ALLEGION™



Door closer reference guide

Featuring the LCN® 4040XP Series

Door closers: The focal point of an opening

A door closer is the focal point of any opening, controlling the speed and force with which the door operates. More than that, a door closer's efficient and effective functionality ensures that an opening into a facility—and the occupants and property within it—have the necessary security, accessibility and life-safety provisions. Because the functionality of a door closer impacts the entire opening, it's critical to invest in a high-quality door closer that is durable, reliable and wear-resistant. The investment upfront saves on time, labor and cost expenses on the backend, over the entire life of the product.

A door closer serves many purposes:

- **Security:** Security is one of the major roles for a door closer. A door must close on its own to keep occupants and property safe.
- **Accessibility:** A door must be able to be open with 5 pounds or less of force and only take a minimum of 5 seconds for the door to move from an open position of 90 degrees to 12 degrees from the latch.
- **Code compliance:** Closers are an integral—and required—part of fire door assemblies, ensuring doors can help compartmentalize a building and deter the spread of smoke and flames.
- **Life safety:** In order to suppress fire, doors must shut properly and completely. A door closer on a fire door also ensures occupants can exit a building easily if there's an emergency.
- **Control:** A door closer controls both the force and speed of a door in the opening and closing cycles.
- **Energy conservation:** Facilities can improve their energy efficiency and realize heating and cooling cost-savings when openings are equipped with an effective door closer.



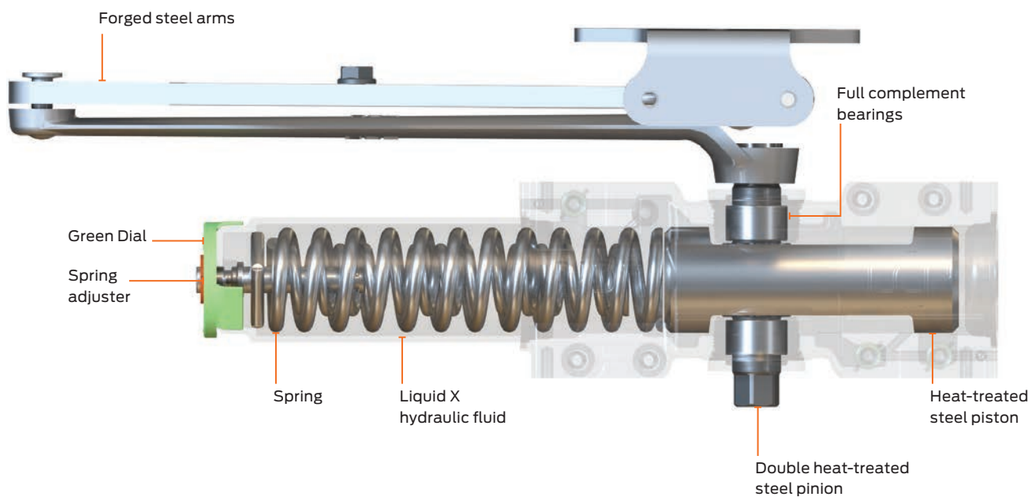
Considerations when choosing a door closer

Because a door closer has multiple purposes, there are several things to consider when choosing the right one for your opening:

- **Durability:**
  How many people are going to enter through this door?
  What amount of use (and abuse) will the opening sustain?
- **Installation time and maintenance:**
  How easy or difficult is a closer to install?
  Does the closer have intuitive features that make installation quicker and, most importantly, accurate?
- **Adjustability:**
  How often do you need to adjust the closer?
  How easy (or difficult) is this to do?



Anatomy of a door closer



How a hydraulic door closer works

- The spring within the closer body stores energy during the opening of the door. This stored energy provides the power to close the door.
- Hydraulic fluid is contained inside the sealed closer body. It's the flow of this fluid through regulation valves during the opening and closing cycles that controls the speed of the door swing.
- The closer body also includes a pinion and a piston. When the door opens, the arm on the closer body transmits the motion to the pinion. As the pinion turns, it moves the piston.
- The movement of the piston compresses the main spring and pumps the hydraulic fluid through the back check regulation valve.
- The spring pressure increases as the door is opened.
- As the door is closing, the spring expands and exerts pressure on the piston. As the piston moves back, fluid is forced through the main and latch speed regulation valves back to the area surrounding the spring.

LCN®
4040XP Series

A heavy-duty closer unlike any other

High-traffic doors call for heavy-duty closers that won't let you down, no matter how many people go through the door. And when it comes to heavy-duty closers, no other closer is like the LCN 4040XP. As a durable non-handed, surface-mounted heavy-duty closer, it is designed for the most demanding high-use-and-abuse applications.

LCN 4040XP: Above the standard

The LCN 4040XP meets all the standards you'd expect of a heavy-duty closer:

- ANSI/BHMA A156.4 Grade 1 rated
- Meets ADA requirements for opening force
- cUL listed and UL listed
- 30-year limited warranty

But the beauty of the 4040XP is that it goes way beyond the required standards. And in doing so, it has set the standard for reliability, longevity and value.

- We use strong materials designed to go the distance.
- We have proven production processes and technology that ensure a tougher, bolder construction.
- We put our closers to the test with several abuse-cycle and temperature tests that mimic what door closers encounter in high-abuse environments.
- We've added several upgrades to simplify installation and adjustments, minimize risk for damage, and provide a better overall user experience.

The LCN 4040XP is designed for maximum durability, reliability and wear-resistance. It lasts longer and needs less maintenance and repairs—making it a product you can count on for a long time.



Key features of the 4040XP

Quality and durability

The LCN 4040XP is known for its unparalleled quality, which leads to reliability and durability in the field.

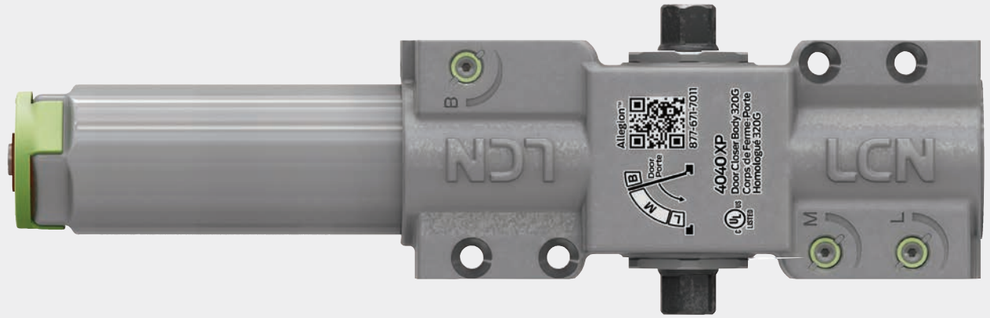
- Cast iron cylinder for rugged performance, longer life and maximum control
- Single-piece, heat-treated forged steel arms to withstand bending and breaking
- Heat-treated 1-1/2" diameter piston for extra hardiness and strength
- Double heat-treated steel pinion with 11/16” journal diameter for greater wear-resistance
- Full complement bearings with minimum 0.5” height that wear more evenly and are less susceptible to leakage
- All-weather Liquid X fluid for consistent performance through every season, regardless of temperature changes
- Independent speed adjustments for greater door control
- Non-PRV (pressure relief valve) design to minimize risk of property damage, injury, increased maintenance and liability exposure
- Redesigned snap-fit cover with patent-pending retention fit
- Powder coat finish that lasts longer than spray lacquer
- 30-year warranty

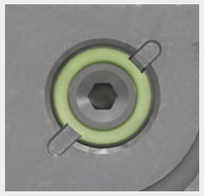
Flexibility

The 4040XP can be used in multiple applications, thanks to its flexible design.

- Universal non-handed design that enables it to fit more applications with a single product
- Full ranges of mount and arm options, including hinge pull side, push side top jamb and push side parallel arm
- Adjustable spring sizes 1-6





 LCN Green Dial	 Patent-pending positive stop	 Labeled regulation valves and diagram of door swing	 Patent-pending regulation valve indicators

Ease of installation & adjustment

Our tight tolerances in manufacturing provide assurance that when the closer is ready to be installed, it will be accurate and precise. Additionally, there are several design enhanced features that make installation or adjustment easier and more intuitive.

- Peel-n-stick template for quick and accurate installation
- LCN Green Dial to take the guesswork out of spring force adjustments
- Patent-pending positive stop to improve staking and prevent the screw from being backed out
- Patent-pending regulation valve indicators that add a visual reference for screw adjustment location
- Labeled regulation valves and diagram of door swing to make adjustments faster, easier and consistent

QR code for on-the-spot access to interactive instructions and technical support

4040XP: Getting the job done

The LCN 4040XP is a door closer you can count on to get the job done. Even more, its installation and maintenance is made easy, thanks to its intuitive design. With the 4040XP, installers and service technicians can have confidence in how to install and adjust the door closer properly—ultimately, maximizing the life of the product. Plus, with the 4040XP, you can better manage your inventory because this robust closer is designed to fit multiple applications—giving you one closer for all of your high use openings. Best of all, LCN is here to support you throughout the life of your facility with all of your technical and application needs.



Common applications for the 4040XP

- Schools
- Hospitals
- Commercial buildings
- Government buildings

Type of doors

- High traffic
- High abuse
- Exterior and interior





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 2020, and its security products are sold around the world.

For more, visit **www.allegion.com**

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