

# LCN ELECTROMECHANICAL POWERED SYSTEMS

## ELECTROMECHANICAL POWER OPERATORS

LCN's electromechanical products are designed primarily for automatic opening applications that occasionally require manual opening. A control box provides all electrical functions. These self-contained units are suitable for use on single leaf doors or pair of doors. These products combine all the control and power elements into a single operator package, only some actuators are required to complete the system.

- ▶ Surface mounted and overhead concealed mountings available.
- ▶ Available in two standard anodized finishes – aluminum and dark bronze. Custom anodized finishes and custom paint is available.

## LOW ENERGY ELECTROMECHANICAL POWER OPERATORS

- ▶ Complies with ANSI 156.19
- ▶ Opening time from full close to backcheck is no faster than 3 seconds
- ▶ Less than 15lbs of force to open door manually

## HIGH ENERGY ELECTROMECHANICAL POWER OPERATORS

- ▶ Complies with ANSI 156.10
- ▶ Opening time from full close to backcheck is no faster than 1.5 seconds
- ▶ Less than 30 lbs of force to open door manually
- ▶ Requires use of guide rails and safety devices

## UNIQUE FEATURES-High and Low Energy Operators

- ▶ **Tested to 300,000 cycles.**
- ▶ **Power and manual operation.**
- ▶ **For all applications, single or multi-door projects.**
- ▶ **Push 'N Go**

Allows pedestrians to walk up to the door and push it open as if it were a manual door. After the door is manually opened approximately 5 degrees, the Push 'N Go feature takes over and continues to open the door – slowly and automatically to the full open position. With Push 'N Go, the door will stay fully open from one to 30 seconds, depending on the time delay chosen. Available only on low-energy, electromechanical power operators.

- ▶ **Auto Reverse**

A safety feature that reverses the direction of the door when it comes into contact with an object during either opening or closing. Available on low and high energy, electromechanical power operators.

- ▶ **Safety Slow Function**

- Once the door starts opening, any person or object entering the swing area will cause the door to go into a safety slow speed. This function can be set to allow for a short stop once a person or object is sensed. Available on high energy, electromechanical power operators.

## UNIQUE FEATURES-High and Low Energy Operators cont.

- ▶ **Power Boost**

Adds an additional latching force to ensure secure latching in severe wind or stack conditions. Power Boost is also ideal for overcoming slowing obstacles such as electric strikes. This feature is activated by a simple on/off toggle switch located on the face of the bottom-loaded control box. Provides additional 25 lbs on the 2500, 2800, 9300, 9500 Series, 15 lbs on the 9100 Series with premium control box.

- ▶ **Microprocessor**

Control unit allows for quiet efficiency in operation. Combined with the all electromechanical unit it eliminates unnecessary wear and prolongs the life of the unit. Available on low and high energy, electromechanical power operators.

## STANDARDS, LISTINGS & APPROVALS

- ▶ UL listed for self-closing doors without hold open. UL 325.
- ▶ Tested and certified under ANSI.
- ▶ Low Energy Electromechanical Operators ANSI 156.19
- ▶ High Energy Electromechanical Operators ANSI 156.10
- ▶ ADA Compliant. Applicable to Low Energy Electromechanical Operators only.
- ▶ Wiring is compliant with both UL 325 and the NEC. Separation of high and low voltage.
- ▶ Consult the factory for other listings.

## WARRANTY

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

## MAINTENANCE

### Low Energy Electromechanical Power Operators

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

### High Energy Electromechanical Power Operators

- ▶ High energy power operators may require periodic maintenance and/or adjustments.
- ▶ Daily visual inspections are recommended to ensure proper operation of all activation and safety devices.

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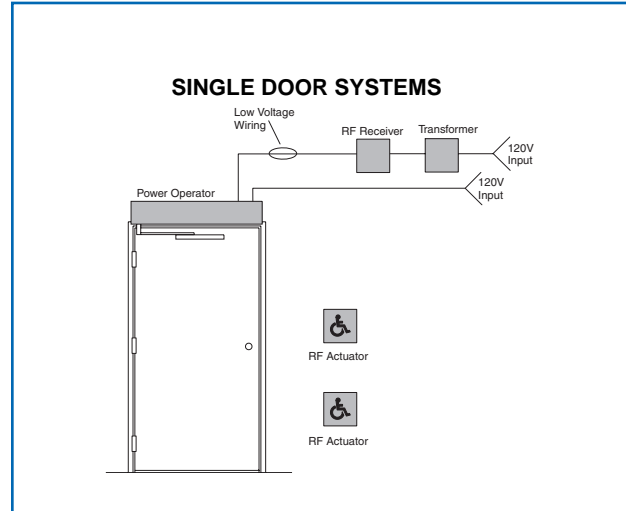
This page illustrates examples of typical Electromechanical LCN systems. Please consult your local SSC representative of LCN for assistance with specific installations and material requirements.

## SINGLE DOOR SYSTEM (Low Energy)

- ▶ An Interior Door.
- ▶ No guide rails or safety devices.
- ▶ Free Swinging (or Dogged) Door.

### How It Works

Wireless RF actuators with receiver, powered by the transformer allows for easy installation. For automatic door operation, touching either actuator signals the receiver and power operator to open the door to 90 degrees. The door is held there until the system times out. Door closes via spring return. Door opening speed, closing speed and hold-open time is adjustable on the control box. If not actuated, the power operator functions as a manual door.



### BILL OF MATERIALS

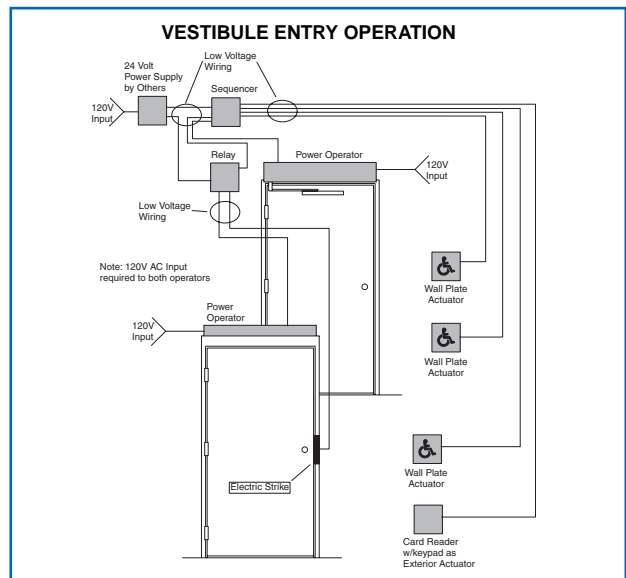
Qty.	Part No.	Description
1	9531	Power Operator (RH)
2	7930-292RF	RF Actuators
1	7930-103	Transformer
1	7930-106	RF Receiver

## VESTIBULE ENTRY SYSTEM (Low Energy)

- ▶ Exterior & Vestibule doors.
- ▶ Sequential Operation.
- ▶ No guide rails or safety devices.
- ▶ Controlled Access, Free Egress.

### How It Works

This installation provides both accessibility and security for building occupants. It allows for the integration of multiple power operators, a card reader and electric strike. A sequencer allows sequential operation of the two power operators. Vestibule actuators allow single door ingress/egress from the vestibule as needed. If not actuated the power operator functions as a manual door.



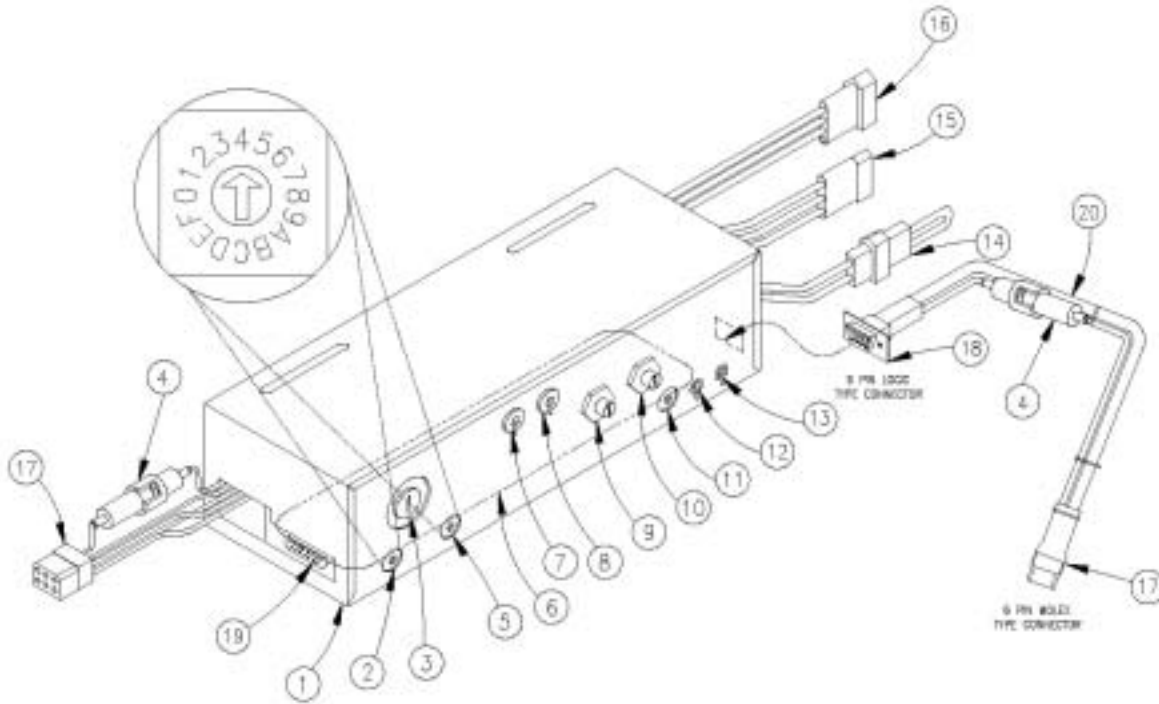
### BILL OF MATERIALS

Qty.	Part No.	Description
1	9542	Power operator (RH)
1	9531	Power operator (RH)
3	7930-292	Wall Plate Actuators
1	7930-148	Relay
1	7930-149	Sequencer
Other products from Von Duprin and Locknetics		

*Note: this installation requires a separate power supply, sequencer and relay.*

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## CONTROL BOX - 2500, 2800, 2900, 9300, 9500, 9700 SERIES



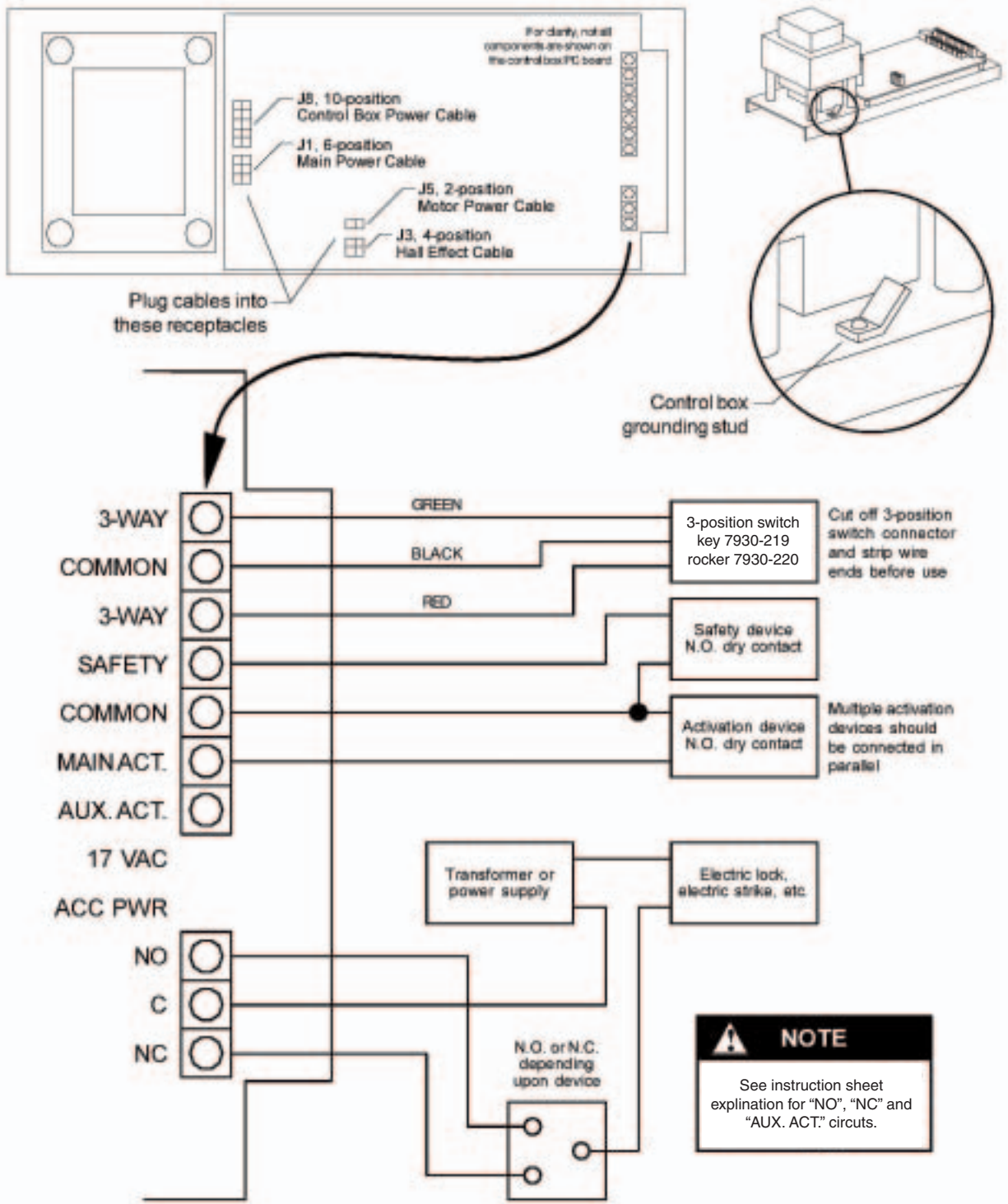
1. Control box, 115 volt
2. Function selector dial
3. Fuse
4. Fuse holder with fuse
5. Latch selector dial
6. Label for function & latch selector dials (located on bottom of box)
7. Push 'N Go ON/OFF switch (not applicable for 2510, 2550, 9330, 9340, 9350 Series)
8. Power Boost ON/OFF switch (not applicable for 2910, 2950, 2960, 9730, 9740, 9750, 9760 Series)
9. Closing speed adjustment (for main unit)
10. Closing speed adjustment (for companion unit)
11. Time delay adjustment (2 seconds to 30 seconds)
12. Opening speed adjustment
13. Backcheck speed adjustment
14. 2-Pin connector for breakaway switch
15. 3-Pin connector for activation input
16. 4-Pin connector for power input
17. 6-Pin connector to motor gearboxes
18. 9-Pin connector to control box
19. Logic Terminal – used for accessories (15-Pin DIN)
20. Companion Cable

**Note:**

*1-Pin connector safety slow/stop feature included on 2510, 2550, 9330, 9340, 9350 Series*

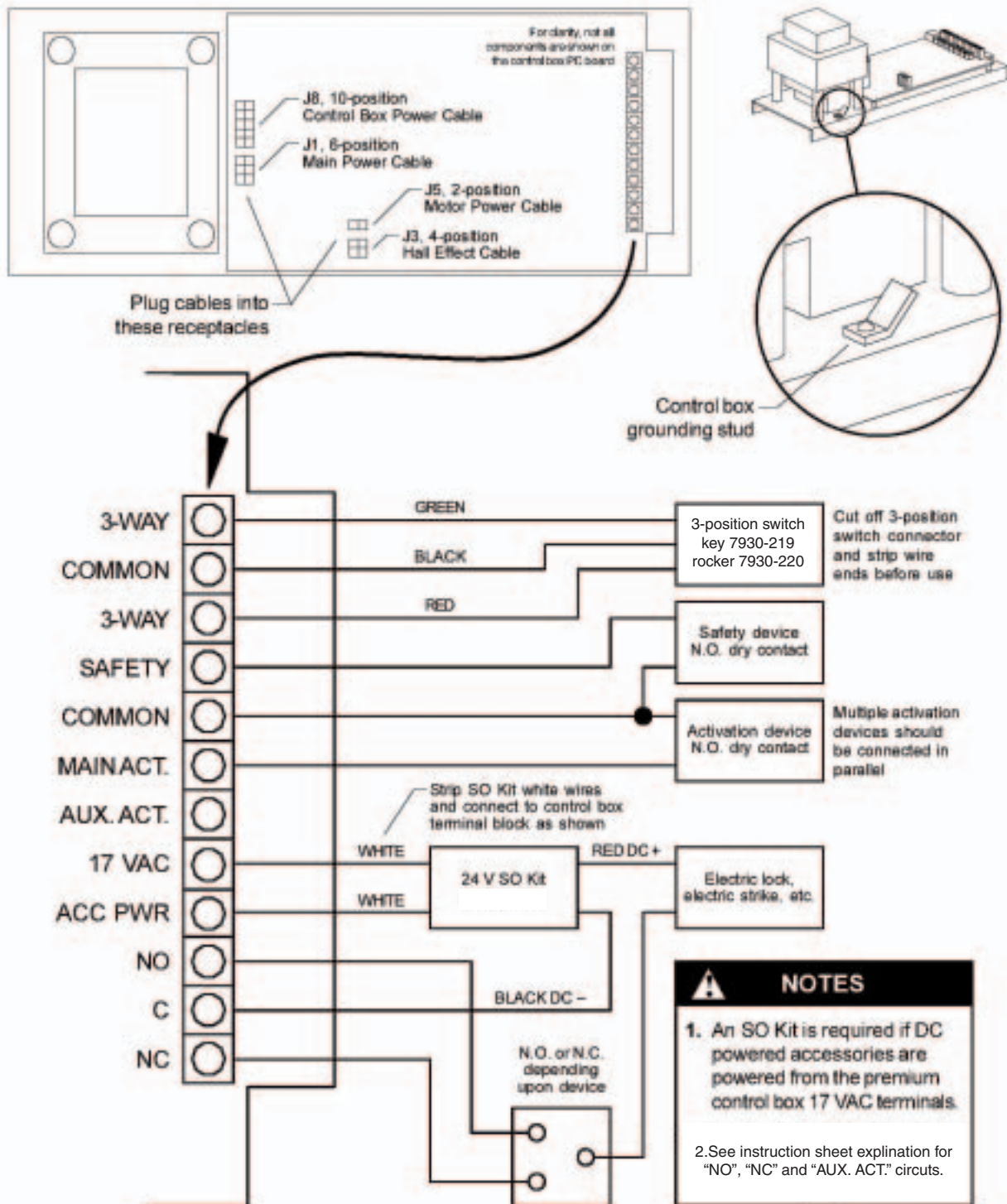
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## STANDARD CONTROL BOX - 9100 SERIES



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## PREMIUM CONTROL BOX - 9100 SERIES



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## GENERAL ELECTRICAL DATA

1. Input power 115 volt, 3 wire, single phase, 60Hz, fused, 15 amp supply.
2. UL approved type flexible conduit is recommended for the 115 volt power line.
3. The 115 volt power supply must be a dedicated circuit from the main circuit breaker panel and must not be connected into a building lighting system operating fluorescent lights.
4. Location of conduits determined by mounting. See installation instructions for location.

## 2500, 2800, 2900, 9300, 9500, 9700 Series

### ELECTRICAL DATA

1. 120 VAC input @ 6amps (2500 and 9300 Series).
2. 120 VAC input @ 3 amps (2800, 2900,9500 and 9700 Series).
3. No AC/DC output available.

## 9100 Series

### ELECTRICAL DATA

1. 120 VAC input @ 1 amp.
2. 17 VAC output @ 2.5 amps on premium control box.
3. 24 VDC available with SO kit included with premium control box.