

LCN GLOSSARY OF ABBREVIATIONS

Arm Options

STD	- Standard Arm
REG	- Regular Arm
Rw/PA	- Regular Arm with Parallel Arm Shoe
R/62A	- Regular Arm with Auxiliary Parallel Arm Shoe
H	- Hold Open Arm
Hw/PA	- Hold Open Arm with Parallel Arm Shoe
LONG	- Long Arm
XLONG	- Extra Long Arm
HLONG	- Hold Open Long Arm
EDA	- Extra Duty Arm
EDAw/145	- Extra Duty Arm with Flush Transom Shoe
EDAw/62G	- Extra Duty Arm with Thick Hub Shoe
HEDA	- Hold Open Extra Duty Arm
HEDAw/145	- Hold Open Extra Duty Arm w/ Flush Transom Shoe
HEDAw/62G	- Hold Open Extra Duty Arm w/ Thick Hub Shoe
CUSH	- Cush -n- Stop Arm
HCUSH	- Hold Open Cush -n- Stop Arm
SCUSH(SCNS)	- Spring Cush -n- Stop Arm
SHCUSH(SHCNS)	- Spring Hold Open Cush -n- Stop Arm
SF	- Swing Free Arm
DE	- Double Egress Arm
FL	- Fusible Link Arm

Control Box Options

SC	- Standard Control Box
PC	- Premium Control Box

Cylinder Options

STD	- Standard Cylinder
DEL(DA)	- Delayed Action Cylinder
AVB	- Advanced Variable Backcheck
B80	- Bypass 80 Degree ME Cylinder
B140	- Bypass 140 Degree ME Cylinder
TEL	- Telephone Cylinder

Cover Option

STD	- Standard Plastic Cover
MC	- Metal Cover
LL	- Lead Lined Cover
FC	- Full Cover
CL	- Cover Length
CAPS	- Cover Caps (1370)
DS1	- Designer Series Cover
EC	- Smooth Slim Line Cover (European Cover)

Track Options

STD	- Standard Track
HO	- Hold Open Track
BUMPER	- Track with Bumper
HBUMPER	- Hold Open Track with Bumper

Fastener Pack Options

WMS	- Wood & Machine Screws
TBWMS	- Thru-Bolt, Wood & Machine Screws
SRT	- Self Reaming & Tapping Screws
TBSRT	- Thru-Bolt, Self Reaming & Tapping Screws
TORX	- 'Torx' Machine Screws
TBTRX	- Thru-Bolt, 'Torx' Machine Screws

Motor Gearbox Options

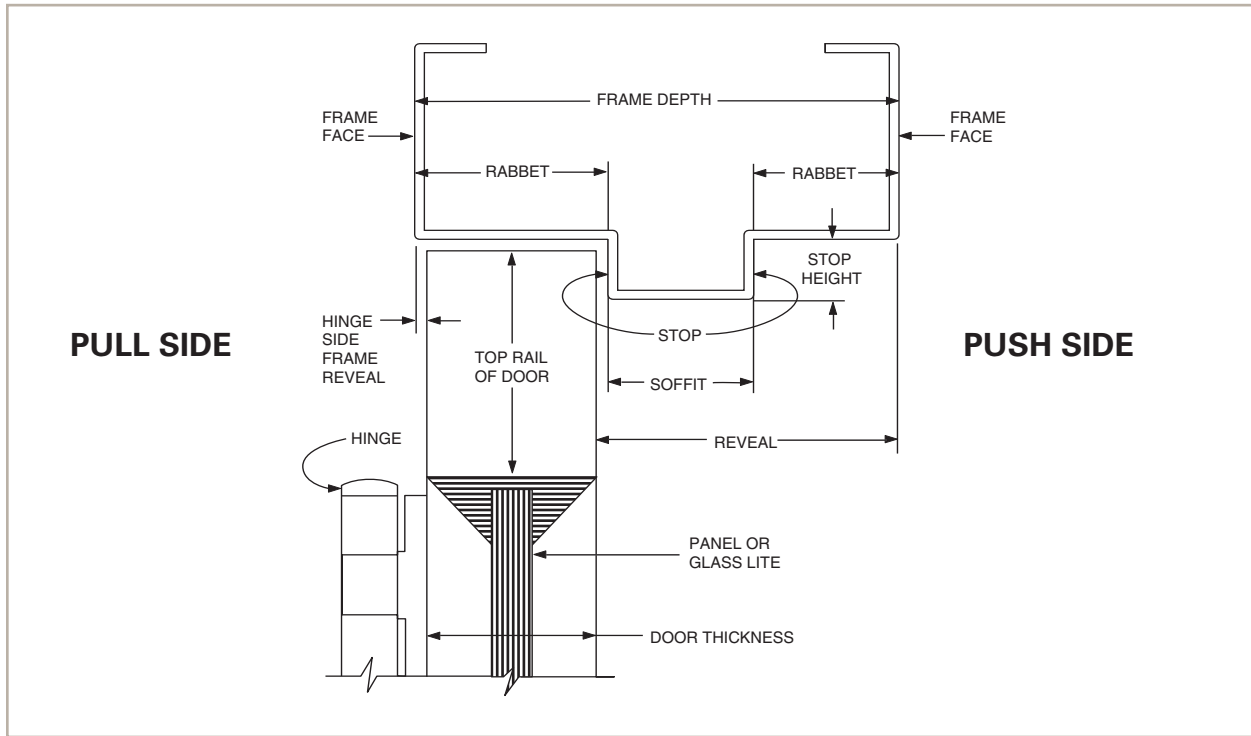
SF	- Standard Force Motor Gearbox
RF	- Reduced Force Motor Gearbox

Powder Coat Finishes

AL	- Aluminum
DKBRZ	- Dark Bronze
TAN	- Tan
STAT	- Statuary Bronze
LTBRZ	- Light Bronze
BLK	- Black
BRASS	- Brass
MTLPC	- Bright Metallic

Miscellaneous Terms

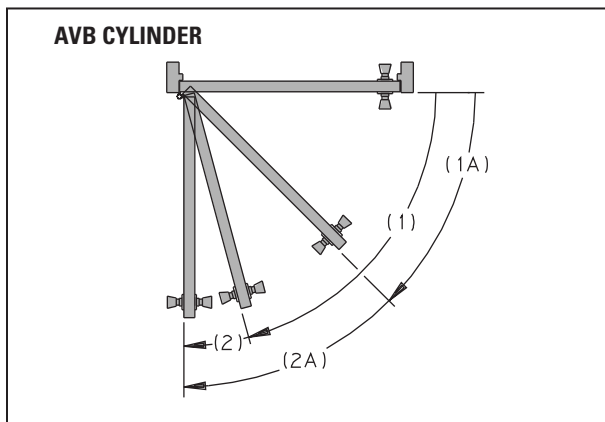
ELR	- Extra Long Rod
SRI	- Special Rust Inhibitor
SE	- Single Point Electronic
ME	- Multi-Point Electronic
PAH	- Parallel Arm Holder
HSA	- Hold Open / Scanner Activated
ES	- Electric Strike Relay (Control Boxes)
S	- Sequential (Control Boxes)
RF	- Radio Frequency
TJ	- Top Jamb
PA	- Parallel Arm
G	- Flush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



A

ADA - Americans with Disabilities Act

ADVANCED VARIABLE BACKCHECK CYLINDER (AVB) – Optional cylinder that starts backcheck at about 45° (2A) instead of the normal 75°(2). (See Illus.)



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 EXTENTION - 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.

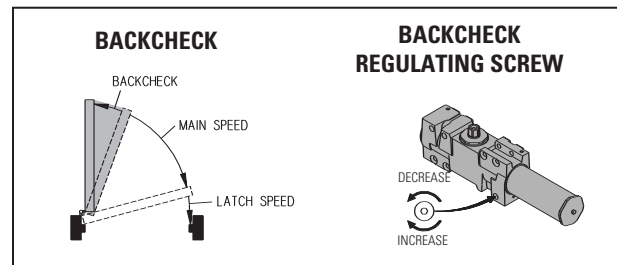
AUTOEQUALIZER™ - An LCN specific term for an electric or a pneumatic power operator. System is low-energy & carries a two-year warranty.

AUTOMATIC OPERATOR – A term used to describe a type of automated opening system.

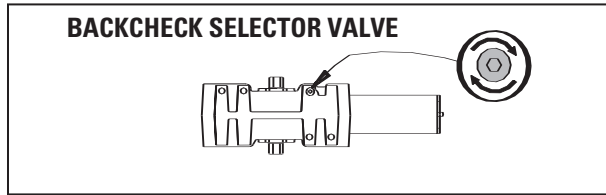
AUXILIARY DOOR STOP – Hardware designed and installed to limit the swing of a door.

B

BACKCHECK – Hydraulic circuit designed to cushion the doors opening swing at about 75°. Standard on all LCN closers. (See Illus.)

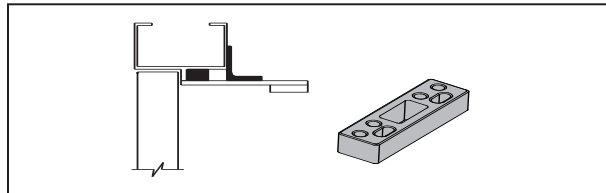


BACKCHECK SELECTOR VALVE – Valve used to provide proper backcheck location for 4041 parallel arm mounting. (See Illus.)



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

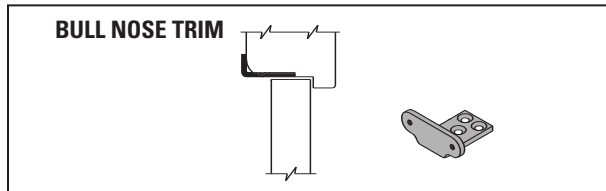
BLADE STOP SPACER – Spacer lowers a parallel arm 1/2" so the arm will clear a blade stop. (See Illus.)



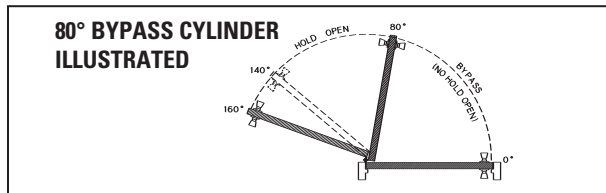
BLOW-OPEN – A type of control box that is used for a smoke evacuation system. Can be used with or without a normal power operator system.

BRIGHT METALLIC – Custom power coat finish, which resembles that of US26 or US26D plated finish.

BULL NOSE TRIM – Face and jamb width joined by a radius rather than a 90° break. Requires -65 soffit shoe. (See Illus.)



BYPASS CYLINDER – ME cylinder that will not hold-open within a specified range of door swing. (See Illus.)

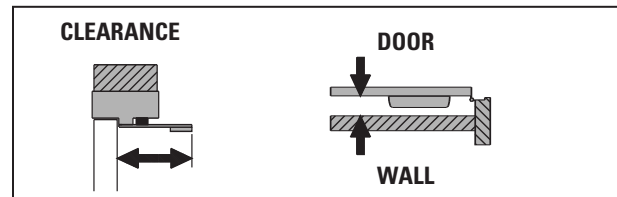


C

CASED OPENING – Frame section without stops.

CAST IRON – Material used in producing high quality door closers.

CLEARANCE – Distance from a PA SHOE to the push side of door or distance from the pull side of door to the wall on 90° installations. (See Illus.)



CLOSING FORCE – Energy generated by a closer to close and latch the door.

CONTROL BOX, Premium, 9100 Series – Microprocessor door control with Power Boost and built in power supply.

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 & backcheck speeds. Features Push 'N Go & Power Boost.

CONTROL BOX, 2900, 9700 SERIES – Microprocessor door control, includes adjustment for opening, closing & backcheck speeds. Features Push 'N Go.

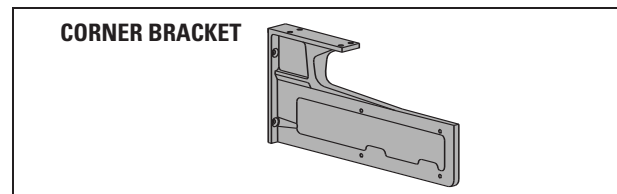
CONTROL BOX, 2500, 9300 SERIES – Microprocessor door control, includes adjustment for opening, closing & backcheck speeds. Features Power Boost.

CONTROL BOX, 7900 SERIES – Heavy duty, surface mounted control box that contains one or two electrically controlled pneumatic circuits.

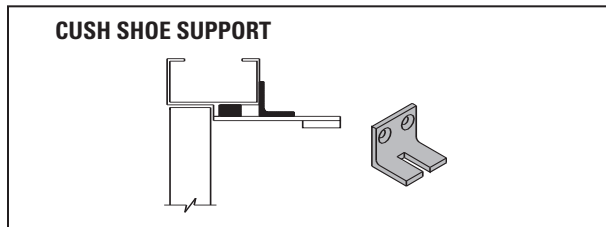
CONTROLLER ASSEMBLY – Digital control suite used in the LCN electric power operator. Includes adjustments for opening force and opening speed.

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

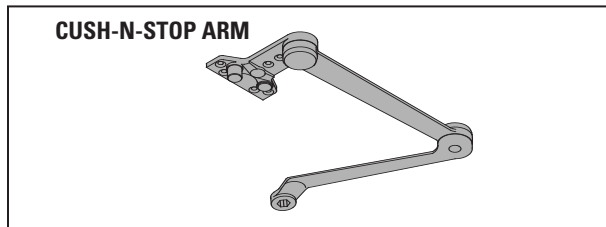
CORNER BRACKET – Push side frame mounted adapter used to position closer in frame opening. (See Illus.)



CUSH SHOE SUPPORT – Support provides fifth screw anchorage of CUSH shoes on frames with narrow push side reveals. (See Illus.)



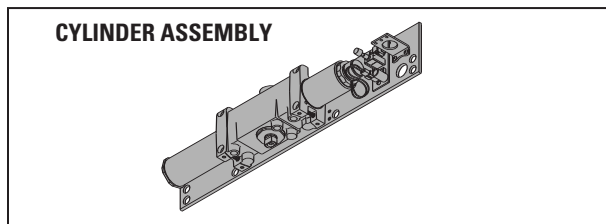
CUSH-N-STOP ARMS (CUSH) – Extra duty, parallel arm that includes a stop in the CUSH shoe. (See Illus.)



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

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

CYLINDER ASSEMBLY – Main closer component complete with any mounting plates or electronics. (See Illus.)

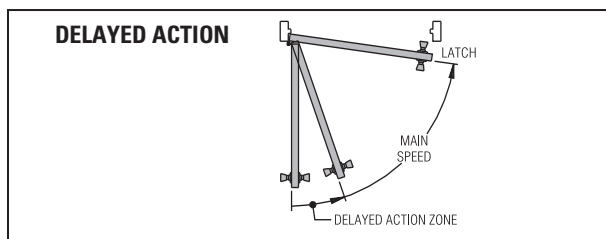


CYLINDER ONLY – Hydraulic cast iron cylinder.

D

DEEP REVEAL – Reveal deeper than what an arm will accommodate.

DELAYED ACTION (DEL) – Delays closing from maximum opening to approximately 75°. (See Illus.)



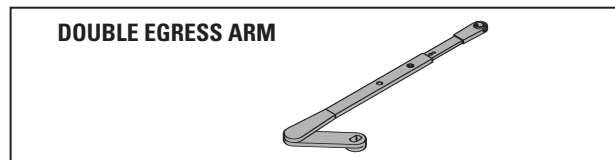
DESIGNER SERIES COVER (DS1) – An aesthetically pleasing cover design that appeals to many types of facilities & architects.

DOOR POSITION SWITCH (DPS) – A security option specific to the 2210 Series closer. A door position switch is used to monitor the closed position of a door in an opening.

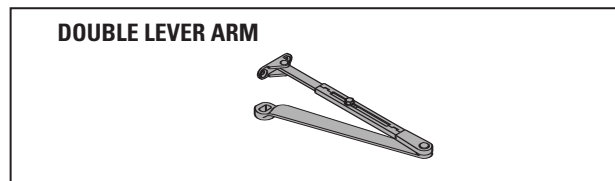
DOUBLE DOOR HEADER – One automatic electromechanical power operator and one manual door within the same header.

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

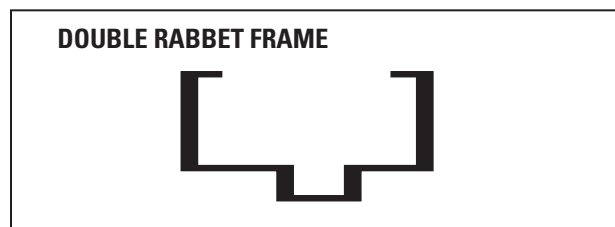
DOUBLE EGRESS ARM (DE) – Designed for pull side installation on double egress frames. Actual arm varies depending on selected closer. (See Illus.)



DOUBLE LEVER ARM – Two-part arm hinged at the elbow that provides superior leverage. Used on hinge side, top jamb and parallel arm mountings, the geometry of the arm provides greater mechanical advantage to the closer. (See Illus.)



DOUBLE RABBET FRAME – Frame with a recess or offset formed on both sides of a stop to receive a door. (See Illus.)



DROP PLATE – Designed to mount a closer on top rail or head frame to meet special conditions or mounting surface dimensions that are below minimums.

E

ELECTRIC STRIKE – An optional, electronic latching device that replaces a regular lock strike in a doorframe that allows the door to open from a remote location or by special access equipment.

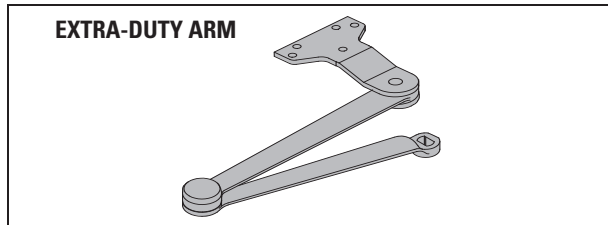
ELECTRIC STRIKE RELAY (ES) – An optional feature found in an LCN 7900 Series control box that can be used to control an electric strike.

ELECTROHYDRAULIC POWER OPERATOR – Power operator with an electrically controlled opening feature and hydraulic closing feature.

ELECTROMECHANICAL POWER OPERATOR – Power operator with an electrically controlled opening feature and closing feature.

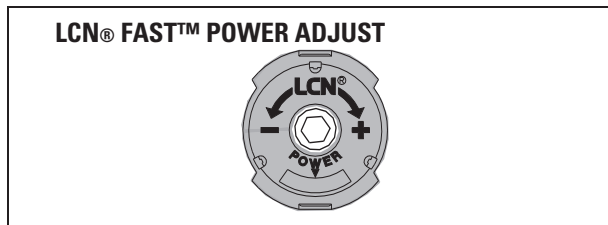
ESCUTCHEON – An optional, protective or decorative plate that can be installed with many surface mounted actuators.

EXTRA DUTY ARM (EDA) – Double lever arm with both main and forearm made of solid forged steel for extra strength. (See Illus.)



EXTRA LONG ARM (XLONG) – 4040 Series double lever arm for exceptionally deep reveals or other special applications.

F (LCN®) FAST™ POWER ADJUST – A green dial located on the end of the spring tube on selected heavy duty closers. Designed to help installers accurately adjust the closer power to match the conditions of the entrance. (See Illus.)



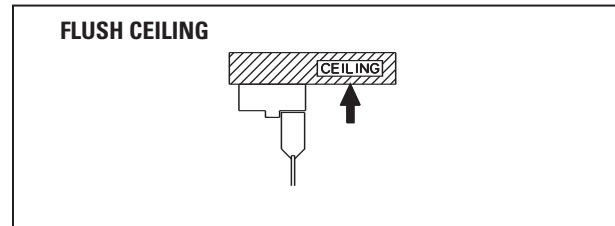
FIFTH SCREW – Mounting screw farthest from the door on a parallel arm shoe.

FIFTH SCREW SPACER – Supports PA shoe mounted on frame stop.

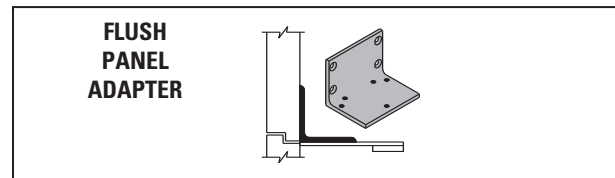
FINISH PLATE – Decorative plate applied to overhead concealed closer to conceal closer mounting plate and screws.

FIRE SHIELD – 22-gage steel liner mounts in the track mortise of the door's top rail for 20 minute labeled wood doors.

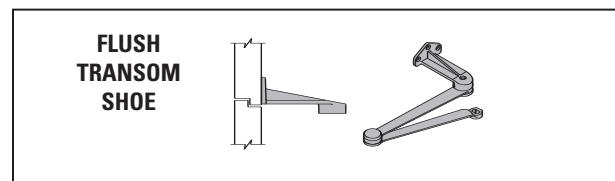
FLUSH CEILING – Condition when the ceiling is at the same height as the top of the frame. (See Illus.)



FLUSH PANEL ADAPTER – Adapter provides PA shoe mounting surface when door and frame are flush. (See Illus.)



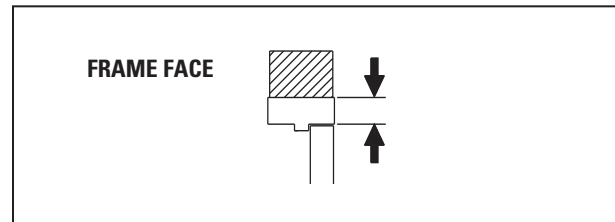
FLUSH TRANSOM SHOE – Substituted for standard EDA shoe when door and frame are flush. (See Illus.)



FOREARM – Arm part that connects main arm to the shoe attachments in a double lever arm system.

FRAME DEPTH – Face to face dimension of the frame.

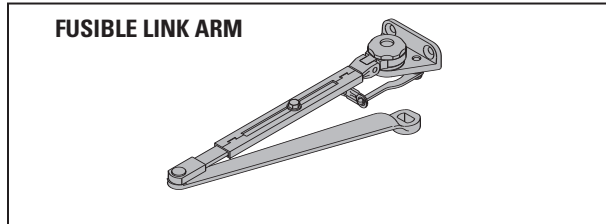
FRAME FACE – Exposed part of frame parallel to face of the wall. (See Illus.)



FULL COMPLIMENT BEARINGS – Low friction, high load needle bearings found in all LCN closers.

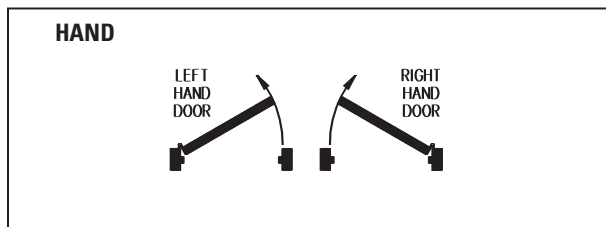
FULL COVER (FC) – Cover that encloses cylinder assembly except for shaft/arm attachment.

FUSIBLE LINK ARM (FL) – Releases hold-open function when exposed to high temperatures. 135°F and 165°F available. (See Illus.)



G
GUIDE RAIL(S) – A separator used with high energy power operated doors for safety, traffic separation and control.

H
HAND – Direction of a doors' swing, either right or left. (See Illus.)



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

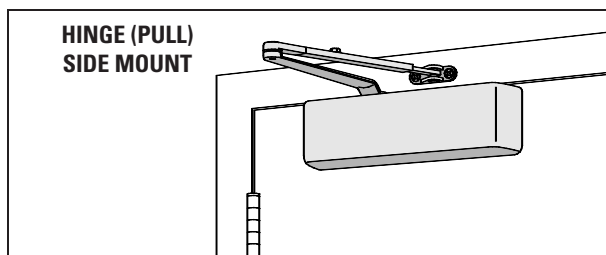
HEAD FRAME – Member of the frame above the door.

HEADER – Aluminum enclosure for motor gearbox & controller.

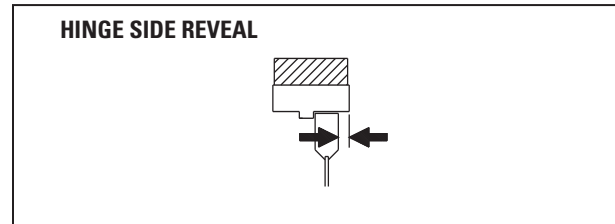
HIGH ENERGY OPERATOR – A type of automated opener used on a door that should take approximately 2 seconds to open to 90°. High energy operators do require safety devices and guide rails. Conforms to ANSI A156.10.

HINGE SIDE – Face of door and frame on which the hinge pivot point is located.

HINGE SIDE MOUNT – Mounting with the closer cylinder on the hinge side of the door top rail. (See Illus.)



HINGE SIDE REVEAL – Depth measured from the frame face to the pull side of the door face. (See Illus.)



HINGE STILE – Vertical member of a door prepared for installation of hinges.

HOLD-OPEN ARM (H) – Double lever arm that provides hold-open function that is either adjustable at elbow or shoe.

HOLD-OPEN CLIP – Located in track to provide hold-open function for single lever arms.

HOLD-OPEN CUSH (HCUSH) – Parallel arm that features solid forged steel main arm and forearm with stop in soffit shoe. Uses control handle to select hold-open function.

HOLD-OPEN LONG ARM (HLONG) – Hold-open arm extended by a long head and tube for deep reveals.

HOLD-OPEN TRACK (HO) – Track with hold-open clip installed.

HOLD-OPEN TRACK with BUMPER (HBUMPER) – Track with hold-open clip and bumper assembly installed.

HOLDER SCANNER-ACTIVATED (HSA) – Electrically controlled closer/holder with built-in scanner.

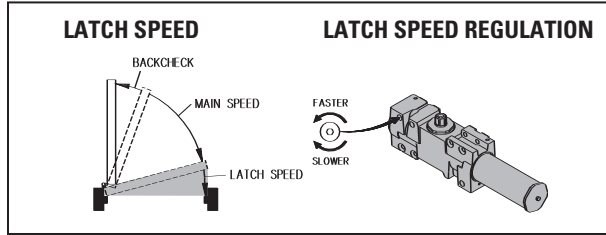
HYDRAULIC FLUID – Fluid metered by valve system to control door.

I
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. (See Illus.)



LEAD LINED COVER (LL) – Cover with lead lining for x-ray applications.

LOCK STILE – Vertical member of a door prepared for installation of a lock.

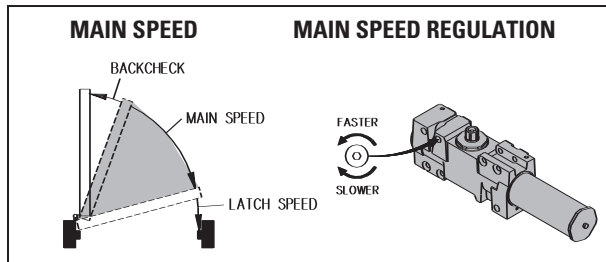
LONG ARM (LONG) – Extended arm for deep reveals or other special applications.

LOW ENERGY OPERATOR – A type of automated opener used on a door that should take approximately 5 seconds to open to 90°. 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. (See Illus.)



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.

MOTOR CLUTCH – The geared assembly in an LCN electric power operator. Once activated, the motor clutch drives the door open.

MOTOR GEARBOX – Electromechanical drive unit.

MORTISE – Material removed from frame and/or top rail of door.

MOUNTING/FINISH PLATE – Plate with exposed mounting screws and finish applied.

MULTI-POINT HOLD-OPEN (ME) – Infinite hold-open points from 0° up to maximum opening.

N

NO DESTRUCT FEATURE – A feature specific to the motor clutch assembly portion of an LCN electric power operator. This feature does not allow the user to back drive the motor, which could cause damage to the unit.

NON-HANDED – Closer or part designed for both right and left hand swinging doors.

NON-SIZED – Cylinder assembly with spring power adjustable over a range of sizes.

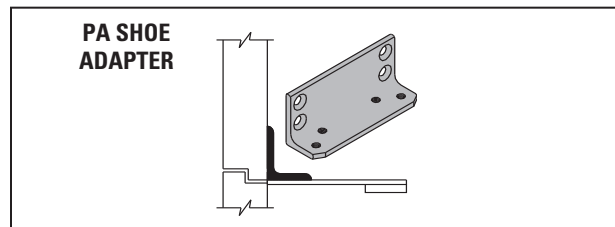
O

OPENING FORCE – Force required to open the door against the closers spring power.

OVERHEAD CONCEALED – Closer with cylinder concealed in head frame and either a concealed or exposed arm.

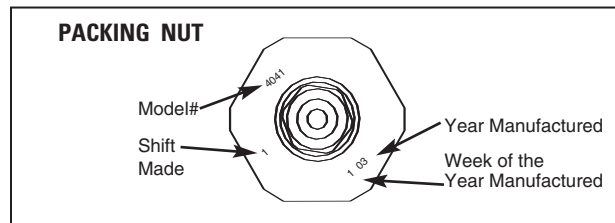
P

PA SHOE ADAPTER – Adapter provides horizontal mounting for PA shoe on a flush door and frame. (See Illus.)



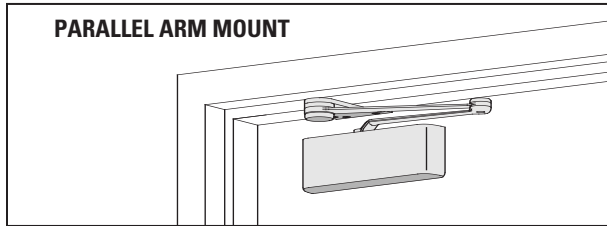
PA SHOE – Attaches the forearm to the soffit for a parallel arm system.

PACKING NUT – A threaded part that holds the pinion in place. Usually, the LCN model number and date of manufacture are stamped into this part. The date of manufacture is important because the owner can determine if the cylinder is in or out of warranty. (See Illus.)



PANIC BREAKAWAY STOP – 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.

PARALLEL ARM – A push side mounted double lever arm system where main arm is parallel to the door when in the closed position. (See Illus. page 33)



PARALLEL ARM MOUNT – 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 MECHANICAL STOP – Door stop for overhead concealed, center pivoted out swinging doors.

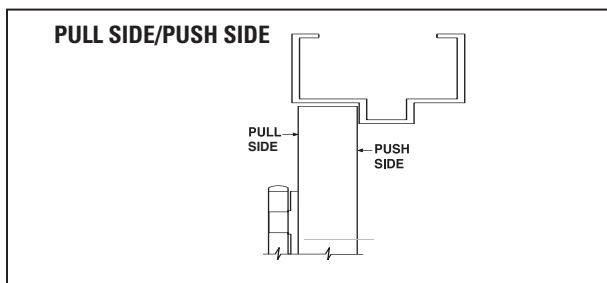
PNEUMATIC – This type of LCN Automatic Operator is driven by an air source. The air source can be built into the control box or provided separately within the building.

POWER BOOST – Provides additional closing force to ensure latching.

POWER OPERATOR – A term used to describe a type of automated opening system. Refer to “Automatic Operators”

POWDER COAT – A standard finishing process that provides a very durable, corrosion resistant covering to the majority of products that LCN offers. An LCN powder coat finish offers over four times the ANSI salt spray test of 25 hours.

PULL SIDE – Hinge side of door. (See Illus.)



PUSH SIDE – Face of door on stop side of frame. (See Illus.)

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

Q

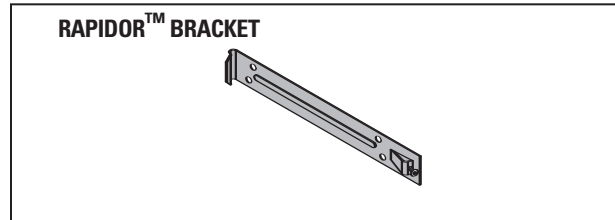
QUICK FIX PLATE™ – Retrofit mounting plate for the LCN 1260 closer used for closer replacement in push/pull applications.

R

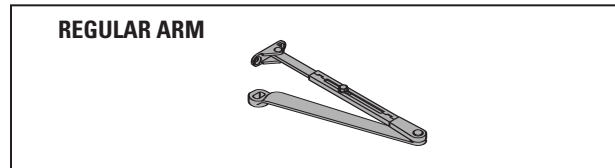
RABBET – Recess or offset formed in the face to receive a door.

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

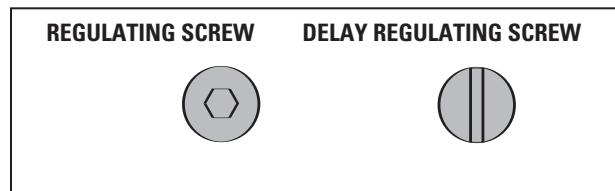
RAPIDOR™ BRACKET – Hands free mounting bracket.



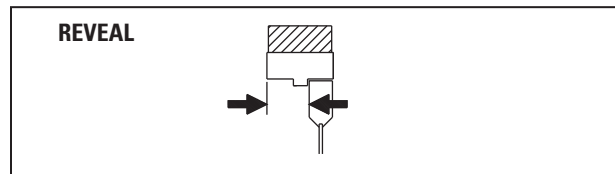
REGULAR ARM – A double lever, non hold-open arm. (See Illus.)



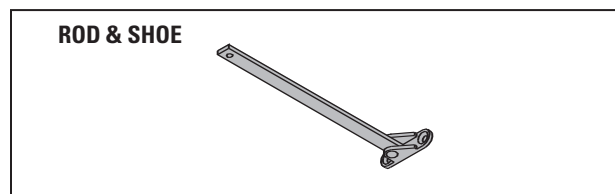
REGULATING SCREW – Valve that adjusts flow of hydraulic fluid within cylinder to control door closing speed. (See Illus.)



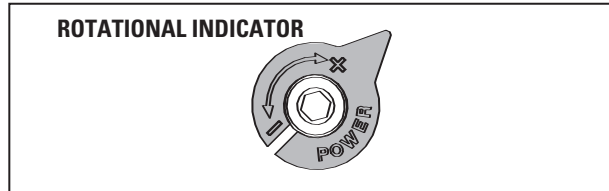
REVEAL – Depth measured from the frame face to the door face. (See Illus.)



ROD & SHOE – Part of forearm that provides adjustable length feature for double lever arms. (See Illus.)

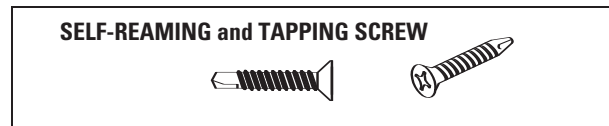


ROTATIONAL INDICATOR - An indicator located on the spring adjuster. Used when adjusting spring power to indicate each revolution. (See Illus.)



S SAFETY GUARD – A product that mounts on the hinge edge of the door. This is a heavy-duty vinyl product that covers the opening between the door and frame where many injuries occur. One suggested use is on doors within childcare facilities.

SELF-REAMING and TAPPING SCREW (SRT) – Philips head screw with self-reaming and self-tapping capability used in mounting installations. (See Illus.)



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.

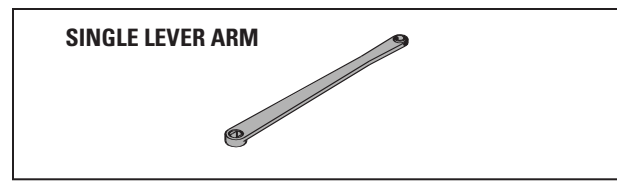
SEQUENCE – An option to the LCN series of automatic operators. This option allows a pair of vestibule doors to open one after the other.

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

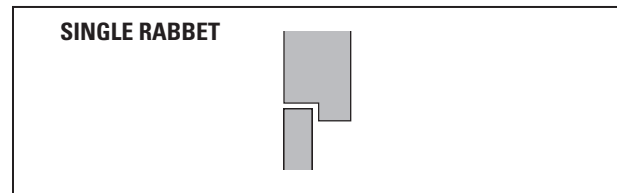
SIMULTANEOUS PAIR – Two automatic doors that open at the same time.

SINGLE POINT HOLD-OPEN (SE) – Electrically controlled hold-open using a special track and single lever arm.

SINGLE LEVER (STANDARD) ARM (STD) – Directly connects cylinder and track/roller assembly on the door or frame. (See Illus.)



SINGLE RABBET FRAME – Frame with a recess or offset formed on one side of a stop to receive a door. (See Illus.)



SIZED – A closer with a specific closer power for proper door applications.

SLIDER – This part is used in conjunction with a track roller in a Sentronic track assembly.

SLIM LINE COVER – 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.

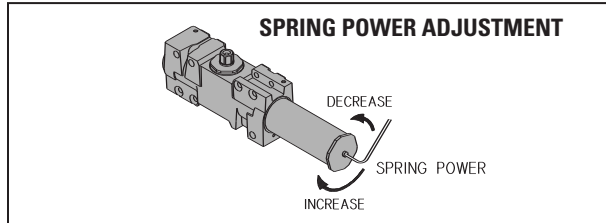
SPECIAL TEMPLATE (ST) – A special template is usually a modification to a standard product. Either the product itself changes location in the opening or a component is modified from the standard offering to accommodate other hardware or door and frame dimensions.

SPRING CUSH ARM (SCUSH) – Non-handed parallel arm for abusive applications. Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe.

SPRING HOLD-OPEN CUSH ARM (SHCUSH) – Non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Uses control handle to select hold-open function.

SPRING POWER – Closing force exerted by the spring inside the cylinder to close the door.

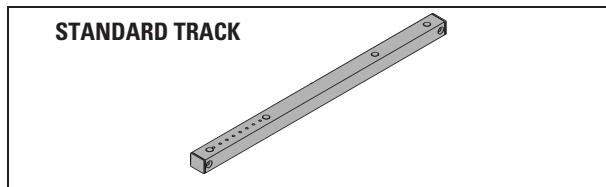
SPRING POWER ADJUSTMENT – Mechanical pre-loading of spring to adjust closing force. (See Illus.)



SPRING TUBE – Part of the closer assembly that contains the spring.

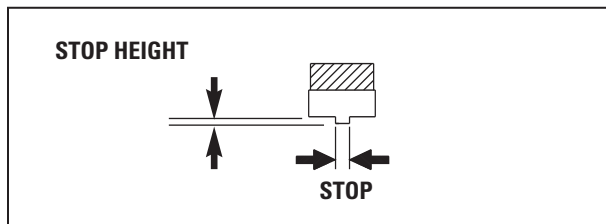
STANDARD CYLINDER – Cylinder with main speed, latch speed, and backcheck adjustments.

STANDARD TRACK – Non hold-open track. (See Illus.)

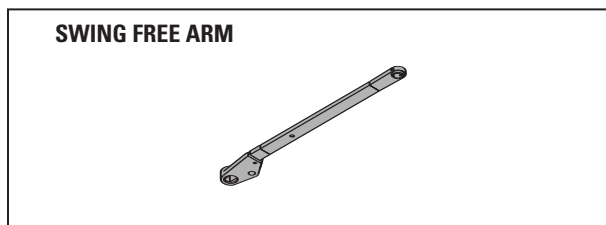


STOP – Part of frame against which the door closes.

STOP HEIGHT – Distance the stop extends below the frame face. (See Illus.)



SWING FREE ARM – ME arm designed to allow free movement of the door without disengaging the holding mechanism. (See Illus.)



T

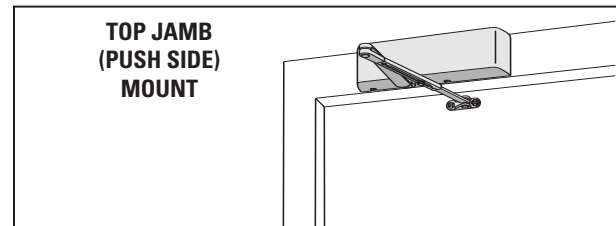
TBSRT – Thru bolts and self-reaming and tapping screw package.

TBTRX – Thru bolts and TORX security machine screw package.

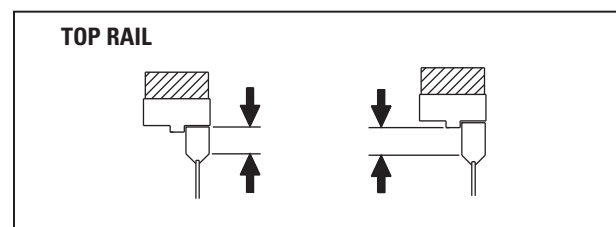
TBWMS – Thru bolt, wood and machine screw package.

THICK HUB SHOE – Substituted for soffit shoe on EDA arm to clear blade stop.

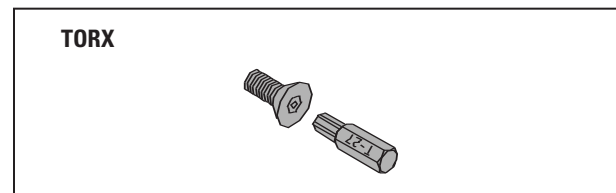
TOP JAMB – Mounting with closer installed on frame face. (See Illus.)



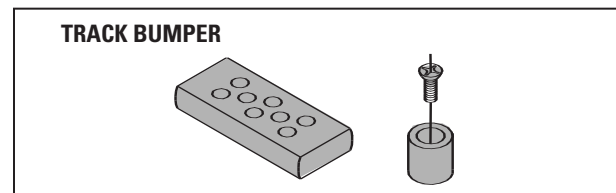
TOP RAIL – Horizontal top member of a door that connects the latch and hinge stiles. Height is measured from stop on push side. (See Illus.)



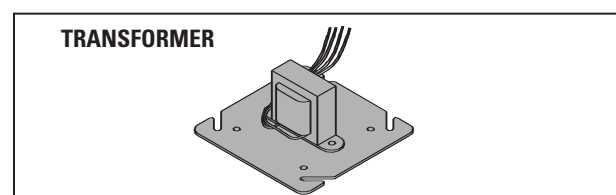
TORX – Security machine screw with TORX drive and security pin for tamper resistant applications. (See Illus.)



TRACK BUMPER – Mounts in track to cushion opening swing, but reduces maximum opening. This is not a substitute for a mechanical door stop. (See Illus.)



TRANSFORMER – Electrical device to reduce voltage from 120V AC to 24V AC. (See Illus.)



LCN GLOSSARY

U-W

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 – Standard wood and machine screw package.

WOOD MOUNTING CLIP – Designed to ease installation of concealed closer in wood frame.