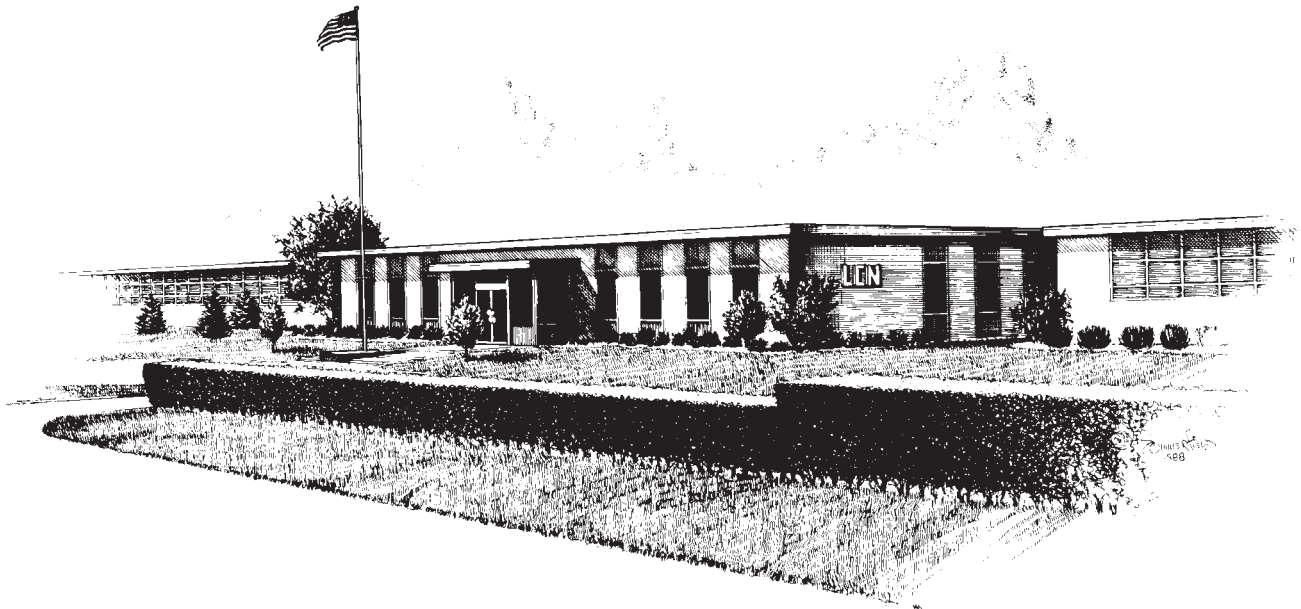


# LCN GENERAL CATALOG



## LCN CLOSERS

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# A BRIEF HISTORY of DOOR CLOSERS & 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 & 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, power operators, fire/life safety closer/holders, high security closers & more.

The model numbers may have changed but the passion, quality, and excitement will always remain. Cast iron, forged steel arms, double heat treating, powder coat finishes, all-weather fluid, and 10 million cycles are just a few of the features and benefits that LCN offers in producing the finest door closers in the world!



- 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 4<sup>th</sup>.
- 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.

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# LCN THE DOOR CLOSER SPECIALISTS

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.

## The LCN formula for success



### Cast Iron

Heavy-duty cast iron. There isn't a stronger, harder, more reliable material for door closers that are expected to deliver millions of cycles. Cast iron is more compatible with high grade steel components and is more resistant to the wear of millions of opening/closing cycles.



### 10 Million Cycles

Why do some hardware professionals claim that LCN stands for "Last Closer Needed?" LCN closers were put through grueling independent cycle tests and have exceeded 10 million cycles.



### Forged Steel Arms

The closing power and control generated within LCN closers is transferred to the door through forged steel arms. Forged steel arms have greater strength, better appearance and less bulk.



### Chrome Silicon

Many closer manufacturers use less expensive oil-tempered springs, but LCN engineers know that such a spring loses up to 20% of its power after a few thousand cycles. The chrome silicone springs used in LCN closers have the strength to perform beyond 10 million cycles.



### Heat-Treated

LCN steel pinions have larger, stronger teeth and are double heat-treated for the greatest possible strength on the shaft. Heat treating makes the pinion harder, better able to resist wear after years of service and results in less stress on the cylinder.



### Special Templates

When a standard door closer won't do the job, there is only one proven, reliable source for special solutions—LCN. With over 3,000 special templates on file, LCN can provide a door control solution for one-of-a-kind doors such as vault, balanced, oversized and arch doors.



### Hydraulic Fluid

LCN uses a special formula hydraulic fluid with special lubrication properties to keep closer components working smoothly. This unique all-weather hydraulic fluid eliminates the need for seasonal adjustments.



### Customer Service

At a time when machines are picking up more and more customer calls, real people are answering the phones at LCN. Every member of our customer service staff is trained and qualified to assist you with orders, closer selection and special applications.

# SSC REPRESENTATIVE INFORMATION

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