



P516-871

L-Series Electrified Locks



L909X/L949X-Series Electrified Mortise Lock,
LM929X-Series Electrified Two-Point Lock (not
UL/ULC Listed)

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/L949X-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):

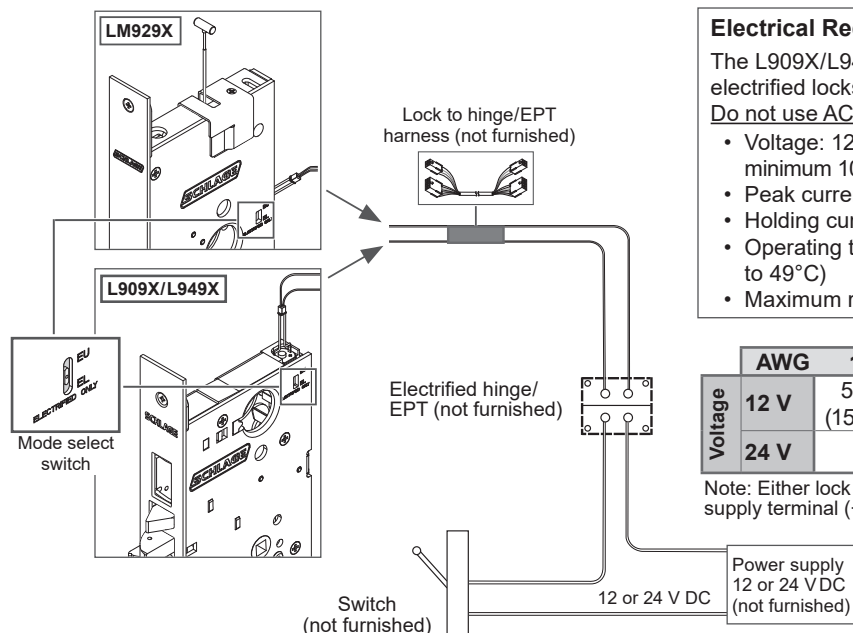
Outside knob/lever or both outside and inside knobs/levers (depending on function) will lock when power is applied. In the event of power failure, the opening will be unlocked.

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.



Electrical Requirements:

The L909X/L949X 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: 32°F to 120°F (0°C to 49°C)
- Maximum relative humidity 93%

	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 -).



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.

Lock installation conditions and UL statements (applies only to L909X/L949X-Series locks):

- The lock shall be installed so as not to interfere with the intended operation of panic hardware installed on the same door.
- The lock shall be installed with a handle and spindle that meet the requirements of the ULC-S319 torque test or that are designed to shear and not cause damage to the lock at a torque less than 305 N-m.
- All interconnected equipment must be UL/ULC Listed.
- Lock to be powered by a power-limited class 2, UL 294/UL 603 and ULC-S318/ULC-S319 Listed power supply capable of supplying 12/24 VDC.
- External source for RX, DM, LX, and DPS shall be a UL Listed power source with Class 2, power-limited output.
- For ULC-S319 Class II, III and IV installations, the door must be provided with a door position switch.
- UL 294 Access Control Performance Levels: Destructive Attack, Level 1; Line Security, Level 1; Standby Power, Level 1; Endurance, Level IV (with DM, or LX, Endurance, Level I).
- ULC-S319 Class III

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.

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. Use of RX module not evaluated by UL.

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

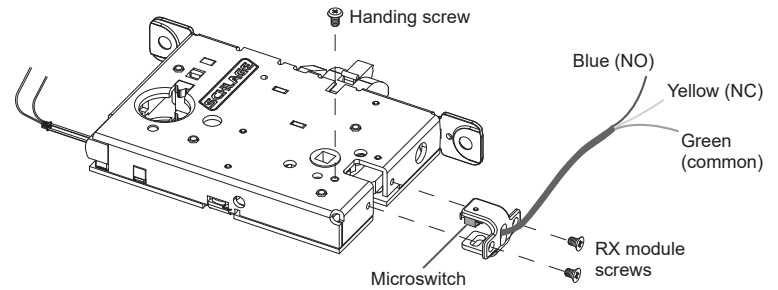
RX module installation

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: 2 A, 30 V DC, Resistive or 1 pf



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: 2 A, 30 V DC, Resistive or 1 pf

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: 2 A, 30 V DC, Resistive or 1 pf

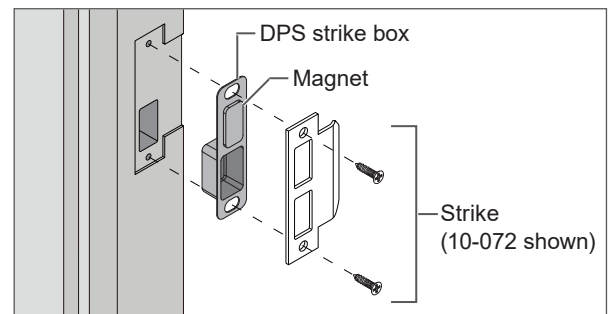
Door Position Sensor (DPS)

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: 30 V DC, max current 0.250 A



Allegion Connect

The L909X/L949X-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 OR by using a 6" wiring harness (included) if additional wire length is needed.

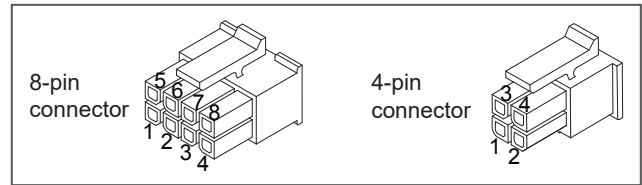
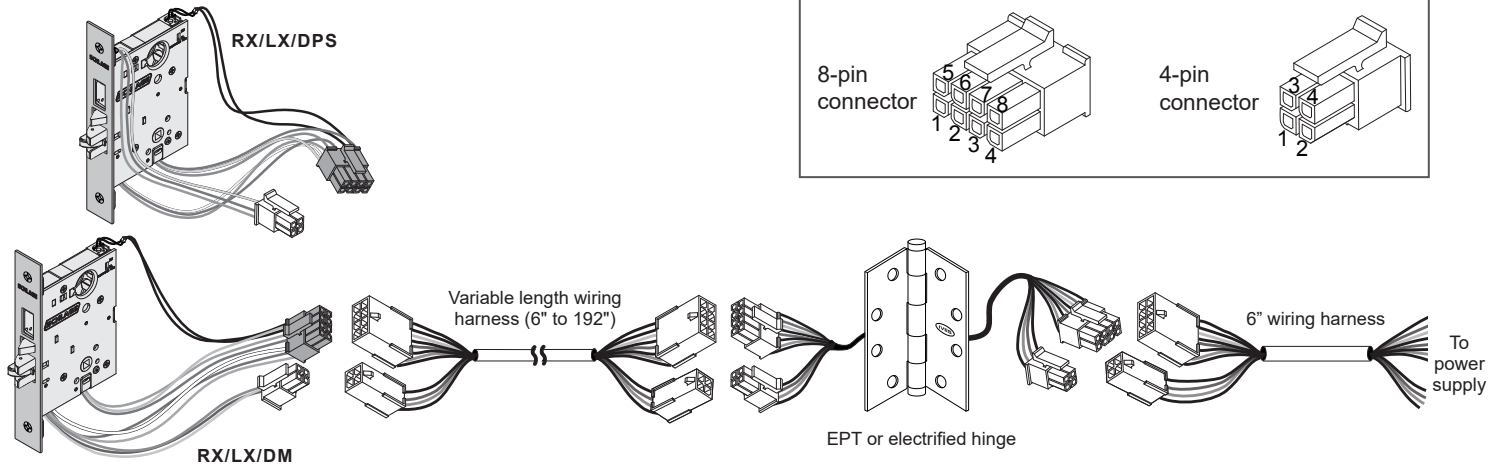
Note: The items listed and shown below reflect options that may or may not be included with your specific model. See charts below for wire colors.

L909X/L949X available options:

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

LM929X available options:

None



8-Pin

Purpose	Function	Lock Connector		Pin	Pin	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		Pin	Pin	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	
	not used		4		4	Tan	
DPS	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

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