

IN120 WiFi Mortise Lockset Installation Instructions

**Corbin
Russwin**

ASSA ABLOY

FM353 10/18

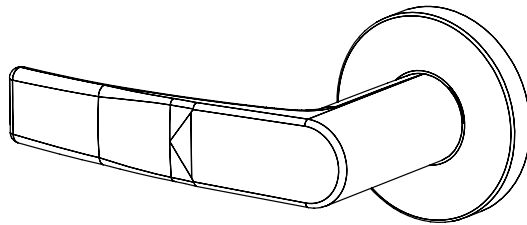
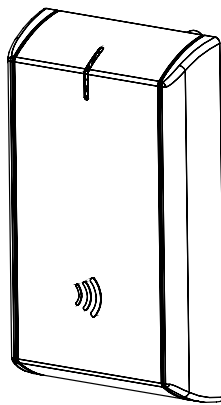
Attention Installer

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.



! WARNING

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov.

08/2018

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

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1) Warning

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced technician for help

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met. This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Cet appareillage numérique de la classe B répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.



To comply with "Fire Listed" doors, the batteries must be replaced with alkaline batteries only.



To avoid possible damage from electrostatic discharge (ESD), some basic precautions should be used when handling electronic components:

- Minimize build-up of static by touching and/or maintaining contact with unpainted metal surfaces such as door hinges, latches, and mounting plates especially when mounting electronic components such as readers and controllers onto the door.
- Leave components (reader and controller) protected in their respective anti-static bags until ready for installation
- Do not touch pins, leads or solder connections on the circuit boards

*Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and Corbin Russwin, Inc. makes no representations or warranties concerning what such impact may be in any specific situation. When retrofitting any portion of an existing fire rated opening, or specifying and installing a new fire-rated opening, please consult with a code specialist or local code official (Authority Having Jurisdiction) to ensure compliance with all applicable codes and ratings.

2) General Description

The Corbin Russwin IN120 pairs a sleek, attractive design with the latest in access control technology to address the evolving needs of today’s facilities. Featuring HID® multiCLASS SE® technology, this innovative WiFi lock makes it easy and affordable to expand your access control system.

This product is operated by six (6) “AA” alkaline batteries, or can be hard-powered using an optional 12-24VDC power supply connected by a harness through the door.

Corbin Russwin mortise locks are designed with quality components to provide high security, performance and durability.

3) Specifications / Features

Hardware Specifications

- Latch – Stainless Steel
(Easily field reversible without disassembling lock body)
 - Deadbolt – Stainless Steel
 - Auxiliary Latch – Stainless steel, non-handed
 - Door Thickness – 1-3/4” Standard; can be furnished for other door thicknesses upon request. Consult factory.
 - Case – 12 gauge heavy duty wrought steel
 - Outside lever controlled by any combination of contactless reader or mechanical cylinder
 - Inside Lever produces REX (request to exit) signal and retracts latch and deadbolt
 - ML20200 offers monitoring of deadbolt REX and provides integrated monitoring of Door Position.
 - May be used for indoor and outdoor applications
 - ANSI/BHMA A156.25 Listed Grade 1 Compliant
- NOTE: A weather-protective gasket is required for outdoor applications.

Electrical Specifications:

- HID® multiCLASS SE® technology offers support for the following credentials:
 - 2.4 GHz credential compatibility:
 - Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)
 - 13.56 MHz credential compatibility:
 - iCLASS®
 - iCLASS SE® (SIO-enabled)
 - iCLASS Seos®
 - SIO on MIFARE® Classic
 - SIO on MIFARE® DESfire® EV1
 - MIFARE® Classic
 - DESfire® EV1
 - NFC-enabled mobile phones
 - 125 kHz credential compatibility:
 - HID Prox®
- WiFi (IEEE 802.11 b/g/n)
- Multiple time zone and holiday access scheduling
- First-in unlock or automatic unlock configuration, based on specified time schedule
- Support for most advanced wireless encryption and authentication standards such as WEP, WPA, WPA2 and 802.1x*
- 2,400 users per lock; 10,000 event audit trail
- Privacy button
- 8200 lock body offers monitoring of deadbolt REX and provides integrated monitoring of door position

Power requirements:

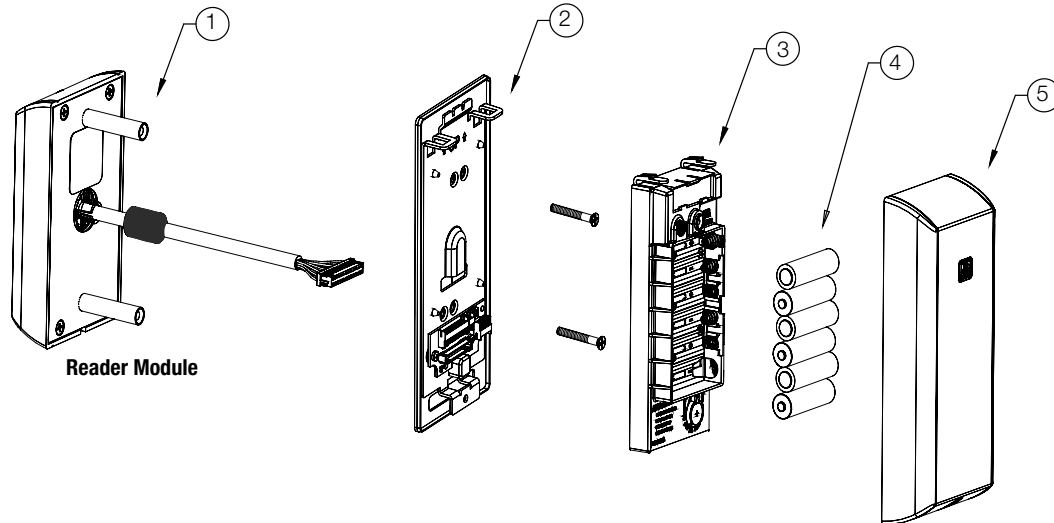
- Alkaline AA Batteries: 9V, 300mA
- Optional Hard Power (UL294 Listed Power Supply Required): 9-24VDC, 300mA
- UL Listed - UL 294 Indoor Use
- CUL Listed - S319: Class 1
- **UL 294 Access Control Ratings:**

Destructive Attack	Level 1
Line Security	Level 1
Endurance	Level 4
Standby Power	Level 1

*For specific security information, please contact your local ASSA ABLOY Door Security Solutions sales consultant or call 800-810-WIRE.

IN120 Mortise Lock

4) Product Illustration



ITEM	PART NUMBER/ORDER STRING	DESCRIPTION	COLOR/TRIM	QTY
1*	IN-120-EM01-[B]IP-B	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	Black	1
	IN-120-EM01-[B]IP-W	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	White	1
	IN-120-EM01-[B]IP-MB-[finish]**	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	Black with metal trim	1
	IN-120-EM01-[B]IP-MW-[finish]**	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	White with metal trim	1
	IN-120-EM01-[B]IPS-B	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	Black	1
	IN-120-EM01-[B]IPS-W	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	White	1
	IN-120-EM01-[B]IPS-MB-[finish]**	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	Black with metal trim	1
	IN-120-EM01-[B]IPS-MW-[finish]**	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	White with metal trim	1
	IN-120-EM01-[B]CP-B	FeliCa, HID Prox®, NFC-enabled mobile phones	Black	1
	IN-120-EM01-[B]CP-W	FeliCa, HID Prox®, NFC-enabled mobile phones	White	1
	IN-120-EM01-[B]CP-MB-[finish]**	FeliCa, HID Prox®, NFC-enabled mobile phones	Black with metal trim	1
IN-120-EM01-[B]CP-MW-[finish]**	FeliCa, HID Prox®, NFC-enabled mobile phones	White with metal trim	1	
2	782F718	Inside Mounting Kit (mounting plate & hardware)		1
3	783F519	WiFi Controller		1
4	N/A	AA battery		6
5	782F729	Inside Escutcheon	Black	1
	782F739	Inside Escutcheon	White	
	783F725 FIN*	Inside Escutcheon	Black with metal trim	
	783F735 FIN*	Inside Escutcheon	White with metal trim	
6	FM355	Field prep template (not shown)		1
7	T31202	Door manufacturers template (not shown)		1
--	FM353	Instructions (this manual)		1

*Specifying **B** indicates BLE (Bluetooth) option when ordering

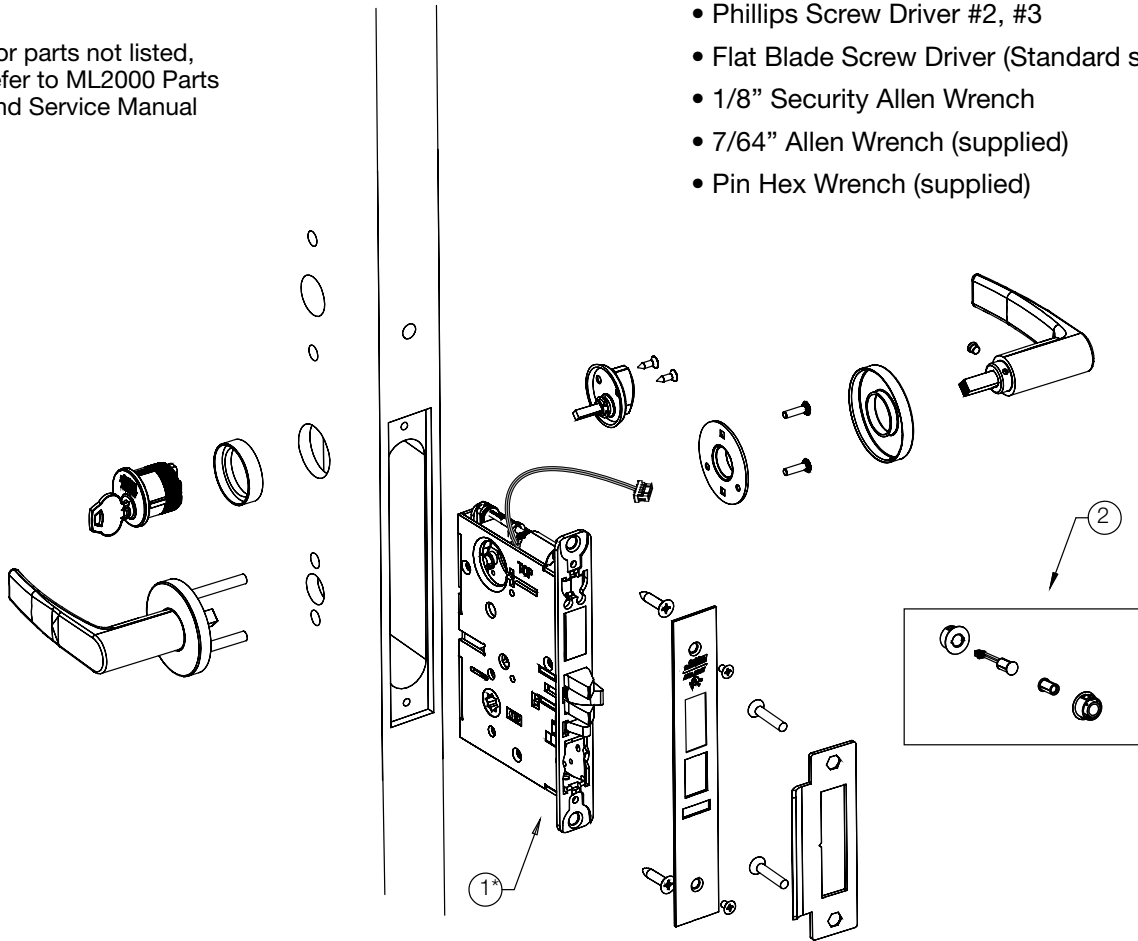
**Specify finish

4) Product Illustration (Continued)

For parts not listed, refer to ML2000 Parts and Service Manual

Tools Required:

- Phillips Screw Driver #2, #3
- Flat Blade Screw Driver (Standard size)
- 1/8" Security Allen Wrench
- 7/64" Allen Wrench (supplied)
- Pin Hex Wrench (supplied)



1	783F938 [handing]* 26D	ML20133/ML20134 Lock Case - No Deadbolt	1
	783F948 [handing]* 26D	ML20135/ML20136 Lock Case - With Deadbolt	
	816F048 [handing]* 26D	ML20233/ML20234 Lock Case - No Deadbolt (not shown)	
	816F058 [handing]* 26D	ML20235/ML20236** Lock Case - With Deadbolt (not shown)	
2	783F619	DPS (Door Position Switch) Kit***	1

*Replace with handing (L, LR, R, RR)

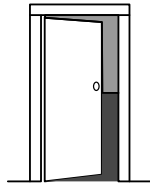
**Required for Escape Return functionality (a residential requirement in Canada)

*** Not required for ML202xx

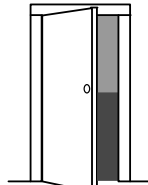
5) Installation Instructions

1. Verify Hand and Bevel of door

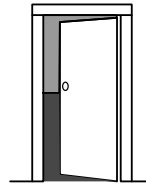
Illustrations shown are as viewed from the outside or secure side of opening.



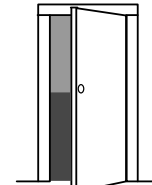
Left Hand
Hinges Left.
Open Inward.
"LH"



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



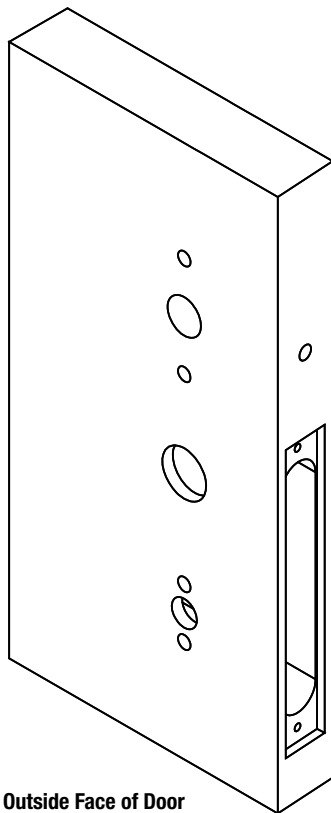
Right Hand
Hinges Right.
Open Inward.
"RH"



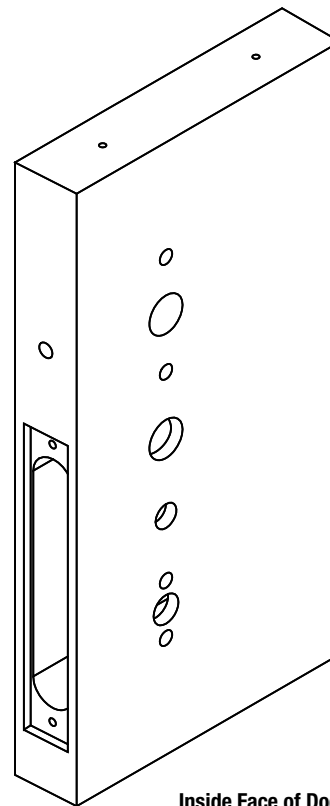
Right Hand
Reverse Bevel
Hinges Right.
Open Outward
"RHRB"

2. Door Preparation

Prep door according to supplied door marker (FM355). For door manufacturer templates visit www.corbinrusswin.com and reference template # T31202.



Outside Face of Door



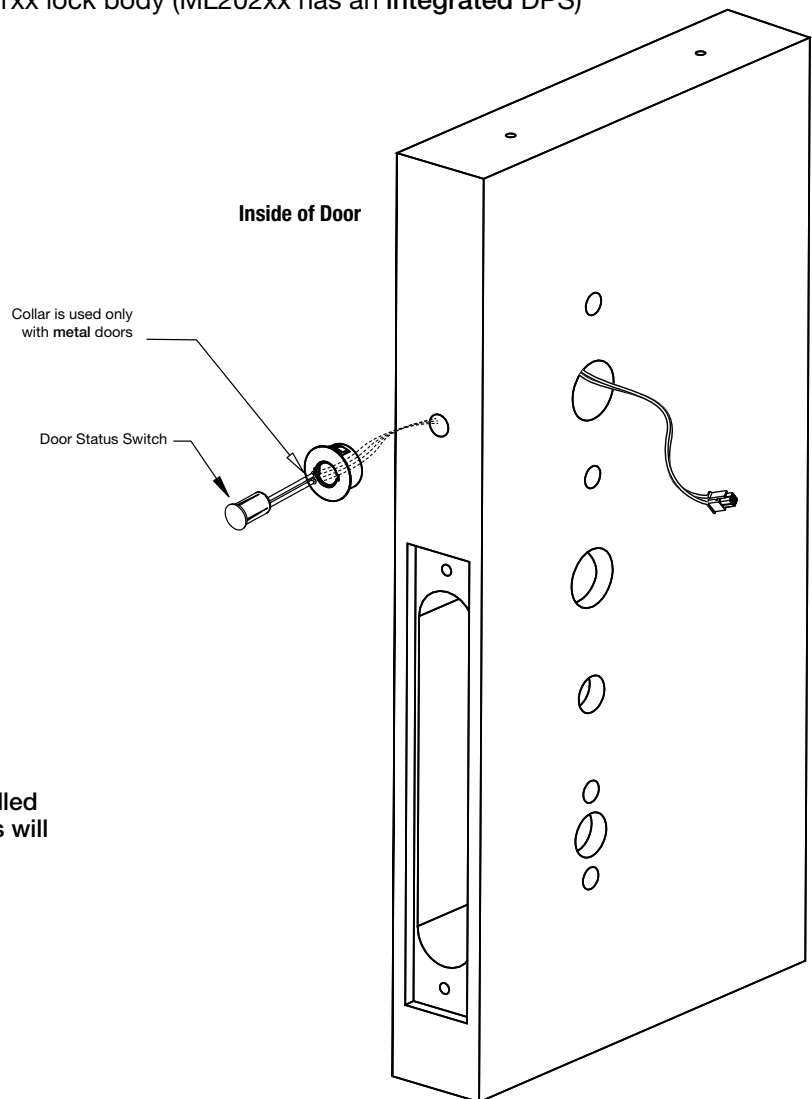
Inside Face of Door

5) Installation Instructions (Continued)

3. Install Door Position Switch* (DPS)

- a. Push wires through raceway toward lock prep.
- b. Push DPS firmly into place by hand.
Note: **DO NOT TAP SWITCH WITH ANY TOOL.**
- c. Install magnet into door frame. Push firmly into place by hand.
See instruction A7983.

*Only required on the ML201xx lock body (ML202xx has an **integrated** DPS)

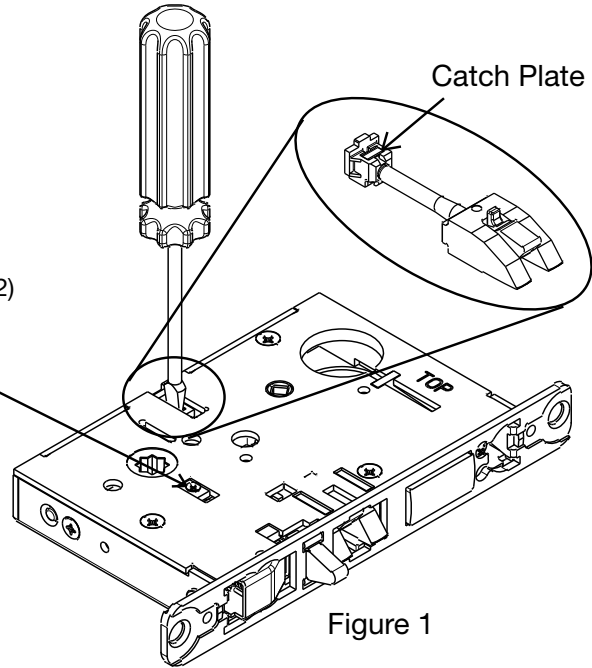
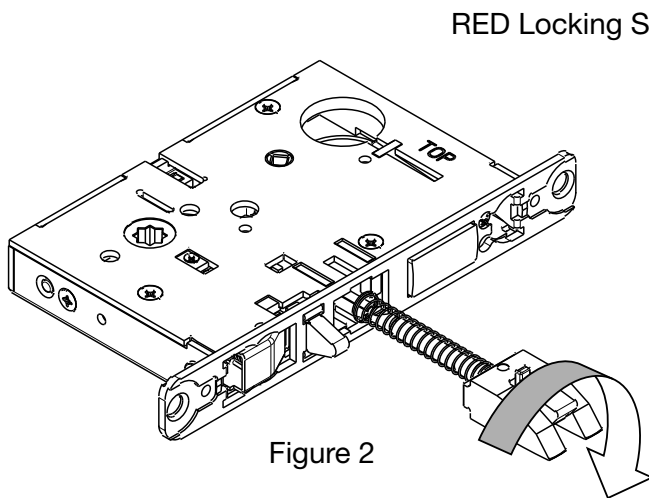


CAUTION: if DPS is not installed or is installed improperly, door status monitoring features will not function.

5) Installation Instructions (Continued)

4. Lock Handling Instructions

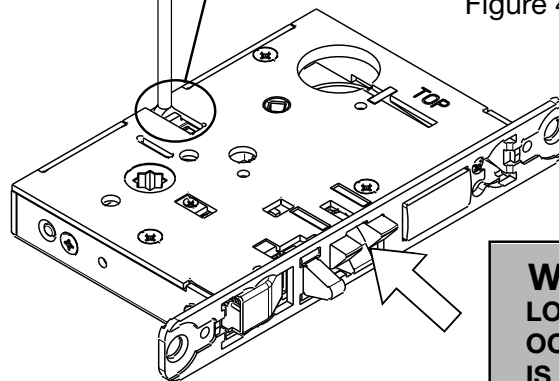
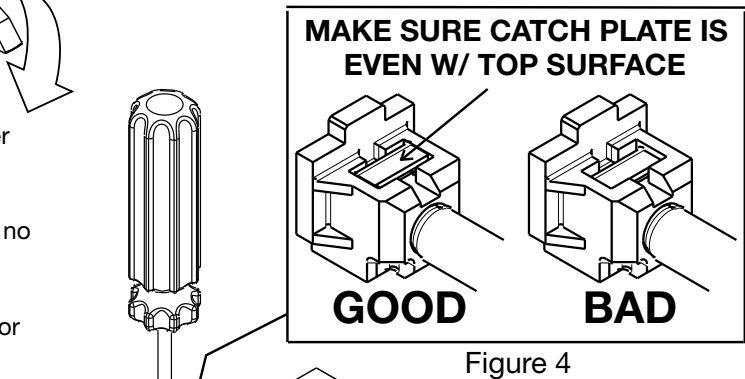
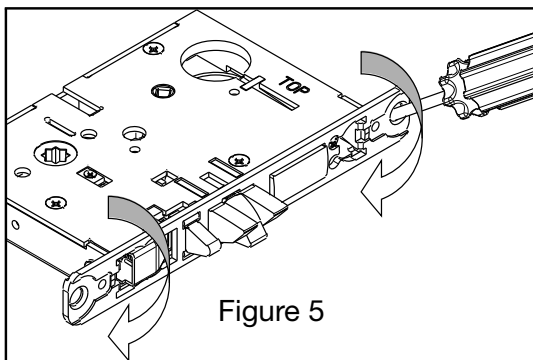
- a. Move the Red locking screw to side of lock-body being locked (Fig. 1)
- b. Push in latch then depress catch plate with screw driver (Fig. 1)
- c. Pull latch out of lock-body and turn latch over (Fig. 2)



- d. 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)

- e. Rotate lock front to match level of door as shown (Fig. 5)



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

5) Installation Instructions (Continued)

5. Install Lock Body in Door:

- Feed wires through 1-5/16" diameter hole on INSIDE of door while installing lock body (Fig. 6a).
- Pull wires through hole while inserting lock body. DO NOT push wires back into cylinder hole (Fig. 6b).
Important: Door must remain open during installation. Use door stop.
- Install, but do not tighten two #12 x 1" combination screws through lock body (Fig. 6a).

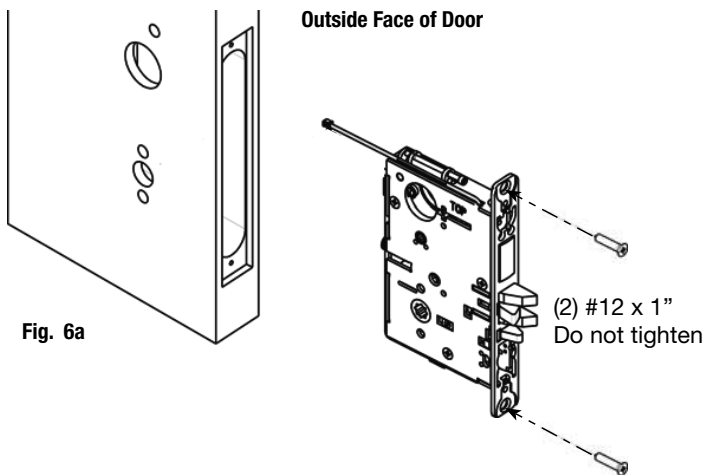


Fig. 6a

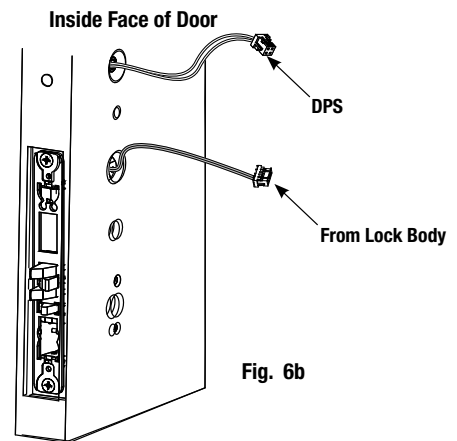


Fig. 6b

6. Install Cylinder:

- Slide cylinder through collar. Thread cylinder into lock body (Fig. 7a).
Note: Make sure cylinder is oriented correctly (Fig. 7a1).
- Tighten cylinder clamp using 7/64" allen wrench (Fig. 7b).
- Turn the key to make sure that lock functions correctly (latch, deadbolt, and key).

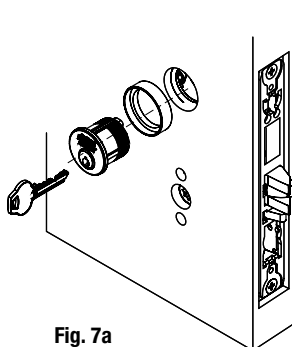


Fig. 7a

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

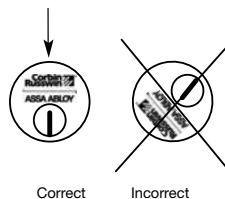


Fig. 7a1

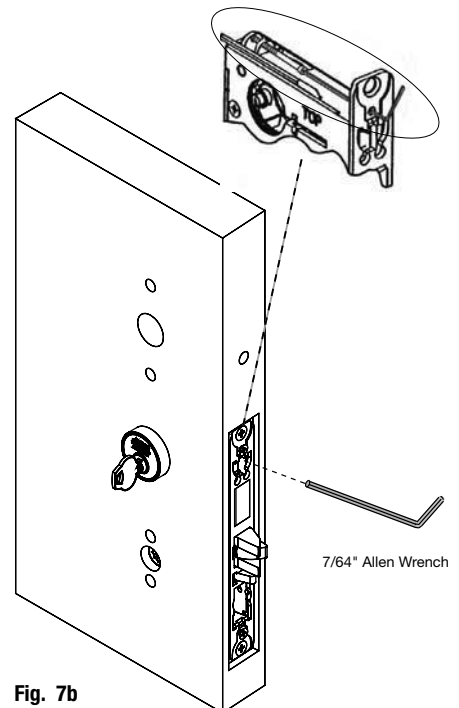


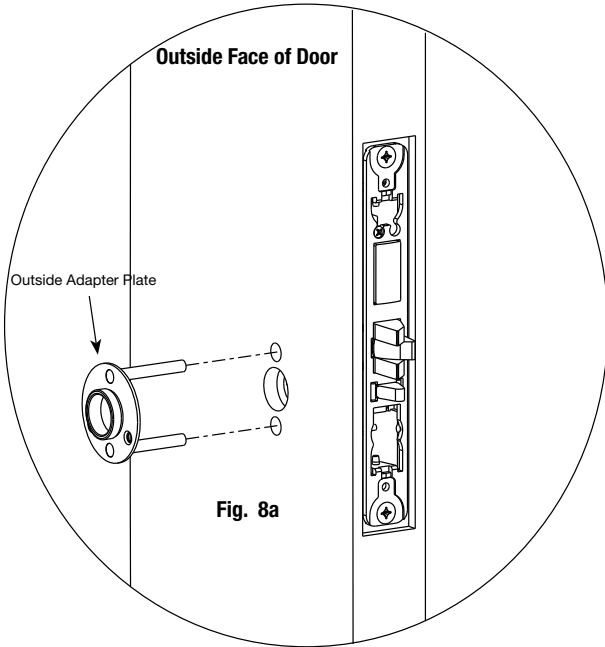
Fig. 7b

5) Installation Instructions (Continued)

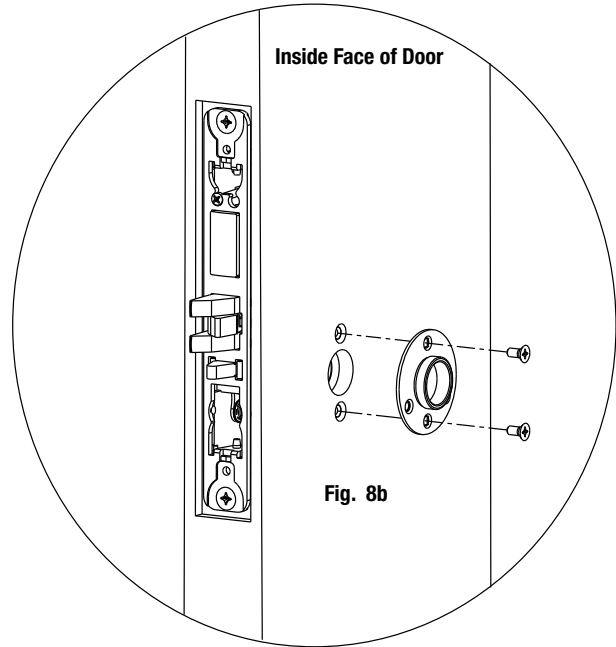
7a. Install Standard Lever Trim:

(Refer to 7b on following pages for Museo® Trim):

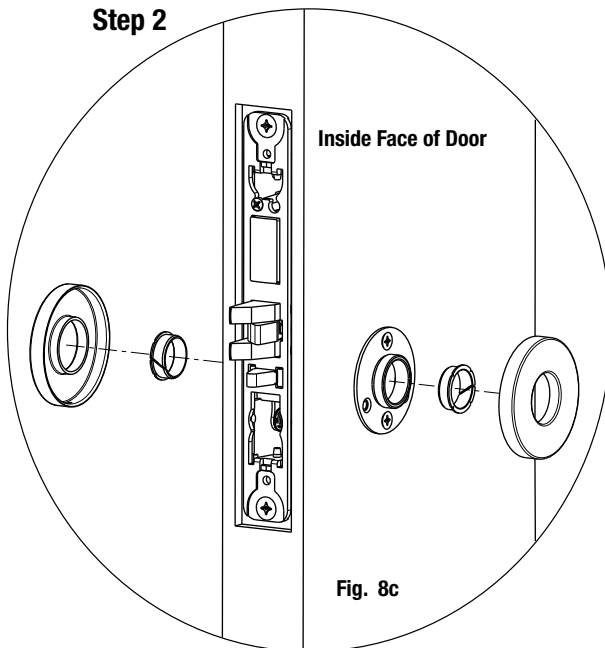
Step 1a



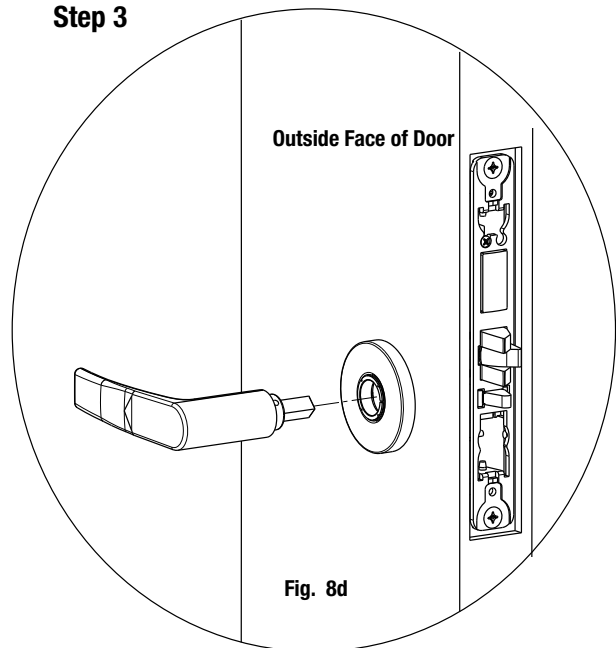
Step 1b



Step 2

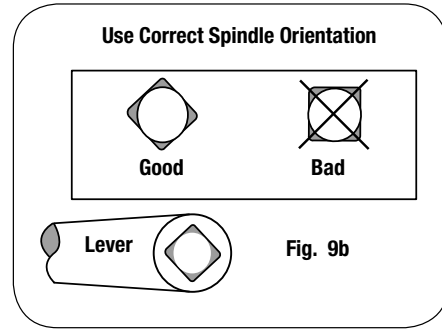
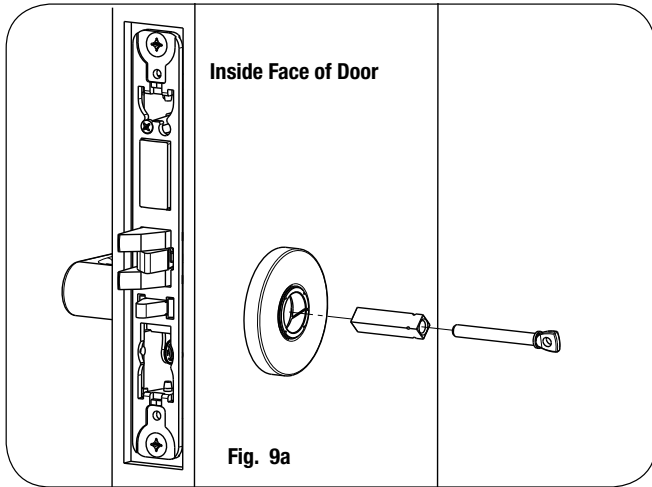


Step 3

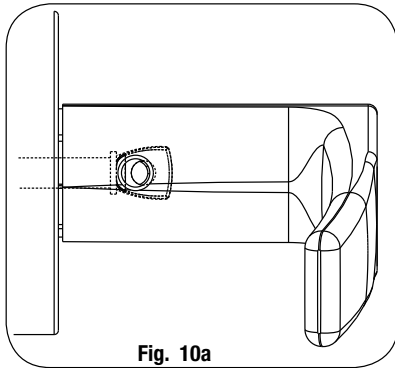


5) Installation Instructions (Continued)

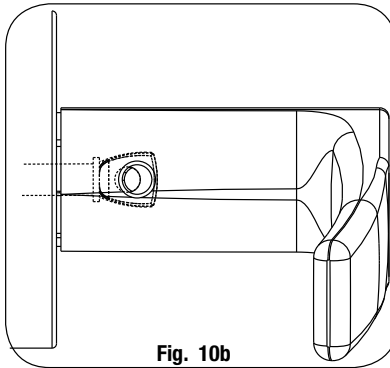
Step 4



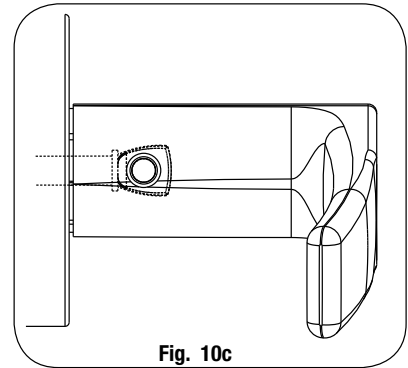
Step 5 Align adjustment bolt with threaded hole in lever



Adjustment bolt needs to be threaded in farther.



Adjustment bolt needs to be unthreaded.



Adjustment bolt fully aligned.

Step 6 Install I/S lever with set screw:

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.

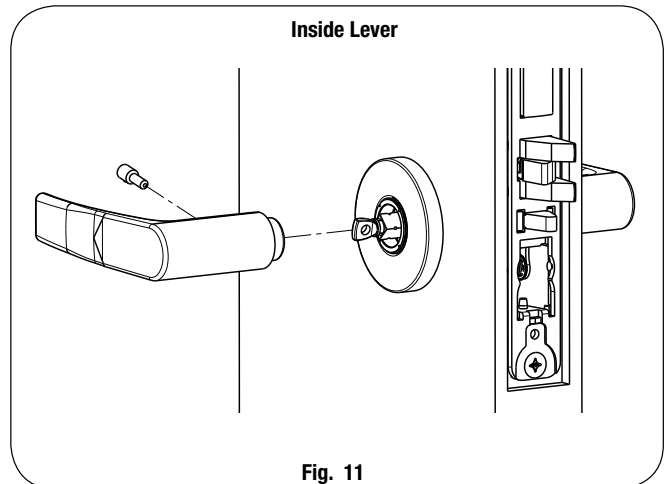


Fig. 11

5) Installation Instructions (Continued)

7b. Install Museo® Trim:

Step 1 Thread adapter plate hub into lever and fully tighten

Step 2 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

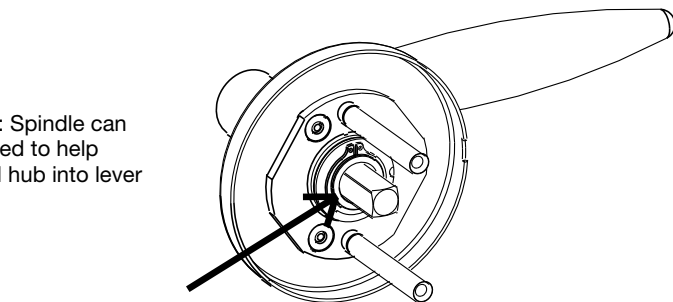


Fig. 12a

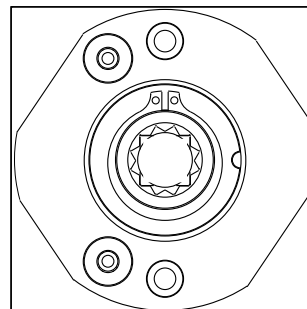


Fig. 12b

Step 3 Install O/S trim assembly and inside adapter plate

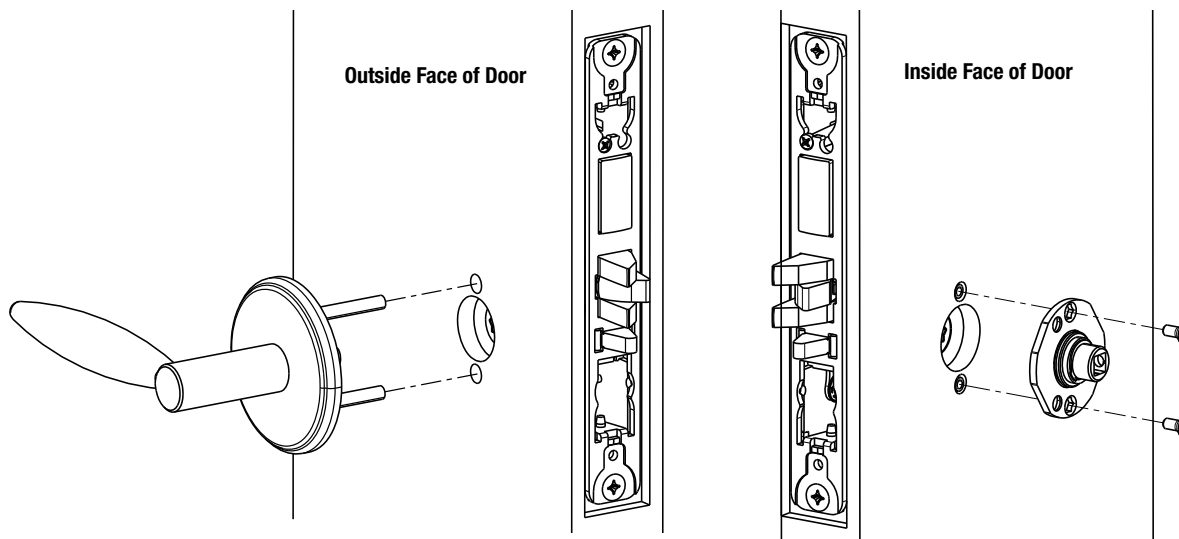
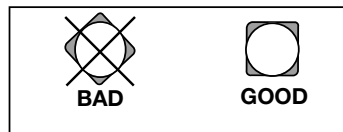


Fig. 13

Use Correct Spindle Orientation



5) Installation Instructions (Continued)

Step 4 Install Spindle and Rose:

- a. Align studs on rose with bushings in adapter plate.

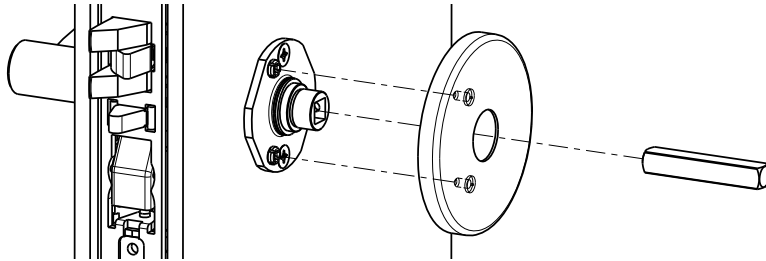


Fig. 14a

Step 5 Install I/S lever with set screw:

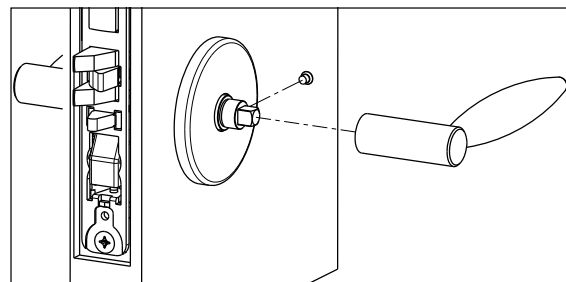


Fig. 14b

Step 6 Install Armored Front:

- a. Tighten (2) screws through lock body.
- b. Attach armored front with two #8 x 1/4" screws (Fig. 14c).

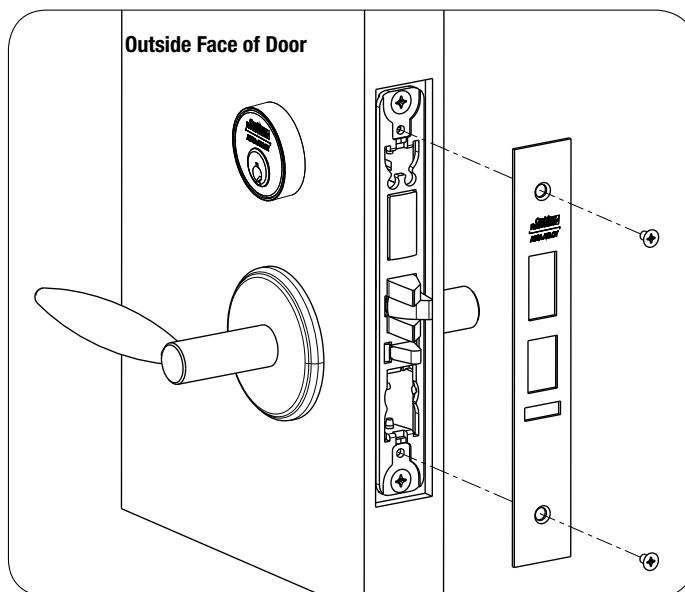


Fig. 14c

5) Installation Instructions (Continued)

8. Install Turn Piece:

Step 1

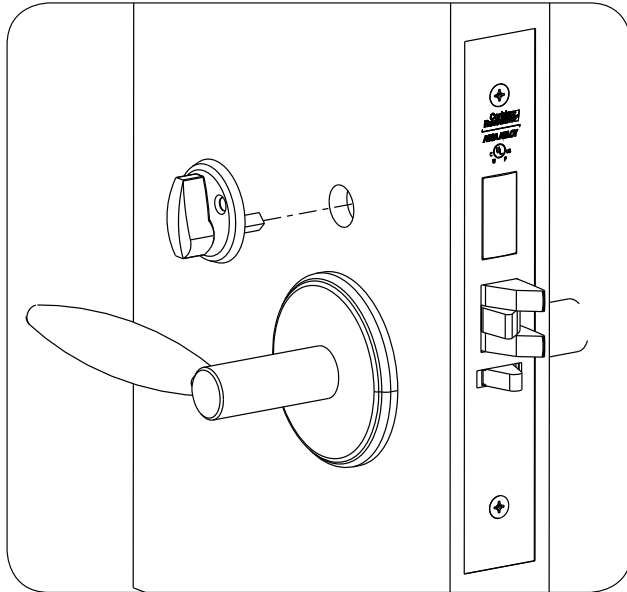


Fig. 14d

Step 2

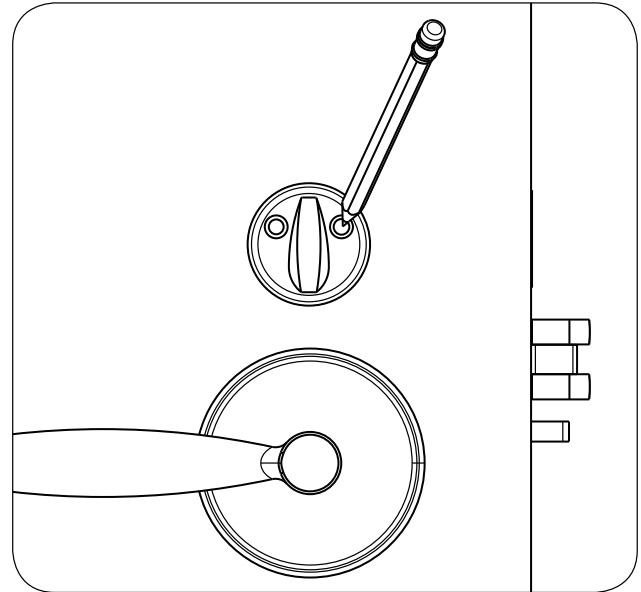


Fig. 14e

Step 3

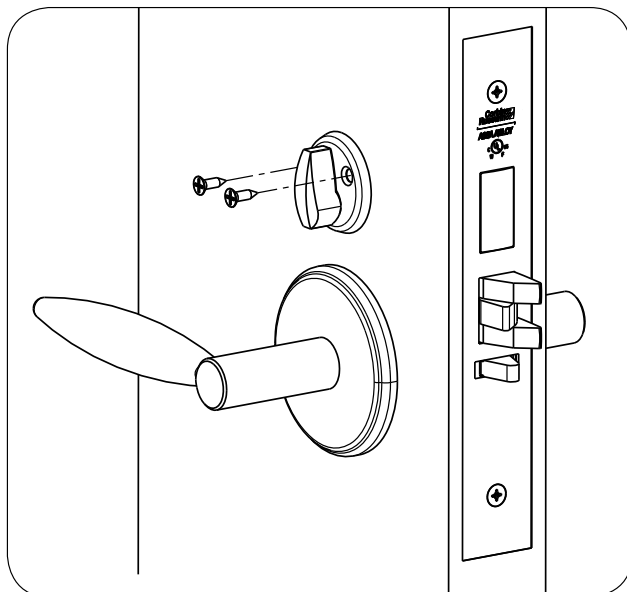
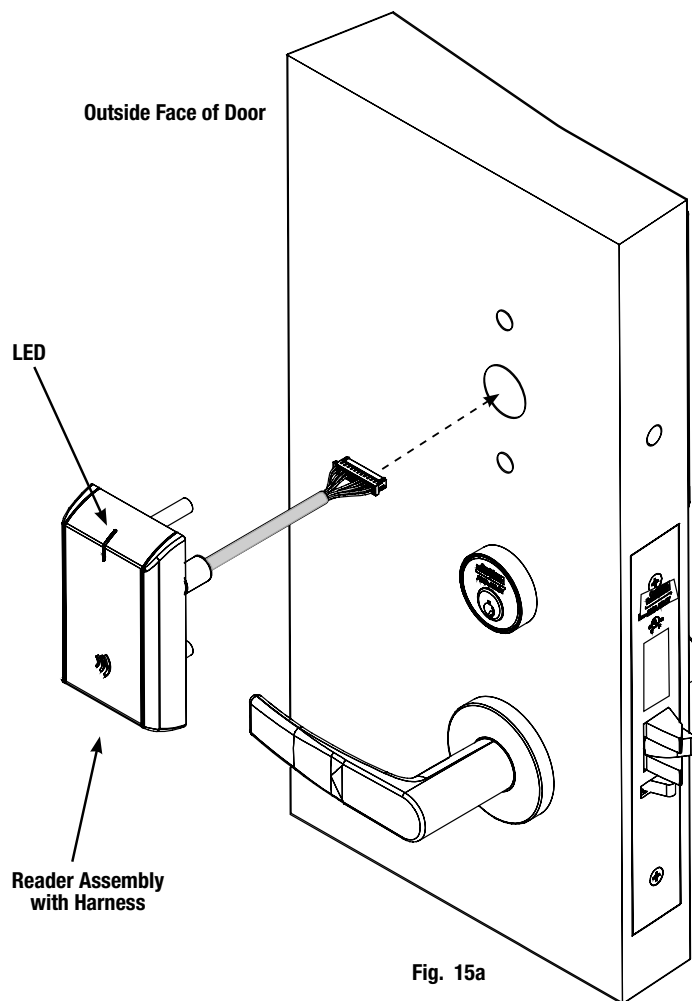


Fig. 14f

5) Installation Instructions (Continued)

9. Install Outside Reader and Inside Mounting Plate:

- a. Orient the reader so the LED lens is at the top.
- b. Feed the reader harness through the door (from outside to inside).
- c. Install the reader to the outside of door by aligning the mounting posts with the door preparation holes. Hold the reader flush against door while ensuring proper alignment.

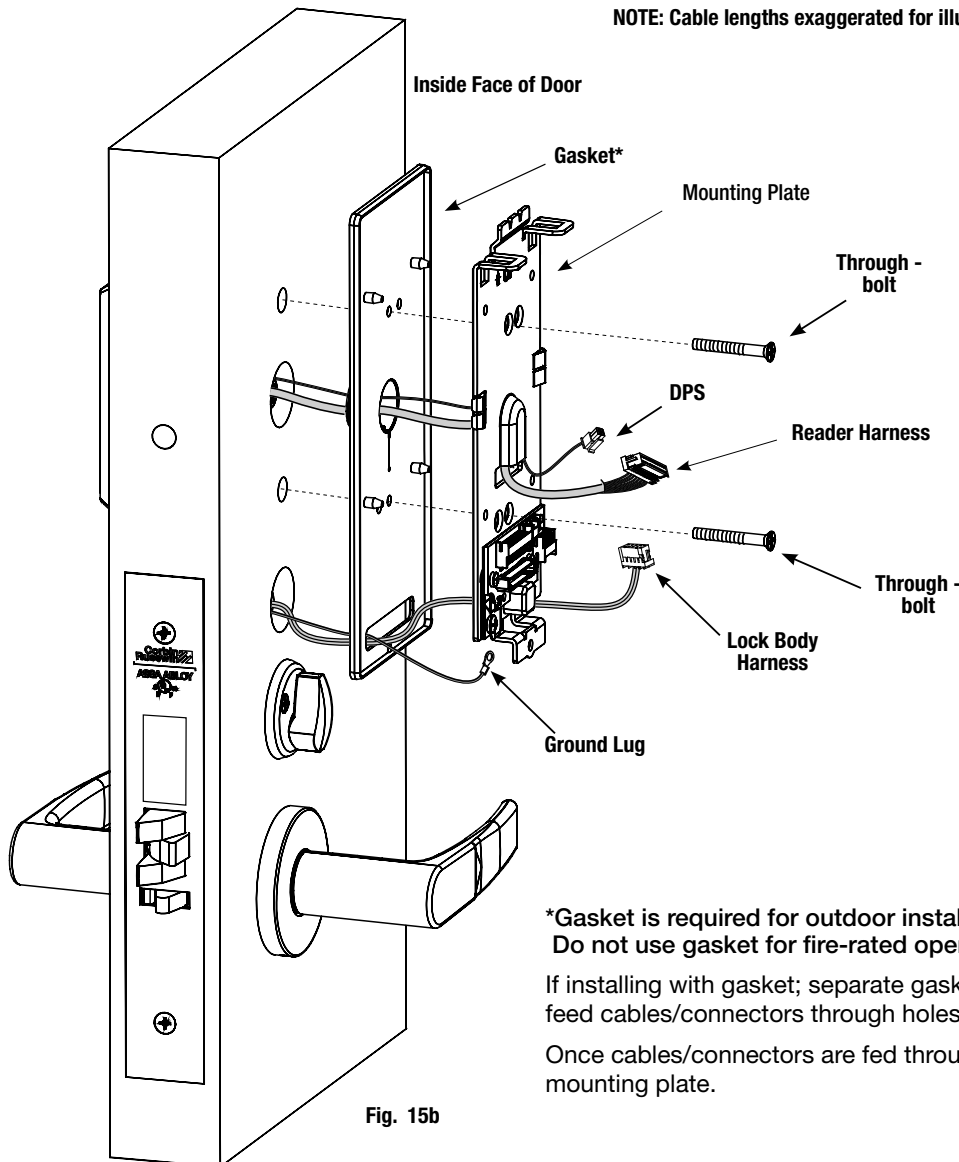


5) Installation Instructions (Continued)

9. Install Outside (Reader) Escutcheon - (Continued)

- d. Next feed the cables/connectors through the inside mounting assembly (and gasket if required*).
- e. Secure the mounting assembly while ensuring proper alignment of outside reader and tighten the (2) through-bolts on the inside of the door to secure the reader (Fig. 15b).

NOTE: Cable lengths exaggerated for illustrative purposes.



*Gasket is required for outdoor installations.
Do not use gasket for fire-rated openings.

If installing with gasket; separate gasket from mounting plate to feed cables/connectors through holes as indicated (Fig. 15b).

Once cables/connectors are fed through, reattach gasket to mounting plate.

Fig. 15b

5) Installation Instructions (Continued)

10. Installation of Connectors

CAUTION - Do not touch or allow debris to enter connector contacts.

Secure the following connectors to their respective terminals (Fig. 16a, b):

- A. Secure the 4-pin DPS connector. (Not required for ML202xx)
- B. Secure the 10-pin lock body assembly connector.
- C. Secure ground lug to #6-32 machine screw.

*NOTE: Optional 2-pin external 12-24VDC power connector.

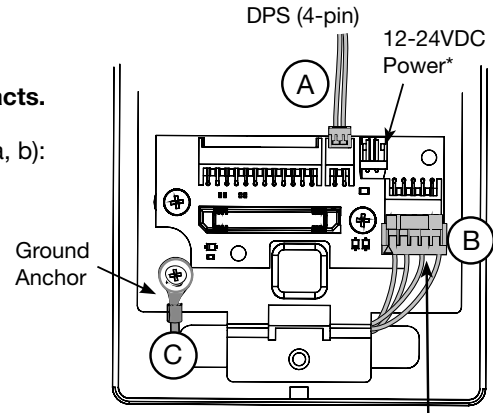


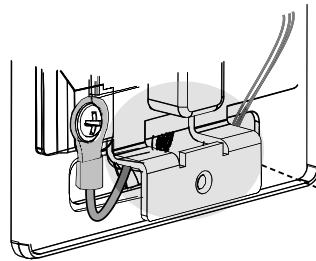
Fig. 16a

Lock
Body
(10-pin)

IMPORTANT: Do not run wires through hole in plate (Fig. 16c, d) - this will damage wires and the controller connector.

Route wires around flange, do not route wires through the flange hole (Fig. 16c Detail).

Fig. 16c



3. Secure the 24-pin card reader connector (Fig. 16d).

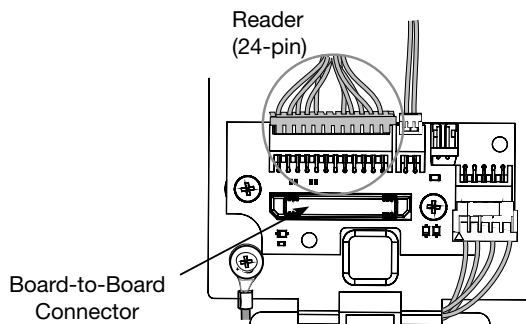


Fig. 16d

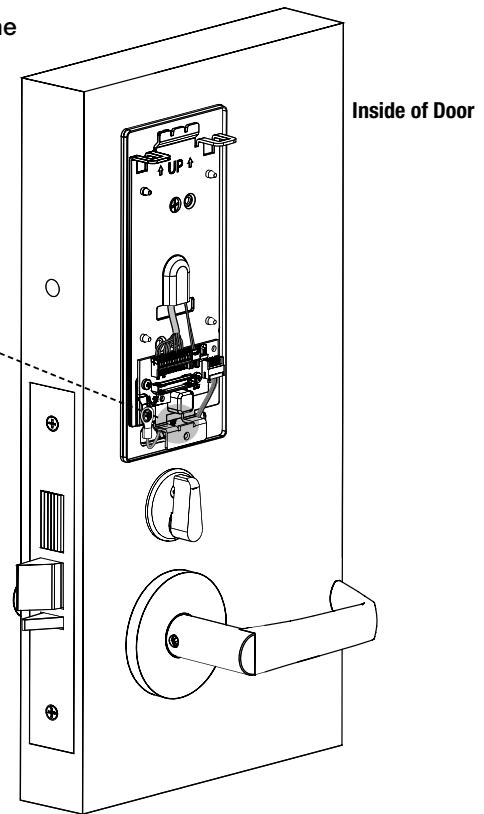


Fig. 16b

5) Installation Instructions (Continued)

11. Install Inside Module Component Assembly

1. Insert top tabs of controller into slots on mounting plate (Fig. 17).
2. Ensure proper alignment of board-to-board connectors while pivoting bottom of controller toward door until tab on bottom snaps securely into place on mounting plate.

CAUTION: To avoid possible damage to board-to-board connectors, care should be taken when securing controller to mounting plate. If there is resistance when securing, detach controller to determine cause before re-attaching controller.

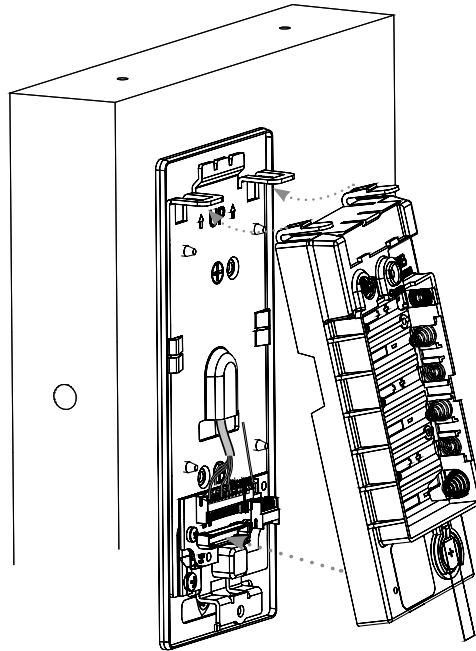


Fig. 17

5) Installation Instructions (Continued)

12. Installing Batteries

Before installing batteries for the first time:

Remove pull tab from its position beneath the coin cell by pulling on tab in direction of arrows printed on tab (Fig. 18).

1. Place (6) "AA" alkaline batteries in the compartment, being careful to align polarity properly.
2. After batteries are installed, there is a slight delay; then an audible "beep" will sound and the lock motor will cycle.

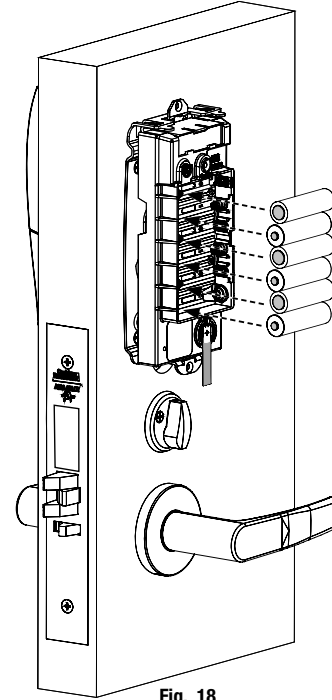


Fig. 18

13. Inside Cover Installation

1. Assemble cover by hooking top edge on inside mounting plate.
2. Carefully press bottom of cover toward door without pinching any wires.
3. Fully secure cover by tightening the security screw at bottom of cover (Fig.19), utilizing the security allen wrench.

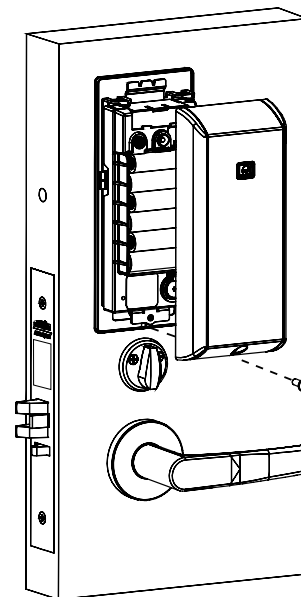


Fig. 19

6) Operational Check

When lock is fully installed, perform the following steps:

- a. Insert key into cylinder and rotate (Fig. 20a).
- b. There should be no friction against lock case, wire harness or any other obstructions.
- c. Check that the key retracts the latch.
- d. The key should rotate freely.
- e. Try the inside lever; ensure it retracts latch.
- f. Use a valid credential* set up with the **Lock Configuration Tool** to unlock outside lever and retract latch.

Refer to **Network and Lock Configuration Tool** user manual (**WFMN1**) for information on how to configure and program locks.

*Twenty (20) seconds after lock initialization (single beep with lock motor actuation).

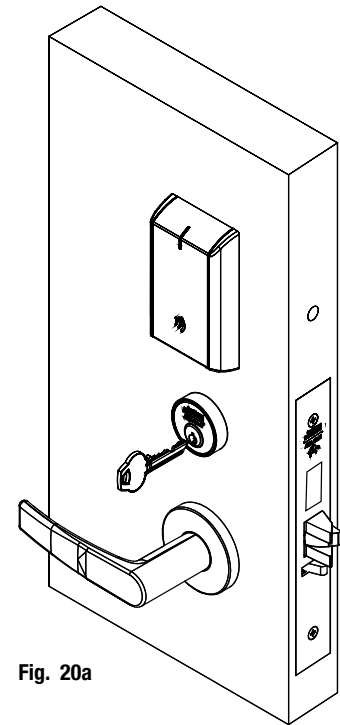


Fig. 20a

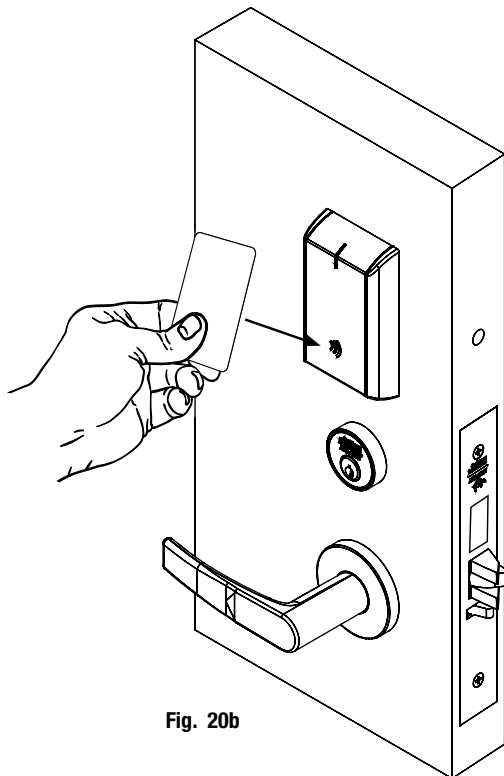


Fig. 20b

Note: The credential should approach the inscription on the reader as indicated (Fig. 20b) to ensure that the credential is read properly.

Do not wave credential.



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