

# SARGENT Wiring Instructions for Ecoflex™ Electrified Mortise Locks\* (7970,71,72,73 & 8270,71,72,73) for 12-24 Volts and Mechanical Mortise Locks with Monitoring Prefixes (RX, LX & DX) with the ElectroLynx® Connector System



For assistance, contact SARGENT at 800-810-WIRE (9473) or [www.sargentlock.com](http://www.sargentlock.com)

This instruction manual includes wiring instructions for all electromechanical 7900 or 8200 Series mortise locks with the ElectroLynx connector system. The correct wiring configuration must be selected depending on the prefix(es) and function of the mortise lock being installed. Multiple prefixes can be combined (ex: RX-LX-8270). Refer to table of contents to select appropriate wiring instruction for mortise product being installed.



## Important

- Disconnect all input power before beginning installation to prevent electrical shock and equipment
- Installer must be a trained, experienced service person
- All wiring must comply with applicable local electrical codes, ordinances and regulations

**CAUTION: The voltage applied to the lock actuator must not exceed 10% of rated voltage. If the voltage exceeds this value, the actuator may be damaged.**

## Specifications / Functions

### Ecoflex Actuator

Type: 12/24VDC, Continuous Duty

Actuator draw = .015 Amp

Maximum 2 locks per 1 Amp power supply (1/2 Amp peak current draw)

Fail Safe Models: 7970, 7972, 8270 and 8272 (each 12/24 volts)

Fail Secure Models: 7971, 7973, 8271 and 8273 (each 12/24 volts)

### RX-, LX-, and DX- Lock Switches

Switch contact rating for all switches:

2 AMP max @ 24VDC

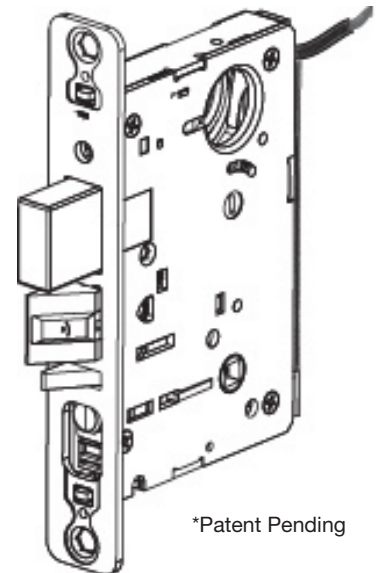
**RX- (lever monitor switches):** The RX-7900 or RX-8200 Series mortise lock is designed to allow independent monitoring of inside and outside lever rotation. The lock uses two independent switches to separately monitor the case side and the cap side lever hub.

For LH and LHR doors, outside monitor is case side and inside monitor is cap side.

For RH and RHR doors, outside monitor is cap side and inside monitor is case side.

**LX- (latch monitor switch):** The LX-8200 Series mortise lock provides positive indication of latch extension or retraction (when either lever is rotated retracting the latch, the latch is being retracted by key, or if the latch itself is depressed).

**DX- (deadbolt monitor switch):** The DX-8200 Series is designed to monitor the position of the deadbolt.



\*Patent Pending

## Table of Contents

Important/CAUTION .....	1
Specifications/Functions .....	1
Installation Notes .....	2
Installing And Wiring Ecoflex Electrified Mortise Locks	
7900 & 8200 Series .....	3
RX-7900 & RX-8200 Series .....	4
RX-LX-8200 Series .....	4
LX-8200 Series .....	5
Installing And Wiring Mechanical Mortise Locks With Monitoring	
RX-7900 & RX-8200 Series .....	5
RX-LX-8200 Series .....	6
RX-DX-8200 Series .....	6
LX-8200 Series .....	7
DX-8200 Series .....	7

**IMPORTANT:** The two-position DIP-switch settings located at the bottom of the mortise lock body must be set prior to lock installation.



\*Patent Pending

Actuator only



Fail Secure



Fail Safe



**Check Polarity:  
Verify + (red) wire**

LX / DX Actuator



LX



Fail Secure



DX



Fail Safe

## Installation Notes

1. Install mortise lock and electric hinge. With new applications, a raceway harness with 8 & 4-pin connectors will be pre-installed inside the door by ASSA ABLOY door manufacturer when specified during ordering process. Raceway harness kits are also available for retrofit applications.
2. If door does not have a raceway harness with connectors, either consult factory for raceway retrofit kit or cut the connectors off product and hardwire, as required.
3. Wiring to pigtail harness is per facility wiring requirement. Follow individual instructions below.

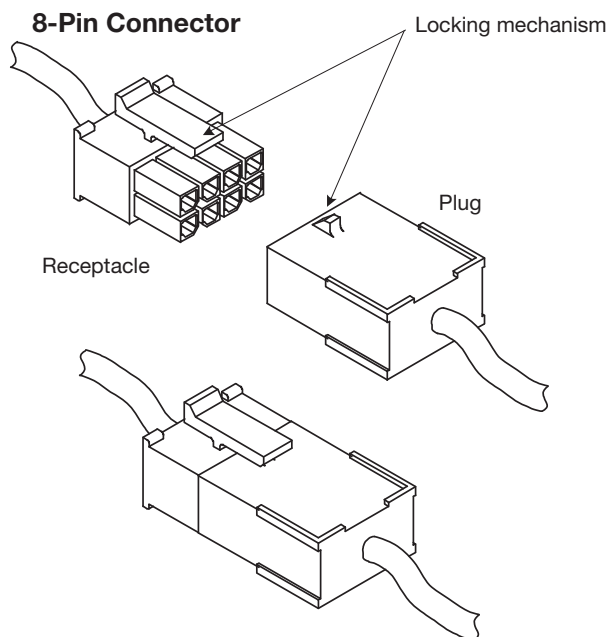
## ElectroLynx® Connector System Notes

The system is designed to be installation friendly with connectors from the electric hinge through the door to the lock. The only wiring is to the harness which plugs into the electric hinge.

### IMPORTANT:

The plug and receptacle connectors are designed to mate and lock together as shown in the illustration. Plug the connectors into each other with the locking mechanism aligned as indicated.

Do **NOT** force connectors on any other way.



Hardwiring Made Easy™



Look for the LYNX™

### ElectroLynx®

As part of their promise to provide innovative, fast and effective, and higher security solutions to their customers, ASSA ABLOY Group companies offer ElectroLynx, a universal quick-connect system that simplifies the electrification of the door opening.

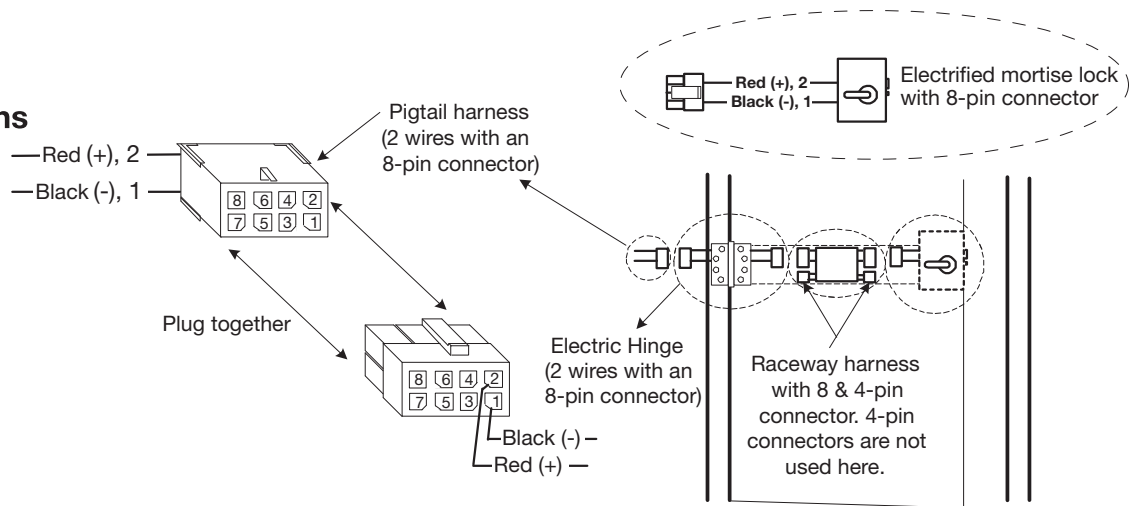
ElectroLynx® is a registered trademark of ASSA ABLOY, Inc.

**SARGENT®**

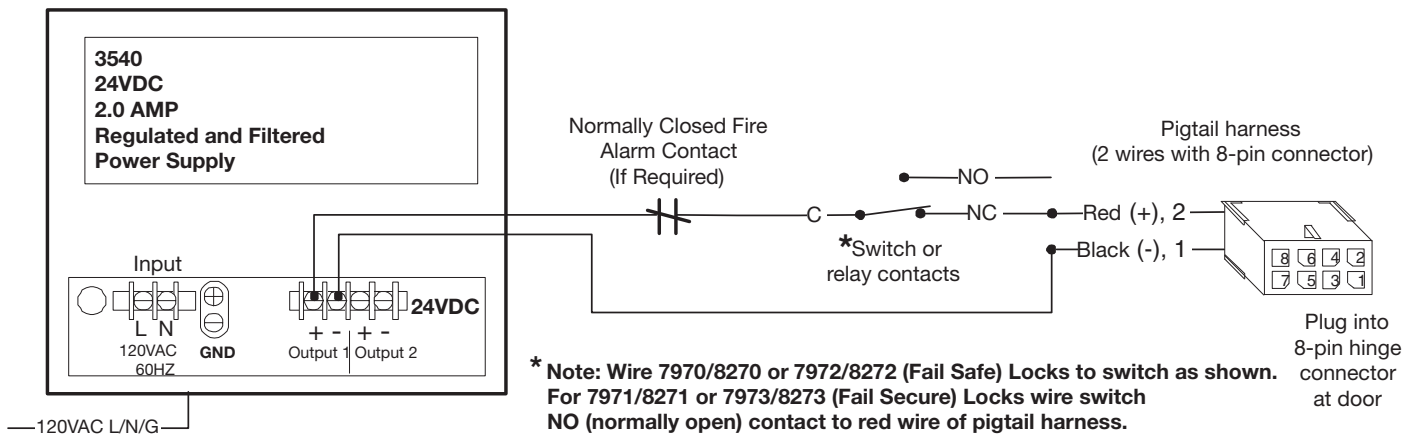
**ASSA ABLOY**

ASSA ABLOY, the global leader  
in door opening solutions

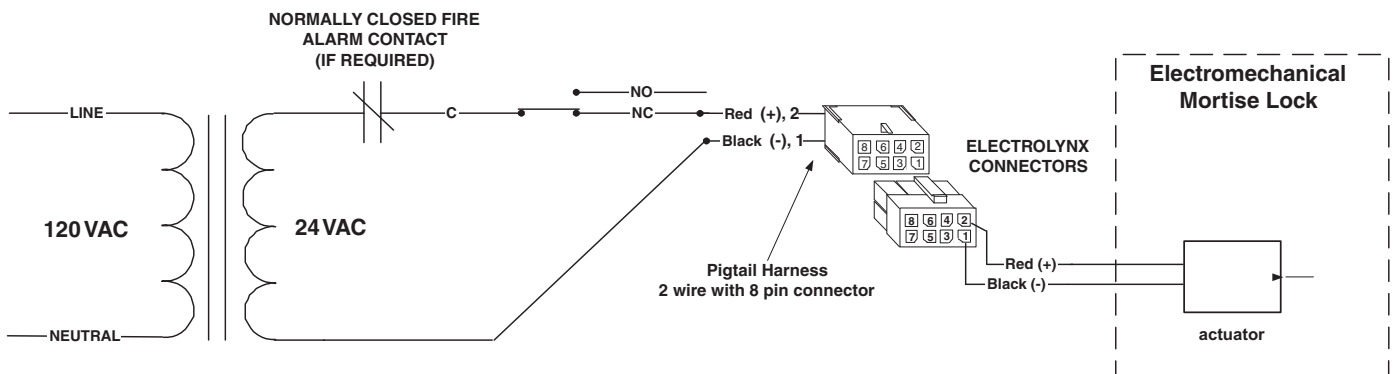
**7970, 71, 72 and 73**  
**8270, 71, 72 and 73**  
**Ecoflex installation**  
**and wiring instructions**



**Sample wiring 8270-24 Volt Series actuator locks with a 24VDC Regulated and Filtered Power Supply. A 12V lock would use a 12 volt supply.**



**Sample wiring (8270-24 Volt) Fail Safe actuator with a 120/24VAC transformer**



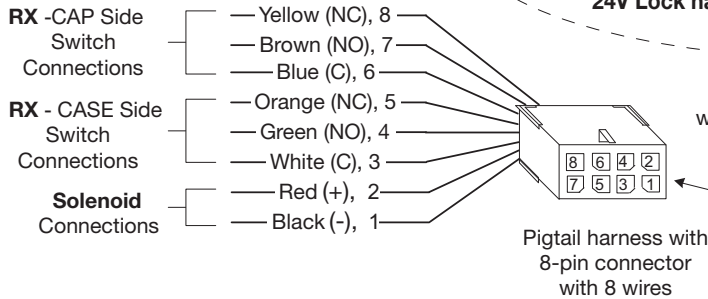
**SARGENT**  
**ASSA ABLOY**

ASSA ABLOY, the global leader in door opening solutions

## Ecoflex RX- (7900 & 8200 locks)

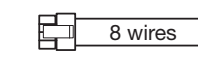
The **RX**-switches are in the Normal Open position, when levers are untouched and the latch is extended.

**RX**-switches monitor inside and outside levers independently



**Note: 12V Lock has Red Heat Shrink  
24V Lock has Black Heat Shrink**

RX-7970, 71, 72 or 73 or RX-8270, 71, 72 or 73 lock with 8-pin connector



Electric Hinge with 8-pin connectors with 8 wires

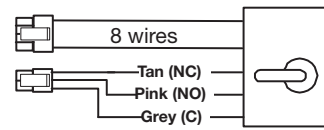
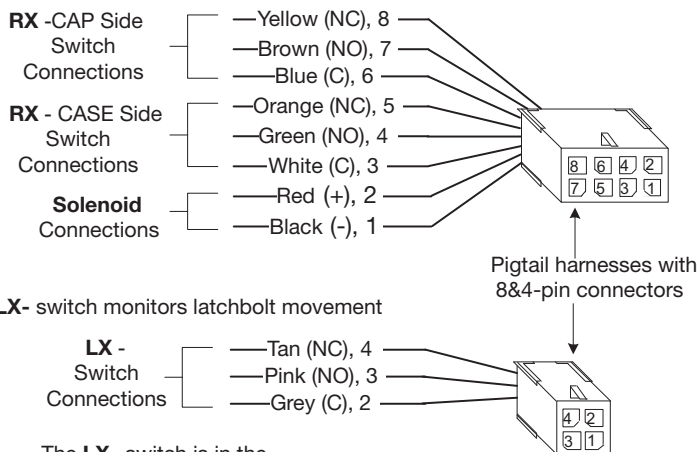
Raceway harness with 8 & 4-pin connector. 4-pin connectors are not used here.

For LH and LHRB doors, outside monitor is the case side and inside monitor is the cap side.  
For RH and RHRB doors, outside monitor is the cap side and inside monitor is the case side.

## Ecoflex RX- and LX- wiring (8200 locks only)

The **RX**-switches are in the Normal Open position, when levers are untouched and the latch is extended.

**RX**- switches monitor inside and outside levers independently



RX-LX-8270, 71, 72 or 73 lock with 8 & 4-pin connectors

LX- wiring (3 wires)

Electric Hinge with 8 & 4-pin connectors

Raceway harness with 8 & 4-pin connectors

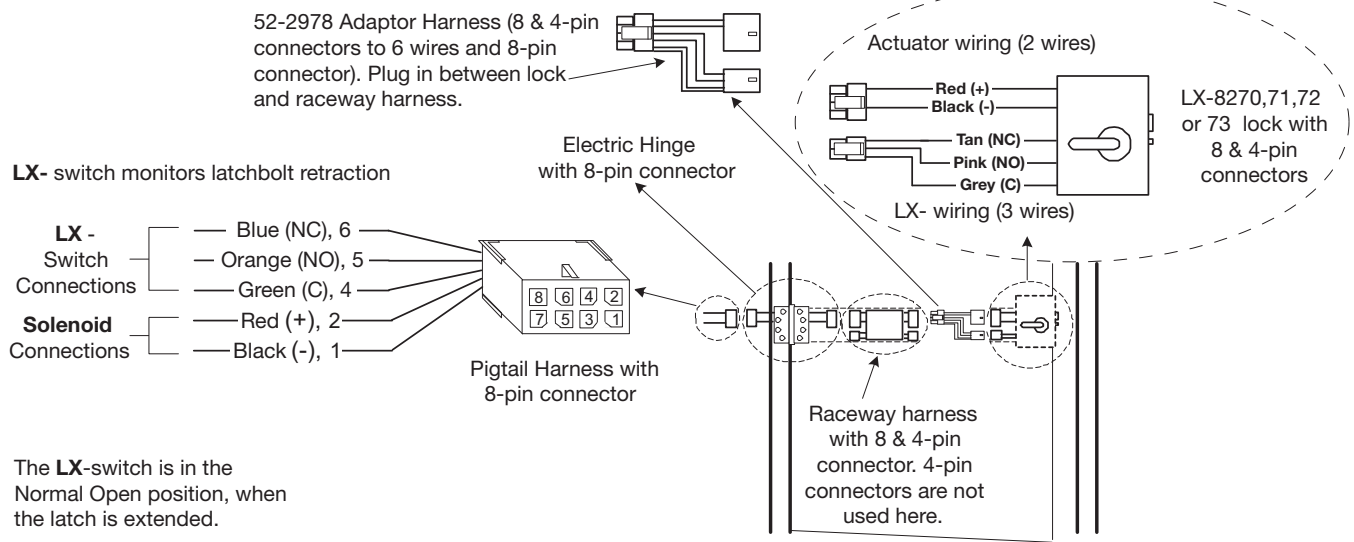
For LH and LHRB doors, outside monitor is the case side and inside monitor is the cap side.  
For RH and RHRB doors, outside monitor is the cap side and inside monitor is the case side.

**SARGENT**

**ASSA ABLOY**

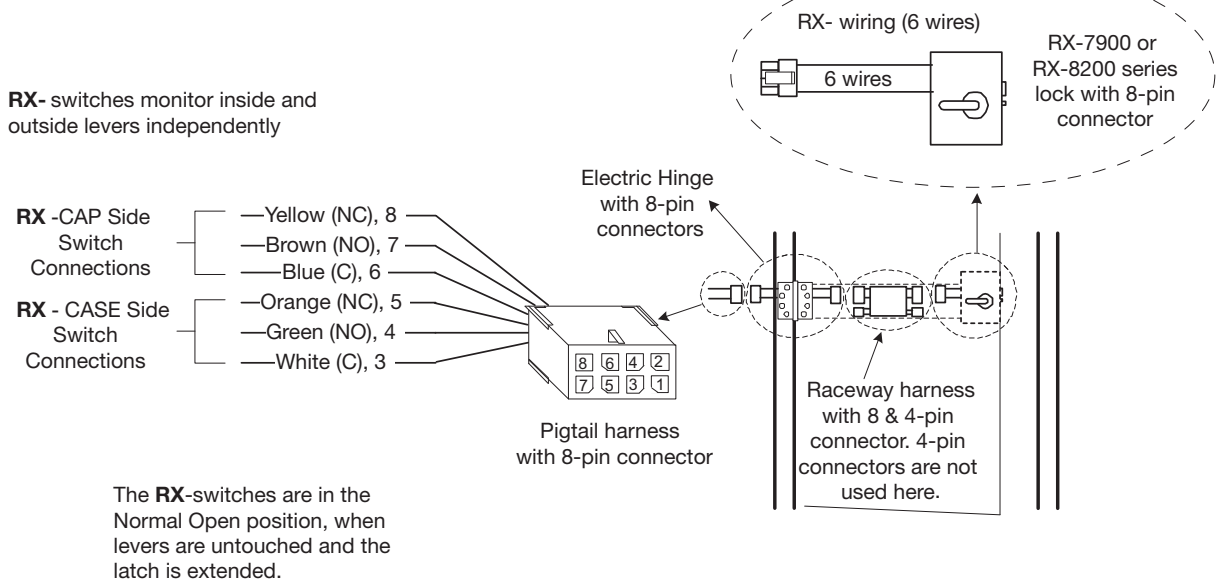
ASSA ABLOY, the global leader in door opening solutions

**Actuator with LX- wiring (8200 locks only)**



For LH and LHRB doors, outside monitor is the case side and inside monitor is the cap side.  
 For RH and RHRB doors, outside monitor is the cap side and inside monitor is the case side.

**RX- wiring (7900 & 8200 locks)**



**SARGENT**  
**ASSA ABLOY**

ASSA ABLOY, the global leader in door opening solutions

## RX- LX- wiring (8200 locks only)

**RX-** switches monitor inside and outside levers independently

**RX -CAP Side Switch Connections**

- Yellow (NC), 8
- Brown (NO), 7
- Blue (C), 6

**RX - CASE Side Switch Connections**

- Orange (NC), 5
- Green (NO), 4
- White (C), 3

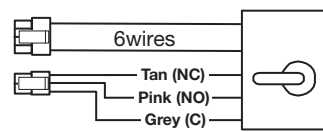
**LX-** switch monitors latchbolt retraction

**LX - Switch Connections**

- Tan (NC), 4
- Pink (NO), 3
- Grey (C), 2

Electric Hinge with 8 & 4-pin connectors

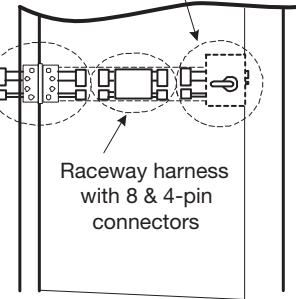
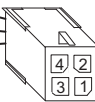
RX- wiring (6 wires)



RX-LX-8200 series lock with 8 & 4-pin connectors

LX- wiring (3 wires)

Pigtail harnesses with 8 & 4-pin connectors



The **RX**-switches are in the Normal Open position, when levers are untouched and the latch is extended.

The **LX**-switch is in the Normal Open position, when the latch is extended.

For LH and LHRB doors, outside monitor is the case side and inside monitor is the cap side.  
For RH and RHRB doors, outside monitor is the cap side and inside monitor is the case side.

## RX- DX- wiring (8200 locks only)

The **RX**-switches are in the Normal Open position, when levers are untouched and the latch is extended

**RX-** switches monitor inside and outside levers independently

**RX -CAP Side Switch Connections**

- Yellow (NC), 8
- Brown (NO), 7
- Blue (C), 6

**RX - CASE Side Switch Connections**

- Orange (NC), 5
- Green (NO), 4
- White (C), 3

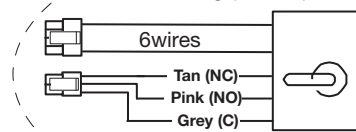
**DX-** switch monitors deadbolt position

**DX- Switch Connections**

- Tan (NC), 4
- Pink (NO), 3
- Grey (C), 2

The **DX**-switch is in the Normal Open position, when the deadbolt is projected.

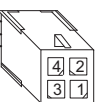
RX-wiring (6 wires)



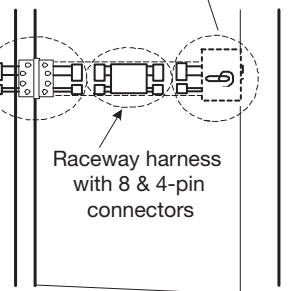
RX-DX-8200 series lock with 8 & 4-pin connectors

DX-wiring (3 wires)

Pigtail harnesses with 8 & 4-pin connectors



Electric Hinge with 8 & 4-pin connectors



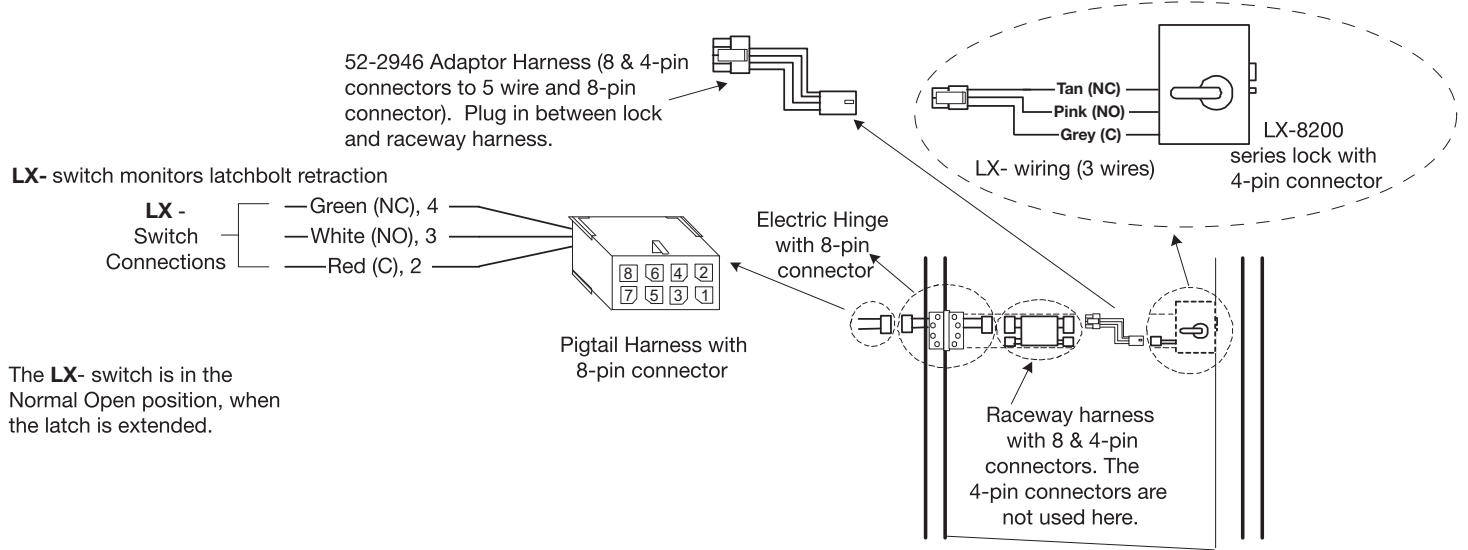
For LH and LHRB doors, outside monitor is the case side and inside monitor is the cap side.  
For RH and RHRB doors, outside monitor is the cap side and inside monitor is the case side.

**SARGENT**

**ASSA ABLOY**

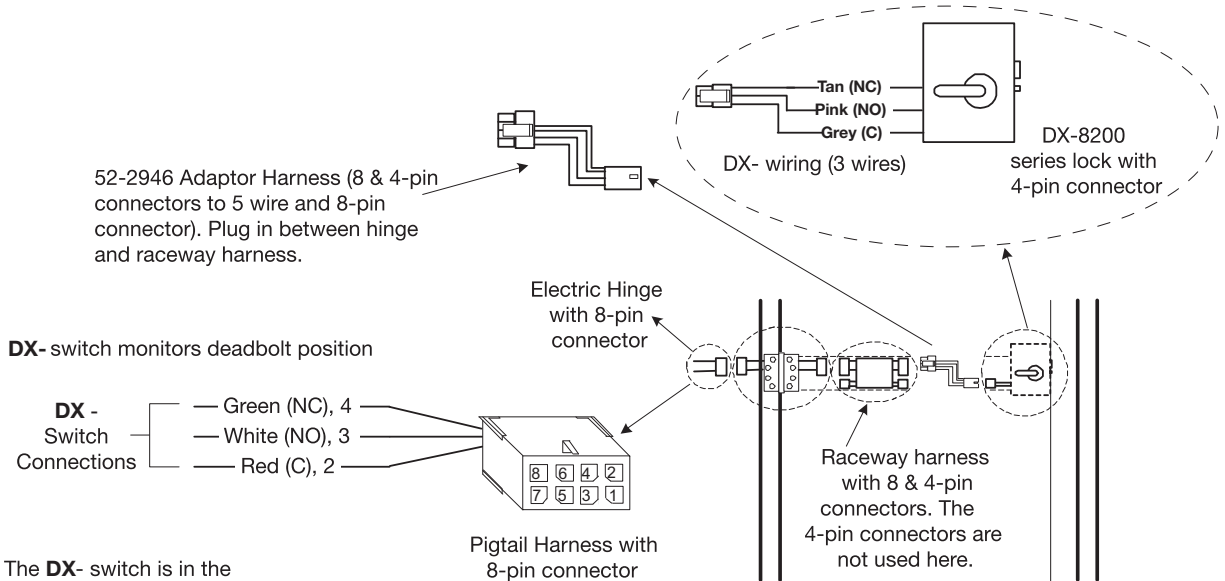
ASSA ABLOY, the global leader in door opening solutions

**LX- wiring (8200 only)**



The LX- switch is in the Normal Open position, when the latch is extended.

**DX- wiring (8200 locks only)**



The DX- switch is in the Normal Open position, when the deadbolt is projected.

**SARGENT**

**ASSA ABLOY**

ASSA ABLOY, the global leader in door opening solutions

