# BENCHMARK UNIQUE FEATURES 

On-Board Power Supply
Provides 24V DC output to power card readers, manual actuators and other peripherals.

## Electronic Circuit Protection

Fused input circuit protection and fused output protection for 24 VDC peripherals.

## Visual Function Indicators

There are 2 LED s for installation and trouble shooting feedback. The motor LED will illuminate when the motor drive circuit energizes. This is when the operator is activated it will remain on only during the opening of the door and the power LED this will illuminate when power is applied to the board and remains illuminated as long as there is power applied to the board.

Programming Mode
Allow tailoring of the following functions to meet specific site conditions:

- Power Boost
- Opening Speed
- Backcheck Speed
- Hold Open Time Delay
- Backcheck Position
- Closing Speed
- Latch Position
- Push'NGo
- Delayed Activation

Notes

## 9130 SERIES

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



- 9130 Series operator is shipped with motor gearbox, control box, mounting plate, standard arm, metal cover, standard track, wood and machine screws. Actuators available separately, see pages 122-137.
- Single interior door, surface mounted.
- ADA compliant.
- On/Off switch included as standard.
- Non-handed for either right or left swinging door.
- 27" cover is standard. 36" optional.
- All potentiometers clearly labeled with their functions.
- LED lights indicate power to control box and motor gearbox.

The 9130 BENCHMARK by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, or the elderly. Designed primarily for automatic opening applications that occasionally require manual opening. The BENCHMARK is a cost-effective solution for retrofitting an activated or manual door.

- Push 'N Go permits non-switch activation.
- Microprocessor control box ensures reliability and maintains customer settings.
- Power Boost allows for increased closing force near latch.

9130 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 9130 Series is UL listed for fire-rated applications. The 9130
Series also meets the provisions of the Americans with Disabilities Act.


- AVAILABLE

O NOT AVAILABLE


## TOP JAMB SINGLE DOOR (OFFSET/BUTT HINGE, CENTER PIVOT, PULL, FULL COVER) MOUNTING

## MAXIMUM OPENING

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


- Butt Hinges should not exceed 5 " ( 127 mm ) in width.
- Reveal should not exceed $1 / 8^{\prime \prime}$ ( 3 mm ).
- Head Frame minimum 2" ( 51 mm ).
- Top Rail minimum 2 " ( 51 mm ).
- Opening and Closing Time are variable by adjustments to the electronic control module located on the operator assembly. Maximum hold open time adjustable up to approximately 30 seconds.
- System Diagram see "AUTOMATIC OPERATORS" section pages 53 for typical system wiring and page 56 for electrical data.


## MOTOR GEARBOX

MOTOR GEARBOX ASSEMBLY, 9130-3454S
Driving mechanism for operator. (Switch included).
For 27" unit.
MOTOR GEARBOX ASSEMBLY (W/O SWITCH), 9130-3454
Driving mechanism for operator. (Switch not included).
For full length unit (36").

## BRACKETS

MOUNTING BRACKET, 9130-3018
Standard mounting bracket.

## SWITCH BRACKET - 29" CABLE, 9130-3351-1

Bracket used to locate switch at end of cover on full length unit.
SWITCH BRACKET - 41"CABLE, 9130-3351-2
Bracket used to locate switch at end of cover on full length unit.

## CONTROL BOXES

CONTROL BOX, (120v), 9130-3462
Electronic controlling device with power supply output and power boost feature for Benchmark.

## COVERS

## METALCOVER, 9130-72MC

Standard, 27", non-handed, extruded aluminum cover.
FULL METAL COVER, 9130-72FC
36 ", non-handed, extruded aluminum cover.

## COVER INSERT 9130-163

Used to cover operator shaft opening. (Includes 2 pieces).
COVER END CAP INSERT, ו130-163
Used to cover switch hole opening.

## COVER END CAP, 9130-334

Black plastic end caps. (Includes 9130-163-1 cover and cap insert).


## 9130 SERIES

TRACKS
STANDARD TRACK, 9130-3038
Standard, non-handed track.
TRACK END CAP, 9130-73
Black plastic end caps.
ROLLER, 9130-3034
Quiet low friction roller assembly.

ARMS
STANDARD ARM, 9130-3077T
Non-handed arm. Track roller not included.
STANDARD ARM with 9130-3077PLCM
Non-handed arm and standard non handed track.

$3077 T$


9130-3077PLCM


## 9130 SERIES

## TABLE OF SIZES

## DOOR WIDTH

| $\begin{gathered} 30^{\prime \prime} \\ 762 \mathrm{~mm} \end{gathered}$ | $\begin{gathered} \text { 48" } \\ \text { 1219mm } \end{gathered}$ |
| :---: | :---: |
| 9131 |  |
| Minimum Door Width |  |

$\longrightarrow$ Indicates recommended range of door width for operator.
NOTE: For All Benchmark Series.
30 " minimum door width for 27 " pull operator.
36 " door width only for full length pull operator.

HOW-TO-ORDER
9130 SERIES OPERATORS

1. SPECIFY FINISH
$\square$ Standard Anodized Finish $\qquad$ Aluminum or Dark Bronze.

Operator will be shipped with:

- STANDARD MOTOR GEARBOX,
- STANDARD CONTROL BOX,
-MOUNTING BRACKET,
- 27"METAL COVER,
- STANDARD ARM (3077T),
- STANDARD TRACK w/TRACK ROLLER,
- WOOD and MACHINE SCREW PACK Unless options listed below are selected.

OPERATOR OPTIONS COVER
$\square 36 "$ Full Cover.

Notes

## 9140 SERIES



- 9140 Series operator is shipped with motor gearbox, control box, mounting plate, regular arm, metal cover, standard track, wood and machine screw pack. Actuators available separately, see pages 122-137.
- Single interior door, surface mounted.
- ADA compliant.
- On/Off switch included as standard.
- Non-handed for either right or left swinging door.
- 27" cover is standard. 36 " optional.
- All potentiometers clearly labeled with their functions.

■ LED lights indicate power to control box and motor gearbox.

The 9140 BENCHMARK by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, or the elderly. Designed primarily for automatic opening applications that occasionally require manual opening. The BENCHMARK is a cost-effective solution for retrofitting an activated or manual door.

- Push 'N Go permits non-switch activation.
- Microprocessor control box ensures reliability and maintains customer settings.
- Power Boost allows for increased closing force near latch.

9140 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 9140 Series is UL listed for fire-rated applications. The 9140 Series also meets the provisions of the Americans with Disabilities Act.


## TOP JAMB SINGLE DOOR (OFFSET/BUTT HINGE, CENTER PIVOT, PUSH, FULL COVER) MOUNTING

## MAXIMUM OPENING

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

Contact LCN Product Support for installation assistance.

## MOTOR GEARBOX

MOTOR GEARBOX ASSEMBLY, 9140-3454S
Driving mechanism for operator. (Switch included.) For 27" unit.
MOTOR GEARBOX ASSEMBLY (W/O SWITCH), 9140-3454
Driving mechanism for operator. (Switch not included.) For full length unit (36").

## BRACKETS

MOUNTING BRACKET, 9140-3018
Standard mounting bracket.

## SWITCH BRACKET - 29"CABLE, 9140-3351-1

Bracket used to locate switch at end of cover on full length unit.
SWITCH BRACKET - 41"CABLE, 9140-3351-2
Bracket used to locate switch at end of cover on full length unit.

## CONTROL BOXES

CONTROL BOX, (120v), 9130-3462
Electronic controlling device with power supply output and power boost feature for Benchmark.

## COVERS

METALCOVER, 9140-72MC
Standard, 27", non-handed, extruded aluminum cover.

## FULL METAL COVER, 9140-72FC

36 " Full length, non-handed, extruded aluminum cover.

## COVER INSERT 9140-163

Used to cover operator shaft opening. (Includes 2 pieces).

## COVER END CAP INSERT, 9140-163-1

Used to cover switch hole opening.
COVER END CAP, 9140-334
Black plastic end caps. (Includes 9130-163-1 cover and cap insert).


## 9140 SERIES

ARMS
REGULAR ARM, 9140-3077
Non-handed arm.
LONG PUSH ARM, 9140-3077L
Non-handed long arm.
ROD \& SHOE, 9140-79
Rod for use with regular arm.
LONG ROD \& SHOE, 9140-79LR
Long rod used with long arm, for deep reveals.


79LR
79


## TABLE OF SIZES

## DOOR WIDTH



## NOTE: For All Benchmark Series.

$30^{\prime \prime}$ minimum door width for $27^{\prime \prime}$ pull operator.
36 " door width only for full length pull operator.

HOW-TO-ORDER
9140 SERIES OPERATORS

## 1. SPECIFY FINISH

$\square$ Standard Anodized Finish $\qquad$ Aluminum or Dark Bronze.

Operator will be shipped with:

- STANDARD MOTOR GEARBOX,
- STANDARD CONTROL BOX,
-MOUNTING BRACKET,
- 27"METAL COVER,
- STANDARD ARM (3077),
- STANDARD TRACK w/TRACK ROLLER,
- WOOD and MACHINE SCREW PACK Unless options listed below are selected.


## OPERATOR OPTIONS

COVER
$\square 36$ " Full Cover
ARM
$\square$ Long Arm (3077L)
(reveals 6" to 9-3/4")

Notes

## 9150 SERIES



■ 9150 Series operator is shipped with motor gearboxes, control boxes, mounting plate, regular arms, metal cover, wood and machine screw packs. Actuators available separately, see pages 122-137.

- Pair of interior doors, surface mounted.
- ADA compliant.
- On/Off switch included as standard.
- Non-handed for either right or left swinging door.
- 72" cover is standard.
- All potentiometers clearly labeled with their functions.
- LED lights indicate power to control box and motor gearbox.

The 9150 BENCHMARK by LCN is an electrically powered low-energy operator. It provides easy access for people with disabilities, or the elderly. Designed primarily for automatic opening applications that occasionally require manual opening. The BENCHMARK is a cost-effective solution for retrofitting an activated or manual door.

- Push 'N Go permits non-switch activation.
- Microprocessor control box ensures reliability and maintains customer settings.
- Power Boost allows for increased closing force near latch.

9150 Series is fully compliant with UL 325 and meets the provisions of ANSI A156.19. The 9150 Series is UL listed for fire-rated applications. The 9150 Series also meets the provisions of the Americans with Disabilities Act.


- AVAILABLE

O NOT AVAILABLE

## TOP JAMB, INDEPENDENT/ SIMULTANEOUS PAIR (OFFSET PIVOT/BUTT HINGE, CENTER PIVOT, PUSH) MOUNTING

Determined by wiring method during installation.

## MAXIMUM OPENING

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


■ Butt Hinges should not exceed $5^{\prime \prime}(127 \mathrm{~mm})$ in width.

- Reveal for push installations should not exceed $6^{\prime \prime}$ ( 152 mm ) for REGULAR ARM and 9-3/4" ( 248 mm ) for LONG ARM.
- Head Frame minimum 2" (51 mm).
- Top Rail minimum 2" (51 mm). Flush ceiling installation requires 5-1/4" $(133 \mathrm{~mm}$ ) minimum.
- Opening and Closing Time are variable by adjustments to the electronic control module located on the operator assembly. Maximum hold open time adjustable up to approximately 32 seconds.
- System Diagram see "AUTOMATIC OPERATORS" section pages 53 for typical system wiring and page 56 for electrical data.

Contact LCN Product Support for installation assistance.

## MOTOR GEARBOX

MOTORGEARBOX ASSEMBLY，9150－3454S
Driving mechanism for operator．（Switch included）．

## BRACKETS

MOUNTING BRACKET，9150－3018
Standard mounting bracket．

SWITCH BRACKET－51＂CABLE，9150－3351－3
Bracket used to locate switch at end of cover on full length unit．

## CONTROL BOXES

CONTROL BOX，（120v），9150－3462
Electronic controlling device with power supply output and power boost feature for Benchmark．

## COVERS

METALCOVER，9150－72MC
Standard， 72 ＂，non－handed，extruded aluminum cover．

## COVER INSERT 9150－163

Used to cover operator shaft opening．（Includes 2 pieces）．
COVER END CAP INSERT，9150－163－1
Used to cover switch hole opening．

## COVER END CAP，9150－334

Black plastic end Caps．（Includes 9130－163－1 cover and cap insert）．


## 9150 SERIES

ARMS
REGULAR ARM, 9150-3077
Non-handed arm.
LONG ARM, 9150-3077L
Non-handed long arm.
ROD \& SHOE, 9150-79
Rod for use with regula arm.
LONG ROD \& SHOE, 9150-79LR
Long rod used with long arm for deep reveal.


79LR
79


## 9150 SERIES

## TABLE OF SIZES

## DOOR WIDTH


$\longrightarrow$ Indicates recommended range of door width for operator.
NOTE: For 9150 Benchmark Series.
72 "door width only for full length push double door operator.

HOW-TO-ORDER
9150 SERIES OPERATORS

## 1. SPECIFY FINISH

$\square$ Standard Anodized Finish $\qquad$ Aluminum or Dark Bronze.

## Operator will be shipped with:

- STANDARD MOTOR GEARBOX (2 ea),
- STANDARD CONTROL BOX (2 ea),
-MOUNTING BRACKET (2 ea),
-72"METAL COVER,
- STANDARD ARM (2 ea),
- WOOD and MACHINE SCREW PACK

Unless options listed below are selected.

## OPERATOR OPTIONS

## ARM

$\square$ Long Arm (3077L)
(Reveals 6" to 9-3/4")

Notes

