

LOW ENERGY OPERATORS

The basic design concept for all LCN power operator systems is door control of 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 a power operator based on a heavy duty LCN 4040 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 offers a choice of either electrohydraulic, electromechanical or 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.
- ▶ For dedicated handicap access.
- ▶ Stand alone or integrated into larger multi-door systems.
- ▶ Surface and concealed mountings.
- ▶ Installation accessories available for unusual 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 200 pounds, consult factory before specifying or installing LCN Electromechanical automatic operators.**

A156.19 SYSTEM DESIGN PARAMETERS

- ▶ Cycle test standard of 300,000 full load operating cycles.
- ▶ Power opening plus full door control.
- ▶ Open to backcheck 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 lbf to stop doors 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 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.
- ▶ Operators meet ADA reduced manual opening force requirements, this includes 4630 and 4810.
- ▶ Electrohydraulic and pneumatic systems feature adjustable backcheck that slows opening swing at about 70°.
- ▶ Electromechanical systems feature electronic backcheck 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 seven standard 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 or optional custom anodized and custom paint finishes to blend with door and frame.
- ▶ UL & 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.

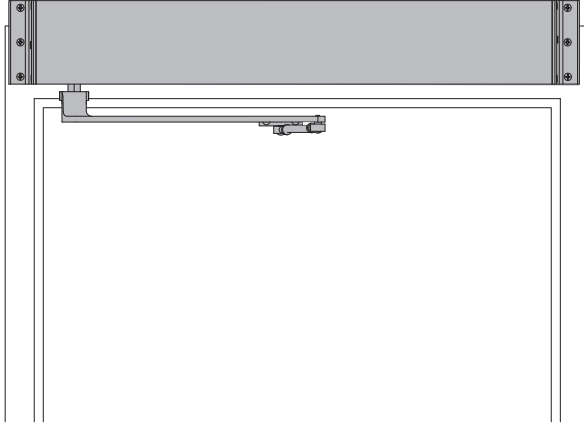
WARRANTY

- ▶ 2 year limited warranty. See General Section for complete details.

MAINTENANCE

- ▶ Operators mounted according to the LCN installation instructions require no periodic maintenance or adjustments.
- ▶ Monthly, quarterly and annual visual inspections are recommended.

SINGLE DOOR, SURFACE MOUNT (PUSH) OFFSET PIVOT/BUTT HINGE



The 9540 SENIOR SWING by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING operators when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

- ▶ **Push 'N Go permits non-switch activation**
- ▶ **Power Boost provides additional latching force**
- ▶ **Electromechanical unit with microprocessor control**
- ▶ **Digital keypad for easy setup**
- ▶ **Tested internally to over 10,000,000 cycles**
- ▶ **Meets International Building Code requirements and ANSI A156.19**
- ▶ **UL approved for fire doors**

- ▶ 9540 series operator is shipped with motor gearbox, control box, regular arm, header, and mounting hardware. Actuators available separately, see pages 199-215.
- ▶ Single door, surface mounted.
- ▶ Meets ADA requirements (power mode only).
- ▶ Handed product.
- ▶ 36" header length is standard. Specify length 33" to 49" max.
- ▶ Double door header available up to 98", specify other length 49" to 98" max. Consult factory regarding this option.
- ▶ Adjustable hold open period of 1 to 32 seconds in automatic or manual mode.

9540 Series is fully compliant with UL 325 & UL 1998 and meets the provisions of ANSI A156.19. The 9540 Series is UL listed for fire-rated applications. The 9540 Series also meets the provisions of the Americans with Disabilities Act.

MOUNTING						HANDING		FINISH	COVER		ARM FUNCTION		
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SURFACE MOUNT SINGLE DOOR						HANDED		STANDARD ANODIZED	REGULAR (SINGLE)		STANDARD (SINGLE)		
SURFACE MOUNT SIMULTANEOUS PAIR						NON-HANDED		CUSTOM ANODIZED	DOUBLE (DOUBLE)		REGULAR (DOUBLE)		
SURFACE MOUNT INDEPENDENT PAIR								CUSTOM PAINT	OFFSET PIVOT (PUSH/PULL)		DOUBLE EGRESS (PUSH/PULL)		
CONCEALED SINGLE DOOR								METAL	CENTER PIVOT ARM		OFFSET PIVOT ARM		
CONCEALED SIMULTANEOUS PAIR													
CONCEALED INDEPENDENT PAIR													

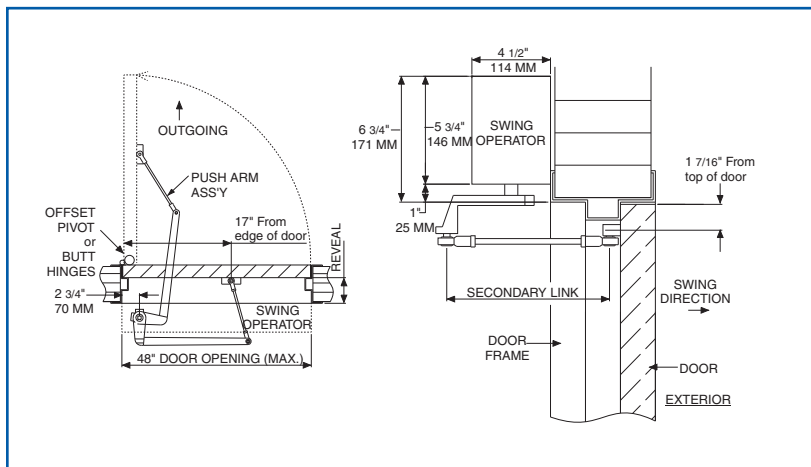
AVAILABLE
 NOT AVAILABLE

LCN 9540 SERIES

MOUNTING DETAILS

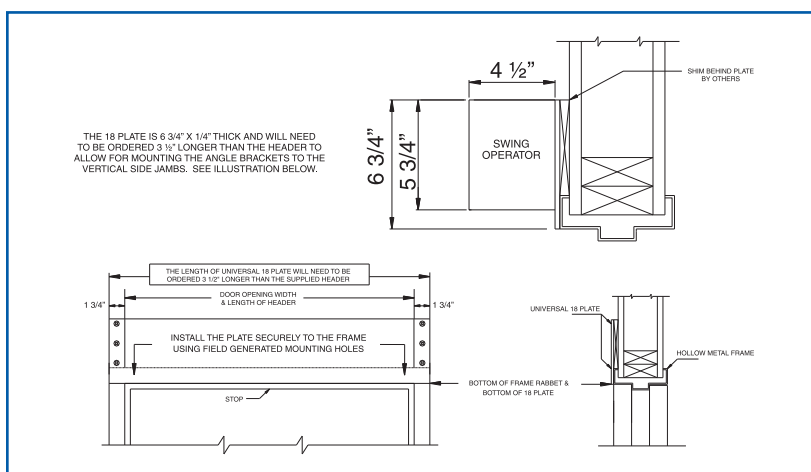
TOP JAMB SINGLE DOOR (OFFSET PIVOT/BUTT HINGE, CENTER PIVOT, PUSH) MOUNTI

Consult factory for all balance door installations.



HOLLOW METAL FRAME

Suggested Installation



MAXIMUM OPENING

Template allows 90 degree power opening and 90 degree manual opening.

- ▶ **Butt Hinges** should not exceed 5" (127 mm) in width.
- ▶ **Reveal** for push installations should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM.
- ▶ **Head Frame** minimum 1 3/4" (44 mm). Face frame 6 3/4" (171 mm) total operator clearance.
- ▶ **Top Rail** minimum 2 3/4" (70 mm).
- ▶ **Opening & Closing Time** are variable by adjustments to the electronic control box. Maximum hold open time adjustable up to approximately 32 seconds.
- ▶ **System Diagram** see "AUTOMATIC OPERATORS" section pages 54-55 for typical system wiring and page 58 for electrical data.
- ▶ Please consult your local SSC representative or LCN for assistance with specific installations and material requirements.

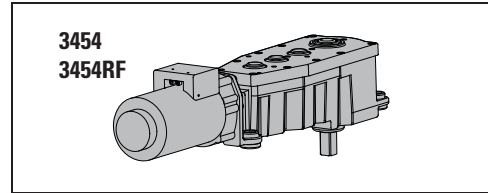
Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.

MOTOR GEARBOX

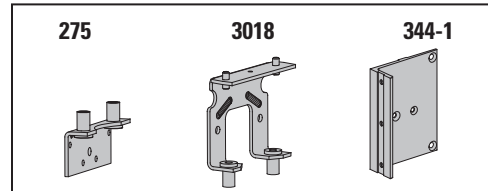
MOTOR GEARBOX (STANDARD FORCE) – SENIOR SWING, 9540-3454

Driving mechanism for operator. Provides 15lbs opening force. Handed.



MOTOR GEARBOX (REDUCED FORCE) – SENIOR SWING, 9540-3454RF

Driving mechanism for operator. Provides 11lbs opening force. Handed.



MOUNTING BRACKET

MOUNTING BRACKET – 2 3/4", 9540-275

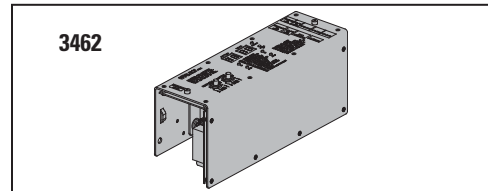
Motor gearbox mounting bracket for 2 3/4" offset pivot or butt hinge installations. Front bracket.

REAR MOUNT BRACKET, 9540-3018

Motor gearbox mounting bracket. Rear bracket.

ANGLED BRACKET, 9540-334-1

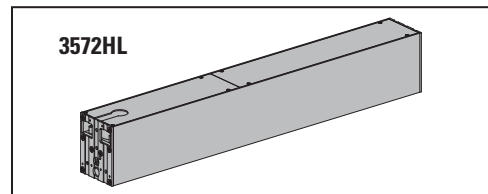
Mounting bracket for surface applications.



CONTROL BOXES

CONTROL BOX – SENIOR SWING, 9540-3462

Electronic controlling device for Senior Swing.



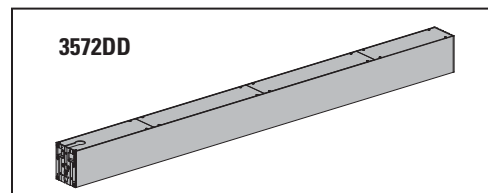
HEADERS

Header, 9540-3572HL

Standard, mounting header. Single door, single operator. Specify length 30" to 49" maximum.

Header, 9540-3572DD

Standard, mounting header. Double door, single operator. Specify length 49" to 98" maximum.



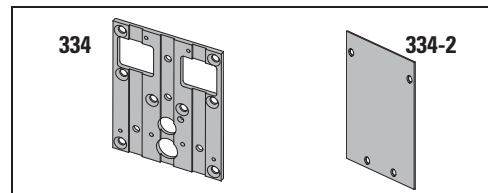
END CAPS

HEADER END CAPS, 9540-334

End cap with openings for wiring.

END DRESS PLATE, 9540-334-2

Metal finish end cap.



LCN 9540 SERIES

ACCESSORIES

ARMS

REGULAR ARM ASSEMBLY, 9540-3077

Handed arm.

REGULAR LONG ARM ASSEMBLY, 9540-3077L

Handed arm.

MAIN ARM, 9540 -77

Handed arm attaches to motor gearbox.

LINKAGE ASSEMBLY – 15", 9540-79

Threaded rod attaches to door. Extends from main arm.

LINKAGE ASSEMBLY – 32", 9540-79LR

Threaded long rod attaches to door. Extends from main arm. Used for reveal 10" to 20".

INSTALLATION ACCESSORIES

SPINDLE PLATE – 2 3/4", 9540-11A

Hides bottom of motor gearbox. Completes header box. Cutout allows for motor gearbox shaft. For 2 3/4" offset pivot or butt hinge installations.

FILLER PLATE BLANK, 9540-12

Completes length of header box. (Specify Length)

MOUNTING PLATE, 9540-18

Optional mounting plate for standard hollow metal door frames. Specify length 33" to 98" maximum.

NOTE: The length of a universal 18 plate will need to be ordered 3 1/2" longer than the supplied header.

