Maximum opening	Can be templated for:		
	100°:	A = 5 15/16" (151 mm) B = 11 15/16" (303 mm)	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	Regular Arm: C = 1 1/16" (27 mm) Hold Open Arm: C = 1 3/8" (35 mm) Fusible Link Arm requires: C = 1 5/8" (41 mm)		

Note: Hold open points up to maximum opening with Hold Open Arm.

Accessories

Cylinders

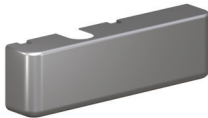


- 4011(6)-3071**
Cast iron cylinder assembly (CYL)
- Handed
 - Standard

Covers



- 4010-72**
Plastic Cover (PC)
- Non-handed



Right hand shown

- 4010-72MC**
Metal Cover (MC)
- Handed
 - Required for plated finishes and custom powder coat finishes
 - Optional

Arms



- 4010-3077**
Regular Arm (REGARM)
- Non-handed



- 4010-3049**
Hold Open Arm (H)
- Handed
 - Provides hold open function, adjustable at elbow
 - Optional



- 4010-3049FL**
Fusible Link Arm (FL)
- Handed
 - Releases hold-open function when exposed to temperatures above 165° F; 1/8" (3 mm) maximum reveal
 - Optional

Note: Check local codes before specifying FL arms.
NOT A life safety product!

Installation accessories



- 4010-18**
Plate
- Required where top rail is less than 3 3/4" (95 mm)
 - Requires minimum 2" (51 mm) top rail

Ordering information

How-to-order 4010 Series closers

1. Select cylinder size

- ☐ 4011 (adjustable from size 1 to 5)
- ☐ 4016 (CYLDEL not available)

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

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

- ☐ Delay Action Cylinder (CYLDEL)

Cover

- ☐ Metal Cover (MC)

Arm

- ☐ Hold Open Arm (H)
- ☐ Fusible Link Arm, 165°F (FL)

Finish

- ☐ Custom powder coat (RAL) _____
(handed metal cover required)
- ☐ Plated finish _____
(handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

Screw pack

- ☐ Through Bolt¹ and Self Reaming and Tapping Screws (TBSRT)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screw (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4010-18

Special template

- ☐ ST- _____

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

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 6
- Delay action not available with 4016 cylinder

Exterior (and vestibule) door width

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
	size 3	size 4	size 5	size 6	
*4011	→				
4016					→
	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	
*4011	→					
4016						→
	Minimum door width					

→ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 4010 Series closers

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

Refer to Automatic Operators catalog 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.

4010T Series



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

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal 	Fasteners	Self Reaming and Tapping Screws (SRT)
Fluid	All weather fluid	Mounting	Hinge (Pull side)
Handing	Handed	Arms	Standard arm and track with roller
Templating	Peel-n-Stick templates - 2 1/2" x 6" mounting hole pattern	Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes
Size	Sized 1, 3 or 4		
Warranty	30 years		

Special templates

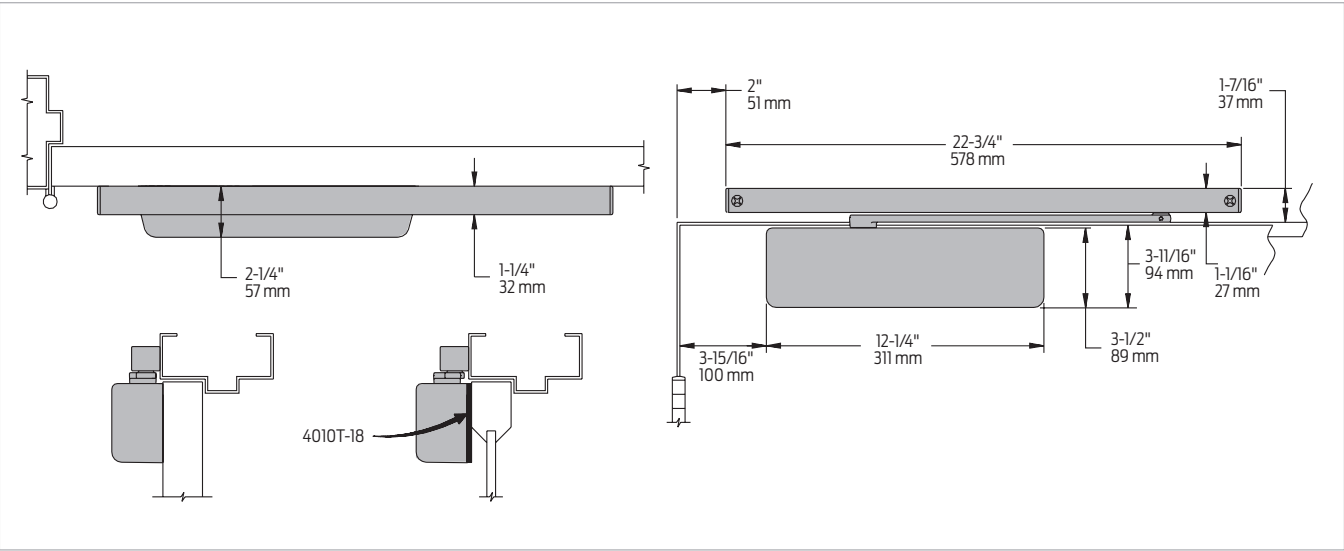
Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side Top jamb (pull) Top jamb (push) Parallel arm Stop face	Powder coat Plated Plastic Metal	Non-handed Non-sized Accessibility Delay action** CYLAVB***	Regular (double) Standard (single) Hold Open Fusible Link EDA/HEDA CUSH/HCUSH SCUSH/SHCUSH Double Egress	
■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available	■ 180 ■ 120 ■ 100	

■ Closer available with less than 5.0 lbs. opening force on 36" door.
 * Maximum opening/hold open point with standard template.
 ** Advanced Variable Back Check.
 *** Delay action for 4040XP incorporates standard 4041 cylinder.

Mounting details

Hinge (pull) side mounting

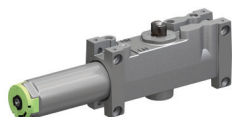


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°
Reveal	<ul style="list-style-type: none">Should not exceed 1/8" (3 mm) for Standard ArmShould not exceed 3 5/16" (84 mm) for Double Egress Arm
Top rail	Less than 3 3/4" (95 mm) requires plate, 4010T-18
Head frame	Requires 1 1/2" (38 mm) minimum
Clearance	2 1/4" (57 mm) behind door required for 90° or 180° installation
Maximum opening	<ul style="list-style-type: none">Templating allows 180° with Standard Arm, limited to 120° when optional bumper is installedConsult factory if door will be held open at 180°Variable hold open angles with infinite options

Notes:
1. Optional track bumper assembly assists backcheck in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.
2. Plate requires 2" (51 mm) minimum.

Accessories

Cylinders

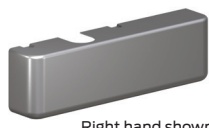

4011T(3)(4)-3071
Cast iron cylinder
assembly (CYL)

- Handed
- Standard

Covers


4010T-72
Plastic Cover (PC)

- Non-handed
- Standard



Right hand shown

4010T-72MC
Metal Cover (MC)

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms


4010T-3077T
Standard Arm
(STDTRKARM)

- Handed
- Does not include track roller


4010T-3077DE
Double Egress Arm
(DE)

- Handed
- For double egress doors and frames
- Does not include track roller
- Maximum reveal is 3 5/16" (84mm)
- Optional

Tracks


4010T-3038
Standard Track (STDTRK)

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard


4010T-3038B
Track with Bumper (BUMP)

- Non-handed
- Non hold open
- With bumper assembly installed
- Will accept hold open clip
- Optional


4010T-3038H
Hold Open Track (H)

- Non handed
- With hold open clip installed
- Will accept bumper assembly
- Optional

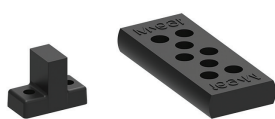

4010T-3038HB
Hold Open Track with
Bumper (HBMP)

- Non-handed
- With hold open clip and bumper assembly installed
- Optional

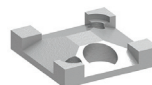
Installation accessories


4010T-18
Plate

- Required where top rail is less than 3 3/4" (95 mm)
- Requires minimum 2" (51 mm) top rail


4010T-169
Track bumper

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


4010T-3054
Hold open clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Consists of clip and mounting screws
- Requires 4010T-3034H Track Roller


4010T-3034
Track roller

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


4010T-3034H
Track roller

- Quiet, low friction roller assembly
- Shoulder dimension "X" = 1/16" (2mm)
- Spring-loaded hold open mechanism

Ordering information

How-to-order 4010T Series closers

- 1. Select cylinder size**

 - ☐ 4011T
 - ☐ 4013T
 - ☐ 4014T
- 2. Specify hand**

 - ☐ Right Hand (RH)
 - ☐ Left Hand (LH)
- 3. Select finish**

 - ☐ Standard powder coat

Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer options

Cover

- ☐ Metal Cover (MC)

Arm

- ☐ Double Egress Arm (DE)²

Track

- ☐ Track with Bumper (BUMP)
- ☐ Hold Open Track (H)
- ☐ Hold Open Track with Bumper (HBMP)

Finish

- ☐ Custom powder coat (RAL) _____ (handed metal cover required)
- ☐ Plated finish _____ (handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Standard arm
- Track roller
- Standard track
- Self reaming and tapping screws (unless options listed below are selected)

Screw pack

- ☐ Through Bolt¹ and Self Reaming and Tapping Screws (TBSRT)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4010T-18

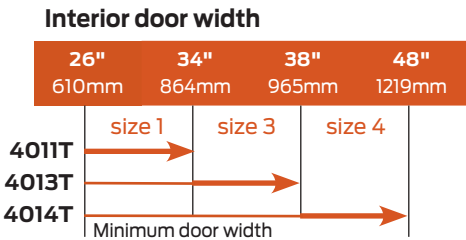
Special template

- ☐ ST- _____

1. Specify door thickness if other than 1 3/4".
2. 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.

Table of sizes

- Select closer based on width of door
- Sized 4010T Series cylinders available in size 1, 3 or 4




➡ Indicates recommended range of door width for closer size.

Reduced opening force 4010T Series closers

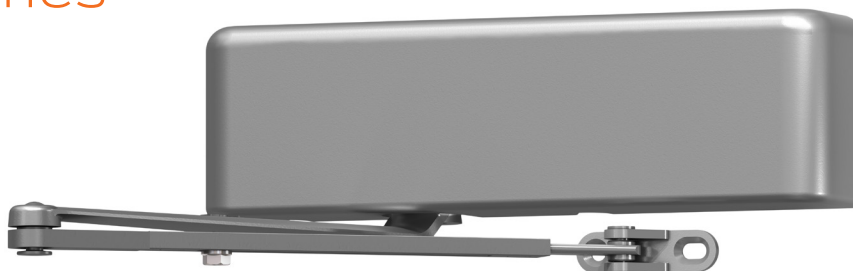
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Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	N/A	N/A	N/A
	5.0* lbs.	4011T	4011T	4011T

* Maximum opening force.

4020 Series



The 4020 is a heavy duty closer with adjustable spring power using the LCN Green Dial. This creates a custom fit to meet the specific demands of high traffic use and brings reliable performance.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1 1/16" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Handed
Templating	Peel-n-Stick templates - 2 1/2" x 6" mounting hole pattern
Size	Adjustable 1-5 or sized 6
Warranty	30 years

Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Fasteners	Self Reaming and Tapping Screws (SRT)
Mounting	Top jamb (Pull side)
Arms	Regular arm
Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
	<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

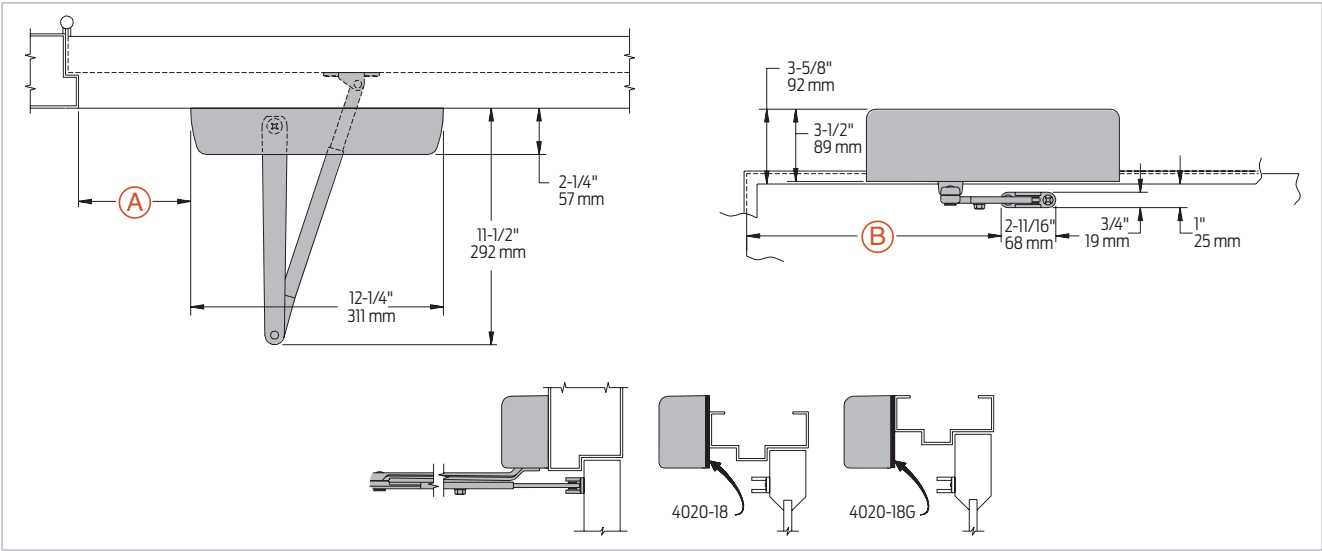
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Non-handed	Regular (double)	Regular (double)
Top jamb (pull)	Metal	Non-sized	Standard (single)	Standard (single)
Top jamb (push)		Accessibility	Hold Open	Hold Open
Parallel arm		Delay Action***	Fusible Link	Fusible Link
Stop face		CYLAVB**	EDA/HEDA	EDA/HEDA
Powder coat			CUSH/HEDASH	CUSH/HEDASH
Plated			Double Egress	Double Egress

- 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 Back Check.
 *** Delay action for 4040XP incorporates standard 4041 cylinder.

Mounting details

Top jamb (push) side mounting

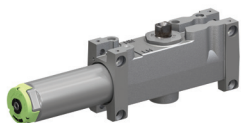


Butt hinges	Should not exceed 5" (127 mm) in width			
Auxiliary stop	Recommended at hold open point or where the door cannot swing 180°			
Reveal	<ul style="list-style-type: none">2 9/16" (65 mm) allows 180° opening with regular arm4 13/16" (122 mm) allows up to 140° opening with regular arm8" (203 mm) allows up to 140° opening with Long Arm (LONG) 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) frame minimum.			
Top rail	<ul style="list-style-type: none">Requires minimum 1 1/2" (38 mm)Closer on 4020-18 plate requires 2" (51 mm) minimumCloser on 4020-18G plate requires 2 3/4" (70 mm) minimum			
Delay action	<ul style="list-style-type: none">Add suffix "CYLDEL" to selected cylinder.Not available with 4026 cylinderDelays closing from maximum opening to approximately 75°Delay time adjustable up to approximately 1 minute			
Maximum opening	Can be templated for:			
	100°:	A = 6" (152 mm) B = 12 3/8" (314 mm)	140°:	A = 4" (102 mm) B = 10 3/8" (264 mm)
			180°:	A = 2" (51 mm) B = 8 3/8" (213 mm)

- Notes:
- 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

Accessories

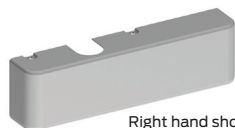
Cylinders



**4021(6)-3071
Cast iron cylinder
assembly (CYL)**

- Handed
- Standard

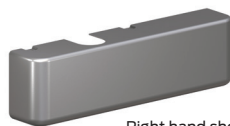
Covers



Right hand shown

**4020-72
Plastic Cover (PC)**

- Handed
- Standard



Right hand shown

**4020-72MC
Metal Cover (MC)**

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



**4020-3077
Regular Arm (REGARM)**

- Non-handed



**4020-3077L
Long Arm (LONG)**

- Non-handed
- Includes 4020-79LR for deep reveals
- Optional



**4020-3049
Hold Open Arm (H)**

- Handed
- Provides hold open function, adjustable at elbow
- 5 3/4" (146 mm) maximum reveal, 140° hold open
- Optional



**4020-3049FL
Fusible Link Arm (FL)**

- Handed
- Releases hold open function, adjustable at shoe, when exposed to temperatures above 165° F
- 3 7/8" (98 mm) maximum reveal
- Optional

Note: Check local codes before specifying FL arms. NOT A life safety product!

Installation accessories



**4020-18
Plate**

- Required where head frame is less than 3 7/16" (87 mm)
- Requires minimum 1 3/4" (44 mm) minimum head frame and 2" (51 mm) top rail 3 7/8" (98 mm) maximum reveal



**4020-18G
Plate**

- For flush ceiling condition
- Requires minimum 1 3/4" (44 mm) minimum head frame and 2 3/4" (70 mm) top rail

Ordering information

How-to-order 4020 Series closers

- 1. Select cylinder size** **2. Specify hand** **3. Select finish**

- ☐ 4021 (adjustable from size 1 to 5) ☐ Right Hand (RH) ☐ Standard powder coat
- ☐ 4026 (CYLDEL not available) ☐ Left Hand (LH)
- Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

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

- ☐ Delay Action Cylinder (CYLDEL)

Cover

- ☐ Metal Cover (MC)

Arm

- ☐ Hold Open Arm (H)
- ☐ Fusible Link Arm, 165°F (FL)

Finish

- ☐ Custom powder coat (RAL) _____ (handed metal cover required)
- ☐ Plated finish _____ (handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

Screw pack

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4020-18
- ☐ Plate, 4020-18G

Special template

- ☐ ST- _____

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

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 6
- Delay action not available with 4026 cylinder

Exterior (and vestibule) door width

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
	size 3	size 4	size 5	size 6	
*4021	→				
4026				→	
	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	
*4021	→					
4026					→	
	Minimum door width					

→ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 4020 Series closers

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

Refer to Automatic Operators catalog 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.

4020T Series



The 4020T is a cast iron, heavy duty closer designed for interior, high traffic conditions. This Grade 1 device comes in various finishes and colors to match your interior look.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Handed
Templating	Peel-n-Stick templates - 2 1/2" x 6" mounting hole pattern
Size	Sized 1, 3 or 4
Warranty	30 years

Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Fasteners	Self Reaming and Tapping Screws (SRT)
Mounting	Top jamb (Pull side)
Arms	Standard arm, track with roller
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
	<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

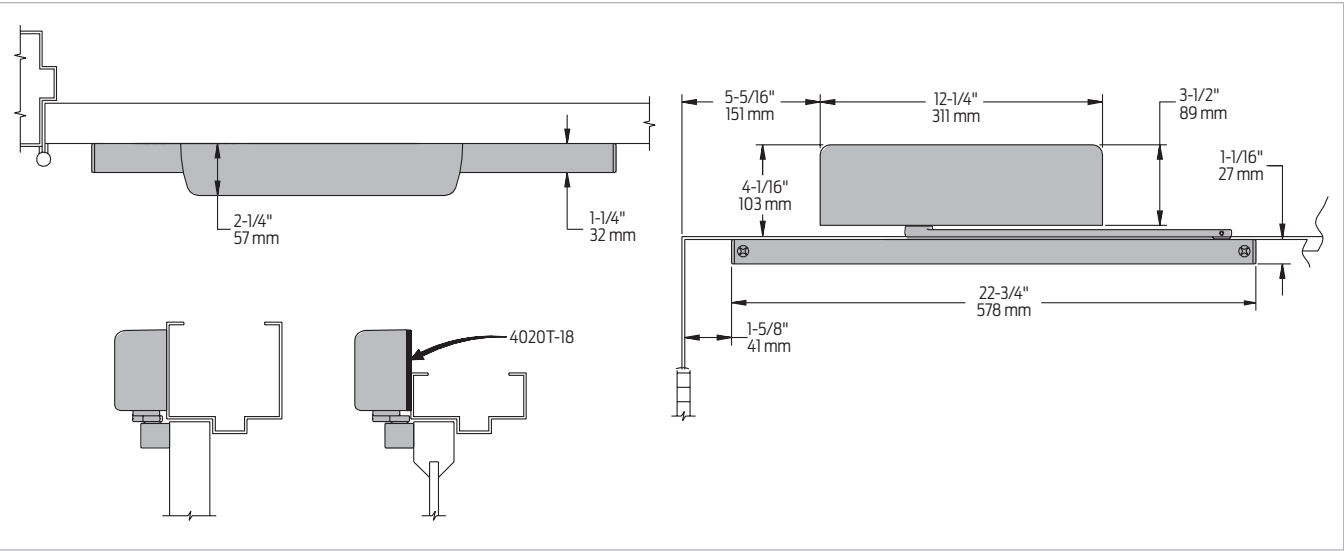
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Powder coat	Non-handed	Regular (double)	Regular (double)
Top jamb (pull)	Plated	Non-sized	Standard (single)	Standard (single)
Top jamb (push)	Plastic	Accessibility	Hold Open	Hold Open
Parallel arm	Metal	Delay Action**	Fusible Link	Fusible Link
Stop face		CYLAVB***	EDA/HEDA	EDA/HEDA
				CUSH/HCUSH
				SCUSH/SHCUSH
				Double Egress

- 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 Back Check.
 *** Delay action for 4040XP incorporates standard 4041 cylinder.

Mounting details

Top jamb (pull) side mounting

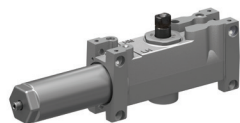


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°
Reveal	Should not exceed 1/8" (3 mm)
Head frame	Less than 3 7/8" (98 mm), requires plate, 4020T-18. Plate requires 1 3/4" (44 mm) minimum.
Clearance	1 1/2" (38 mm) behind door required for 90° or 180° installation
Maximum opening	<ul style="list-style-type: none">▪ Templating allows 180° with standard track arm, limited to 100° with optional bumper installed▪ Consult factory if door will be held open at 180°▪ Variable hold open angles with infinite options

Note: Optional track bumper assembly assists back check in cushioning the opening swing of the door. It is not intended to replace an auxiliary stop.

Accessories

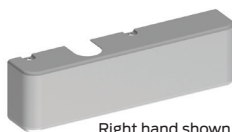
Cylinders



4021T(3)(4)-3071
Cast iron cylinder assembly (CYL)

- Handed
- Standard

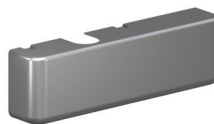
Covers



Right hand shown

4020T-72
Plastic Cover (PC)

- Handed
- Standard



Right hand shown

4020T-72MC
Metal Cover (MC)

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



4020T-3077T
Standard Arm (STDTRKARM)

- Handed
- Roller not included with arm

Tracks



4020T-3038
Standard Track (STDTRK)

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard



4020T-3038B
Track with Bumper (BUMP)

- Non-handed
- Non hold open
- With bumper assembly installed
- Will accept hold open clip
- Optional



4020T-3038H
Hold Open Track (H)

- Non-handed
- With hold open clip installed
- Will accept bumper assembly
- Optional



4020T-3038HB
Hold Open Track with Bumper (HBMP)

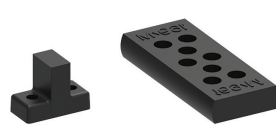
- Non-handed
- With hold open clip and bumper assembly installed
- Optional

Installation accessories



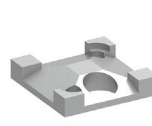
4020T-18
Plate

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



4020T-169
Track bumper

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



4020T-3054
Hold open clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Consists of clip and mounting screws
- Requires 4020T-3034H Track Roller



4020T-3034
Track roller

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



4020T-3034H
Track roller

- Quiet, low friction roller assembly
- Shoulder dimension "X" = 1/16" (2mm)
- Spring-loaded hold-open mechanism

Ordering information

How-to-order 4020T Series closers

- 1. Select cylinder size**

 - ☐ 4021T (ADA)
 - ☐ 4023T
 - ☐ 4024T
- 2. Specify hand**

 - ☐ Right Hand (RH)
 - ☐ Left Hand (LH)
- 3. Select finish**

 - ☐ Standard powder coat

Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Standard arm
- Track roller
- Standard track
- Self-reaming and tapping screws (unless options listed below are selected)

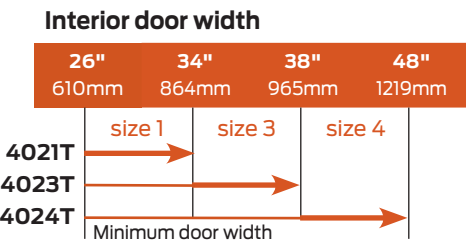
Closer options

- Cover**
- ☐ Metal Cover (MC)
- Track**
- ☐ Track with Bumper (BUMP)
 - ☐ Hold Open Track (H)
 - ☐ Hold Open Track with Bumper (HBMP)
- Finish**
- ☐ Custom powder coat (RAL) _____ (handed metal cover required)
 - ☐ Plated finish _____ (handed metal cover required)
 - ☐ SRI primer (use with powder coat finishes only)

- Screw pack**
- ☐ Through Bolt¹ and Self Reaming and Tapping Screws (TBSRT)
 - ☐ Wood and Machine Screws (WMS)
 - ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
 - ☐ Torx Machine Screws (TORX)
 - ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)
- Installation accessories**
- ☐ Plate, 4010T-18
- Special template**
- ☐ ST- _____
1. Specify door thickness if other than 1 3/4".

Table of sizes

- Select closer based on width of door
- Sized 4020T Series cylinders available in size 1, 3 or 4
- Specify next higher size closer where strong drafts exist



➡ Indicates recommended range of door width for closer size.

4030 Series



The 4030 is a cast iron, universal closer designed specifically for doors in moderate traffic conditions. This versatile closer compliments the rest of the heavy duty 4000 Series and offers the choice of three mountings and multiple arm options.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/8" diameter piston 1/2" diameter single heat treated pinion journal
Fluid	All weather fluid
Handing	Non-handed
Templating	Peel-n-Stick templates - 1 23/32" x 6 17/64" mounting hole pattern
Size	Adjustable spring size 1-4
Warranty	30 years

Cover	Metal Cover (MC), standard
Fasteners	Self reaming and tapping screws (SRT)
Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Arms	Regular arm
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
	<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

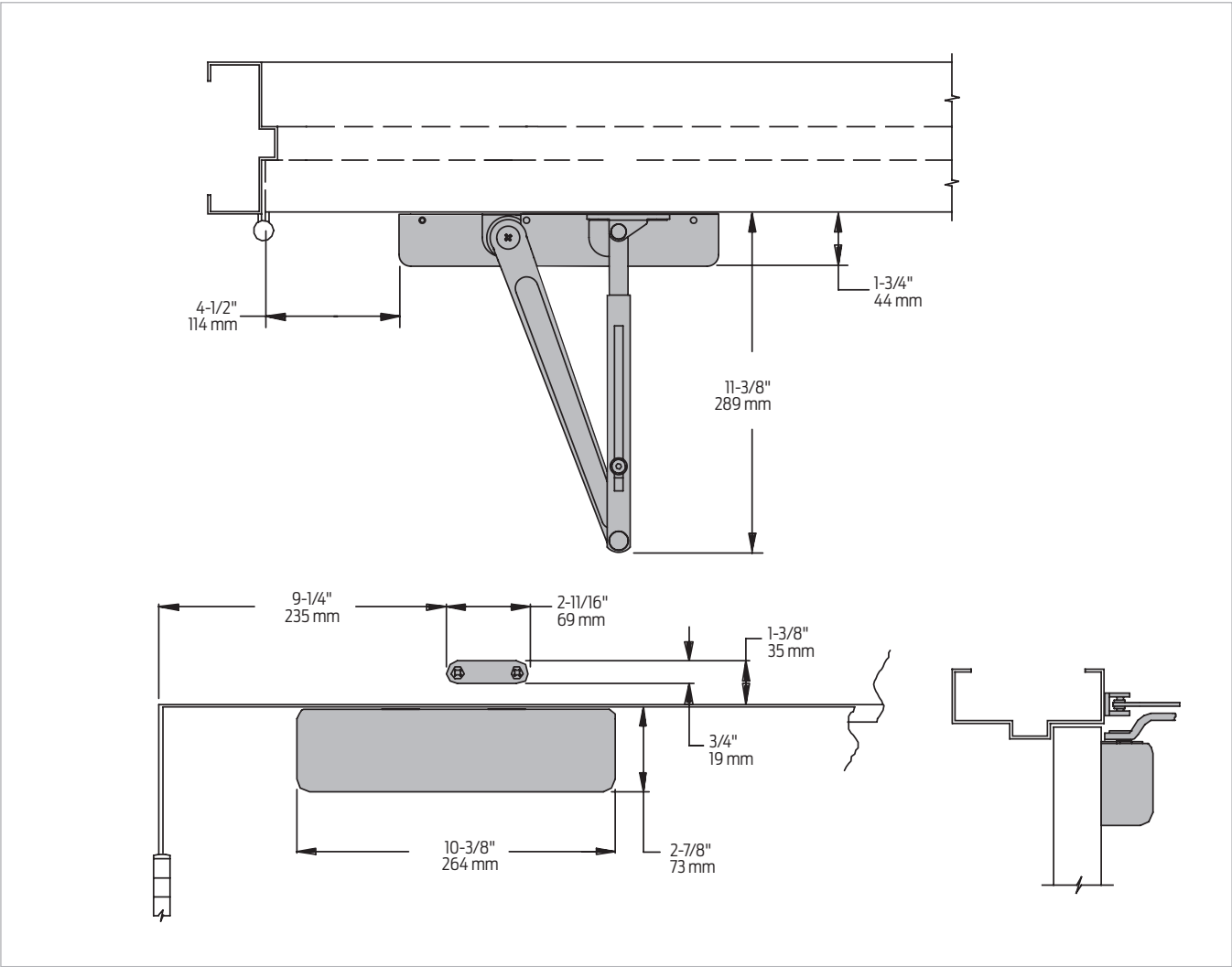
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Non-handed	Regular (double)	Regular (double)
Top jamb (pull)	Metal	Non-sized	Standard (single)	Standard (single)
Top jamb (push)		Accessibility	Hold Open	Hold Open
Parallel arm		Delay Action**	Fusible Link	Fusible Link
Stop face		CYLAVB***	EDA/HEDA	EDA/HEDA
Powder coat			CUSH/HEDASH	CUSH/HEDASH
Plated			SCUSH/SHCUSH	SCUSH/SHCUSH
			Double Egress	Double Egress

■ 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 Back Check.
 *** Delay action for 4040XP incorporates standard 4041 cylinder.

Mounting details

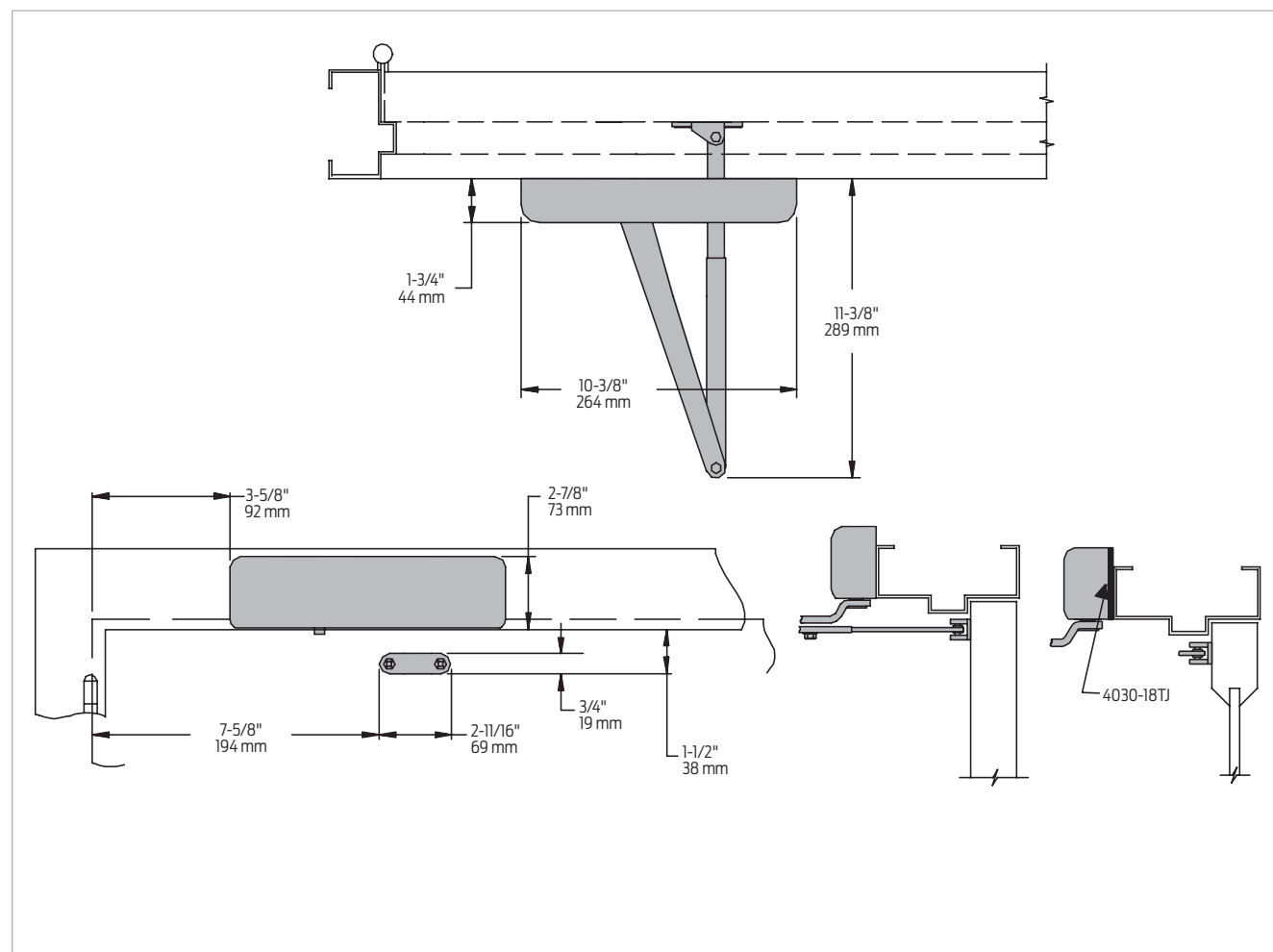
Hinge (pull) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	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	1 3/4" (44 mm), behind door required for installation
Maximum opening	<ul style="list-style-type: none">Can be templated for 180°Hold open points up to maximum opening with Hold Open Arm

Mounting details

Top jamb (push) side mounting

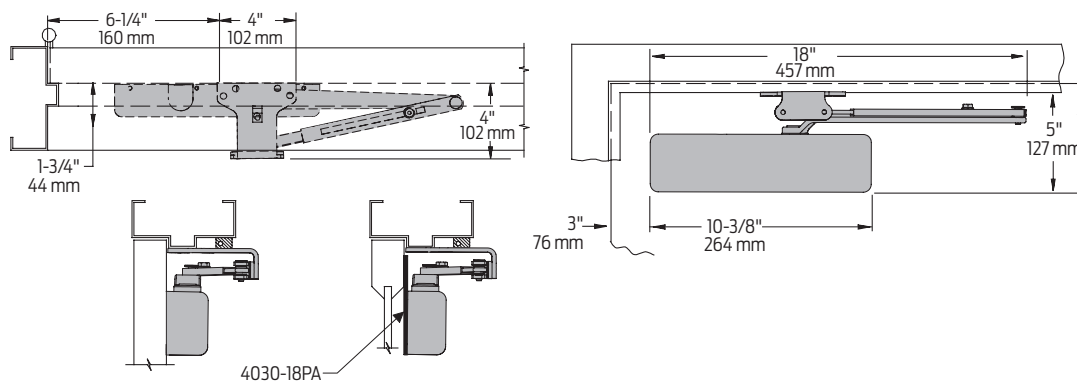


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where the door cannot swing 180°
Reveal	<ul style="list-style-type: none"> Up to 3 1/2" (89 mm) allows 180° opening Up to 7 1/2" (191 mm) with long arm allows for 140° opening
Top rail	Requires 1 1/2" (38 mm) minimum from stop
Head frame	<ul style="list-style-type: none"> Less than 2 1/4" (57 mm) requires plate, 4030-18TJ Plate requires 1 1/2" (38 mm) minimum
Maximum opening	<ul style="list-style-type: none"> Can be templated for 180° Hold open points up to maximum opening with Hold Open Arm (H)

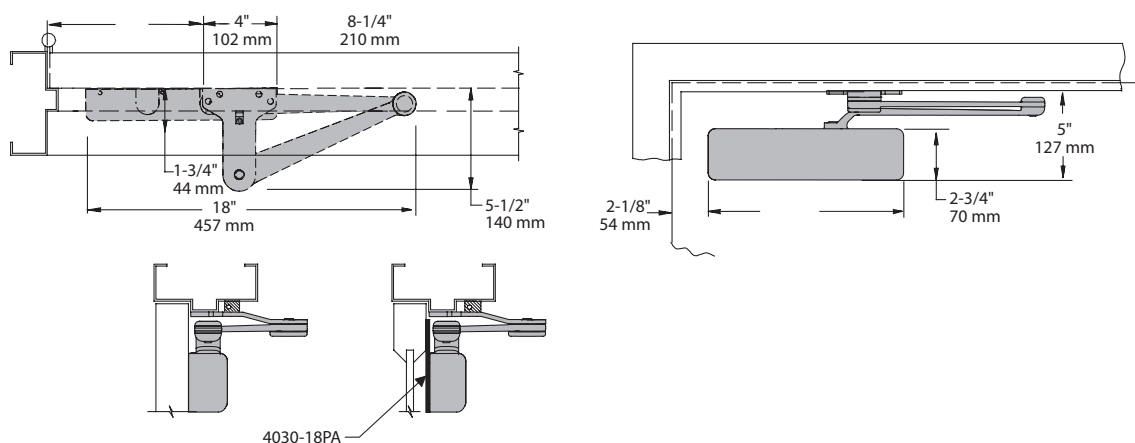
Mounting details

Parallel arm (push side) and EDA mounting

Parallel arm mount



EDA mount



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing maximum opening
Clearance	<ul style="list-style-type: none"> For 4030-62PA shoe is 4" (102 mm) from door face EDA arm is 5 1/2" (140 mm) from door face
Top rail	<ul style="list-style-type: none"> 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 rabbetted requires PA shoe adapter, 4030-419
Blade stop	Clearance, requires 1/2" (13 mm) blade stop spacer, 4030-61
Auxiliary shoe	<ul style="list-style-type: none"> 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)
Maximum opening	<ul style="list-style-type: none"> Regular or Hold Open Arms can be templated for 180° EDA template allows 110° maximum opening Hold open points up to maximum opening with Hold Open Arm (H)

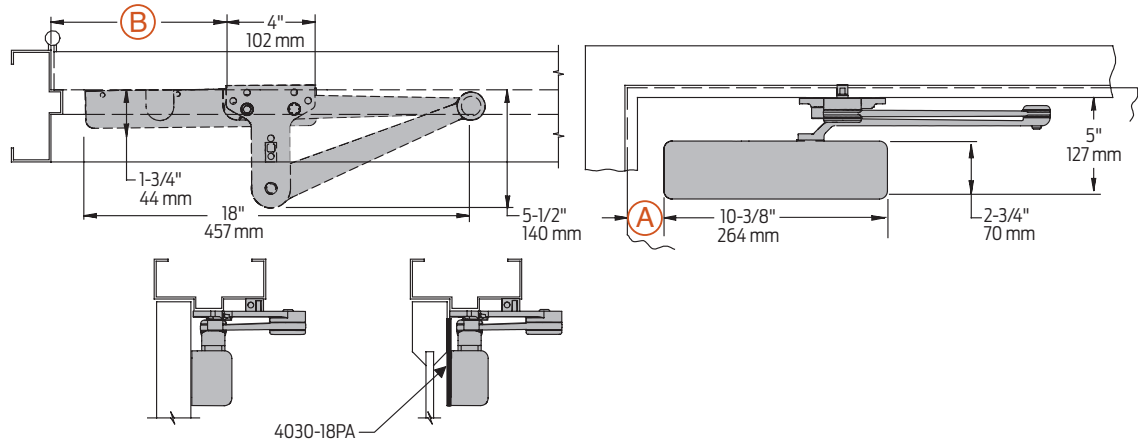
Notes:

- 4030 closers ordered with EDA arms include 4030-201 fifth hole spacer to support the shoe
- 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

Mounting details

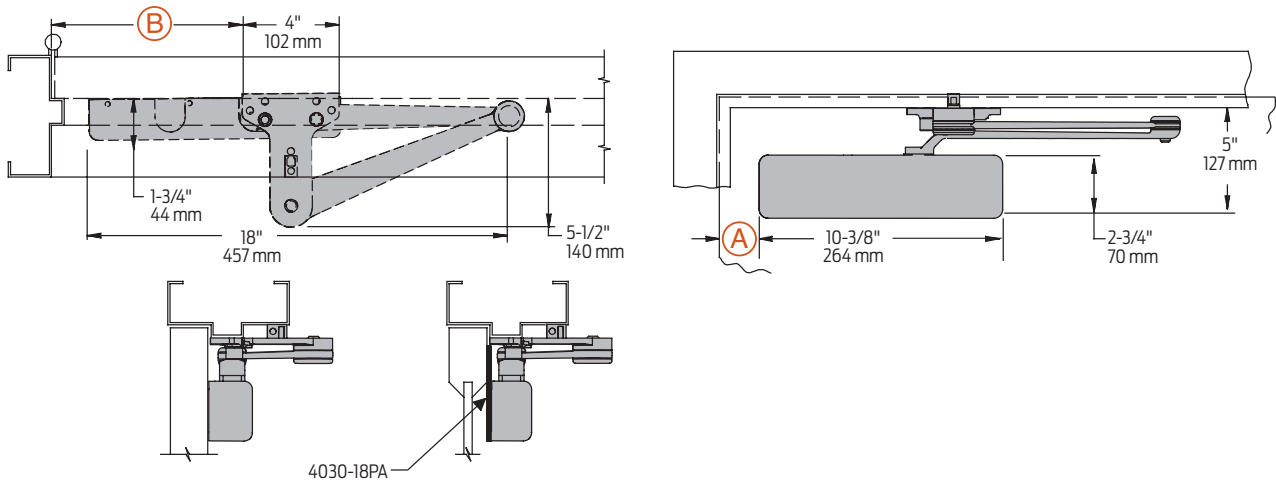
CUSH and Spring CUSH mounting

CUSH mount



Spring CUSH mount

Spring CUSH dead stop points are approximately 5° greater than templated stop point.



Clearance	For CUSH or SCUSH shoe is 5 1/2" (140 mm) from door face		
Head frame	Flush or rabbetted requires CUSH flush panel adapter, 4030-419		
CUSH or SCUSH Arm	Requires shoe support, 4030-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm)		
Maximum opening	CUSH and SCUSH arms can be templated for maximum opening/hold open point at:		
	85°: A = 3 5/8" (92 mm) B = 9 3/4" (248 mm)	90°: A = 3" (76 mm) B = 9 1/8" (232 mm)	100°: A = 1 7/8" (48 mm) B = 8" (203 mm)

1. 100° mounting will not work with swing clear hinges.
Note: 4031 closers ordered with CUSH or SCUSH arms include 4030-201 fifth hole spacer to support the shoe.

Accessories

Cylinders



4031-3071
Cast iron cylinder
assembly (CYL)

- Non-handed
- Standard

Covers



4030-72MC
Metal Cover (MC)

- Non-handed

Arms



4030-3077
Regular Arm (REGARM)

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



4030-3077LD
Light Duty Arm (LD)

- Non-handed
- Mounts hinge side, top jamb or parallel arm (62PA required)
- Optional



4030-3077L
Long Arm (LONG)

- Non-handed
- Includes long rod and shoe, 4030-79LR for top jamb mount with deep reveals
- Optional



4030-3049
Hold Open Arm (H)

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



4030-3049L
Hold Open Long Arm (HLONG)

- Non-handed
- Includes long head and tube, 4030-3048L for top jamb mount with deep reveals
- Optional



4030-3077EDA
Extra Duty Arm (EDA)

- Non-handed
- Extra duty arm features solid forged steel main and forearm for potentially abusive installations
- Optional



4030-3049EDA
Hold Open Extra Duty Arm (HEDA)

- Handed
- Arm, provides hold open function adjustable at shoe
- Optional



4030-3077CNS
Cush-n-Stop Arm (CUSH)

- Non-handed
- Solid forged steel main arm and forearm with stop in soffit shoe
- Optional



4030-3049CNS
Hold Open Cush-n-Stop Arm (HCUSH)

- Non-handed
- Provides hold open function with templated stop/hold open points
- Handle controls hold open function
- Optional



4030-3077SCNS
Spring Cush-n-Stop Arm (SCUSH)

- Non-handed
- For abusive applications
- Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



4030-3049SCNS
Spring Hold Open Cush-n-Stop Arm (SHCUSH)

- Non-handed
- For abusive applications
- Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

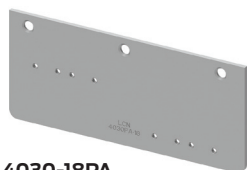
Accessories

Installation accessories



4030-18TJ
Plate

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



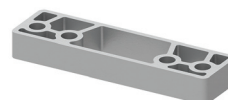
4030-18PA
Plate

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



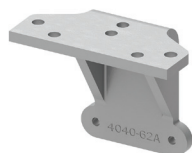
4030-30
CUSH shoe support

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



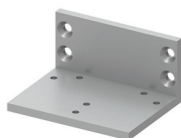
4030-61
Blade stop spacer

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



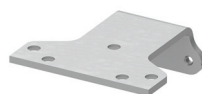
4030-62A
Auxiliary shoe

- Requires a top rail of 7" (178 mm)
- Replaces -62PA for parallel arm mounting of regular arm with some overhead holder/stop
- Optional



4030-419
PA flush panel adapter

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



4030-62PA
PA shoe

- Required for parallel arm mounting

Ordering information

How-to-order 4030 Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer options

Finish

- ☐ Custom powder coat (RAL) _____
☐ Plated finish _____
☐ SRI primer (use with powder coat finishes only)

Arm

- ☐ Regular Arm with Parallel Arm Bracket (RWPA)
☐ Regular Arm with 62A Auxiliary Shoe (RW62A)
☐ Long Arm (LONG)
☐ Hold Open Arm (H)
☐ Hold Open with Parallel Arm Bracket (HWPB)
☐ Hold Open Long Arm (HLONG)
☐ Light Duty Arm (LD)
☐ Light Duty Arm with Auxiliary Shoe (LD62A)
☐ Light Duty Arm with Parallel Arm Shoe (LDPB)
☐ Light Duty Long Arm (LDL)
☐ Extra Duty Arm (EDA)
☐ Hold Open Extra Duty Arm (HEDA)
(specify right or left hand)

Closer will be shipped with:

- Standard cylinder
- Standard metal cover
- Regular arm
- Wood and self tapping machine screw pack
(unless options listed below are selected)

- ☐ Cush-n-Stop Arm (CUSH)
☐ Hold Open Cush-n-Stop Arm (HCUSH)
☐ Spring Cush-n-Stop Arm (SCUSH)
☐ Spring Hold Open Cush-n-Stop Arm (SHCUSH)

Optional screw packs

- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)

Installation accessories

- ☐ Plate, 4030-18TJ
☐ Plate, 4030-18PA
☐ CUSH shoe support, 4030-30
☐ Blade stop spacer, 4030-61
☐ Auxiliary shoe, 4030-62A
☐ PA flush panel adapter, 4030-419

Special template

- ☐ ST- _____

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

Table of sizes

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

Exterior (and vestibule) door width

	26" 660mm	30" 762mm	36" 914mm
4031	size 3	size 4	
	Minimum door width		

Interior door width


	26" 660mm	34" 864mm	38" 965mm	48" 1219mm
4031	size 2	size 3	size 4	
	Minimum door width			

➔ Indicates recommended range of door width for closer size.

Reduced opening force 4030 Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	4031	4031	4031
	5.0* lbs.	4031	4031	4031

* Maximum opening force.

4030T Series



The 4030T 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 compliments the heavy duty 4000 Series.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/8" diameter piston 1/2" diameter single heat treated pinion journal
Fluid	All weather fluid
Handing	Non-handed
Size	Adjustable spring size 1-3
Warranty	30 years

Cover	Metal Cover (MC), standard
Fasteners	Self reaming and tapping screws (SRT)
Mounting	Pull side on door, pull side on frame and push side on door
Arms	Standard arm and track
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

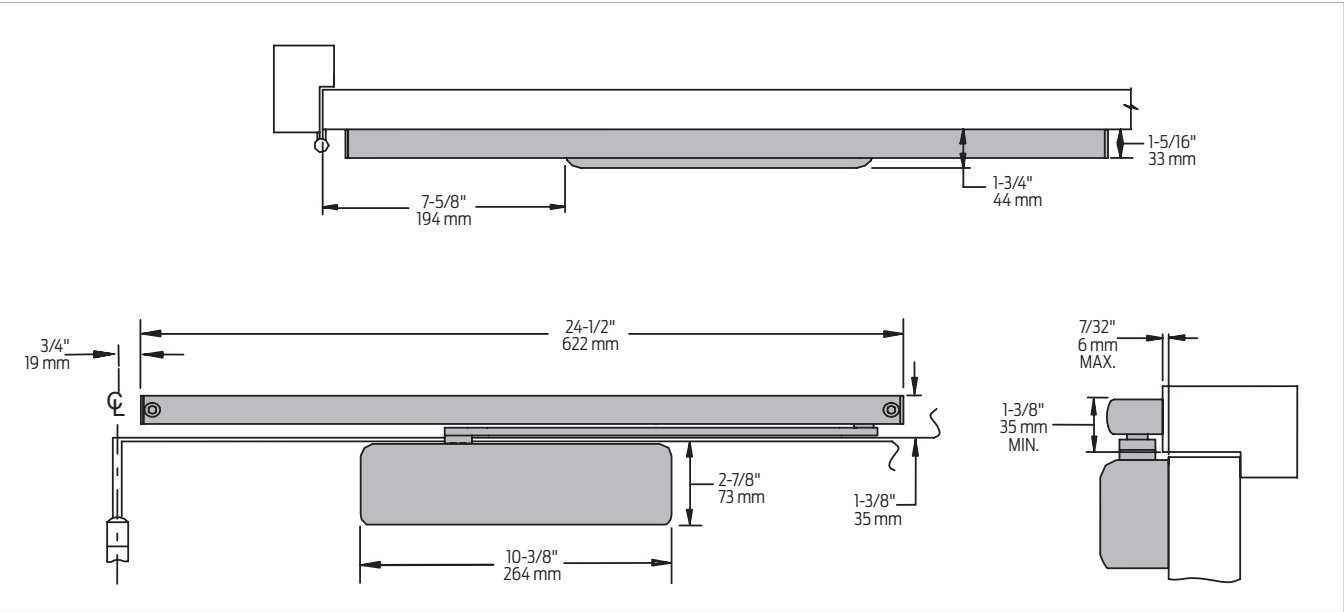
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Non-handed	Regular (double)	Regular (double)
Top jamb (pull)	Metal	Non-sized	Standard (single)	Standard (single)
Top jamb (push)		Accessibility	Hold Open	Hold Open
Parallel arm		Delay Action ***	Fusible Link	Fusible Link
Stop face		CYLAVB**	EDA/HEDA	EDA/HEDA
Powder coat			CUSH/HCLUSH	CUSH/HCLUSH
Plated			SCUSH/SHCUSH	SCUSH/SHCUSH
			Double Egress	Double Egress

■ Available
■ Not available

* Maximum opening/hold open point with standard template.
 ** Advanced Variable Back Check.
 *** Delay action for 4040XP incorporates standard 4041 cylinder.

Mounting details

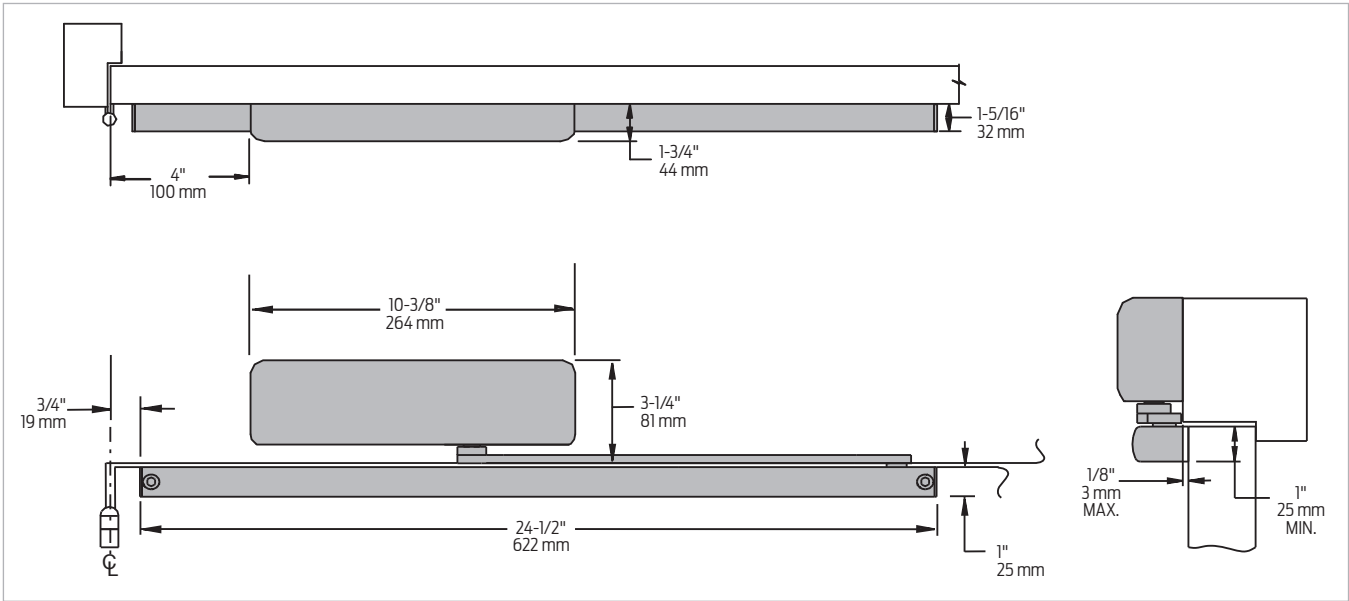
Hinge (pull) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	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	1 3/4" (44 mm), behind door required for installation
Maximum opening	<ul style="list-style-type: none">Can be templated for 180°Consult factory if door will be held open at 180°Hold open points up to maximum opening point with hold open option

Mounting details

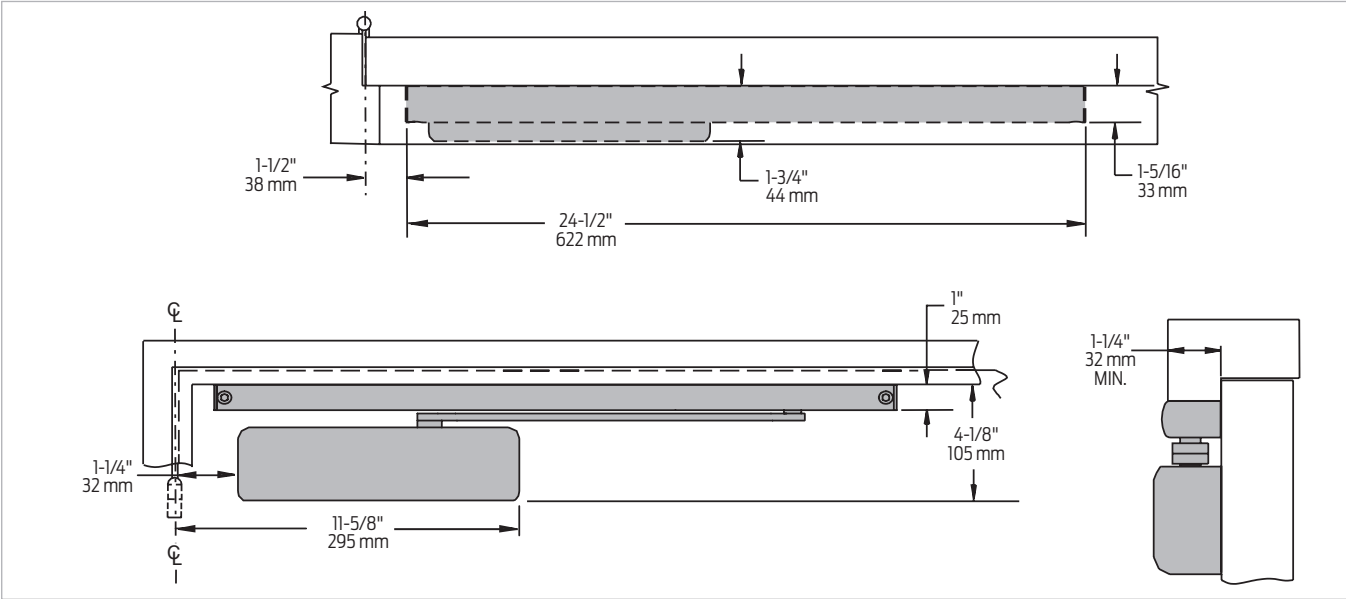
Top jamb (pull) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	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
Maximum opening	<ul style="list-style-type: none">Can be templated for 180°Consult factory if door will be held open at 180°Hold open points up to maximum opening point with hold open option

Mounting details

Stop face (push) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing 110°
Reveal	Should not exceed 1 3/4" (44 mm)
Top rail	Requires 4 1/8" (105 mm) minimum measured from the stop
Head frame	Minimum 1 1/4" (32 mm)
Maximum opening	<ul style="list-style-type: none">Can be templated for 110°Hold open points up to maximum opening with hold open option

Note: Consult factory for applications where door must swing 180°.

Accessories

Cylinders



4031T-3071
Cast iron cylinder assembly (CYL)

- Non-handed
- Standard

Covers



4030T-72MC
Metal Cover (MC)

- Non-handed

Arms



4030T-3077T
Standard Arm (STDTRKARM)

- Non-handed
- Single lever mounts hinge side, top jamb or stop face
- Track roller included

Tracks



4030T-3038
Standard Track (STDTRK)

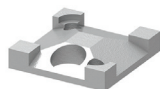
- Non-handed
- Non hold open track mounts on either side of the door
- Will accept hold open clip
- Standard



4030T-3038H
Hold Open Track (H)

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

Installation accessories



4030T-3054
Hold-open clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Requires 4030T-3034H

Ordering information

How-to-order 4030T Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze
(691), Black (693), or Brass (696)

Closer options

Finish

- ☐ Custom powder coat (RAL) _____
- ☐ Plated finish _____
- ☐ SRI primer (use with powder coat finishes only)

Track

- ☐ Hold Open Arm (H)

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 selected)

Optional screw packs

- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)

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

Table of sizes

- Non-sized 4031T Series cylinder is adjustable from sizes 1 to 3 and is shipped set to size 3

Interior door width



➡ Indicates recommended range of door width for closer size.

4040XP Series



The 4040XP is LCN's most durable and flexible heavy duty closer designed for institutional and other demanding high traffic applications.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston Double heat treated pinion journal
Fluid	All weather liquid X fluid
Handing	Non-handed
Templating	Peel-n-Stick templates - 2 1/4" x 5" mounting hole pattern
Size	Adjustable spring size 1-6, includes patented green dial
Warranty	30 years

Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Fasteners	Self reaming and tapping screws (SRT)
Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Arms	Regular arm
Finishes/colors/powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
	<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

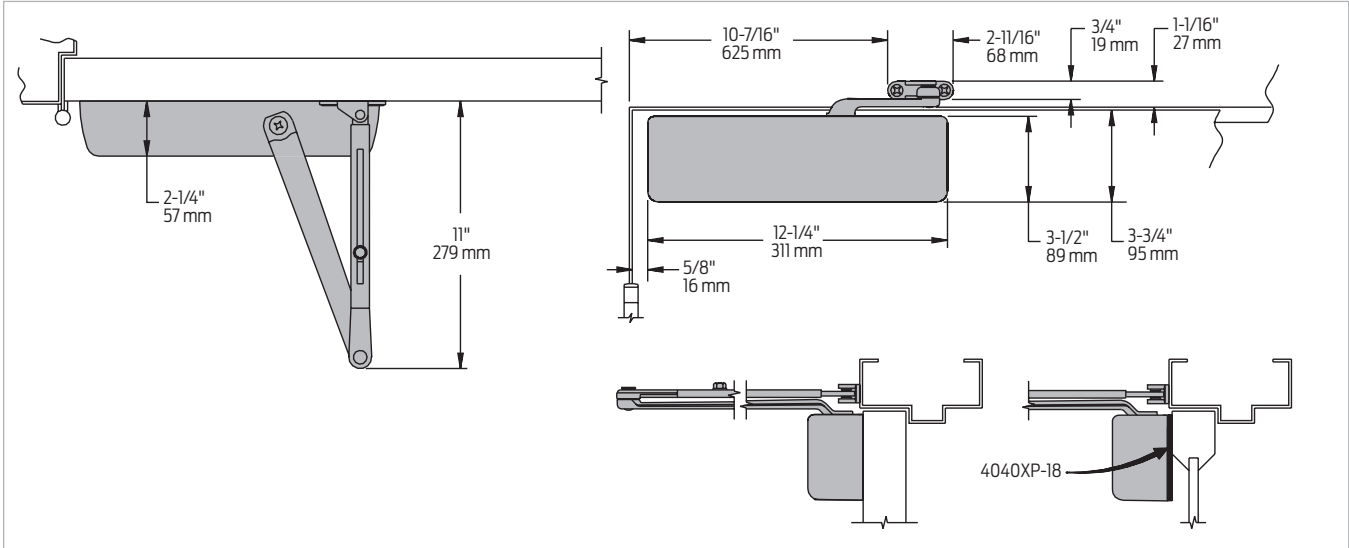
Special templates

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

Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side Top jamb (pull) Top jamb (push) Parallel arm Stop face Powder coat Plated	Plastic Metal	Non-handed Non-sized Accessibility Delay Action*** CYLAVB**	Regular (double) Standard (single) Hold Open Fusible Link EDA/HEDA CUSH/HCUSH SCUSH/SHCUSH Double Egress	
■ Available ■ Not available	■ Available ■ Not available	■ Available ■ Not available ♿ Closer available with less than 5.0 lbs. opening force on 36" door.	120° ■ 120° ■ 180° 110° 110° ■	* Maximum opening/hold open point with standard template. ** Advanced Variable Back Check. *** Delay feature incorporates standard 4040 cylinder (not XP).

Mounting details

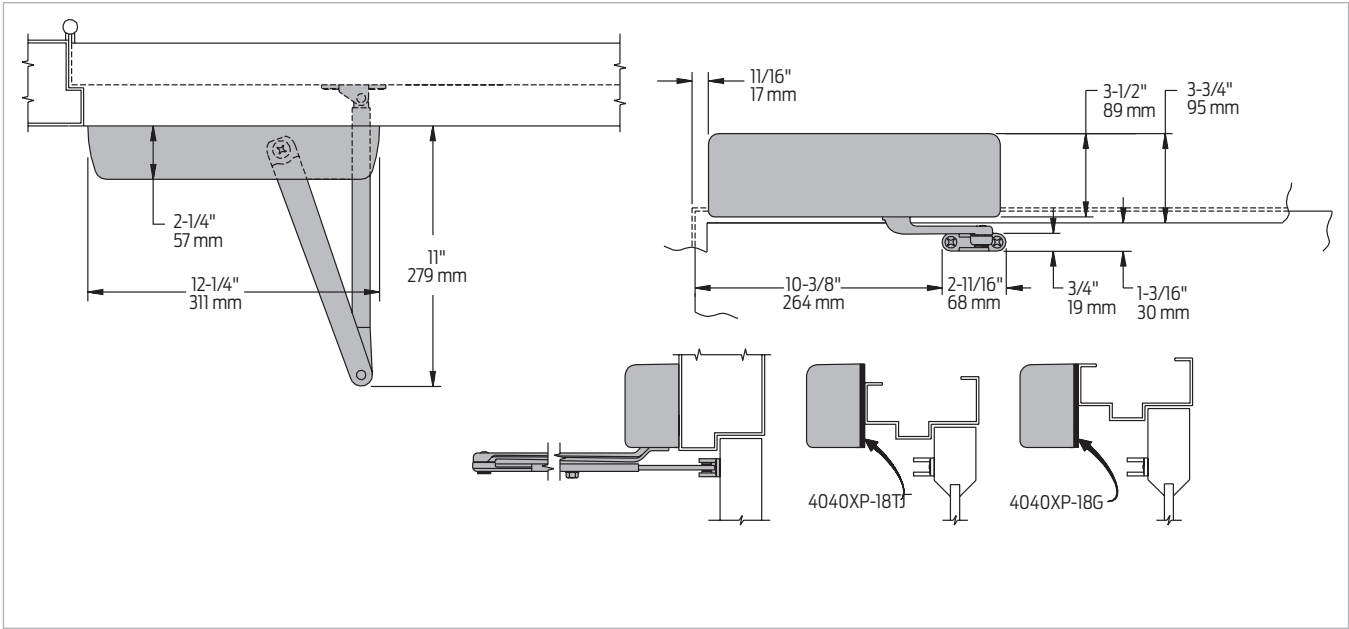
Hinge (pull) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing beyond 120°
Reveal	Should not exceed 3/4" (19 mm) for Regular or Hold Open Arm
Top rail	Less than 3 3/4" (95 mm) requires plate, 4040XP-18; Plate requires 2" (51 mm) minimum
Clearance	2 3/8" (60 mm) behind door required for 90° installation
Delay action	<ul style="list-style-type: none">■ Incorporates standard 4041 cylinder■ Delays closing from 120° to 70°■ Delay time adjustable up to approximately 1 minute
Maximum opening	<ul style="list-style-type: none">■ Templating allows up to 120°■ Hold open points 90° up to 120° with Hold Open Arm

Mounting details

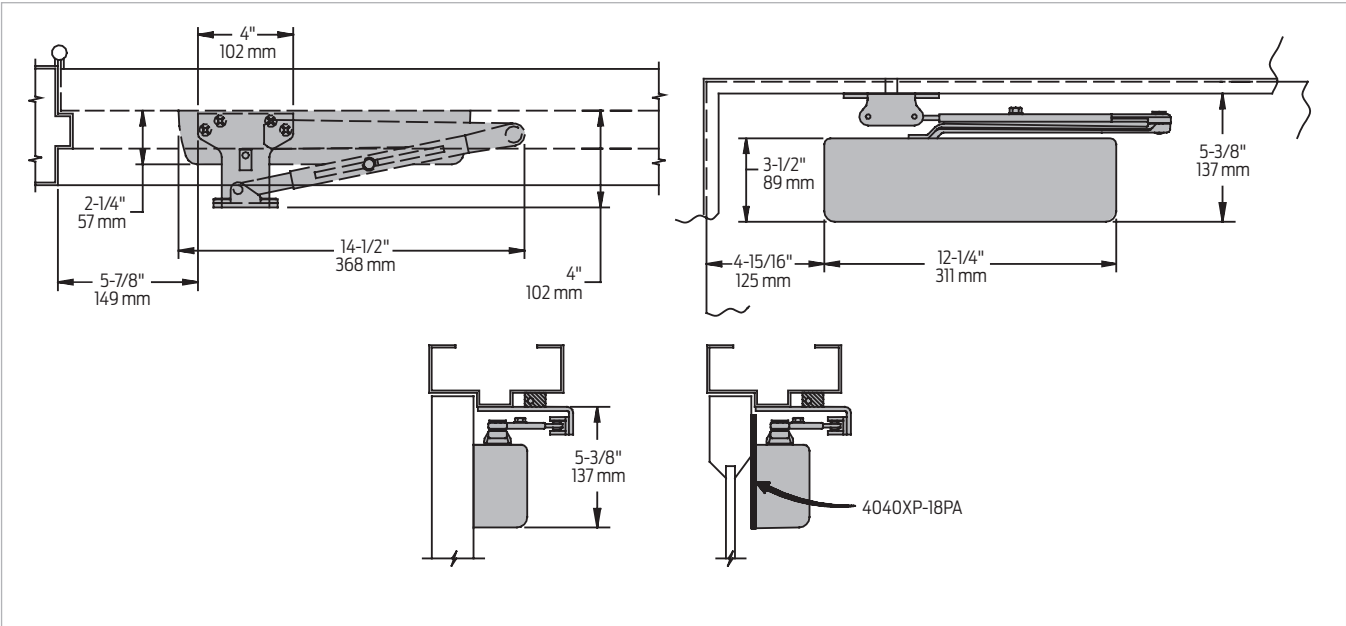
Top jamb (push) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing beyond 120°		
Reveal	Arm type	Reveal	Max opening
	Regular Arm	2 9/16"	Up to 120°
	Long Arm	4 13/16"	Up to 120°
	Hold Open Arm	2 9/16"	Up to 120°
	Hold Open Long Arm	8"	Up to 120°
Top rail	<ul style="list-style-type: none">Requires 1 1/4" (32 mm) minimum2 1/4" (57 mm) minimum with closer on plate, 4040XP-18TJ3" (76 mm) minimum with closer on plate, 4040XP-18G		
Head frame	<ul style="list-style-type: none">Less than 3 1/2" (89 mm) requires plate, 4040XP-18TJWith flush ceiling, use plate, 4040XP-18G. Either plate requires 1 3/4" (44 mm) minimum		
Maximum opening	<ul style="list-style-type: none">Templating allows up to 120°Hold open points 85° up to 120° with Hold Open Arm		
Delay action	<ul style="list-style-type: none">Incorporates standard 4041 cylinderDelays closing from 120° to 70°Delay time adjustable up to approximately 1 minute		

Mounting details

Parallel arm (push) side mounting



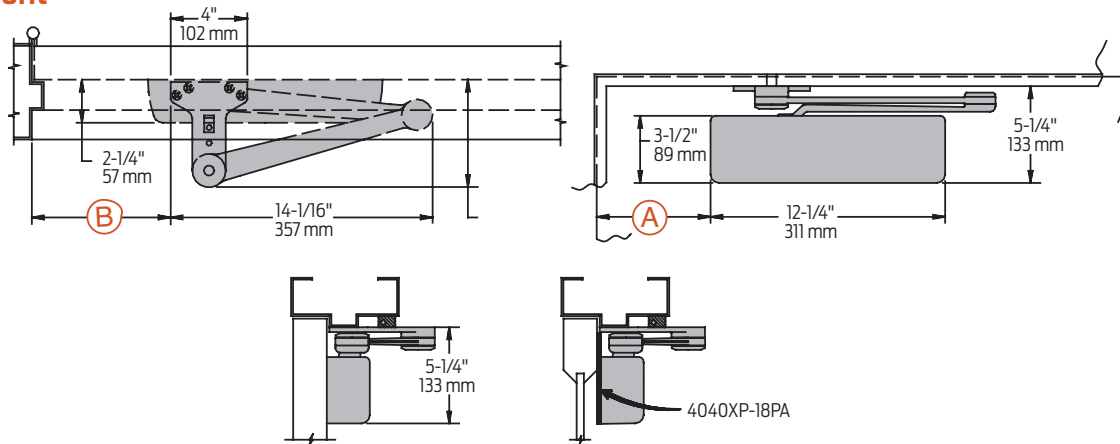
Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point, where the door cannot swing 180°, or where Cush-n-Stop Arm is not used
Reveal	Should not exceed 7/32" (6 mm)
Top rail	Less than 5 3/8" (137 mm) measured from the stop requires plate, 4040XP-18PA. Plate requires 2" (51 mm) minimum from the stop.
Head frame	Flush or rabbetted requires PA shoe adapter, 4040XP-419
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, 4040XP-61
Clearance	<ul style="list-style-type: none">4040XP-62PA shoe is 4" (102 mm) from door faceEDA shoe projects 5 1/2" (140 mm) from door faceCUSH shoe projects 6" (152 mm) from door face
Delay action	<ul style="list-style-type: none">Incorporates standard 4041 cylinder, without XP cylinderDelays closing from 120° to 70°Delay time adjustable up to approximately 1 minute
Maximum opening	<ul style="list-style-type: none">180° opening/hold open points with all except CUSH arms110° opening/hold open with CUSH arms

- Notes:
- Optional mounting requires PA shoe, 4040XP-62PA for regular or Hold Open Arms
 - Add prefix "P" to closer description (eg. P4040XP)
 - P4040XP closer includes 4040XP-201 fifth hole spacer to support PA shoe

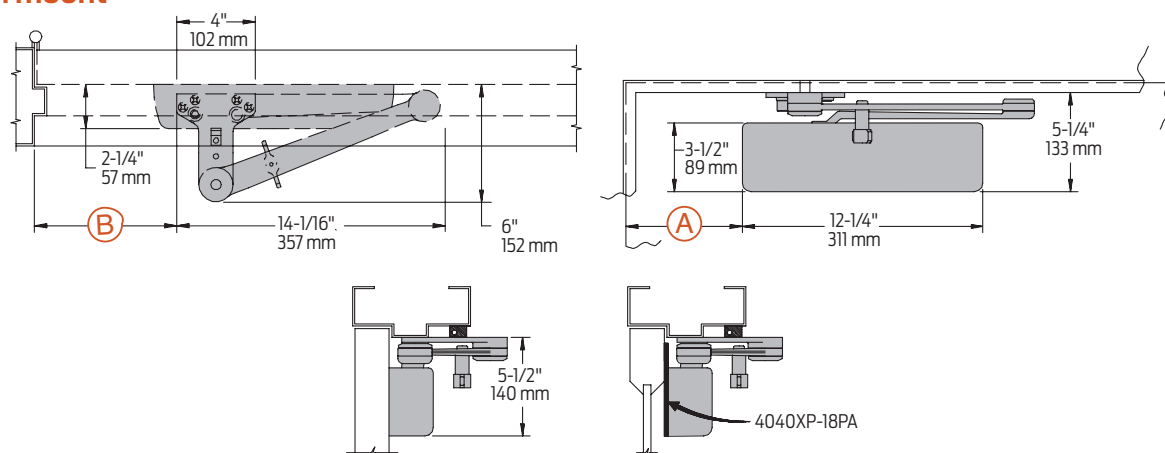
Mounting details

EDA and CUSH mounting

EDA mount



CUSH mount



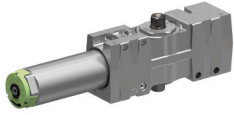
Clearance	4040XP-62EDA is 5 1/2" (140 mm) from door face; 6" (152 mm) for CUSH	
Head frame	Flush or rabbeted requires CUSH flush panel adapter, 4040XP-419	
CUSH Arm	Requires shoe support, 4040XP-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm)	
Delay action	<ul style="list-style-type: none"> Incorporates standard 4041 cylinder, without XP cylinder Delays closing from maximum opening to; 115° with 180° template, 95° with 110° template, 85° with 100° template, 75° with 90° template (delay time adjustable up to approximately 1 minute) 	
Maximum opening	EDA arm can be templated for points at:	CUSH arms can be templated for opening/hold open point at:
	110°: A = 6 3/8" (162 mm) B = 7 3/4" (197 mm)	85°: A = 7 15/16" (202 mm) B = 9 1/8" (232 mm)
	or 180°: A = 2 7/8" (73 mm) B = 4 1/4" (108 mm)	90°: A = 7 3/16" (183 mm) B = 8 1/2" (216 mm)
	Hold open points up to maximum opening with HEDA arm	100°: A = 6 1/16" (154 mm) B = 7 1/4" (184 mm)
		or 110°: A = 5 1/16" (129 mm) B = 6 3/8" (162 mm)

Notes:

- 4040XP Series closers ordered with EDA or CUSH arms include 4040XP-201 fifth hole spacer to support the shoe
- SCUSH stop points are approximately 5° more than templated stop point
- Hold open at templated stop points

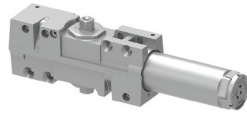
Accessories

Cylinders



**4040XP-3071
Cast iron cylinder
assembly (CYL)**

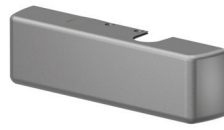
- Non-handed
- Heavy duty



**4041-3071 DEL
Delay Action Cylinder
(CYLDEL)**

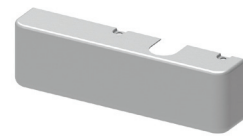
- Used for delayed action closing
- Non-handed
- Heavy duty

Covers



**4040XP-72
Plastic Cover (PC)**

- Non-handed
- Includes 4040XP-54 snap-on cover clip



**4040XP-72MC
Metal Cover (MC)**

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



**4040XP-3077
Regular Arm (REGARM)**

- Non-handed
- Mounts pull side or top jamb with shallow reveal P4041 closer includes PA shoe, 4040XP-62PA required for parallel arm mounting



**4040XP-3077L
Long Arm (LONG)**

- Non-handed
- Includes long rod and shoe, 4040XP-79LR for top jamb mount
- Optional



**4040XP-3077ELR
Extra Long Arm (XLONG)**

- Non-handed
- Includes extra long rod and shoe, 4040XP-79ELR for top jamb mount with deep reveal
- Optional



**4040XP-3049
Hold Open Arm (H)**

- Non-handed
- Mounts pull side or top jamb with shallow reveal, hold open adjustable shoe
- 4040XP closer includes 4040XP-62PA shoe required for parallel arm mounting
- Optional



**4040XP-3049L
Hold Open Long Arm (HLONG)**

- Non-handed
- Includes long head and tube, 4040XP-3048L for top jamb mount
- Optional



**4040XP-3077EDA
Extra Duty Arm (EDA)**

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- Optional



**4040XP-3049EDA
Hold Open Extra Duty Arm (HEDA)**

- Handed
- Parallel arm features forged, solid steel main and forearm for potentially abusive installations
- Hold open function is adjusted at the shoe
- Optional



**4040XP-3077EDA/62G
Extra Duty Arm with 62G Thick
Hub Shoe (EDAW62G)**

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- 62G shoe provides additional blade stop clearance
- Optional



**4040XP-3049EDA/62G
Hold Open Extra Duty arm with 62G
Thick Hub Shoe (HEDA62G)**

- Handed
- Features forged, solid steel main and forearm for potentially abusive installations
- 62G shoe provides additional blade stop clearance; hold open function is adjusted at the shoe
- Optional



**4040XP-3077CNS
Cush-n-Stop Arm (CUSH)**

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe.
- Optional



**4040XP-3049CNS
Hold Open Cush-n-Stop Arm
(HCUSH)**

- Non-handed
- Hold open function with templated stop/hold open points
- Handle controls hold open function
- Optional

Accessories

Arms (cont.)



4040XP-3077SCNS

Spring Cush-n-Stop Arm (SCUSH)

- Non-handed
- For potentially abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional

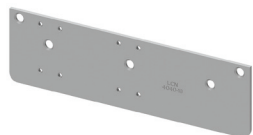


4040XP-3049SCNS

Spring Hold Open Cush-n-Stop Arm (SHCUSH)

- Non-handed
- For potentially abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Installation accessories



4040XP-18 Plate

- Required for hinge side mount where top rail is less than 3 3/4" (95 mm)
- Requires minimum 2" (51 mm) minimum top rail



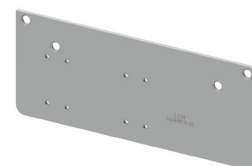
4040XP-18G Plate

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



4040XP-18TJ Plate

- 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



4040XP-18PA Plate

- Required for parallel arm mounting where top rail is less than 5 1/2" (140 mm), measured from the stop
- Requires 2" (51 mm) minimum top rail



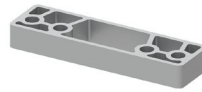
4040XP-62PA PA shoe

- Required for parallel arm mounting



4040XP-30 CUSH shoe support

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



4040XP-61 Blade stop spacer

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop
- Optional



4040XP-419 PA flush panel adapter

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



4040XP-62A Auxiliary shoe

- Requires a top rail of 7" (178 mm)
- Shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop
- Optional



4040XP-54 Snap-on cover clip

- Used to secure 4040XP-72 plastic cover to cylinder body

Ordering information

How-to-order 4040XP Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer options

Cylinder

- ☐ Delay Action Cylinder (CYLDEL)

Cover

- ☐ Metal (specify right or left hand)(MC)

Finish

- ☐ Custom powder coat (RAL) _____
(handed metal cover required)
☐ Plated finish, US _____
(handed metal cover required)
☐ SRI primer
(use with powder coat finishes only)

Arm

- ☐ Regular Arm (REGARM)
☐ Regular Arm with Parallel Arm Bracket (RWPA)
☐ Regular Arm with 62A Auxiliary Shoe (RW62A)
☐ Long Arm (LONG)
☐ Extra Long Arm (XLONG)
☐ Hold Open Arm (H)

- ☐ Hold Open with Parallel Arm Bracket (HWPB)
☐ Hold Open Long Arm (HLONG)
☐ Extra Duty Arm (EDA)
☐ Extra Duty Arm with 62G Thick Hub Shoe (EDAW62G)
☐ Hold Open Extra Duty Arm (HEDA)
☐ Cush-n-Stop Arm (CUSH)
☐ Hold Open Cush-n-Stop Arm (HCUSH)
☐ Spring Cush-n-Stop Arm (SCUSH)
☐ Spring Hold Open Cush-n-Stop Arm (SHCUSH)

Optional screw packs

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
☐ Wood and Machine Screws (WMS)
☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
☐ Torx Machine Screws (TORX)

- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4040XP-18
☐ Plate, 4040XP-18TJ
☐ Plate, 4040XP-18G
☐ Plate, 4030-18PA
☐ CUSH shoe support, 4040XP-30
☐ Blade stop spacer, 4040XP-61
☐ Auxiliary shoe, 4040XP-62A
☐ PA flush panel adapter, 4040XP-419

Special template

- ☐ ST- _____

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

Table of sizes

- 4040XP cylinders are adjustable from size 1 through size 6 and is shipped set to size 3
- Closing power of 4040XP Series closers may be adjusted 50%

Exterior (and vestibule) door width

	24"	30"	36"	42"	48"
	610mm	762mm	914mm	1067mm	1219mm
*4040XP	size 3	size 4	size 5	size 6	
	Minimum door width				

Interior door width


	24"	30"	38"	48"	54"	60"
	610mm	762mm	965mm	1219mm	1372mm	1524mm
*4040XP	size 2	size 3	size 4	size 5	size 6	
	Minimum door width					

➔ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 4040XP Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width	36"	42"	48"
	8.5* lbs.	4040XP	4040XP	4040XP
	5.0* lbs.	4040XP	4040XP	4040XP

* Maximum opening force.



The 4040XPT is a Grade 1 device featuring a cast iron body and Liquid X Fluid ideal for pull or push side placement in high traffic applications. Its high-quality construction provides for reliable performance.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Cover	<ul style="list-style-type: none">Plastic Cover (PC), standardMetal Cover (MC), optional
Body construction	<ul style="list-style-type: none">Cast iron bodyFull complement bearing1 1/2" diameter pistonDouble heat treated pinion journal	Fasteners	Self reaming and tapping screws (SRT)
Fluid	All weather liquid X fluid	Mounting	Pull side on door, pull side top jamb, push side on door
Handing	Non-handed	Arms	Standard arm and track with roller
Size	Adjustable spring size 1-4	Finishes/colors/ powder coat	<ul style="list-style-type: none">689 Aluminum690 Statuary bronze691 Light bronze693 Black695 Dark bronze696 BrassCustom colors optional <ul style="list-style-type: none">Optional SRI primer - powder coat onlyOptional plated finishes
Warranty	30 years		

Special templates

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

Mounting					Finish		Cover		Cylinder			Arm function*									
Hinge (pull) side	Top jamb (pull)	Top jamb (push)	Parallel arm	Stop face	Powder coat	Plated	Plastic	Metal	Non-handed	Non-sized	Accessibility	Delay Action***	CYLAVB**	Regular (double)	Standard (single)	Hold Open	Fusible Link	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH	Double Egress
Available	Available	Not available	Not available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available

Available

Not available

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

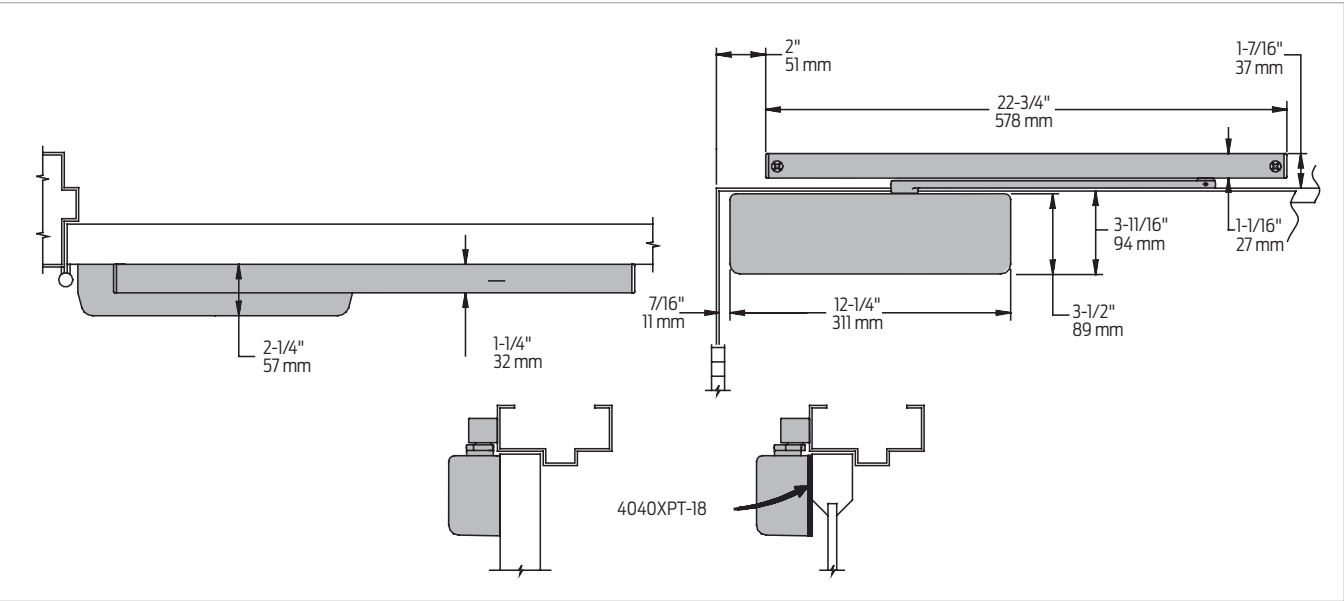
* Maximum opening/hold open point with standard template.

** Advanced Variable Back Check.

*** Delay feature incorporates standard 4040 cylinder (not XP).

Mounting details

Hinge (pull) side mounting

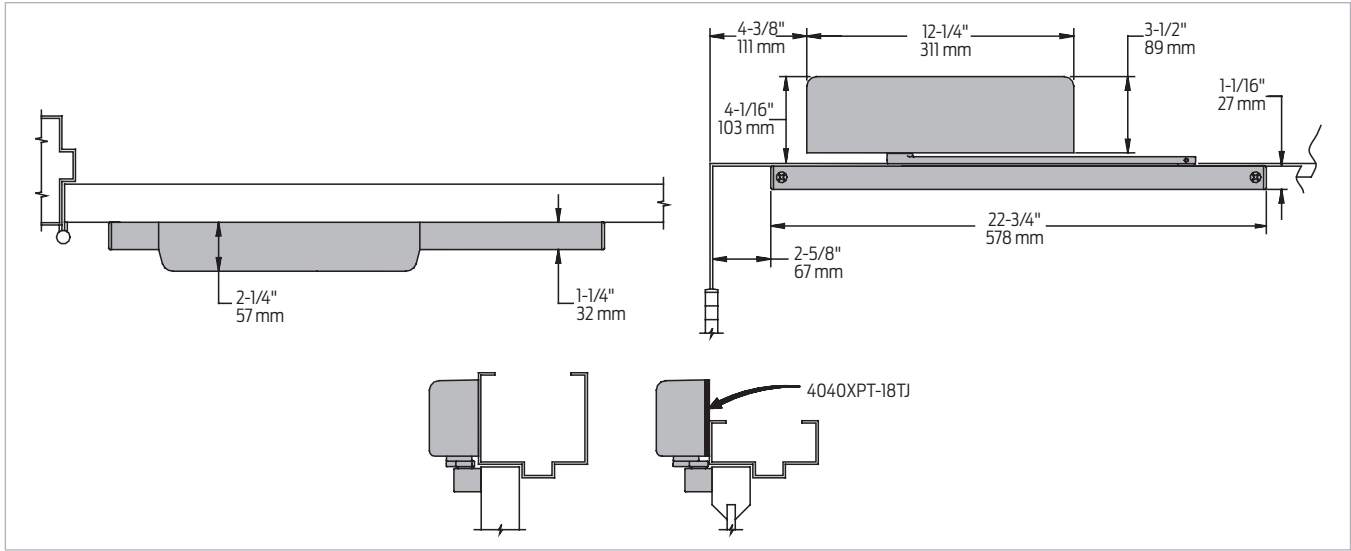


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 120°Optional track bumper assembly assists back check in cushioning the opening swing of the doorTrack bumper is not intended to replace an auxiliary stop
Reveal	Should not exceed 1/8" (3 mm) for standard arm
Top rail	Less than 3 3/4" (95 mm) requires plate, 4040XPT-18. Plate requires 1 13/16" (44 mm) minimum.
Head frame	Requires 1 1/4" (32 mm) minimum
Clearance	2 1/4" (57 mm) behind door required for 90° installation
Maximum opening	<ul style="list-style-type: none">Templating allows 120° with standard arm, limited to 110° when optional bumper is installedVariable hold open angles with infinite options

Note: Consult factory for applications where door must swing 180°.

Mounting details

Top jamb (pull) side mounting

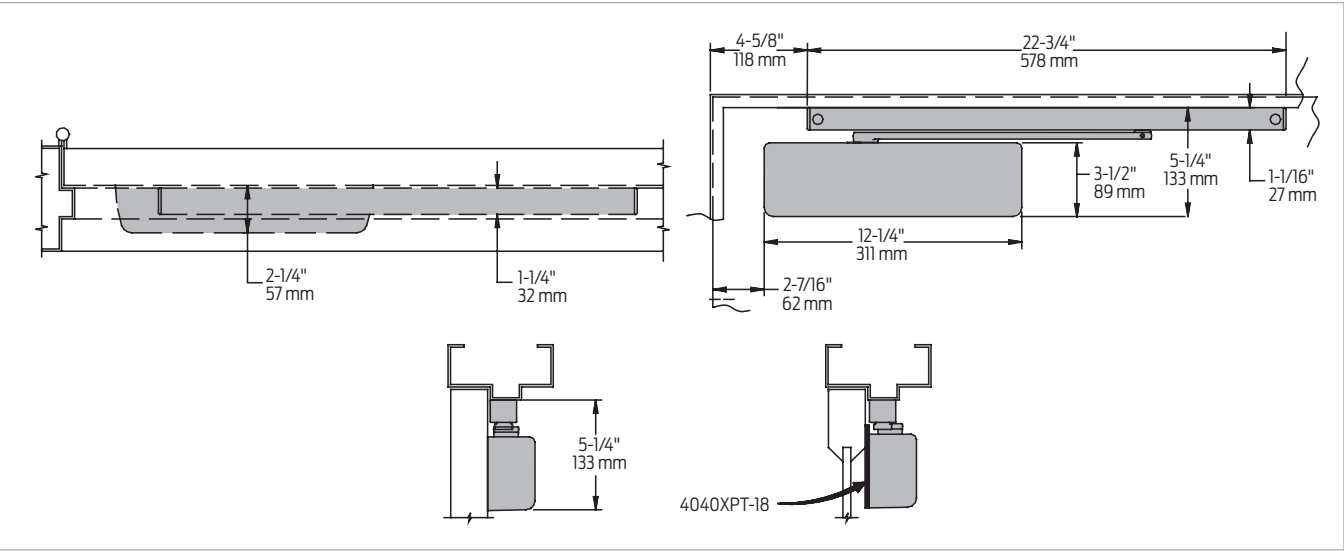


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 180°Optional track bumper assembly assists back check in cushioning the opening swing of the doorIt is not intended to replace an auxiliary stop
Reveal	Should not exceed 1/8" (3 mm)
Head frame	Less than 3 7/8" (98 mm), requires plate, 4040XPT-18TJ. Plate requires 1 3/4" (44 mm) minimum.
Clearance	1 1/4" (32 mm) behind door required for 180° installation
Maximum opening	<ul style="list-style-type: none">Templating allows 180° with standard track arm, limited to 110° with optional bumper installedConsult factory if door will be held open at 180°Variable hold open angles with infinite options

Note: Consult factory for applications where an exterior or large/heavy door must swing 180°

Mounting details

Stop face (push) side mounting

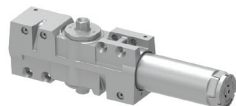


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 120°Optional track bumper assembly assists back check in cushioning the opening swing of the doorIt is not intended to replace an auxiliary stop
Clearance	Projects 2 1/4" (57 mm) from face of door
Top rail	<ul style="list-style-type: none">Less than 5 1/4" (133 mm) measured from the stop, requires plate, 4040XPT-18Plate requires 3 1/2" (89 mm) minimum
Stop width	Minimum 1 1/4" (32 mm)
Maximum opening	<ul style="list-style-type: none">Templating allows 120° with standard track arm, limited to 110° with optional bumper tracksVariable hold open angles with infinite options

Note: Consult factory for applications where door must swing 180°.

Accessories

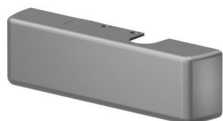
Cylinders



**4040XPT-3071
Cast iron cylinder
assembly (CYL)**

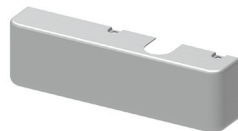
- Non-handed
- Standard

Covers



**4040XPT-72
Plastic Cover (PC)**

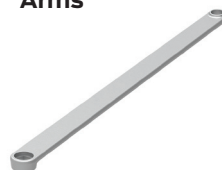
- Non-handed
- Snap-on
- Standard



**4040XPT-72MC
Metal Cover (MC)**

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



**4040XPT-3077T
Standard Arm
(STDTRKARM)**

- Non-handed
- Arm does not include track roller



**4040XPT-3077DE
Double Egress Arm
(DE)**

- Handed
- For double egress doors and frames
- Does not include track roller
- Maximum reveal is 2 11/16" (68mm)
- Optional

Tracks



**4040XPT-3038
Standard Track (STDTRK)**

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard



**4040XPT-3038B
Track with Bumper (BUMP)**

- Non-handed
- Non hold open
- Will accept hold open clip
- Optional



**4040XPT-3038H
Hold Open Track (H)**

- Non-handed
- With hold open clip installed
- Will accept bumper assembly
- Optional



**4040XPT-3038HB
Hold Open Track with Bumper
(HBMP)**

- Non-handed
- With hold open clip and bumper assembly installed
- Optional

Installation accessories



**4040XPT-18
Plate**

- Required for pull side (door mount) installations where top rail is less than 3 3/4" (95 mm)
 - 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
 - Requires minimum 3 1/2" (89 mm) top rail



**4040XPT-18TJ
Plate**

- Required for pull side top jamb installations where head frame is less than 3 7/8" (98 mm)
 - Requires minimum 1 3/4" (44 mm) head frame



**4040XPT-169
Track bumper**

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



**4040XPT-3054
Hold open clip**

- Mounts in track to provide hold-open function
- Hold open point controlled by clip location
- Consists of clip and mounting screws
- Requires 4040XPT-3034H hold open track roller



**4040XPT-3034
Track roller**

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



**4040XPT-3034H
Hold open track roller**

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

Ordering information

How-to-order 4040XPT Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze (691),
Black (693), or Brass (696)

Closer options

Cover

- ☐ Metal Cover (MC)

Finish

- ☐ Custom powder coat (RAL) _____
(handed metal cover required)
- ☐ Plated finish, US _____
(handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

Track

- ☐ Track with Bumper (BUMP)
- ☐ Hold Open Track (H)
- ☐ Hold Open Track with Bumper (HBMP)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Standard arm
- Track roller
- Standard track
- Self reaming and tapping screws
(unless options listed below are selected)

Screw pack

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4040XPT-18
- ☐ Plate, 4040XPT-18TJ

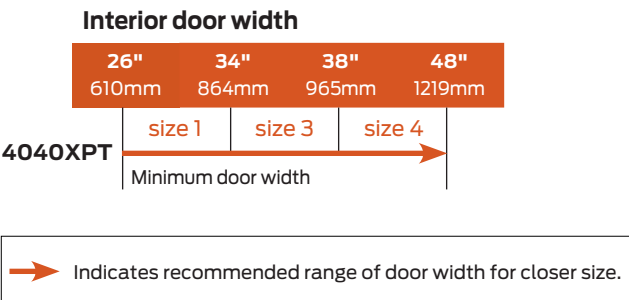
Special template

- ☐ ST- _____

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

Table of sizes


- Non-sized 4040XPT Series cylinder is adjustable from sizes 1 through 4 and is shipped set to size 3



Reduced opening force 4040XPT Series closers

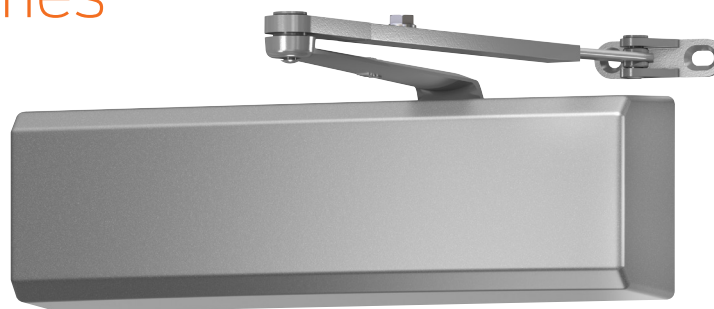
CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog 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.	4040XPT	4040XPT	4040XPT

* Maximum opening force.

4050A Series



The 4050A Series cast aluminum closer is engineered for durability and built tough to excel in the harsh environments of high frequency, high abusive traffic areas. Featuring the most common commercial footprint, it is ideal for commercial building applications that demand a combination of quality, reliability and value.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast aluminum body Full complement bearing 1 1/2" diameter piston 1 1/16" diameter double heat treated pinion journal
Fluid	All weather liquid X fluid
Handing	Non-handed
Templating	2 3/8" x 6 3/4" mounting hole pattern
Size	Adjustable spring size 1-6
Warranty	25 years

Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Fasteners	Self reaming and tapping screws (SRT)
Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Arms	Standard regular arm
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
	<ul style="list-style-type: none"> Optional SRI primer - powder coat only

Special templates

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

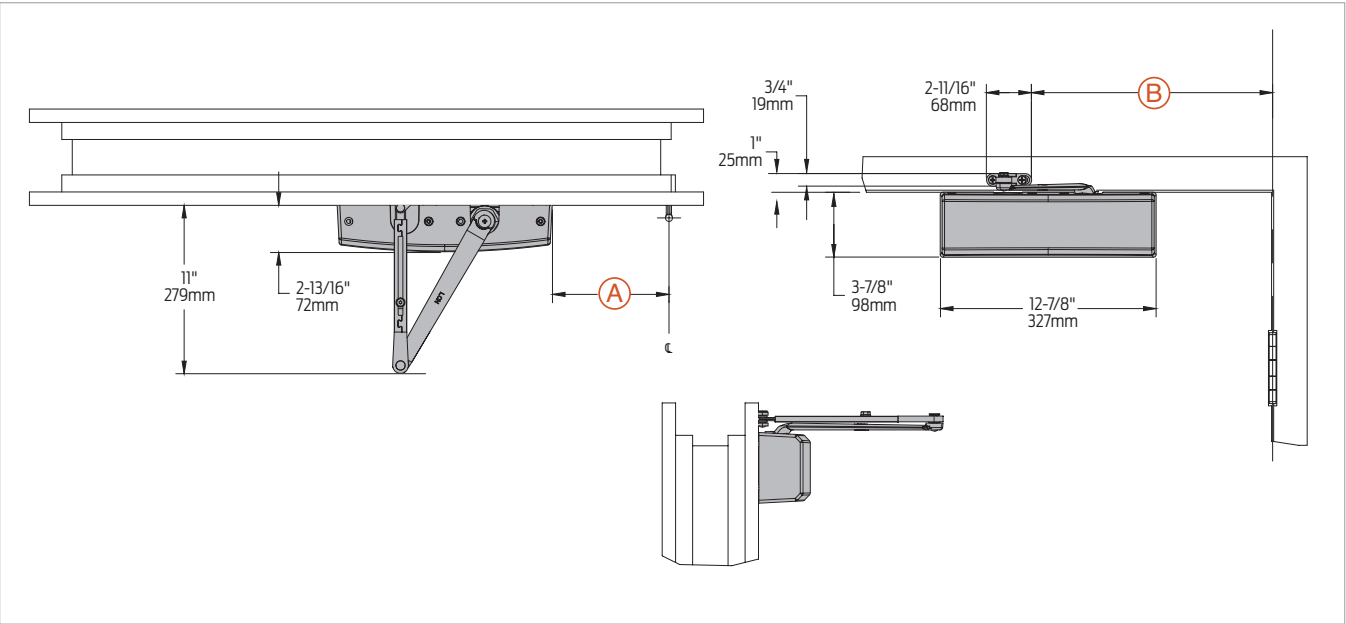
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Powder coat	Non-handed	Regular (double)	Regular (double)
Top jamb (pull)	Plated	Non-sized	Standard (single)	Standard (single)
Top jamb (push)	Plastic	Accessibility	Hold Open	Hold Open
Parallel arm	Metal	Delay Action***	Fusible Link	Fusible Link
Stop face		CYLAVB**	EDA/HEDA	EDA/HEDA
			CUSH/HEDASH	CUSH/HEDASH
			SCUSH/SHCUSH	SCUSH/SHCUSH
			Double Egress	Double Egress

■ 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 Back Check.
 *** Delay feature incorporates standard 4040 cylinder (not XP).

Mounting details

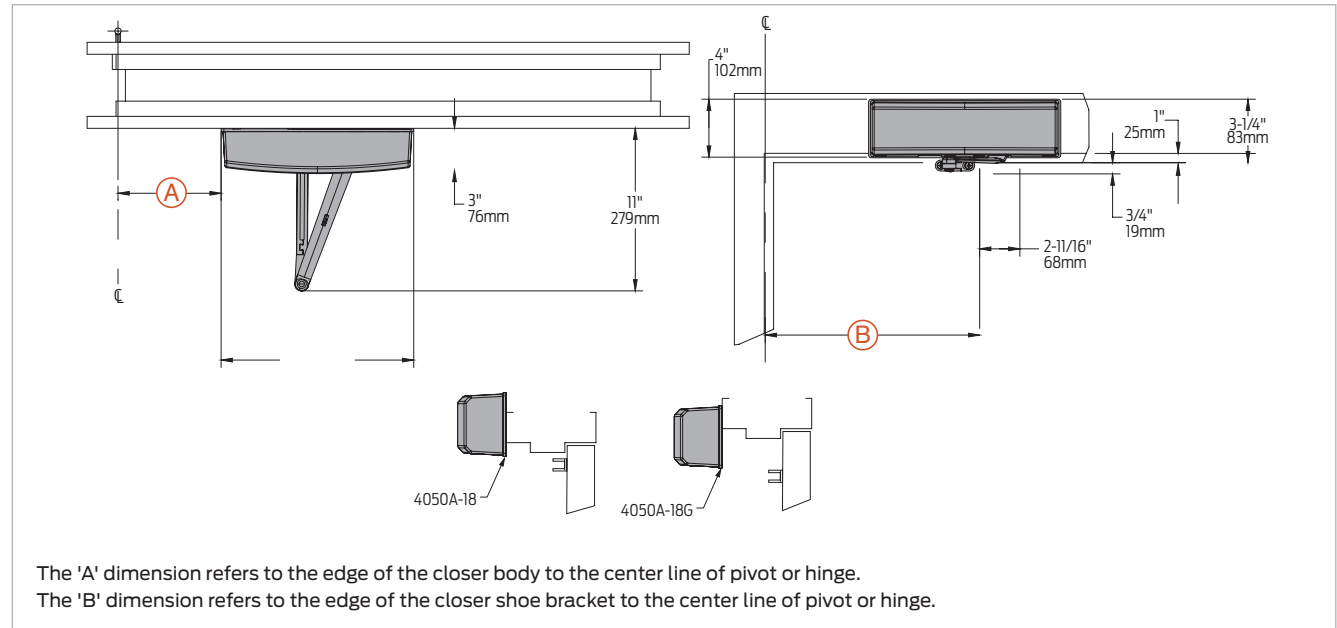
Hinge (pull) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing beyond templated maximum opening
Reveal	Should not exceed 3/4" (19 mm) for Regular Arm or Hold Open Arm
Top rail	<ul style="list-style-type: none"> Less than 3 7/8" (98 mm) requires plate, 4050A-18. Plate requires 1 13/16" (44 mm) minimum
Clearance	2 13/16" (72 mm) behind door required for 90° installation
Delay action	Delays closing from 180°-70°. Delay time adjustable up to approximately 1 minute
Maximum opening	<ul style="list-style-type: none"> Templating allows up to 180° Hold open points up to maximum opening with Hold Open Arm
	To 100°: A = 5 5/8" (143mm) B = 11 1/4" (286mm)
	100° to 120°: A = 4 3/8" (111mm) B = 10" (254mm)
	120° to 150°: A = 3 5/8" (92mm) B = 9 1/4" (235mm)
	150° to 180°: A = 2 5/8" (67mm) B = 8 1/4" (210mm)

Mounting details

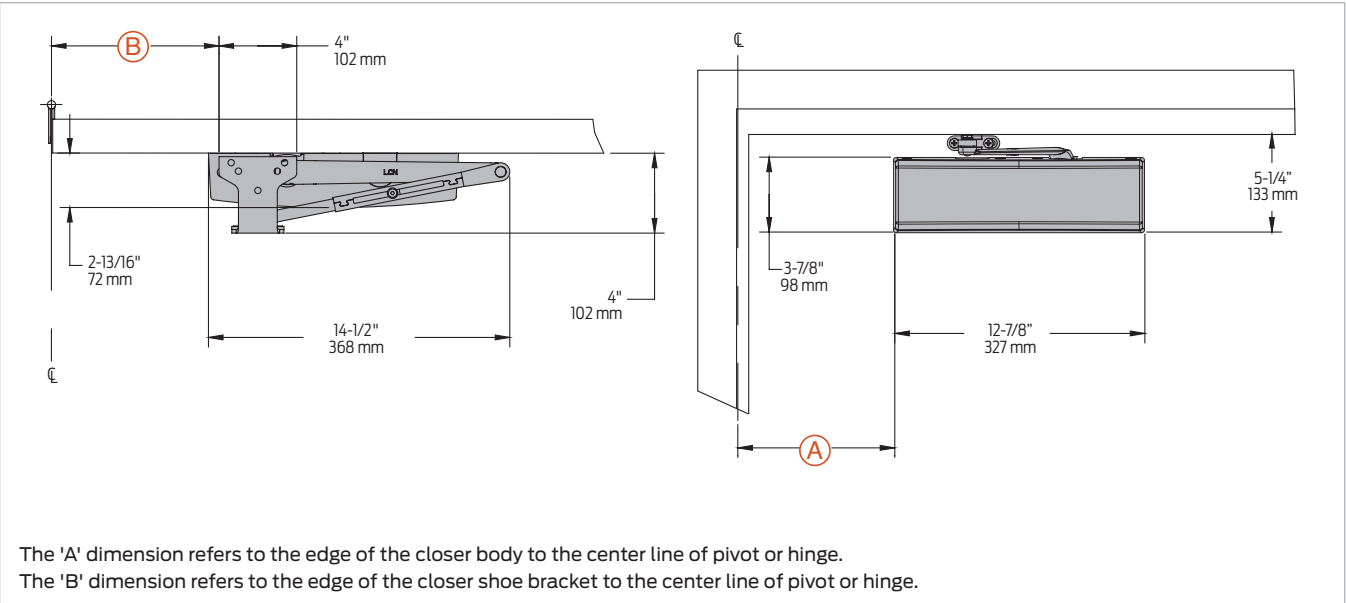
Top jamb (push) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing beyond templated maximum opening		
Reveal	Arm type	Reveal	Max opening
	Regular Arm	2 9/16"	Up to 180°
	Long Arm	4 13/16"	Up to 165°
	Hold Open Arm	2 9/16"	Up to 180°
	Hold Open Long Arm	4 13/16"	Up to 155°
Top rail	<ul style="list-style-type: none"> Closer on 4050-18 plate requires minimum 1 3/4" (45mm) Closer on 4050-18G plate requires minimum 3 3/8" (86mm) 		
Head frame	All top jamb installations require a plate <ul style="list-style-type: none"> 4050-18 plate requires minimum 3 1/4" (83mm) head frame and maximum stop height 5/8" (16mm) 4050-18G plate requires minimum 1 5/8" (41mm) head frame 		
Delay action	Delay closing from 180° to 70°. Delay time adjustable up to approximately 1 minute.		
Maximum opening	<ul style="list-style-type: none"> Templating allows up to 180° Hold open points up to maximum opening with Hold Open Arm 		
	To 100°:	A = 5 1/2" (140mm) B = 11 1/4" (286mm)	
	100° to 120°:	A = 4 1/4" (108mm) B = 10" (254mm)	
	120° to 150°:	A = 3 1/2" (89mm) B = 9 1/4" (235mm)	
	150° to 180°:	A = 2 1/2" (64mm) B = 8 1/4" (210mm)	

Mounting details

Parallel arm (push) side mounting



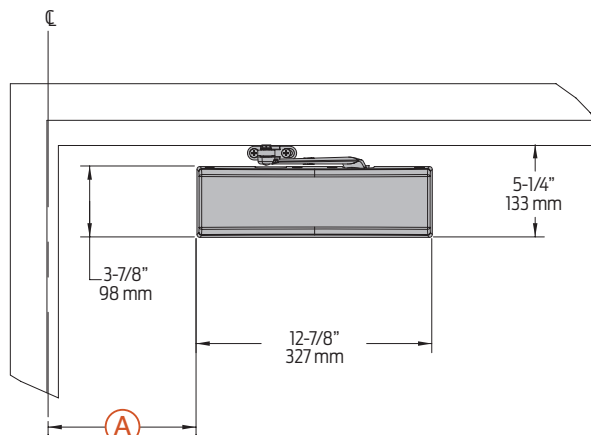
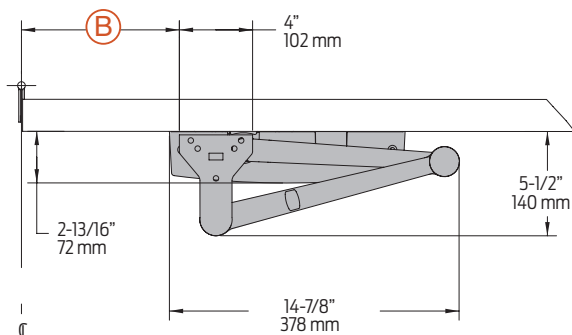
Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point, where the door cannot swing beyond templated maximum opening, or where Cush-n-Stop Arm is not used
Top rail	Less than 5 1/4" (133mm) measured from the stop requires plate, 4050A-18PA. Plate requires 2" (51mm) minimum from the stop.
Clearance	For 4050A-62PA shoe is 4" (102mm) from door face
Head frame	Flush or rabbetted requires PA shoe adapter, 4050A-419
Stop width	Minimum 1" (25mm)
Blade stop	Clearance requires 1/2" (13mm) blade stop spacer, 4050A-61
Delay action	Delays closing from 180°-70°. Delay time adjustable up to approximately 1 minute.
Auxiliary shoe	4050A-62A allows installation of Regular Arm with overhead holder/stop
Maximum opening	To 100°: A = 7 3/8" (187mm) B = 8 3/8" (213mm)
	100° to 130°: A = 6 3/8" (162mm) B = 7 3/8" (187mm)
	130° to 150°: A = 5 7/8" (149mm) B = 6 7/8" (175mm)
	150° to 180°: A = 4 7/8" (124mm) B = 5 7/8" (149mm)
	Hold open points up to maximum opening with Hold Open Arm

Note: Optional mounting requires PA shoe, 4050A-62PA for Regular or Hold Open Arms.

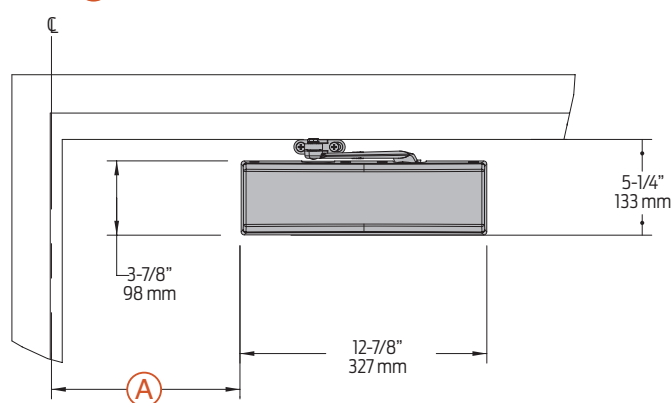
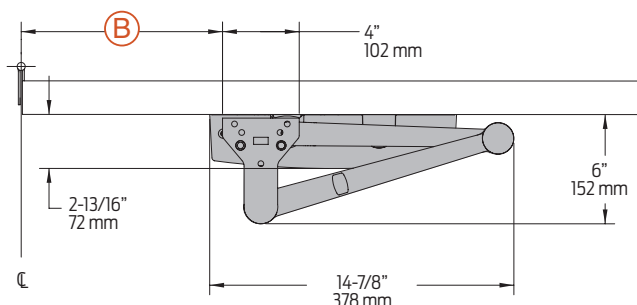
Mounting details

EDA and CUSH mounting

EDA mount



CUSH mount



The 'A' dimension refers to the edge of the closer body to the center line of pivot or hinge.

The 'B' dimension refers to the edge of the closer shoe bracket to the center line of pivot or hinge.

Clearance	4050A-62EDA is 5 1/2" (140mm) from door face. 6" (152mm) for CUSH	
Head frame	Flush or rabbeted requires flush panel adapter, 4050A-419	
CUSH Arm	Requires CUSH shoe support, 4050A-30 for fifth screw anchorage where reveal is less than 3 1/16" (78mm)	
Delay action	Delays closing from 180° to approximately 70°. Delay time adjustable up to approximately 1 minute.	
Maximum opening	EDA arm can be templated for points at: 100° CUSH arms can be templated for opening/hold open point at:	
	100°: A = 6 3/8" (162mm) B = 7 3/4" (197mm)	85°: A = 7 7/8" (200mm) B = 9 1/8" (232mm)
	100° to 130°: A = 4 7/8" (124mm) B = 6 1/4" (159mm)	90°: A = 7 1/8" (181mm) B = 8 1/2" (216mm)
	130° to 150°: A = 3 7/8" (98mm) B = 5 1/4" (133mm)	95°: A = 6 1/2" (165mm) B = 7 7/8" (200mm)
	150° to 180°: A = 2 7/8" (73mm) B = 4 1/4" (108mm)	100°: A = 6" (152mm) B = 7 1/4" (184mm)
	Hold open points up to maximum opening with HEDA arm	105°: A = 5 1/2" (140mm) B = 6 7/8" (175mm)
		110°: A = 5" (127mm) B = 6 3/8" (162mm)

Notes:

- SCUSH dead stop points are approximately 5° more than templated stop point
- Hold open at templated stop points
- 4050A Series closers ordered with EDA or CUSH arms include 4050A-201 fifth hole spacer to support the shoe

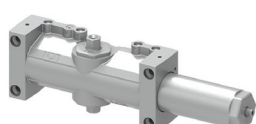
Accessories

Cylinders



4050A-3071
Cast aluminum cylinder assembly (CYL)

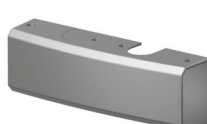
- Non-handed
- Heavy duty



4050A-3071 DEL
Delay action cylinder (CYLDEL)

- Cylinder used for delayed action closing
- Non-handed
- Heavy duty

Covers



4050A-72
Plastic Cover (PC)

- Non-handed
- Standard



4050A-72MC
Metal Cover (MC)

- Non-handed
- Required for plated finishes and custom powder coat finishes
- Optional

Alternate cover



4050A-72ALT
Alternate cover

- Non-handed
- Optional, sold separately (not packed with closer)

Arms



4050A-3077
Regular Arm (REGARM)

- Non-handed
- Mounts pull side or top jamb with shallow reveal
- Includes PA shoe, 4050A-62PA required for parallel arm mounting



4050A-3077L
Long Arm (LONG)

- Non-handed
- Includes long rod and shoe, 4050A-79LR for top jamb mount
- Optional



4050A-3049
Hold Open Arm (H)

- Non-handed
- Mounts pull side or top jamb with shallow reveal
- Hold open adjustable shoe
- 4050A closer includes 4050A-62PA shoe required for parallel arm mounting
- Optional



4050A-3049L
Hold Open Long Arm (HLONG)

- Non-handed
- Hold open adjustable shoe
- Includes long head and tube, 4050A-3048L for top jamb mount
- Optional



4050A-3077EDA
Extra Duty Arm (EDA)

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations



4050A-3049EDA
Hold Open Extra Duty Arm (HEDA)

- Handed
- Features forged, solid steel main and forearm for potentially abusive installations
- Hold open function is adjusted at the shoe



4050A-3077EDA/62G
Extra Duty Arm with 62G Thick Hub Shoe (EDAW62G)

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- 62G shoe provides additional blade stop clearance for use with additional door hardware such as an overhead holder



4050A-3049EDA/62G
Hold Open Extra Duty Arm with 62G Thick Hub Shoe (HEDA62G)

- Handed
- Features forged, solid steel main and forearm for potentially abusive installations
- 62G shoe provides additional blade stop clearance for use with additional door hardware such as an overhead holder
- Hold open function is adjusted at the shoe

Accessories

Arms (cont.)



**4050A-3077CNS
Cush-n-Stop Arm (CUSH)**

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe
- Optional



**4050A-3049CNS
Hold Open Cush-n-Stop Arm (HCUSH)**

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



**4050A-3077SCNS
Spring Cush-n-Stop Arm (SCUSH)**

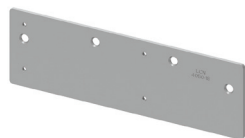
- Non-handed
- For potentially abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



**4050A-3049SCNS
Spring Hold Open Cush-n-Stop Arm (SHCUSH)**

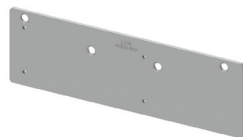
- Non-handed
- For potentially abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Installation accessories



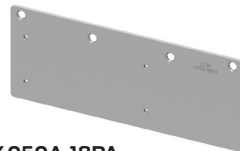
**4050A-18
Plate**

- Required for hinge side mount where top rail is less than 3 7/8" (98 mm)
 - Requires minimum 1 3/4" (44 mm) top rail



**4050A-18G
Plate**

- Locates top jamb mounted closer flush with top of head frame face in flush ceiling condition
- Contact LCN Product Support for minimum head frame requirement



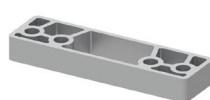
**4050A-18PA
Plate**

- Required for parallel arm mounting where top rail is less than 5 3/4" (146 mm), measured from the stop
 - Requires 2 1/4" (57 mm) minimum top rail



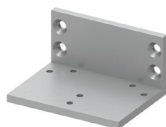
**4050A-30
CUSH shoe support**

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



**4050A-61
Blade stop spacer**

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop



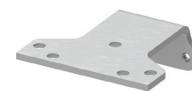
**4050A-419
Flush panel adapter**

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



**4050A-62A
Auxiliary shoe**

- Requires a top rail of 7 13/16" (198 mm)
- Replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop
- Optional



**4050A-62PA
PA shoe**

- Required for parallel arm mounting

Ordering information

How-to-order 4050A Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696).

Closer options

Cylinder

- ☐ Delay Action Cylinder (CYLDEL)

Cover

- ☐ Metal Cover (MC)
☐ Alternate Cover (ALT)

Finish

- ☐ Custom powder coat (RAL) _____
(handed metal cover required)
☐ SRI primer
(use with powder coat finishes only)

Arm

- ☐ Regular Arm (REGARM)
☐ Long Arm (LONG)
☐ Hold Open Arm (H)
☐ Hold Open with Parallel Arm Bracket (HWPB)
☐ Hold Open Long Arm (HLONG)
☐ Extra Duty Arm (EDA)
☐ Extra Duty Arm with 62G Thick Hub Shoe (EDAW62G)

- ☐ Hold Open Extra Duty Arm (HEDA)
☐ Hold Open Extra Duty Arm with 62G Thick Hub Shoe (HEDA62G)
☐ Cush-n-Stop Arm (CUSH)
☐ Hold Open Cush-n-Stop Arm (HCUSH)
☐ Spring Cush-n-Stop Arm (SCUSH)
☐ Spring Hold Open Cush-n-Stop Arm (SHCUSH)

Optional screw packs

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
☐ Wood and Machine Screws (WMS)
☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
☐ Torx Machine Screws (TORX)
☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Tri pack arm (Rw/PA)
- Self-reaming and tapping screws
(unless options listed below are selected)

Installation accessories

- ☐ Plate, 4050A-18
☐ Plate, 4050A-18G
☐ Plate, 4050A-18PA
☐ CUSH shoe support, 4050A-30
☐ Blade stop spacer, 4050A-61
☐ Auxiliary shoe, 4050A-62A
☐ Flush panel adapter, 4050A-419

Special template

- ☐ ST- _____

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

Table of sizes

- 4050A cylinders are adjustable from size 1 through size 6 and is shipped set to size 3
- Closing power of 4050A Series closers may be adjusted 50%

Exterior (and vestibule) door width

	24" 610mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
*4050A	size 3	size 4	size 5	size 6	
	Minimum door width				

Interior door width

	24" 610mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm	60" 1524mm
*4050	size 2	size 3	size 4	size 5	size 6	
	Minimum door width					

➔ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

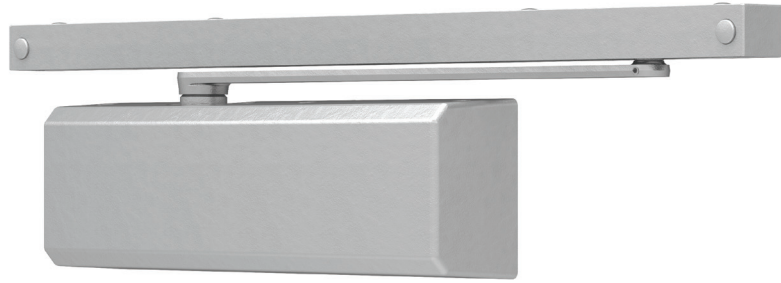
Reduced opening force 4050A Series closers

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

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

Door width	36"	42"	48"
8.5* lbs.	4050A	4050A	4050A
5.0* lbs.	4050A	4050A	4050A

* Maximum opening force.



The 4050AT cast aluminum heavy duty track closer is designed for rugged high frequency traffic areas. Ideal for commercial building applications and competitive specification situations that demand a combination of quality, reliability and value.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Body construction	<ul style="list-style-type: none"> Cast aluminum body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal 	Fasteners	Self Reaming and Tapping Screws (SRT)
Fluid	All weather fluid	Mounting	Pull side on door, pull side top jamb, push side on door
Handing	Non-handed	Arms	Standard arm and track with roller
Size	Adjustable spring size 1-4	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
Warranty	25 years		<ul style="list-style-type: none"> Optional SRI primer - powder coat only

Special templates

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

Mounting					Finish		Cover		Cylinder		Arm function*										
Hinge (pull) side	Top jamb (pull)	Top jamb (push)	Parallel arm	Stop face	Powder coat	Plated	Plastic	Metal	Non-handed	Non-sized	Accessibility	Delay Action***	CYLAVB**	Regular (double)	Standard (single)	Hold Open	Fusible Link	EDA/HEDA	CUSH/HCLUSH	SCUSH/SHCLUSH	Double Egress
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

■ Available

■ Not available

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

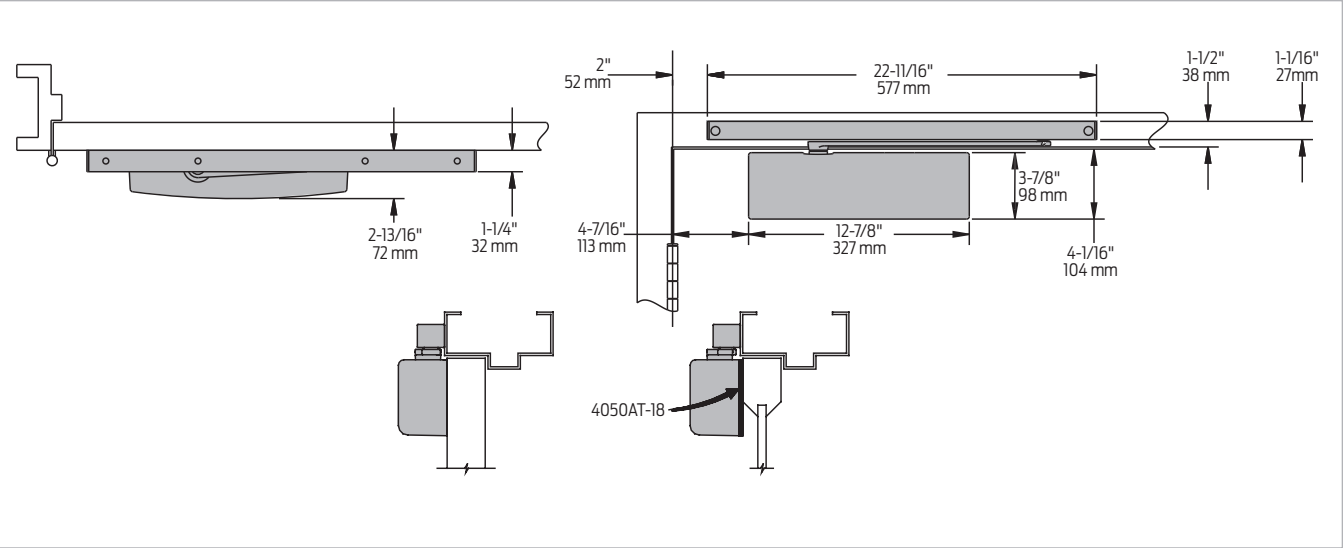
* Maximum opening/hold open point with standard template.

** Advanced Variable Back Check.

*** Delay feature incorporates standard 4040 cylinder (not XP).

Mounting details

Hinge (pull) side mounting

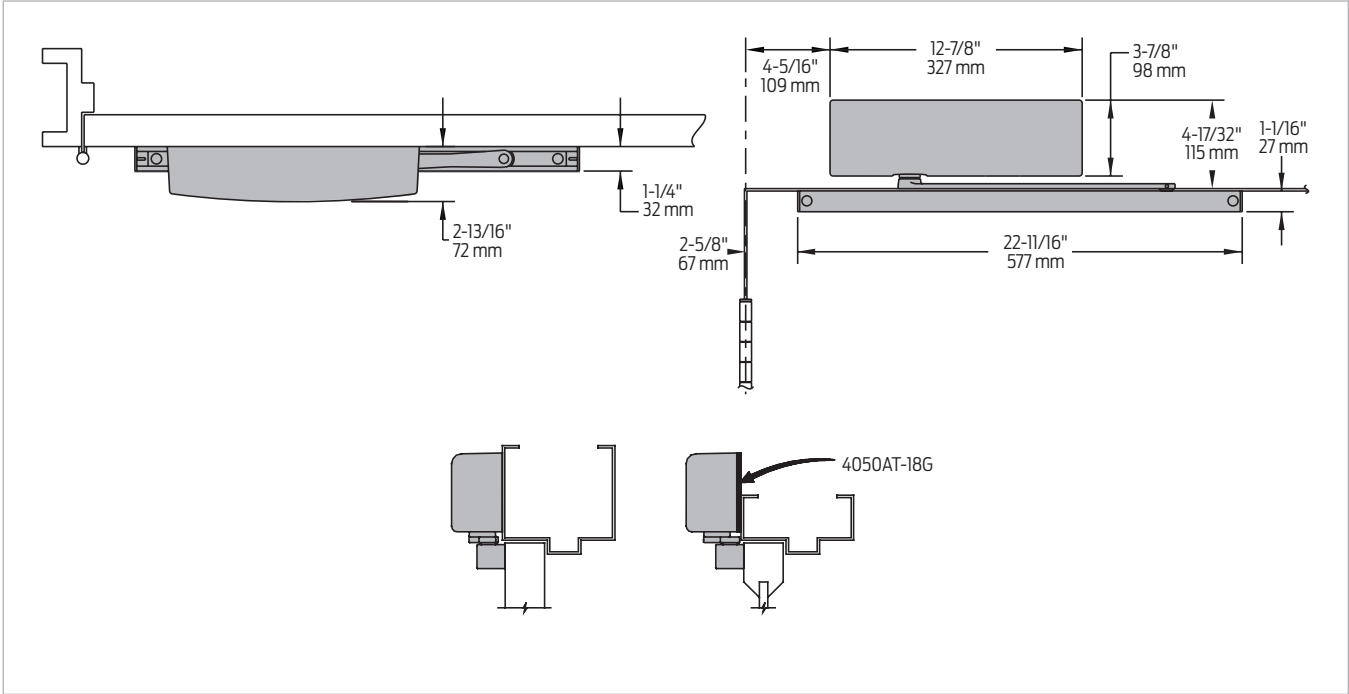


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 180°Optional track bumper assembly assists back check in cushioning the opening swing of the doorIt is not intended to replace an auxiliary stop
Reveal	Should not exceed 1/8" (3 mm) for standard arm
Top rail	Less than 4 1/8" (104 mm) requires plate, 4050AT-18. Plate requires 2 1/16" (52mm) minimum.
Head frame	Requires 1 1/4" (32 mm) minimum
Clearance	2 13/16" (52 mm) behind door required for 90° installation
Maximum opening	Templating allows 180°

Note: Consult factory for applications where door must swing 180°.

Mounting details

Top jamb (pull) side mounting

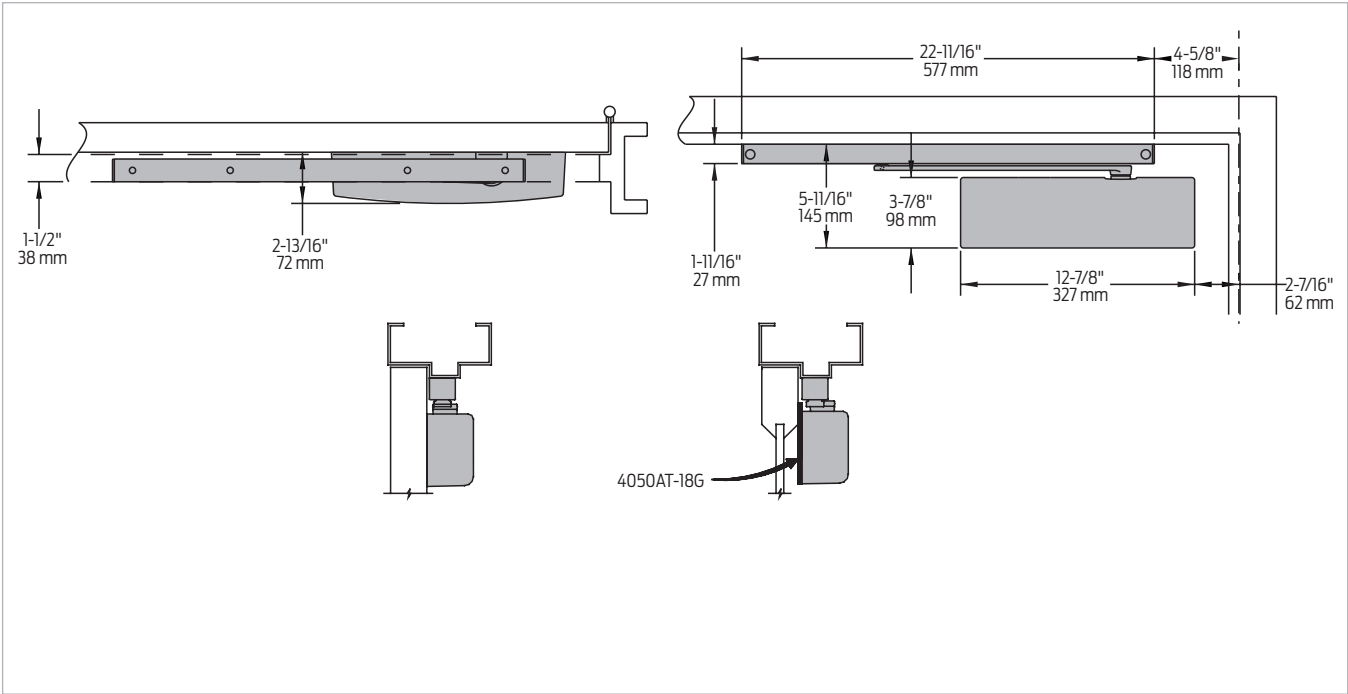


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 180°Optional track bumper assembly assists back check in cushioning the opening swing of the doorIt is not intended to replace an auxiliary stop
Reveal	Should not exceed 1/8" (3 mm)
Head frame	Less than 4 1/2" (114 mm), requires plate, 4050AT-18G. Plate requires 2 1/16" (52 mm) minimum.
Clearance	1 1/4" (32 mm) behind door required for 180° installation
Maximum opening	Templating allows 180°

Note: Consult factory for applications where an exterior or large/heavy door must swing 180°.

Mounting details

Stop face (push) side mounting

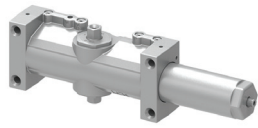


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 120°Optional track bumper assembly assists back check in cushioning the opening swing of the doorIt is not intended to replace an auxiliary stop
Clearance	Projects 2 9/16" (65 mm) from face of door
Top rail	<ul style="list-style-type: none">Less than 5 11/16" (144 mm) measured from the stop, requires plate, 4050AT-18GPlate requires 3 5/16" (84 mm) minimum
Stop width	Minimum 1 1/4" (32 mm)
Maximum opening	Templating allows 120°

Note: Consult factory for applications where door must swing 180°.

Accessories

Cylinders



4050AT-3071
Cast aluminum cylinder assembly (CYL)

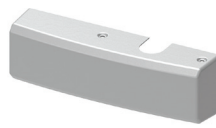
- Non-handed
- Standard

Covers



4050AT-72
Plastic Cover (PC)

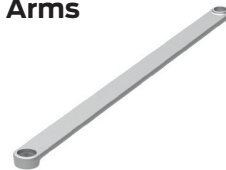
- Non-handed
- Standard



4050AT-72MC
Metal Cover (MC)

- Non-handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



4050AT-3077T
Standard Arm (STDTRKARM)

- Non-handed
- Arm does not include track roller



4050AT-3077DE
Double Egress Arm (DE)

- Handed
- For double egress doors and frames
- Does not include track roller
- Maximum reveal is 3" (76 mm)
- Optional

Tracks



4050AT-3038
Standard Track (STDTRK)

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard



4050AT-3038B
Track with Bumper (BUMP)

- Non-handed
- Non hold open
- Will accept hold open clip
- Optional



4050AT-3038H
Hold Open Track (H)

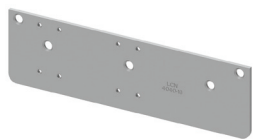
- Non-handed
- With hold open clip installed
- Will accept bumper assembly
- Optional



4050AT-3038HB
Hold Open Track with Bumper (HBMP)

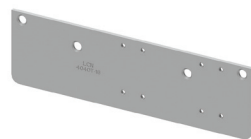
- Non-handed
- With hold open clip and bumper assembly installed
- Optional

Installation accessories



4050AT-18
Plate

- Required for pull side (door mount) installations where top rail is less than 4 1/8"
 - Requires minimum 2 1/16" top rail



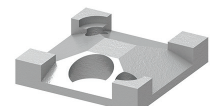
4050AT-18G
Plate

- Required for pull side top jamb installations where head frame is less than 4 1/2"
 - Requires minimum 2 1/16" head frame
- Required for push side (door mount) installations where top rail is less than 5 11/16" measured from the stop
 - Requires minimum 3 5/16" top rail



4050AT-169
Track bumper

- Mounts in track to assist back check, does not replace auxiliary stop
- Limits maximum opening; consists of bumper, bumper post and mounting screw



4050AT-3054
Hold open clip

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Consists of clip and mounting screws
- Requires 4050AT-3034H hold open track roller



4050AT-3034
Track roller

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



4050AT-3034H
Hold open track roller

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



4050AT-480
Pinion extender

- Connects pinion to arm

Ordering information

How-to-order 4050AT Series closers

1. Select finish

- ☐ Standard powder coat _____
Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696)

Closer options

Cover

- ☐ Metal Cover (MC)

Finish

- ☐ Custom powder coat (RAL) _____
(handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

Track

- ☐ Track with Bumper (BUMP)
- ☐ Hold Open Track (H)
- ☐ Hold Open Track with Bumper (HBMP)

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Standard arm
- Track roller
- Standard track
- Self reaming and tapping screws
(unless options listed below are selected)

Screw pack

- ☐ Through Bolt¹ and Torx Machine Screws (TBSRT)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ TORX machine screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4050AT-18
- ☐ Plate, 4050AT-18G

Special template

- ☐ ST- _____

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

Table of sizes

- Non-sized 4050AT Series cylinder is adjustable from sizes 1 through 4 and is shipped set to size 3


Interior door width				
	26"	34"	38"	48"
	660mm	864mm	965mm	1219mm
4050AT	size 2	size 3	size 4	
Minimum door width				

➡ Indicates recommended range of door width for closer size.

Reduced opening force 4050AT Series closers

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

Refer to Automatic Operators catalog 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.	4050AT	4050AT	4050AT

* Maximum opening force.

4110 Series



The 4110 is LCN's best performing heavy duty closer with an adjustable spring and possible hold open point beyond 140 degrees, meeting ADA requirements. Backed by a 30 year warranty, the cast iron body and all weather fluid offer versatility in high traffic applications.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1/16" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Handed
Templating	Peel-n-Stick templates - 2 1/2" x 6" mounting hole pattern
Size	Adjustable spring size 1-5, or sized 6, includes patented green dial
Warranty	30 years

Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Fasteners	Self Reaming and Tapping Screws (SRT)
Mounting	Parallel arm (push side)
Arms	Extra-duty arm
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional
	<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

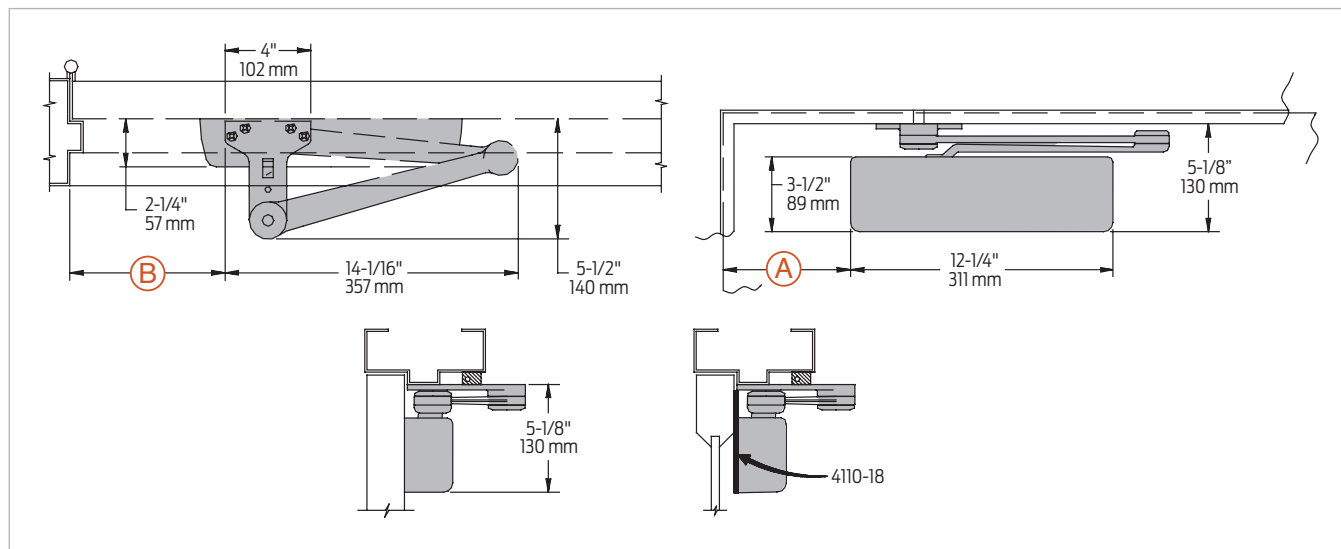
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side	Plastic	Non-handed	Regular (double)	180°
Top jamb (pull)	Metal	Non-sized	Standard (single)	180°
Top jamb (push)		Accessibility	Hold Open	110°
Parallel arm		Delay Action***	Fusible Link	110°
Stop face		CYLAVB**	EDA/HEDA	
Powder coat			CUSH/HCUSH	
Plated			SCUSH/SHCUSH	
			Double Egress	

- 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 Back Check.
 *** Delay feature incorporates standard 4040 cylinder (not XP).

Mounting details

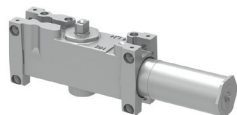
Parallel arm (push) side mounting



Butt hinges	Should not exceed 5" (127 mm) in width	
Auxiliary stop	Recommended at hold open point, where a door cannot swing 180°, or where Cush-n-Stop Arm is not used	
Clearance	EDA, or CUSH shoe is 5 1/2" (140 mm) from door face	
Top rail	<ul style="list-style-type: none"> 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 CUSH flush panel adapter, 4110-419	
Reveal	Less than 2 3/4" (70 mm), use CUSH shoe support, 4110-30 with CUSH arms	
Blade stop spacer	4110-61 required to clear 1/2" (13 mm) blade stop	
Cush arm	Requires CUSH shoe support, 4110-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm)	
Delay action	<ul style="list-style-type: none"> Add suffix "CYLDEL" to selected cylinder Not available with 4116 cylinder; delays closing from maximum opening to approximately 70° Delay time adjustable up to approximately 1 minute 	
Advanced Variable Back Check	<ul style="list-style-type: none"> Cylinder starts back check at approximately 45° instead of the normal 75° Add suffix "CYLAVB" to selected cylinder 	
Maximum opening	EDA or Fusible Link Arm can be templated for:	CUSH Arm can be templated for maximum opening at:
	100° A = 5 15/16" (151 mm) B = 7 1/4" (184 mm)	85° A = 8 5/16" (211 mm) B = 9 5/8" (244 mm)
	140° A = 4 7/16" (113 mm) B = 5 3/4" (146 mm)	90° A = 7 11/16" (195 mm) B = 9" (229 mm)
	or 180° A = 2 15/16" (75 mm) B = 2 15/16" (75 mm)	or 110° A = 5 9/16" (141 mm) B = 6 7/8" (175 mm)
	<ul style="list-style-type: none"> Hold open points up to maximum opening with HEDA or Fusible Link Arm 	<ul style="list-style-type: none"> Hold open point at maximum opening with HCUSH Arm SCUSH hold open points are approximately 5° less than templated stop point

Accessories

Cylinders



4111(6)-3071
Cast iron cylinder assembly (CYL)

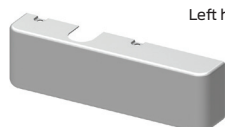
- Handed
- Standard

Covers



4110-72
Plastic Cover (PC)

- Non-handed
- Standard



Left hand shown

4110-72MC
Metal Cover (MC)

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



4110-3049EDA
Hold Open Arm (H)

- Handed
- Optional
- Provides hold open function, adjustable at shoe



4110-3049FL
Fusible Link Arm (FL)

- Handed
- Releases hold-open function adjustable at shoe when exposed to temperatures above 165° F
- Optional

Note: Check local codes before specifying FL arms.
NOT A life safety product!



4110-3077CNS
Cush-n-Stop Arm (CUSH)

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



4110-3077EDA
Extra Duty Arm (EDA)

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations



4110-3077EDA/62G
Extra Duty Arm (EDA)

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- Optional 4110-62G thick hub shoe for blade stop clearance



4110-3049CNS
Hold Open Cush-n-Stop Arm (HCUSH)

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



4110-3077SCNS
Spring Cush-n-Stop Arm (SCUSH)

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



4110-3049SCNS
Spring Hold open Cush-n-Stop Arm (SHCUSH)

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Installation accessories



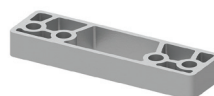
4110-18
Plate

- Required for push side mount where top rail is less than 5 1/8" (130 mm), measured from the stop
- Requires minimum 2" (51 mm) minimum top rail



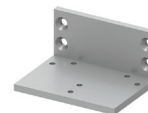
4110-30
CUSH shoe support

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



4110-61
Blade stop spacer

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



4110-419
PA flush panel adapter

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

Ordering information

How-to-order 4110 Series closers

1. Select cylinder size

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

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat _____
- Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696).

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Extra duty arm
- Self reaming and tapping screws (unless options listed below are selected)

Closer options

Cylinder

- ☐ Delay Action Cylinder (CYLDEL) (not available with 4116)
- ☐ Advanced Variable Back Check (CYLAVB)

Cover

- ☐ Metal Cover (MC)

Finish

- ☐ Custom powder coat (RAL) _____ (handed metal cover required)
- ☐ Plated finish, US _____ (handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

Arm

- ☐ Extra Duty Arm (EDA)

- ☐ Extra Duty Arm with 62G Thick Hub Shoe (EDAW62G)
- ☐ Hold Open Extra Duty Arm (HEDA)
- ☐ Fusible Link Arm (FL)
- ☐ Cush-n-Stop Arm (CUSH)
- ☐ Hold Open Cush-n-Stop Arm (HCUSH) (N/A with 4116 cylinder)
- ☐ Spring Cush-n-Stop Arm (SCUSH)
- ☐ Spring Hold Open Cush-n-Stop Arm (SHCUSH) (N/A with 4116 cylinder)

Optional screw packs

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)

- ☐ Wood and machine screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4110-18
- ☐ CUSH shoe support, 4110-30
- ☐ Blade stop spacer, 4110-61
- ☐ PA flush panel adapter, 4110-419

Special template

- ☐ ST- _____

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

Table of sizes

- Select closer based on width of door
- The spring power of non-sized 4111 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3
- Sized 4116 series cylinders 6
- Delay action not available with 4116 cylinder
- HCUSH and SHCUSH arm not available with 4116 cylinder

Exterior (and vestibule) door width

	28" 711mm	30" 762mm	36" 914mm	42" 1067mm	48" 1219mm
	size 3	size 4	size 5	size 6	
*4111	→				
4116	→				
	Minimum door width				

Interior door width


	28" 711mm	34" 864mm	38" 965mm	48" 1219mm	54" 1372mm	60" 1524mm
	size 2	size 3	size 4	size 5	size 6	
*4111	→					
4116	→					
	Minimum door width					

→ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 4110 Series closers

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

Refer to Automatic Operators catalog 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.

4110T Series



The 4110T is a Grade 1 push side, mounting track closer designed for interior high traffic applications. It features an optional track bumper assembly for additional cushioning in the opening swing of the door.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 1/2" diameter piston 1 1/16" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Handed
Size	Sized 1, 3, or 4
Warranty	30 years

Cover	<ul style="list-style-type: none"> Plastic Cover (PC), standard Metal Cover (MC), optional
Fasteners	Self reaming and tapping screws (SRT)
Mounting	Stop face (push side)
Arms	Standard arm and track with roller
Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary bronze 691 Light bronze 693 Black 695 Dark bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only Optional plated finishes

Special templates

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

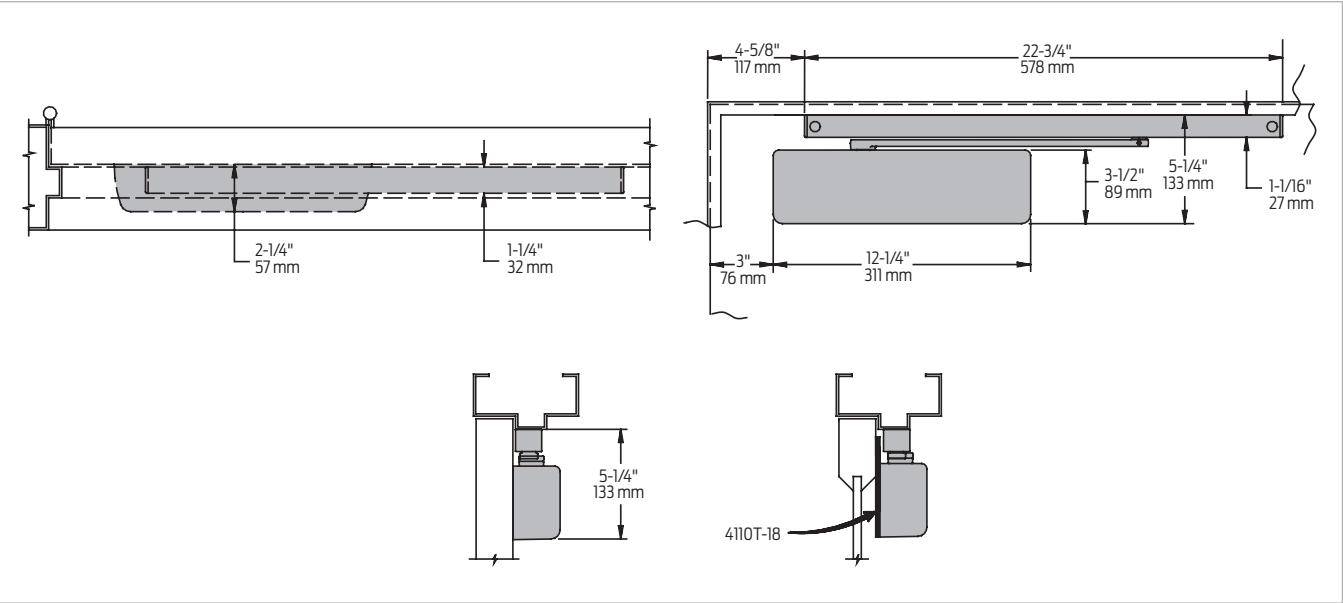
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side				
Top jamb (pull)				
Top jamb (push)				
Parallel arm				
Stop face				
Powder coat				
Plated				
Plastic				
Metal				
Non-handed				
Non-sized				
Accessibility				
Delay Action***				
CYLAVB**				
Regular (double)				
Standard (single)				
Hold Open				
Fusible Link				
EDA/HEDA				
CUSH/HCUSH				
SCUSH/SHCUSH				
Double Egress				

- 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 Back Check.
 *** Delay feature incorporates standard 4040 cylinder (not XP).

Mounting details

Stop face (push) side mounting

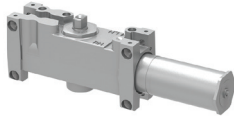


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	<ul style="list-style-type: none">Recommended at hold open point or where a door cannot swing 110°Optional track bumper assembly assists back check in cushioning the opening swing of the doorIt is not intended to replace an auxiliary stop
Clearance	Projects 2 1/4" (57 mm) from face of door
Top rail	<ul style="list-style-type: none">Less than 5 1/4" (133 mm) measured from the stop, requires plate, 4110T-18Plate requires 2 1/4" (57 mm) minimum
Stop width	Minimum 1 1/4" (32 mm)
Maximum opening	<ul style="list-style-type: none">Templating allows 110° with standard track arm, limited to 100° with optional bumper tracksVariable hold open angles with many options

Note: Consult factory for applications where door must swing 180°.

Accessories

Cylinders



**4111(3,4)T-3071
Cast iron cylinder
assembly (CYL)**

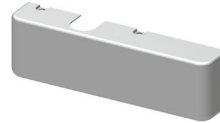
- Handed
- Standard

Covers



**4110T-72
Plastic Cover (PC)**

- Non-handed
- Standard



**4110T-72MC
Metal Cover (MC)**

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



**4110T-3077T
Standard Arm (STDTRKARM)**

- Handed
- Roller not included with arm

Tracks



**4110T-3038
Standard Track (STDTRK)**

- Non-handed
- Non hold open
- Will accept hold open clip and/or bumper assembly
- Standard



**4110T-3038B
Track with Bumper (BUMP)**

- Non-handed
- Non hold-open
- With bumper assembly installed
- Will accept hold-open clip
- Optional



**4110T-3038H
Hold Open Track (H)**

- Non-handed
- With hold open clip installed
- Will accept bumper assembly
- Optional



**4110T-3038HB
Hold Open Track with Bumper (HBMP)**

- Non-handed
- With hold open clip and bumper assembly installed
- Optional

Installation accessories



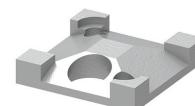
**4110T-18
Plate**

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



**4110T-169
Track bumper**

- Mounts in track to assist back check, not replace auxiliary stop
- Limits maximum opening; consists of bumper, bumper post, and mounting screw



**4110T-3054
Hold-open clip**

- Mounts in track to provide hold open function
- Hold open point controlled by clip location
- Consists of clip and mounting screws
- Requires 4110T-3034H track roller



**4110T-3034H
Track roller**

- Quiet, low friction roller assembly
- Shoulder dimension "X" = 1/16" (2mm)
- Spring-loaded hold-open mechanism



**4110T-3034
Track roller**

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

Ordering information

How-to-order 4110T Series closers

1. Select cylinder size

- ☐ 4111T (ADA)
- ☐ 4113T
- ☐ 4114T

2. Specify hand

- ☐ Right Hand (RH)
- ☐ Left Hand (LH)

3. Select finish

- ☐ Standard powder coat

Aluminum (689), Dark Bronze (695), Statuary Bronze (690), Light Bronze (691), Black (693), or Brass (696).

Closer will be shipped with:

- Standard cover
- Standard arm
- Track roller
- Standard track
- Self reaming and tapping screws (unless options listed below are selected)

Closer options

Cover

- ☐ Metal Cover (MC)

Finish

- ☐ Custom powder coat (RAL) _____ (handed metal cover required)
- ☐ Plated finish, US _____ (handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

Track

- ☐ Track with Bumper (BUMP)
- ☐ Hold Open Track (H)
- ☐ Hold Open Track with Bumper (HBMP)

Screw pack

- ☐ Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
- ☐ Wood and Machine Screws (WMS)
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
- ☐ Torx Machine Screws (TORX)
- ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

Installation accessories

- ☐ Plate, 4110T-18

Special template

- ☐ ST- _____

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

Table of sizes

- Select closer based on width of door
- Sized 4110T Series cylinders available in size 1, 3 or 4
- Specify next higher size closer where strong drafts exists

Interior door width


	26" 660mm	34" 864mm	38" 965mm	48" 1219mm
4113T	size 1	size 3	size 4	
4114T				
	Minimum door width			

→ Indicates recommended range of door width for closer size.

Reduced opening force 4110T Series closers

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

Refer to Automatic Operators catalog 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.	4110T	4110T	4110T

* Maximum opening force.

4000T Series



The 4000T is a heavy duty closer to reliably control fire and smoke barrier doors with maximum swing of 90°. Designed for use with an SEM 7850 wall magnet.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 hour salt spray, meets BAA - Buy American Act
Body construction	<ul style="list-style-type: none"> ▪ Cast iron body ▪ Full complement bearing ▪ 1½" diameter piston ▪ ¾" diameter double heat treated pinion journal
Fluid	All weather fluid
Handing	Non-handed
Size	Size 3 or 4
Warranty	30 years

Cover	<ul style="list-style-type: none"> ▪ Plastic Cover (PC), standard ▪ Metal Cover (MC), optional
Fasteners	Wood and Machine Screws (WMS)
Mounting	In a wall pocket, hinge side
Arms	Standard arm and track with roller
Finishes/colors/ powder coat	<ul style="list-style-type: none"> ▪ 689 Aluminum ▪ 690 Statuary Bronze ▪ 691 Light Bronze ▪ 693 Black ▪ 695 Dark Bronze ▪ 696 Brass ▪ Custom colors optional
	<ul style="list-style-type: none"> ▪ Optional SRI primer - powder coat only ▪ Optional plated finishes

Special templates

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

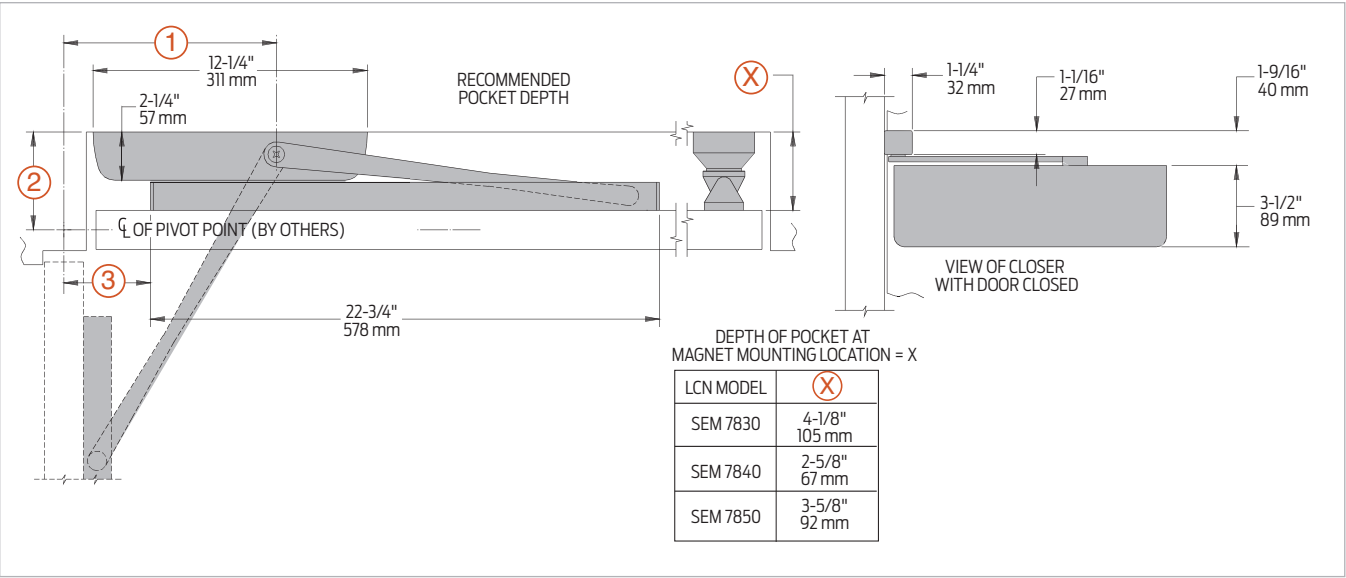
Mounting	Finish	Cover	Cylinder	Arm function*
Hinge (pull) side				
Top jamb (pull)				
Top jamb (push)				
Parallel arm				
Stop face				
Powder coat				
Plated				
Plastic				
Metal				
Non-handed				
Non-sized				
Accessibility				
Delay Action***				
CYLAVB**				
90°				
Regular (double)				
Standard (single)				
Hold Open				
Fusible Link				
EDA/HEDA				
CUSH/HCUSH				
SCUSH/SHCUSH				
Double Egress				

■ Available
■ Not available

* Maximum opening/hold open point with standard template.
 ** Advanced Variable Back Check.
 *** Delay feature incorporates standard 4040 cylinder (not XP).

Mounting details

Wall pocket mounting



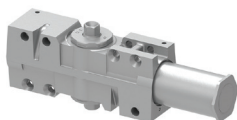
Butt hinges	<ul style="list-style-type: none">Pocket pivot, total door hinge or center pivot are door mounting optionsShould not exceed 5" (127 mm)
Pocket depth	<ul style="list-style-type: none">See above table for distance required between door and closer mounting locationThis dimension is measured from the cylinder mounting surface to the pull side face of the door at 90°
Wall magnet	<ul style="list-style-type: none">SEM 7850 is recommended; use of other magnets may require special construction to alter the depth of the pocket at the magnet locationSee Fire Life Safety catalog
Dimension 1	<ul style="list-style-type: none">The distance from the centerline of the closer shaft to the centerline of the hinge or pivotFor 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	<ul style="list-style-type: none">The distance from the centerline of the pivot or hinge to the cylinder mounting surfaceFor 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	<ul style="list-style-type: none">The distance from the centerline of the pivot or hinge to end of the trackFor pocket pivot or total door hinge, 3 7/8" (98mm)For butt hinge 2 3/8" (60mm)For center pivot 4 5/8" (117mm)
Maximum opening	<ul style="list-style-type: none">Templating allows 90° onlyHold open point 90° with magnet

Notes:

- Cylinder mounts on wall
- Track mounts on hinge side of door

Accessories

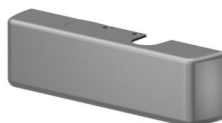
Cylinders



4003(4)T-3071
Cast iron cylinder assembly (CYL)

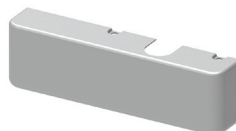
- Non-handed
- Standard

Covers



4000T-72
Plastic Cover (PC)

- Non-handed



4000T-72MC
Metal Cover (MC)

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



4000T-3077T
Standard Arm (STDTRKARM)

- Non-handed
- Roller not included with arm

Tracks



4000T-3038
Standard Track (STDTRK)

- Non-handed
- Non hold open
- Will not accept hold open clip or bumper assembly
- Standard



4000T-3034
Track roller

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

Ordering information

How-to-order 4000T Series closers

1. Select cylinder size
- ☐ 4003T
- ☐ 4004T
2. Select finish
- ☐ Standard powder coat _____
- Aluminum (689), Dark Bronze (695),
- Statuary Bronze (690), Light Bronze
- (691), Black (693), or Brass (696)

Closer options

- Cover
- ☐ Metal Cover (MC)
- Finish
- ☐ Custom powder coat (RAL) _____
- (handed metal cover required)
- ☐ Plated finish _____
- (handed metal cover required)
- ☐ SRI primer (use with powder coat finishes only)

- Closer will be shipped with:
- Standard cylinder
 - Standard cover
 - Standard arm
 - Track roller
 - Standard track
 - Self-reaming and tapping screws
- (unless options listed below are selected)

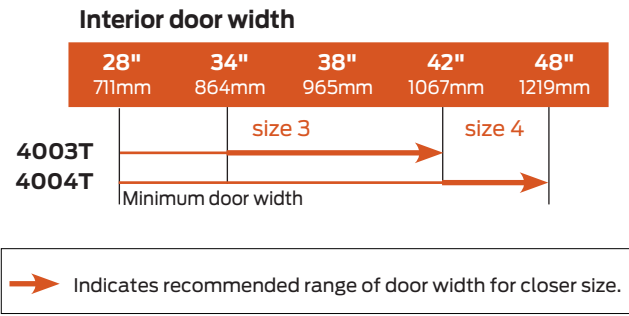
- Screw pack
- ☐ Through Bolt¹ Wood and Machine Screws (TBWMS)
 - ☐ Torx Machine Screws (TORX)
 - ☐ Through Bolt¹ and Torx Machine Screws (TBTRX)

- Special template
- ☐ ST- _____

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

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



About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions. Allegion had \$2.7 billion in revenue in 2018, and sells products in almost 130 countries.

For more, visit www.allegion.com.

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