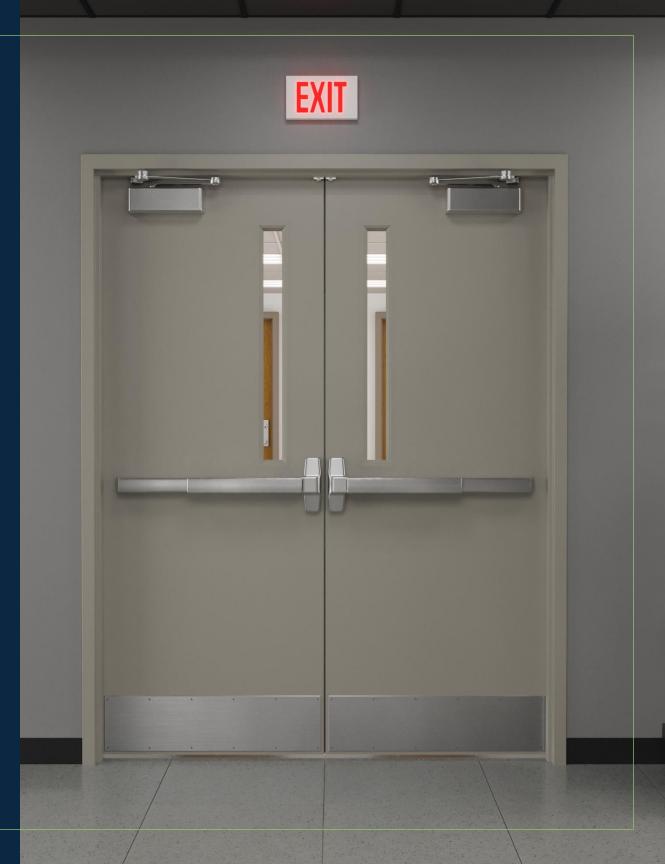


# 4040XP Heavy Duty Closer

**Designed for Demanding Applications** 





# What You'll Learn

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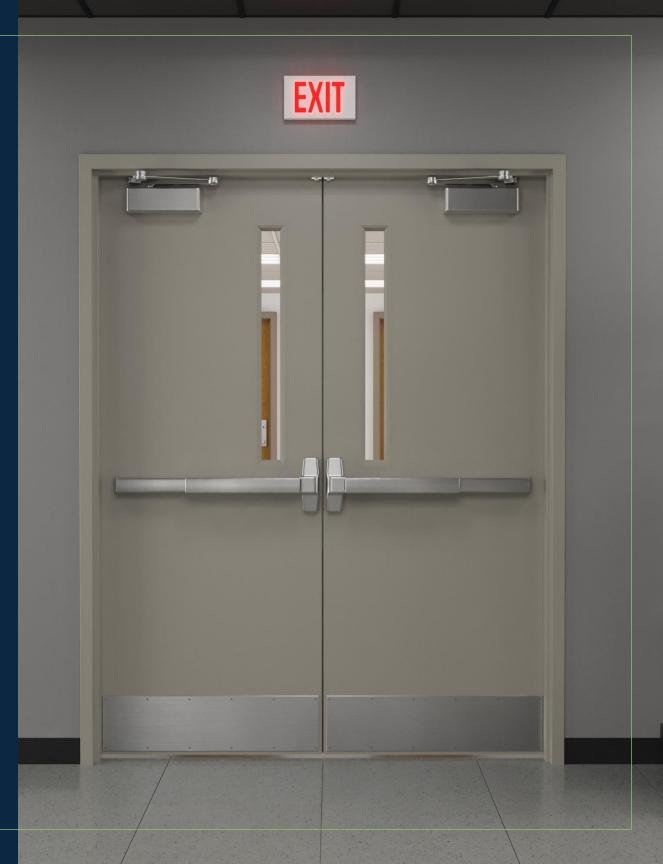
Door closer 101: Purpose, Anatomy and Considerations

4040XP: Performance, Durability and Features

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Common Applications Support and Resources



## Back to the Basics of Door Control



Shifting demographics, with **50%** of current workforce retiring in 5-15 years

- Skilled trades labor shortage
- New technicians entering the workforce •

# Purpose of a Door Closer





#### Code Compliance

Closers are an integral and required part of fire door assemblies.



# Anatomy of a Closer

#### **Closer Arm**

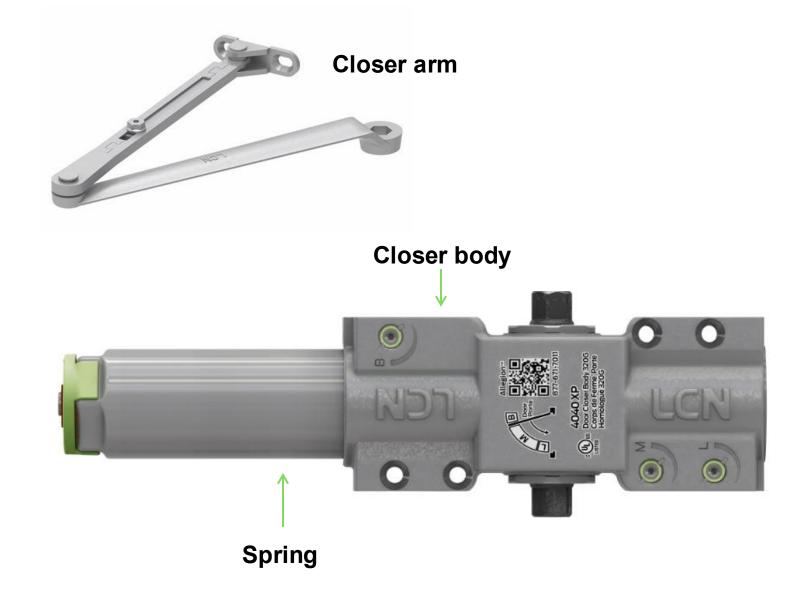
Forged steel component that transmits force from the user input on the door to the closer opening

#### **Closer Body**

Base of a closer made of cast iron or aluminum for strength & durability

#### Spring

Component within closer body that stores energy and gives the power to close the door





# Anatomy of a Closer

#### **Pinion**

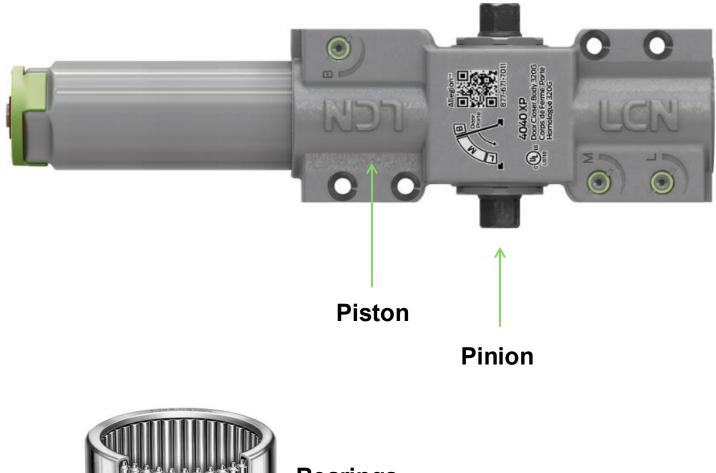
Steel component attached to the arm that moves the piston when the door is open

#### **Piston**

Steel component that compresses the spring to store energy for closing cycle of the door

#### **Bearings**

Components that make opening & closing a door easier, smoother & quieter





**Bearings** 



# Anatomy of a Closer

### Hydraulic Fluid

All-weather fluid that regulates speed of the door

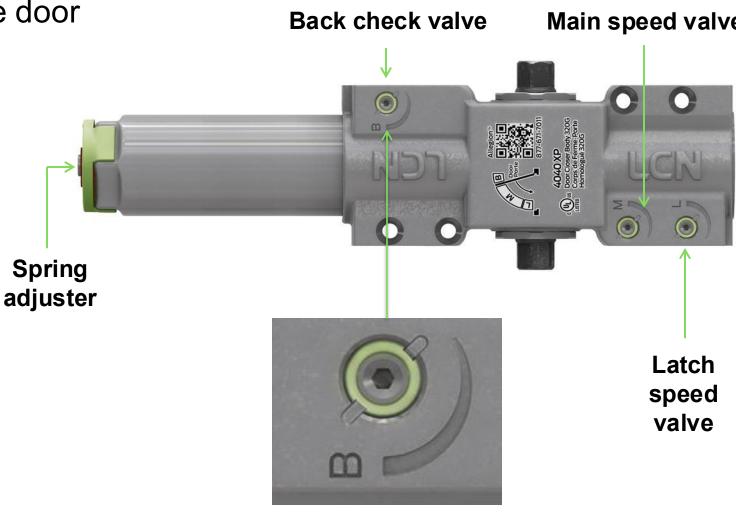
#### **Regulation Valves**

Parts that control the speed of door swing

- Latch speed valve: Slows down the door to cushion it and ensure it doesn't slam
- Main speed valve: Increases or decreases the speed of the main closing zone
- Back check valve: Slows door prior to contact with door stop or fully opened position

### Spring Adjuster

Dial on end of spring tube that allows you to make adjustments to spring power

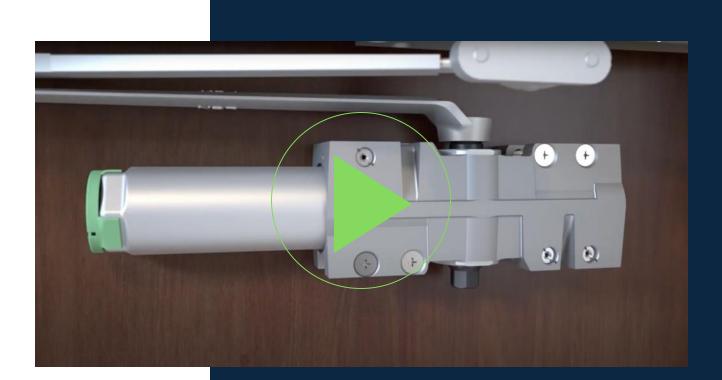


#### Main speed valve



# How a Closer Works

- When the door opens, the arm on the closer body transmits the motion to the pinion
- As the pinion turns, it moves the piston, which, in turn, 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 & exerts pressure on the piston
- As the piston moves back, fluid is forced through the main & latch speed regulation valves back to the area surrounding the spring





## Considerations When Choosing a Door Closer

**Durability** Consider daily traffic flow and the amount of use and abuse an opening may sustain Installation Ease and accuracy of installation/repairs are key considerations Adjustability Door closers that need to be adjusted often are laborintensive and can be prone to breakage if not done correctly



# The ROI on a Quality Door Closer



Less expensive closers = more time, installation and repairs



LCN





# 4040XP Series: A Heavy-Duty Closer Unlike Any Other



# 4040XP: Performance

The LCN 4040XP is a durable non-handed, surface-mounted heavy-duty closer. It meets all the standards you'd expect of a heavyduty closer:

- ANSI/BHMA A156.4 Grade 1 rated
- ADA certified
- cUL listed and UL listed
- 30-year limited warranty





# 4040XP: Durability

# The beauty of the 4040XP is that it goes way beyond the required standards.

- Strong materials designed to go the distance
- Proven production processes and technology
- Forging steel and heat-treating processes
- Abuse-cycle and temperature tests









### **Cast Iron cylinder**

Rugged performance, longer life, and maximum control



## Single-piece, heat-treated forged steel arms

Engineering to withstand bending and breaking



## Captured, full complement bearings

Minimum 0.5" height to wear more evenly and reduce potential risk of leakage

## All weather Liquid X hydraulic fluid

Consistent performance through every season, regardless of temperature change 







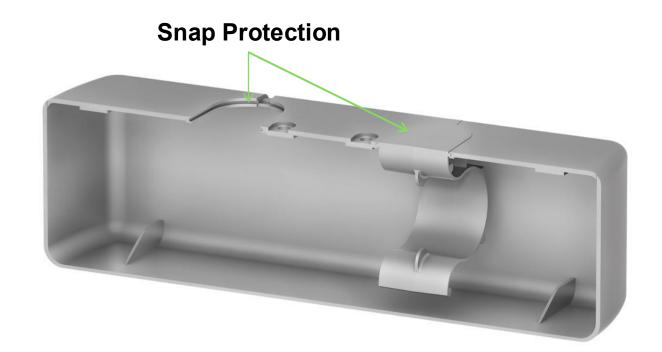


#### **Cover Retention**

Patented snap-fit cover designed to help secure our cover and further protect the product

#### **Benefits**

Improves retention fit and protects the product





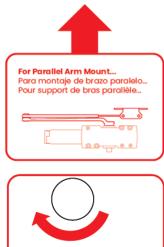
### Parallel Arm (PA) Selector Valve

This warning sleeve alerts installers of important steps to prevent improper installation

#### **Benefits**

Alerts installers to important installation steps preventing improper installation





Screw Back Check Selector Valve down Clockwise

Atornille **la Válvula Selectora de Retención** hacia abajo en el sentido de las agujas del reloj

Revisser complètement **la valve de** <mark>sélection du freinage de l'ouverture</mark> dans le sens des aiguilles d'une montre

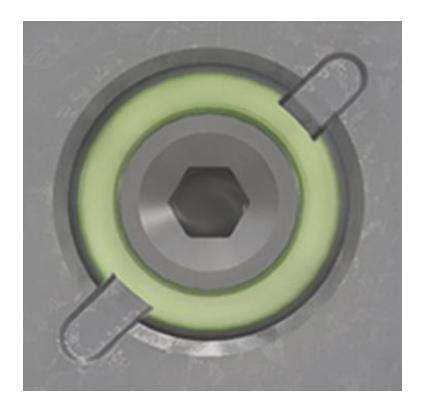


### **Patented Positive Stop Regulation Valve**

Addition of patented positive stop on all regulation valves (latch, main speed, & back check) to prevent screw from being backed out

#### **Benefits**

Eliminates leaking closers from unintentional misadjustment



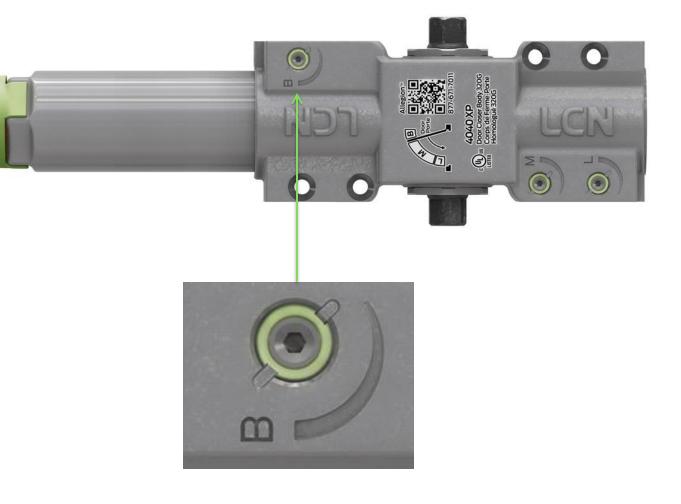


### **Regulation Valve Indicator**

Patented technology that provides a visual to prevent backing out screw, which can cause leakage

#### **Benefits**

- Provides visual to prevent backing out screw, which can cause leakage
- Highlights the position of the screw with an enhanced visual marker



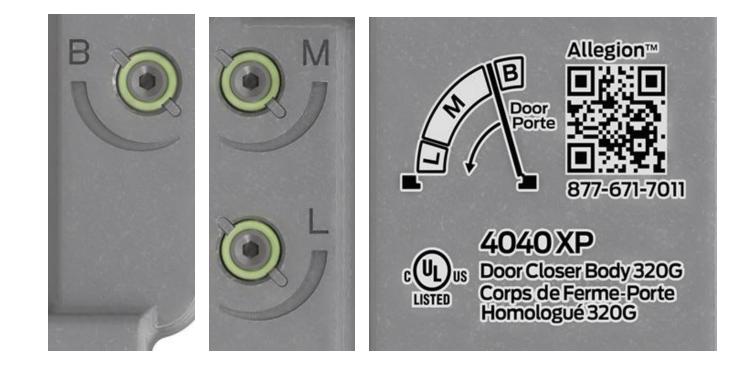


#### **Adjustment Labels**

Labeling of Latch (L), Main (M), and Back Check (B) valves and corresponding diagram of door swing zones make adjustments quick and clear

#### **Benefits**

Aids in adjustment





## **Casting Design and Logo**

Unique casting shape

- Addition of LCN logo
- Visually differentiates from knock-off designs and quickly identifies LCN

## **Benefits**

- Visually differentiates from look-alike competitor versions
- Quickly identifies the manufacturer/brand





### **LCN Green Dial**

Provides intuitive visual updates during adjustments for easy configuration

### **Benefits**

Simple and clear adjustments to reduce maintenance time.





#### **Digital Resources**

QR code that links to digital and interactive resources, including adjustment instructions, component descriptions, mounting options and a toll-free number for technical support

#### **Benefits**

Offers on-the-spot, self-service support, making installation and adjustment easier



Scan to view on-the-spot, self-service support resources including adjustment guides, mounting options, and component descriptions.





# 4040XP Key Feature Summary

- Unique casting shape/logo
- Snap-on cover
- Updated Green Dial
- Patented positive stop
- Patented regulation valve indicators
- Graphic visuals and indicators
- QR code for tech support
- Packaging that clearly labels the parallel arm (PA) selector valve
- Cast iron cylinder
- Single-piece, heat-treated forged steel arms
- Heat-treated 1-1/2-inch diameter piston

- Double heat-treated steel pinion
- Captured, full complement bearings
- All-weather Liquid X hydraulic fluid
- Non-PRV (pressure relief valve) design
- Powder coat finish
- Peel-n-stick template
- Independent speed adjustments
- Universal non-handed design
- Full range of mount and arm options
- Adjustable spring sizes
- 30-year warranty





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# 4040XP Key Feature Summary







# 4040XP Built to Last

# "

When it comes to heavy-duty closers, no other closer is like the LCN 4040XP. It's built to last a lifetime—all while delivering remarkable value in a variety of applications.



# **Common Applications**



Schools



Hospitals



Commercial Buildings



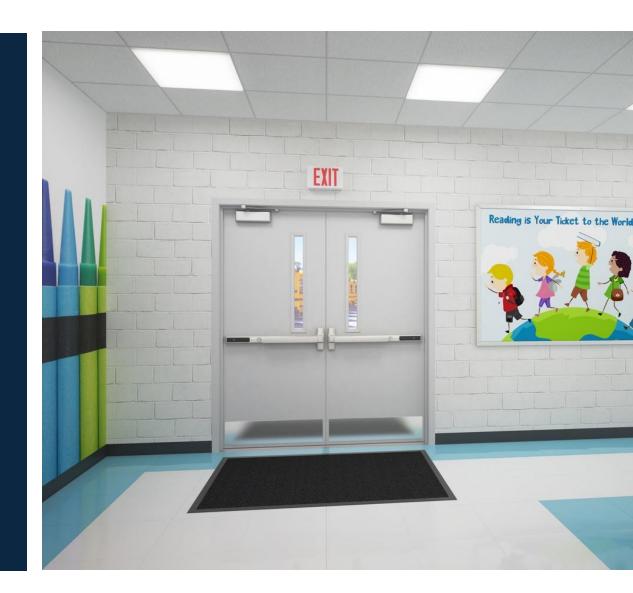
#### Government **Buildings**



## In Our Customers' Words

Our district made the decision to exclusively use LCN door controls over 10 years ago. When it's time to replace failing hardware from another manufacturer, we always install a new LCN closer—typically the 4040XP. I'm thankful for the service Allegion offers the district made the right decision."

– Don Wilkerson, Maintenance, Illinois School District



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# Support Where You Need It



With LCN, you can feel confident that you have the right product for the right application - all designed with the safety and security you expect.

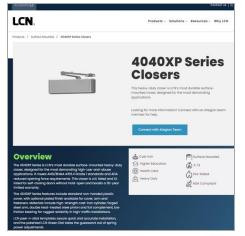
LCN

#### **Time Savings**

Knowledgeable of local and national building codes, our specification writers can customize a solution to address the unique needs of your facility.



# Resources



Webpage: Icnclosers.com/4040XP





LCN 4040XP Enhancements Video



LCN 4040XP Product Feature Video



LCN 4000 Series Catalog Section







QR Code Site with Interactive Instructions



#### **Brochure**



#### Installation Instructions





LCNClosers.com

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