



P516-871

# L-Series Electrified Locks



L909X-Series Electrified Mortise Lock,  
LM929X-Series Electrified Two-Point Lock  
Wiring Instructions and Specifications

## WARNINGS



## WARNING

Warnings indicate potentially hazardous conditions, which if not avoided or corrected, may cause death or serious injury.

## L-Series Electrified Lock

All installations should be in accordance with local electrical codes and national electrical code, **NFPA 70**.

L909X-Series and LM929X-Series electrified locks offer selection between one of two modes, EL or EU.

Select the appropriate mode for the installation using the mode select switch located on the mortise chassis.

### EL, electrically locked (fail safe):

Outside knob/lever or both outside and inside knobs/levers (depending on function) will lock when power is applied. In the event of power failure, the opening will be unlocked.

### EU, electrically unlocked (fail secure):

Outside knob/lever or both outside and inside knobs/levers (depending on function) will unlock when power is applied. In the event of power failure, the opening will be locked.

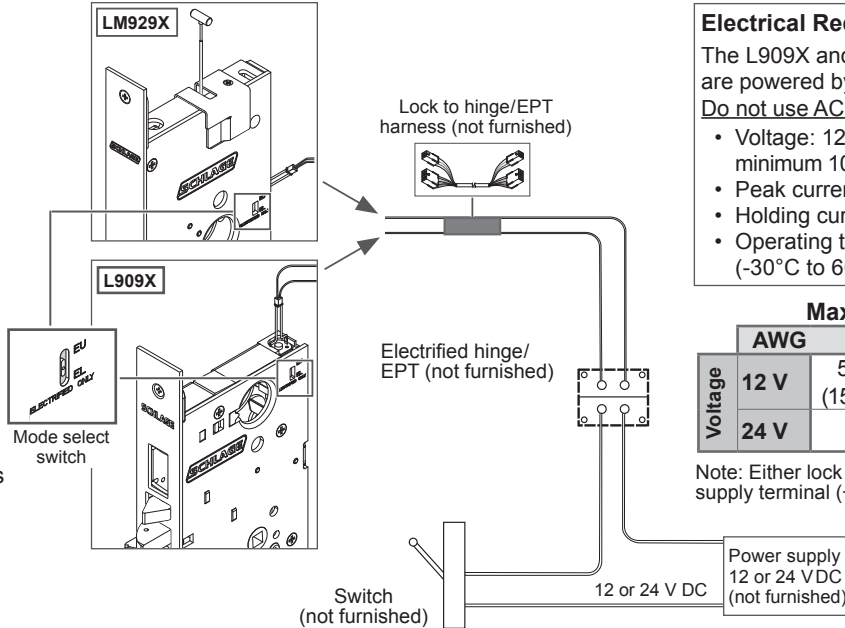
**Note: When mode is switched (from EL to EU or EU to EL) the lock requires a complete lock/unlock power cycle to synchronize to the proper mode.**

**IMPORTANT!** Connection of L-Series electrified mortise locks to a supply circuit containing electromagnetic devices (i.e., solenoid based) is *not recommended*. If used, the resulting transient voltages could damage the lock. The transient voltage must be carefully suppressed at the equipment producing it before connecting the lock to the same circuit. A varistor rated at 35 V (peak recurrent) may be used for transient voltage protection.

### Troubleshooting

If lock does not operate.

- Ensure the lock is powered with DC power. **Do not use AC power.**
- Ensure the input voltage is between 10.8 and 26.4 volts DC.



### Electrical Requirements:

The L909X and LM929X-Series electrified locks are powered by DC power only.

**Do not use AC power.**

- Voltage: 12 or 24 VDC (maximum 26.4 V, minimum 10.8 V)
- Peak current: 0.4 amps
- Holding current: 0.010 amps
- Operating temperature: -22°F to 140°F (-30°C to 60°C)

### Maximum Total Wire Length

	AWG 14	16	18	20
12 V	500' (152 m)	300' (91 m)	200' (61 m)	100' (30 m)
24 V	Up to 1000' 304 m			

Note: Either lock wire may be attached to either power supply terminal (+ or -).

## L-Series Request-to-Exit (RX) Lock

RX utilizes a microswitch inside the lock case to detect rotation of the inside knob/lever. The switch then signals the use of the opening to the security system. The RX is a removable module located on the bottom edge of the lock chassis. The module must be properly positioned to detect inside knob/lever rotation. If not properly positioned, the lock and/or microswitch may be damaged. Default status for normally open or normally closed is with door open.

**Note:** RX is not applicable with LM929X-Series locks.

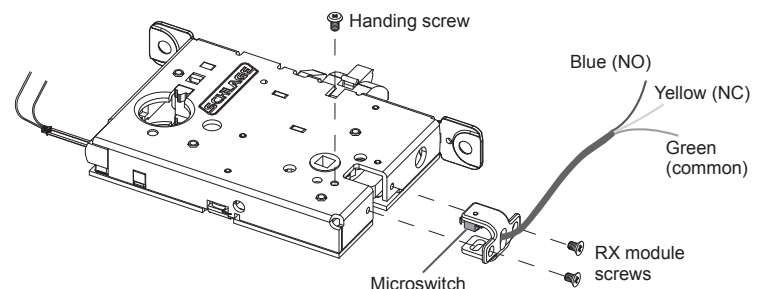
### RX module installation

1. The microswitch must be on the same side of the door as the handing screw (facing the inside of the door).
2. Install the RX switch module as shown.

### Change lock handing with RX

1. If the RX module is installed, remove the RX module.
2. Remove the handing screw.
3. Rotate the latch 180° (if necessary).
4. Reinstall the handing screw on the appropriate side.
5. Reinstall the RX module with the microswitch on the same side as the handing screw.

**Electrical rating:** 3 A, 125 V AC; 2 A, 30 V DC



## WARNING

L9091/93/95, L9493/95 and LM9291/93/95 functions lock both inside and outside levers. Locking both levers will prevent normal egress from the inside and will prevent the intended operation of an emergency exit.

## Deadbolt Monitor (DM)

Deadbolt Monitor (DM) identifies the status of the deadbolt (extended or retracted). Normally open, normally closed, and common connections are provided. Note: Deadbolt monitor is only available on deadbolt models.

Default status for normally open or normally closed is with the deadbolt retracted. Closing the door or extending the deadbolt reverses the status. Electrical rating: 3 A, 125 V AC; 2 A, 30 V DC.

## Latchbolt Monitor (LX)

Latchbolt Monitor (LX) identifies the status of the latchbolt (extended or retracted). Normally open, normally closed, and common connections are provided.

Default status for normally open or normally closed is with the door open. Electrical rating: 3 A, 125 V AC; 2 A, 30 V DC.

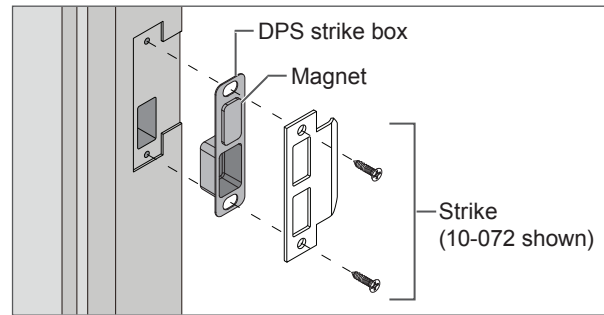
## Door Position Sensor (DPS)

Door Position Sensor (DPS) detects the position of the door, open or closed, by utilizing a sensor in the mortise lock to detect a magnet located in the door strike. Normally open, normally closed, and common connections are provided.

Default status for normally open or normally closed is with the door open.

**Note:** DPS is not available on deadbolt models.

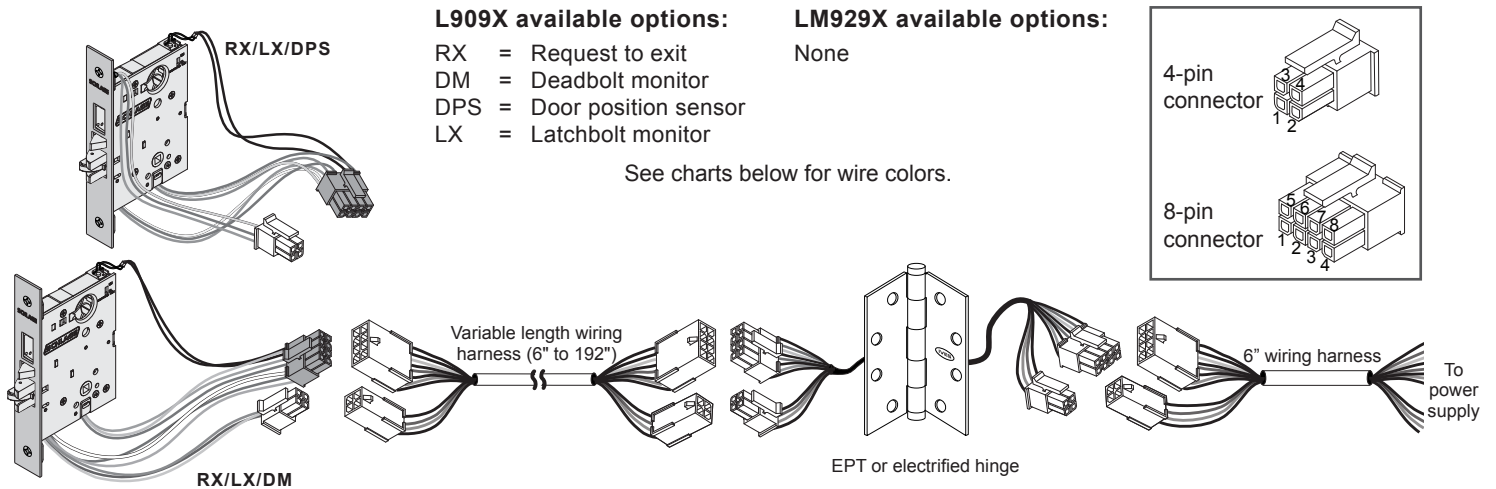
Max voltage 175 VDC, max current 0.250 A



## Allegion Connect

The L909X-Series and LM929X-Series electrified mortise locks are furnished with Allegion Connect, a factory-installed Molex® connector system that provides simplified installation and maintenance. The system utilizes quick-connect harnesses and hinges. As an alternative installation method, the Molex connector may be cut off and the lock installed with traditional wire splicing methods.

Note: The items listed and shown below reflect options that may or may not be included with your specific model.



### L909X available options:

- RX = Request to exit
- DM = Deadbolt monitor
- DPS = Door position sensor
- LX = Latchbolt monitor

### LM929X available options:

None

See charts below for wire colors.

### 8-Pin

Purpose	Function	Lock Connector		Harness Connector	
		Wire Color	Pin	Pin	Wire Color
EL / EU	Power*	Black	1	1	Red
	Power*	Black	2	2	Black
RX	Normally Open (NO)	Blue	3	3	Blue
	Normally Closed (NC)	Yellow	4	4	Yellow
	Common (C)	Green	5	5	Green
LX	Normally Open (NO)	Gray	6	6	Gray
	Normally Closed (NC)	Violet	7	7	Violet
	Common (C)	White	8	8	White

### 4-Pin

Purpose	Function	Lock Connector		Harness Connector	
		Wire Color	Pin	Pin	Wire Color
DM	Normally Open (NO)	Orange	1	1	Orange
	Normally Closed (NC)	Brown	2	2	Brown
	Common (C)	Pink	3	3	Pink
DPS	not used		4	4	Tan
	Normally Open (NO)	Green/black	1	1	Orange
	Normally Closed (NC)	Red	2	2	Brown
	Common (C)	White/black	3	3	Pink
	not used		4	4	Tan

\* Lock auto-detects GND, +12 or +24 V DC

## Customer Service

1-877-671-7011

www.allegion.com/us



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