

EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

Corbin
Russwin

ASSA ABLOY

FM405 04/15

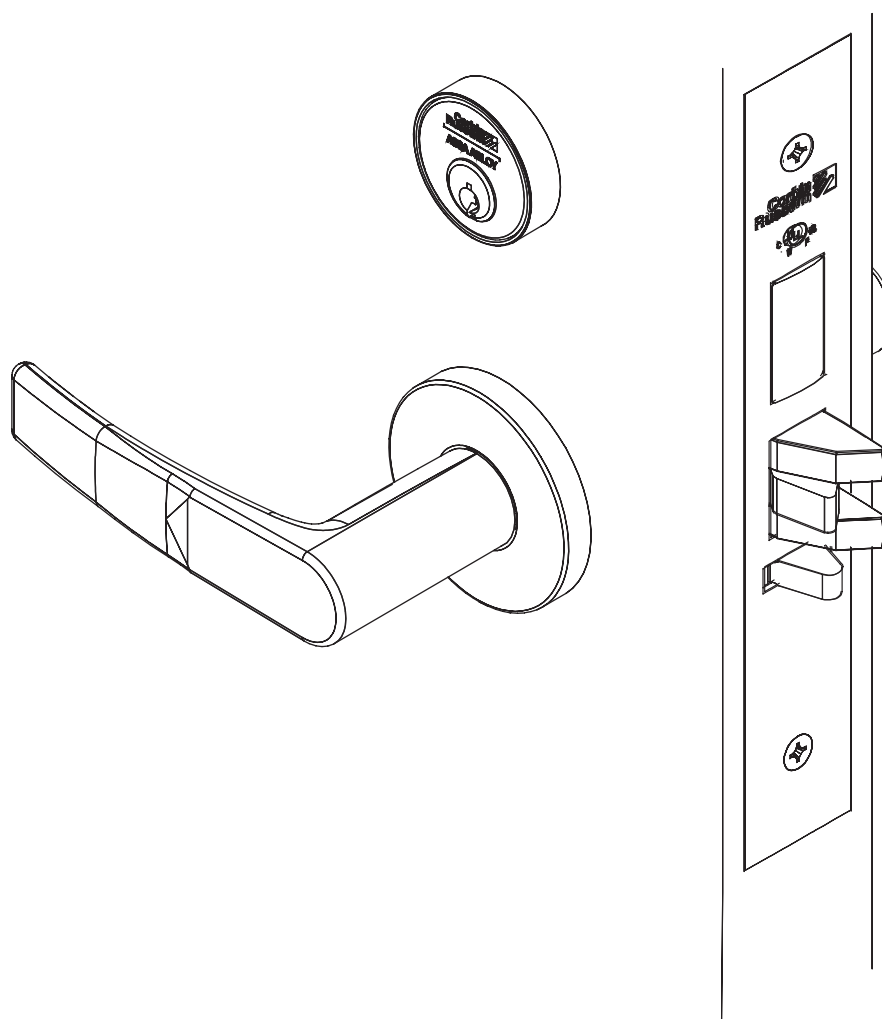
Attention Installer

Please read these instructions carefully to prevent missing important steps.

Please Note: Improper installations may result in damage to the lock and void the factory warranty.

Important: The accuracy of the door preparation is critical for proper functioning and security of this lock.

Misalignment can cause premature wear and a lessening of security.



For Technical Assistance call Corbin Russwin at 1-800-810-WIRE (9473)

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EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options

Installation and Wiring Instructions

2) General Description

The NAC- mortise lock provides increased security over typical electrified mortise locks with dead bolt, dead bolt monitoring, request to exit monitoring, and door status monitoring built into a single lock. This lock can also be specified with factory installed and tested end-of-line resistors monitoring the request to exit and door position outputs.

The high security monitoring options of our industry-leading Integrated Wiegand locks are now available in a mortise lock that can be used as a stand-alone electrified lock or in conjunction with a wall reader.

Every NAC lock is shipped with door position and request to exit monitoring installed. NAC locks ordered with deadbolt are supplied with deadbolt monitoring.

3) Specifications / Features

If your lock is configured with End of Line Resistors, reference instruction sheet FM406 for the wiring of RX & DPS outputs.

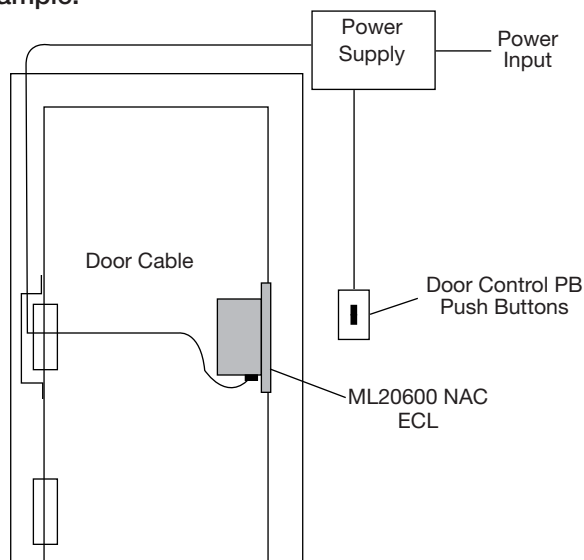
- Latch - Stainless steel, 3/4" projection
- Deadbolt - Stainless steel, 1" projection
- Guardbolt - Stainless steel, non-handed
- Handed - Easily field reversible without opening case
- Case - 12 gauge heavy duty wrought steel
- Fail safe or fail secure operation (specified when ordering or easily field-configurable)
- Operates from 12-24VDC
- UL and CUL listed for use on Fire Doors

Electrical Specifications

12/24VDC System

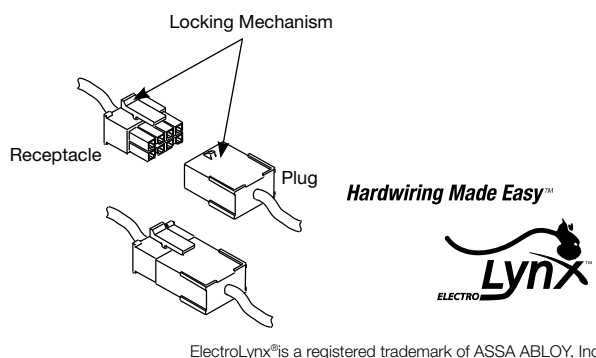
- Actuator draw = .015 Amp continuous
- Maximum 2 locks per 1 Amp power supply (1/2 Amp peak current draw)

Example:



ElectroLynx® Connector System Notes

The system is designed to be installation-friendly with connectors from the electric hinge through the door to the lock. External electrical connections are made to a harness that extends from the frame.

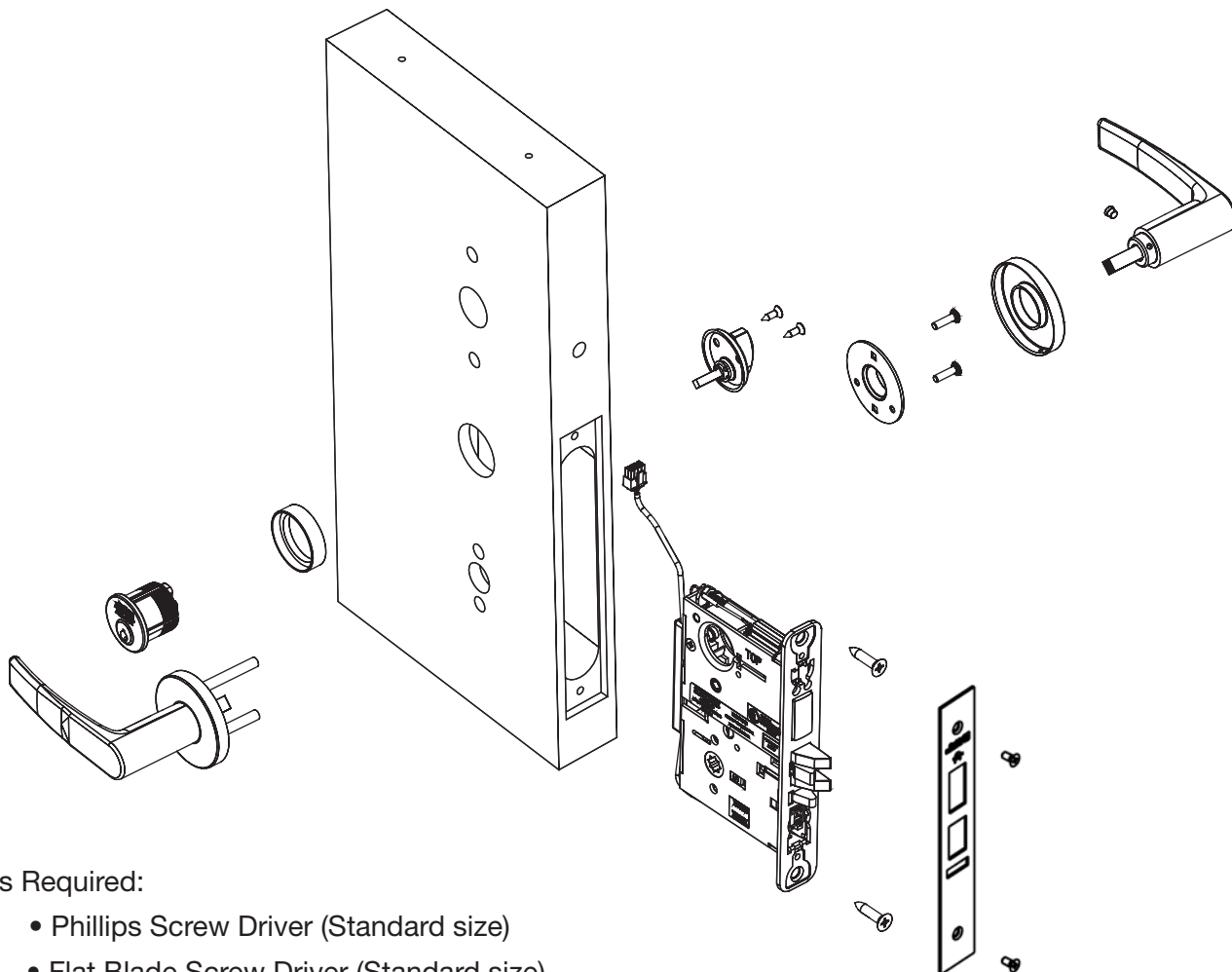


IMPORTANT:

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.

EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

4) Product Illustration



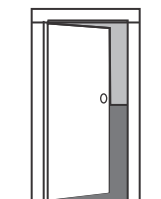
Tools Required:

- Phillips Screw Driver (Standard size)
- Flat Blade Screw Driver (Standard size)
- 1/8" Allen Wrench

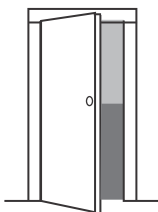
EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

5) Installation Instructions

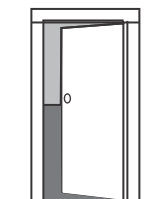
1. **Verify Hand and Bevel of door.** Illustrations shown are as viewed from the outside or secure side of opening.



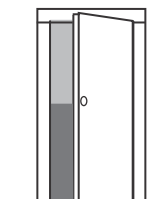
Left Hand
Hinges Left.
Open Inward.
"LH"



Left Hand
Reverse Bevel
Hinges Left.
Open Outward
"LHRB"

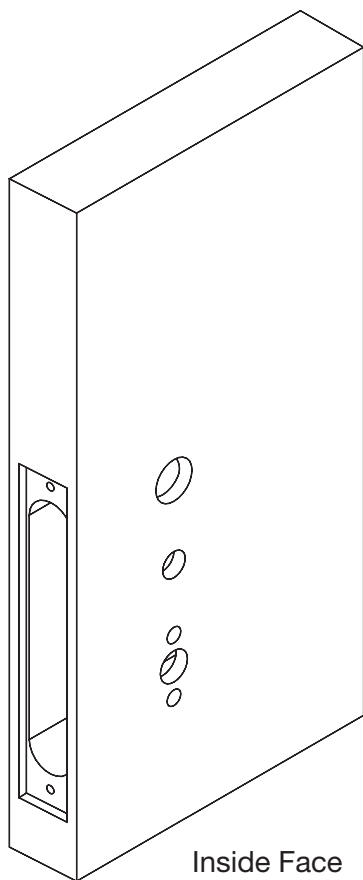


Right Hand
Hinges Right.
Open Inward.
"RH"

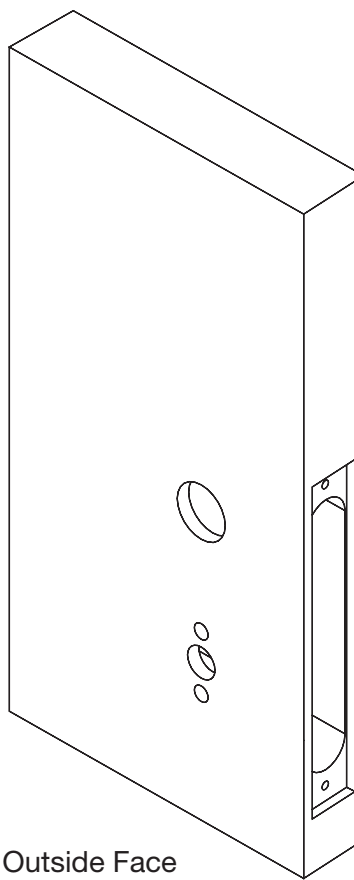


Right Hand
Reverse Bevel
Hinges Right.
Open Outward
"RHRB"

2. **Prep door according to supplied door marker.** For door manufacturer templates, visit www.corbinrusswin.com.



Inside Face
of Door



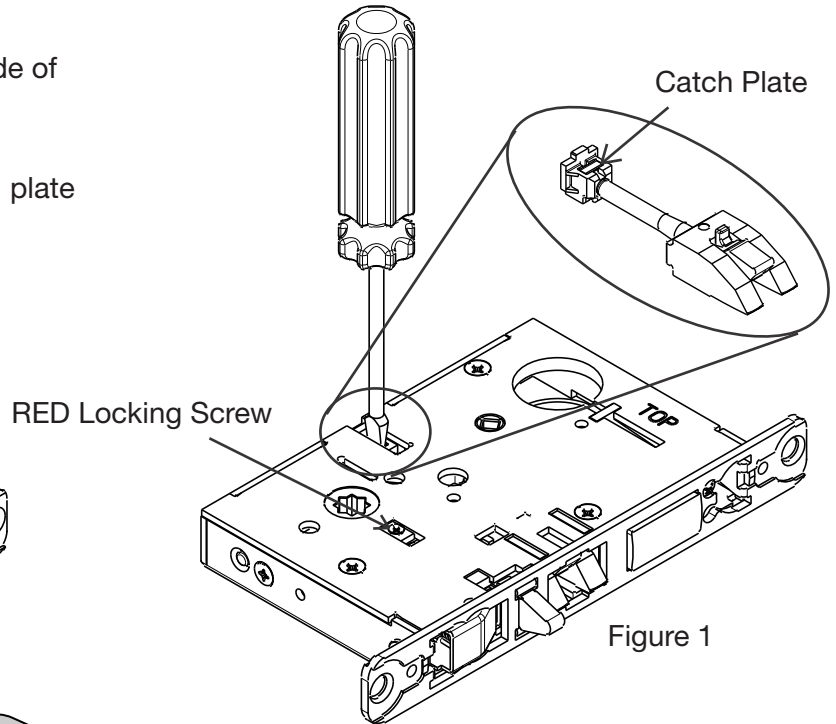
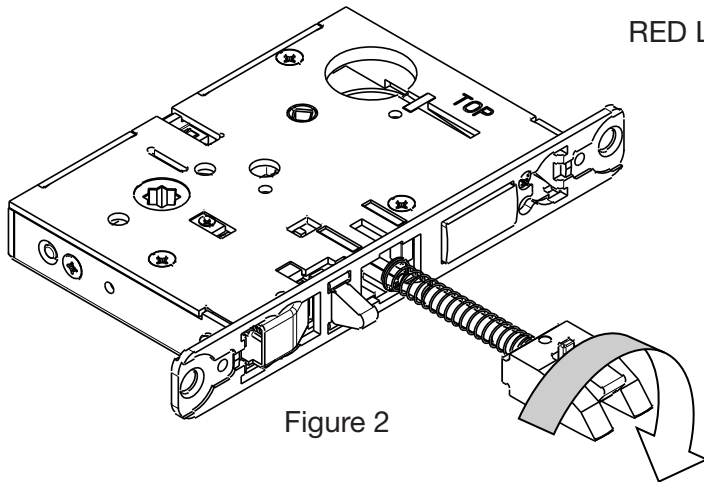
Outside Face
of Door

EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

5) Installation Instructions (Continued)

3. Handing of Lock Body

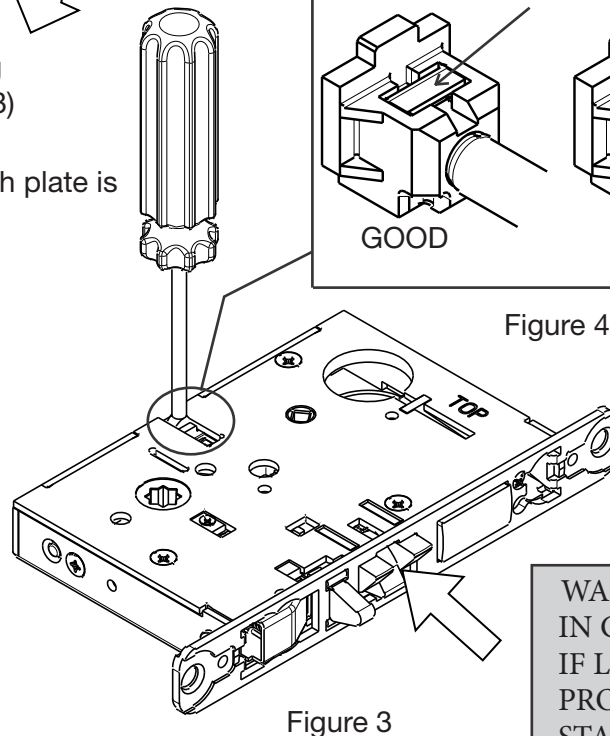
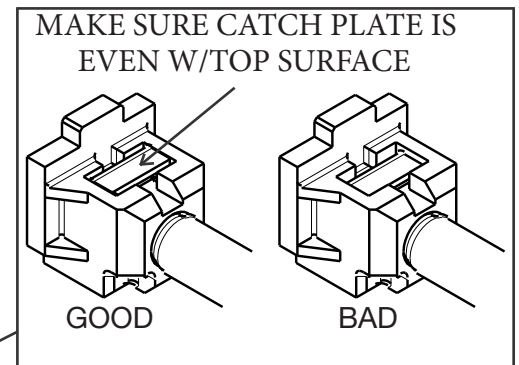
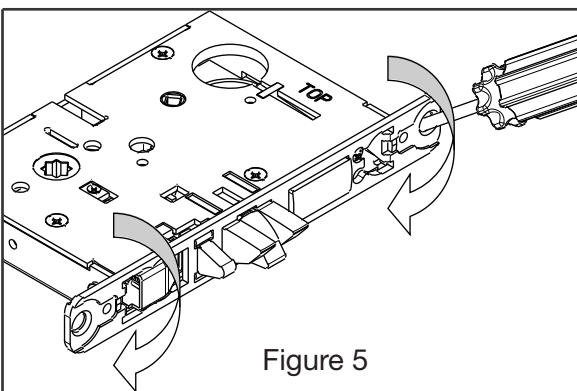
1. Move the red locking screw to side of lock body being locked (Fig. 1)
2. Push in latch then depress catch plate with screw driver (Fig. 1)
3. Pull latch out of lock body and turn latch over (Fig. 2)



Step 4) Push in latch while holding screw driver behind latch tail (Fig. 3)

Note: Push in latch until catch plate is no longer depressed (Fig. 4)

Step 5) Rotate lock front to match bevel of door as shown (Fig. 5)



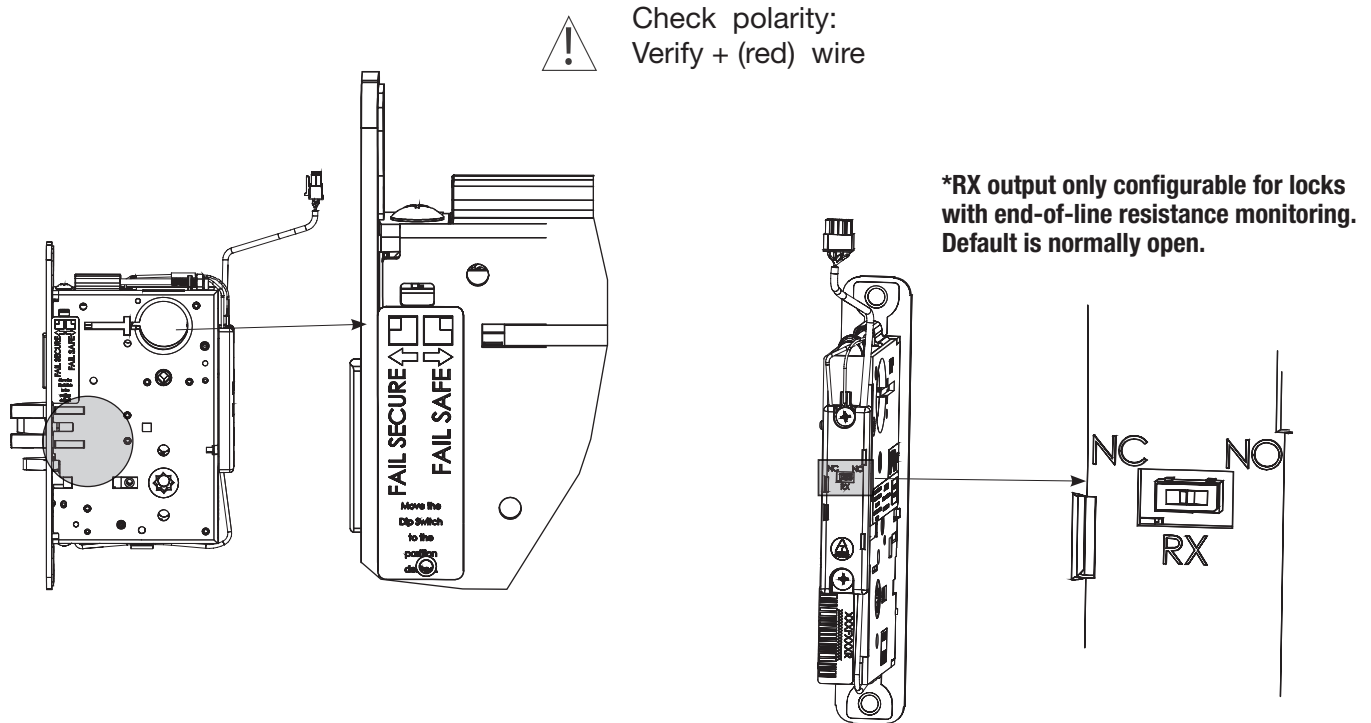
WARNING: LOCK-IN CAN OCCUR IF LATCH IS NOT PROPERLY INSTALLED

EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

5) Installation Instructions (Continued)

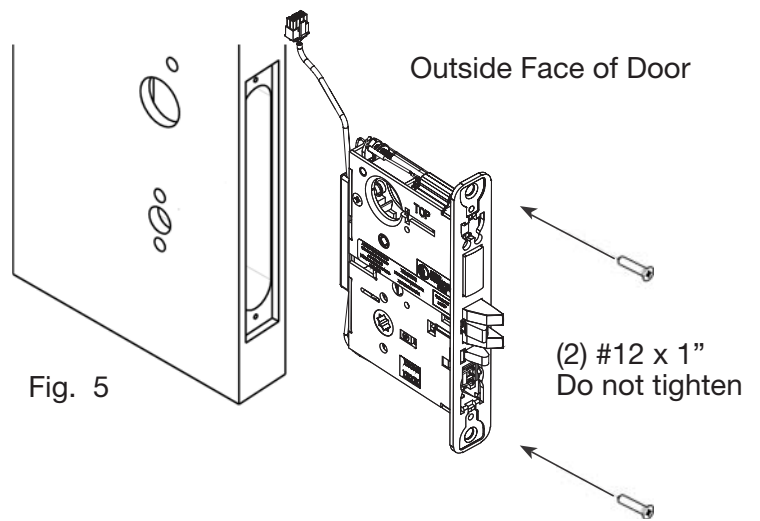
4. Configuring the Fail Safe/Fail Secure and RX* DIP switch settings:

Please note that the lock must be cycled once in order for setting changes to take effect.



5. Install Lock Body into Door:

- a. Plug mortise lock harness into ElectroLynx® harness in door (Fig. 5).
Important: Door must remain open during installation. Use door stop.
- b. Install, but do not tighten two #12 x 1" combination screws through lock body (Fig. 5).



5) Installation Instructions (Continued)

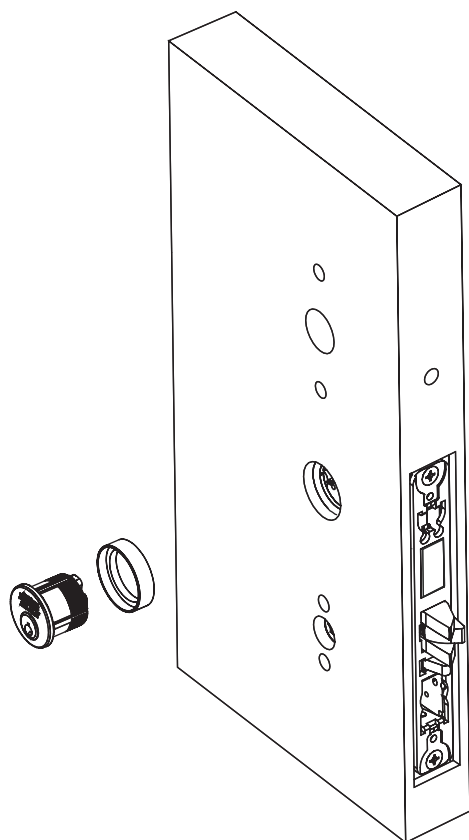
6. Install Cylinder:

a. Thread cylinder into lock body (Fig. 6a).

Note: Make sure cylinder is oriented correctly (Fig. 6a1).

b. Tighten cylinder clamp using 7/64" allen wrench (provided) (Fig. 6b).

c. Turn the key to make sure that lock functions correctly (latch, deadbolt, and key).



Position cylinder so that the logo is right-side up.

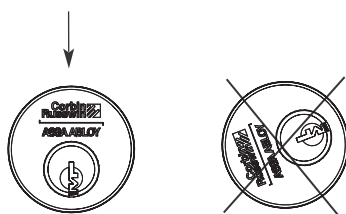


Fig. 6a1

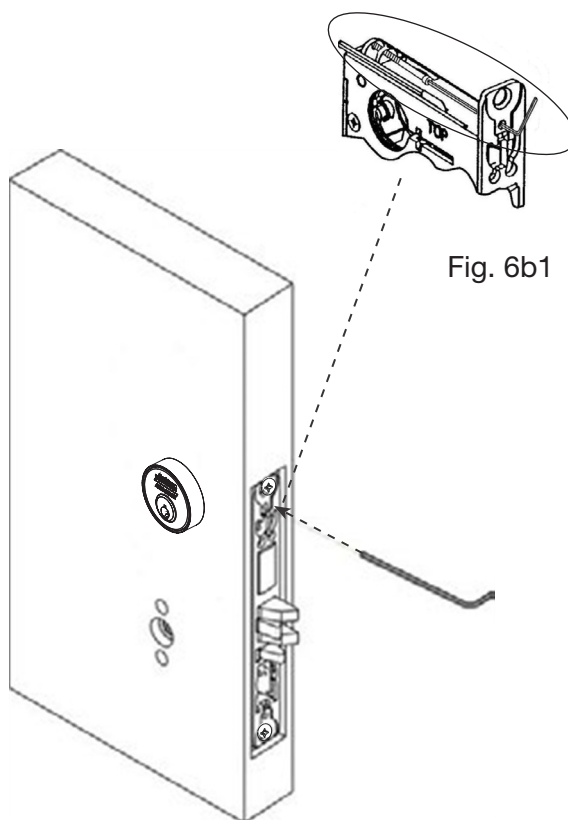


Fig. 6b1

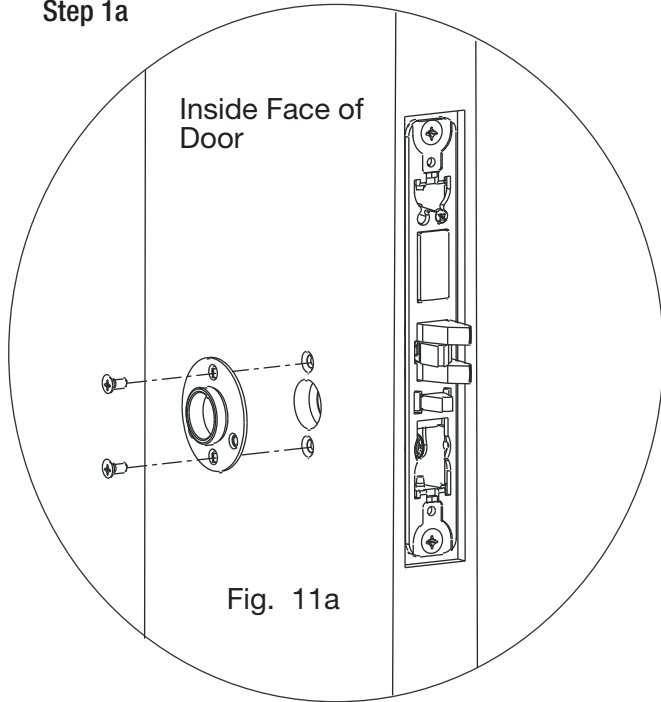
Fig. 6b

EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

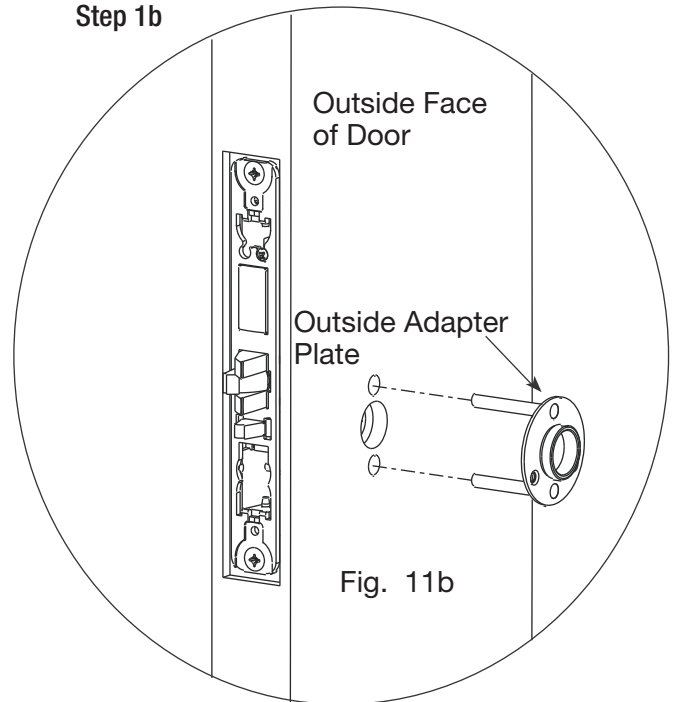
5) Installation Instructions (Continued)

7a. Install Standard Lever Trim. Refer to 7b on following pages for **MUSEO** Trim:

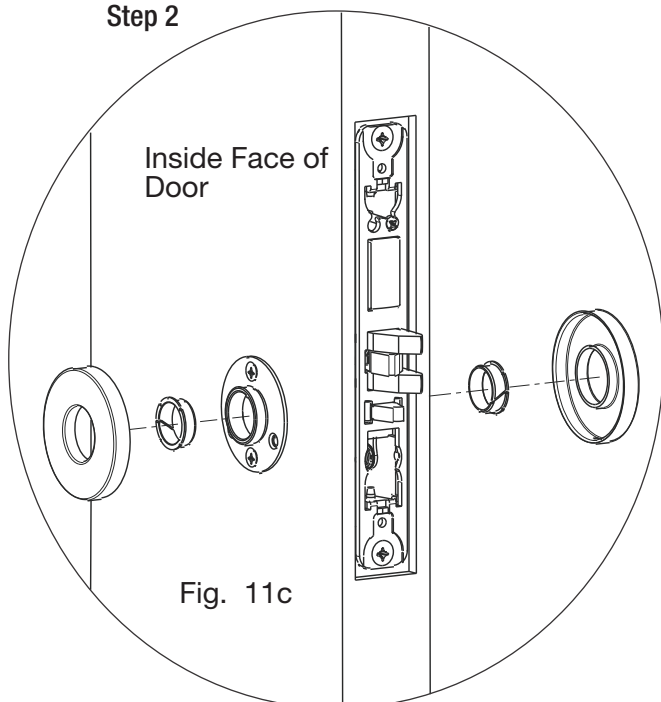
Step 1a



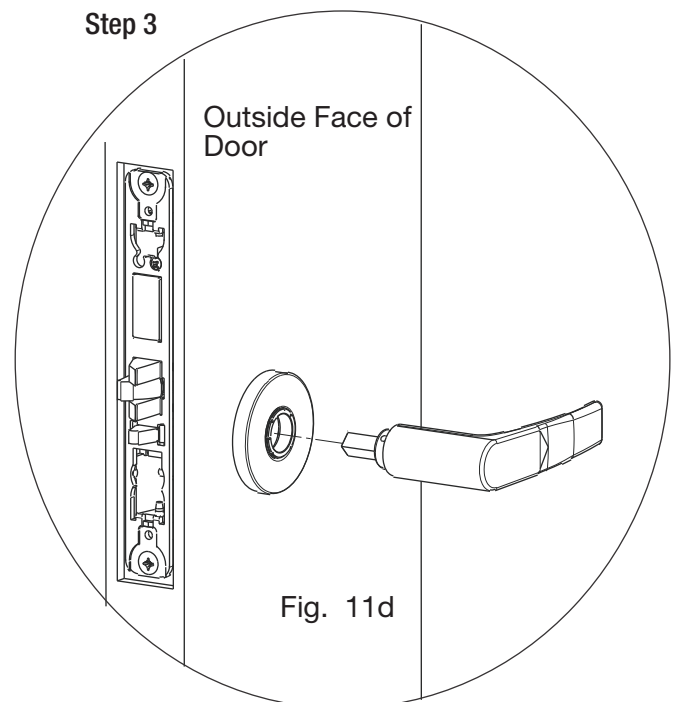
Step 1b



Step 2



Step 3



EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options

Installation and Wiring Instructions

5) Installation Instructions (Continued)

Step 4

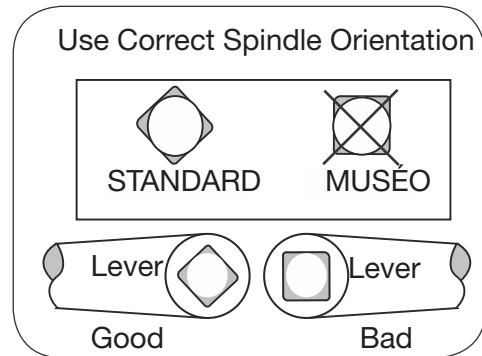
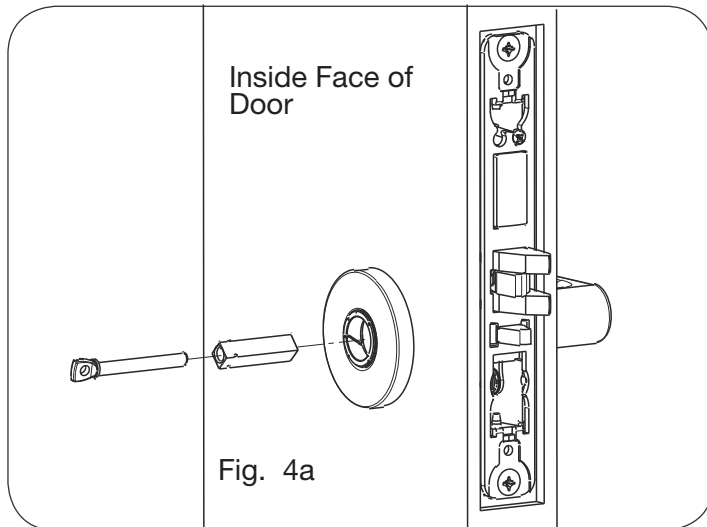
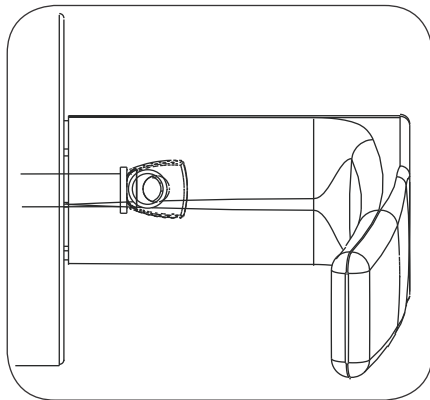


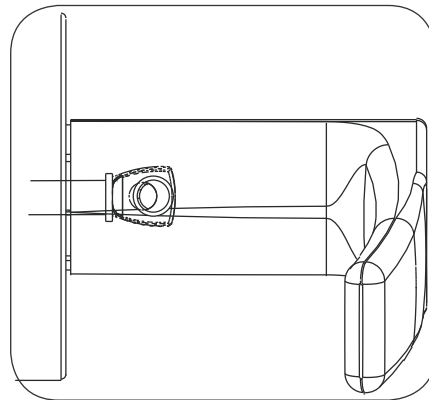
Fig. 4b

Step 5

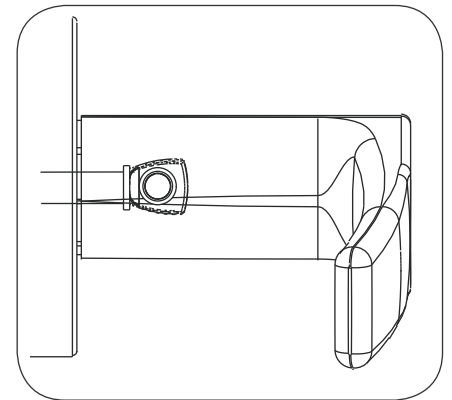
Align adjustment bolt with threaded hole in lever



Adjustment bolt needs to be threaded in farther.



Adjustment bolt needs to be unthreaded.

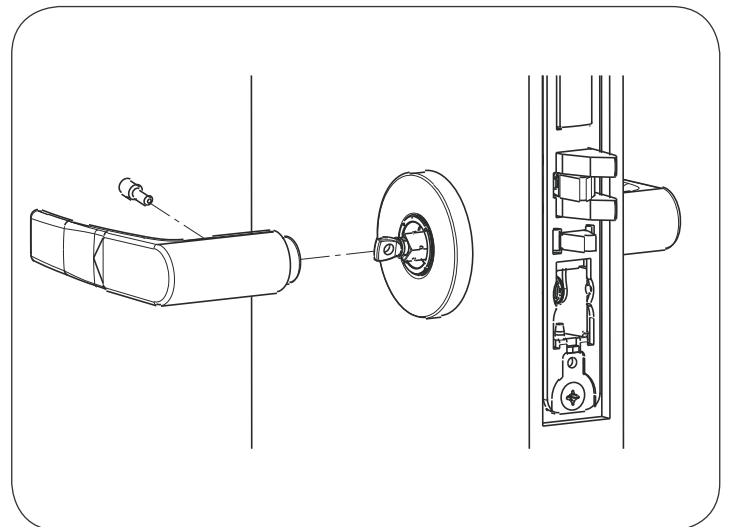


Adjustment bolt fully aligned.

Step 6

Notes:

- Unthread adjustment bolt approximately four turns for a good starting point (After being fully tightened).
- Make sure O/S lever is fully inserted into adapter plate before aligning adjustment bolt.



EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

5) Installation Instructions (Continued)

7b. Install  Trim:

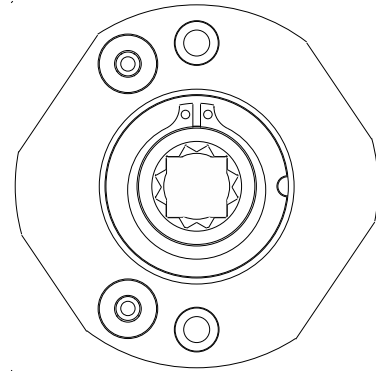
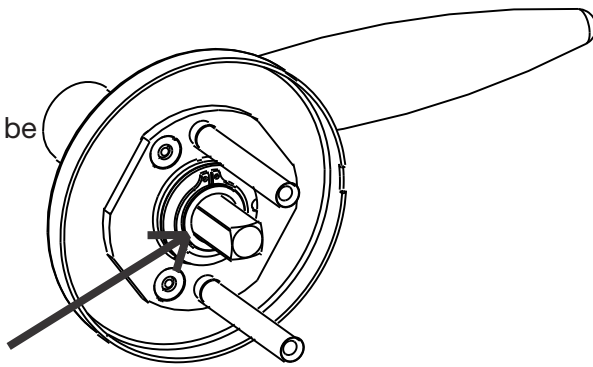
1.)

Thread adapter plate hub into lever and fully tighten

Align adapter plate hub with square hole in lever; keeping hub as tight as possible

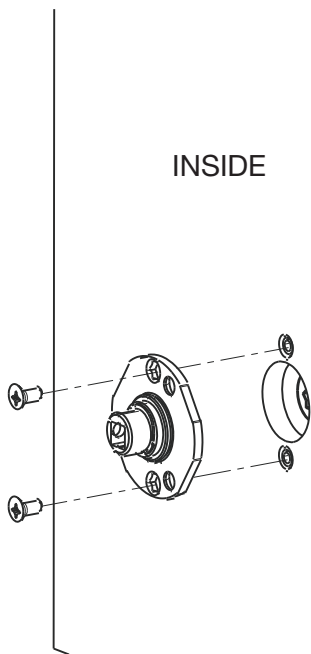
NOTE: Spindle can be used to help thread hub into lever

Adapter Plate Hub

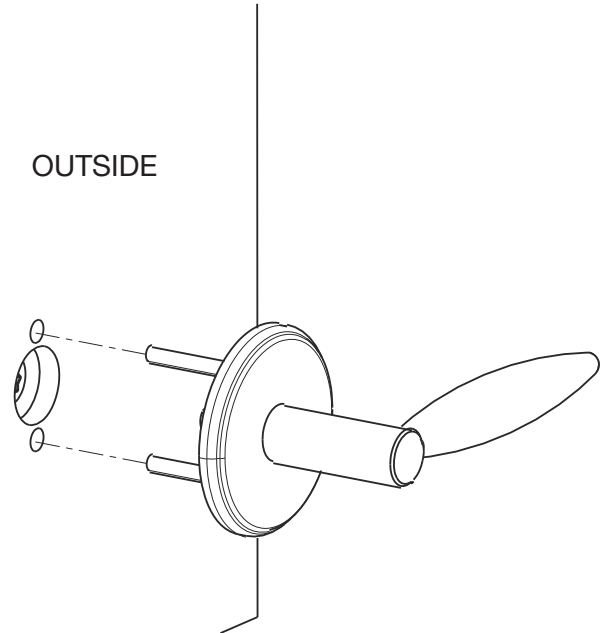


2.)

INSIDE



OUTSIDE

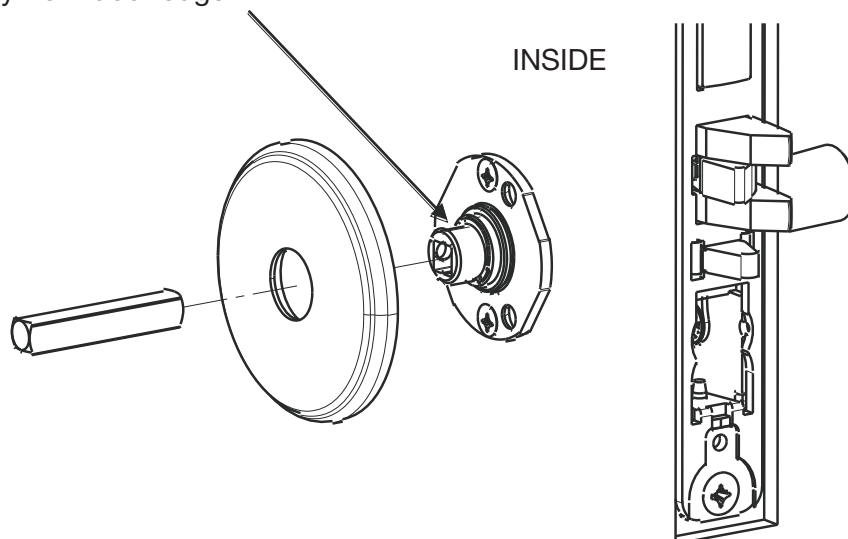


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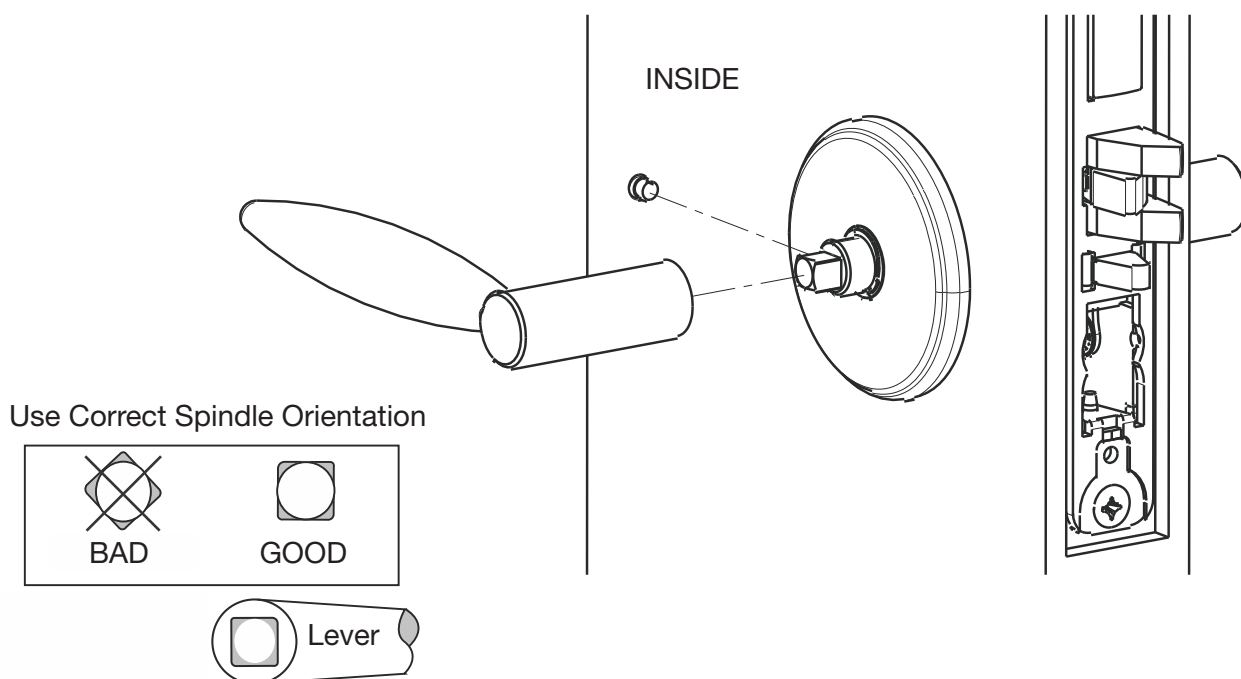
5) Installation Instructions (Continued)

3.)

Set screw in hub faces away from door edge.



4.)

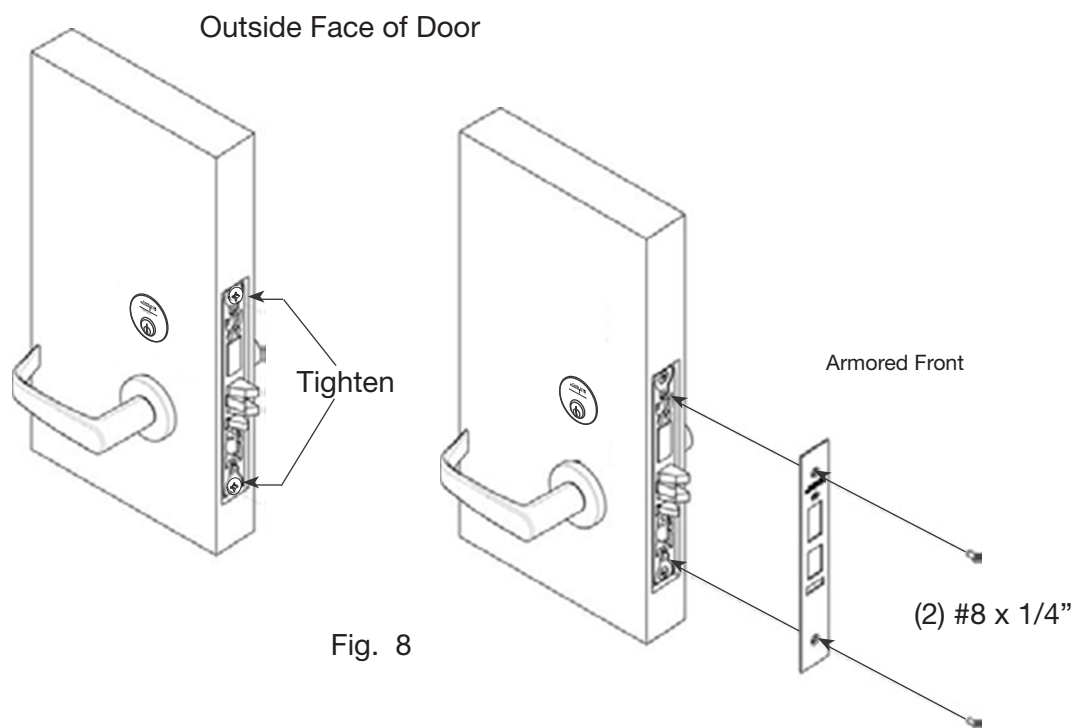


EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

5) Installation Instructions (Continued)

8. Install Armored Front:

- a. Tighten (2) screws through lock body.
- b. Attach armored front with two #8 x 1/4" screws (Fig. 8).

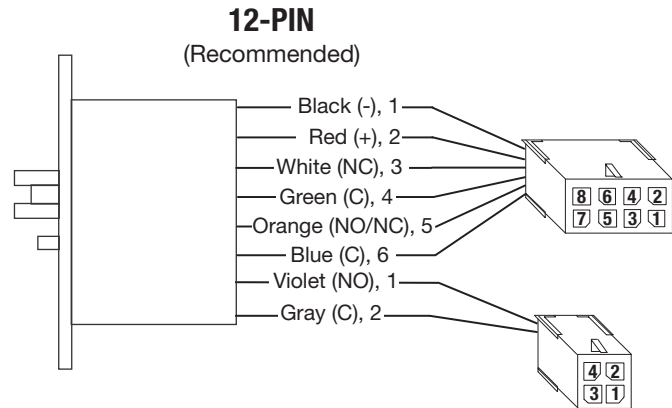
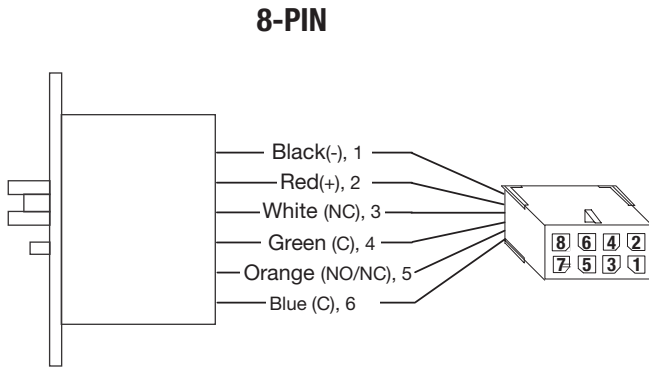


EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options Installation and Wiring Instructions

6) Wiring Diagrams

Lock Schematics

⚠ Check polarity:
Verify + (red) wire



Connector	8-PIN MOLEX								4-PIN MOLEX			
Circuit	1	2	3	4	5	6	7	8	1	2	3	4
Connection	12/24VDC Lock Input		Door Position		Request to Exit		Empty		Deadbolt Monitoring		Empty	
Wire Color	Black	Red	White	Green	Orange	Blue			Violet	Gray		
Description	NEG	POS	NC	COM	NO/NC	COM			NO	COM		

If your lock is configured with End of Line Resistors, reference instruction sheet FM406 for the wiring of RX & DPS outputs.

EcoFlex™ Electrified Mortise Locks (NAC-) with High-Security Monitoring Options

Installation and Wiring Instructions

7) Mechanical Operational Check

For mortise locks with cylinders:

- a. Insert key into cylinder and rotate: There should be no friction against lock case, wire harness or any other obstructions.
- b. The key will retract the latch: Key should rotate freely.
- c. Inside lever: Ensure it retracts the latch.
- d. Close door: Ensure latch fully extends and does not bind.
- e. Ensure that dead bolt can be projected and retracted by key and inside turn (if present).

8) Electrical Operational Check

Lock/UnLock Check:

- a. Turn power ON.
- b. Send unlock signal from control panel.
- c. Verify lock unlocks and re-locks at desired intervals.

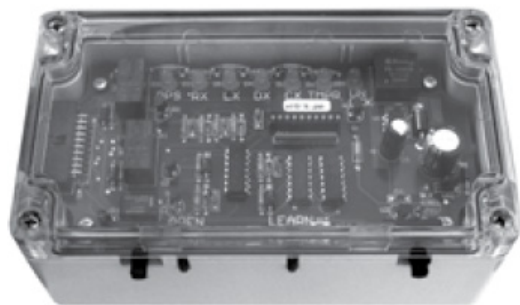
Switch Signal Check:

- d. Monitor switch signals at control panel and verify each switch activates correctly based on chosen wiring configuration (NO/NC).
- e. If end-of-line resistors are present on the RX (request-to-exit) and door status outputs, verify correct signaling by referencing instruction sheet FM406.

The ASSA ABLOY Wiegand Test Unit verifies your installation in the field. The test unit checks for proper wiring, card reader data integrity, lock functionality including lock/unlock, door position status, and request-to-exit (REX) status.

In addition, this tool provides product demonstration abilities to highlight the product's features and capabilities.

Wiegand Test Unit



PHR Function Check (if ordered):

- f. Check powered lock and unlock function.
- g. Throw dead bolt.

The lock should not lock or unlock (from outside of door) when dead bolt is projected.

Feature	WT1	WT2
12 or 24VDC solenoid lock voltage adjustable	X	X
Operates as Fail Safe or Fail Secure	X	X
"Learn" mode allows testing of specific cards without programming at the panel level	X	X
Card reader data integrity is validated at test unit	X	X
Works with SE LP10	X	X
Displays detailed Wiegand data, including hexadecimal string and total bits received		X
Displays measured end-of-line resistor values (if applicable)		X



ASSA ABLOY

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