

Access
600™



Installation Instructions
ML20600 TCRNE1 Series
M802 125 kHz Reader Option
Mortise Lockset

**Corbin
Russwin**

ASSA ABLOY

FM292 10/18

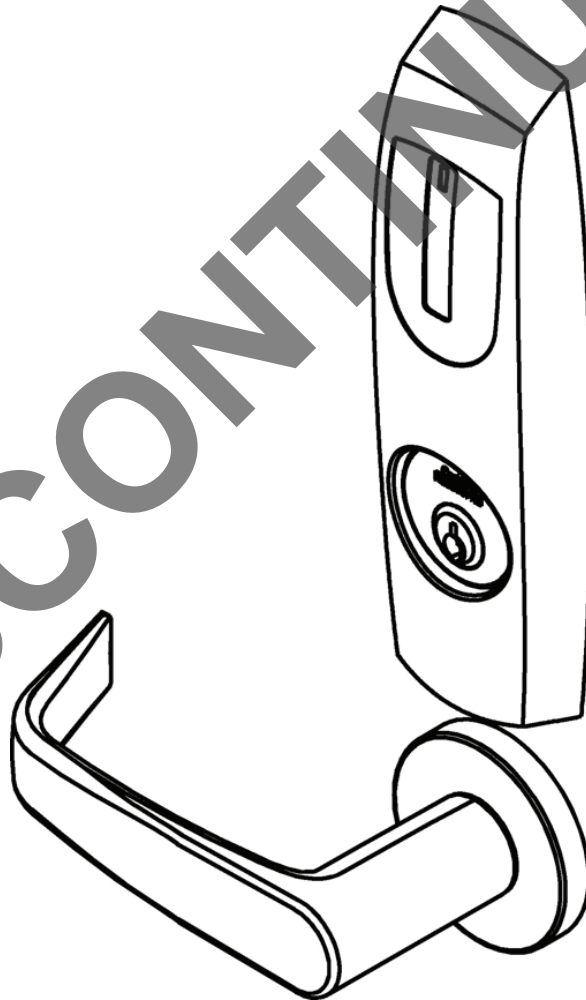
Attention Installer

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 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



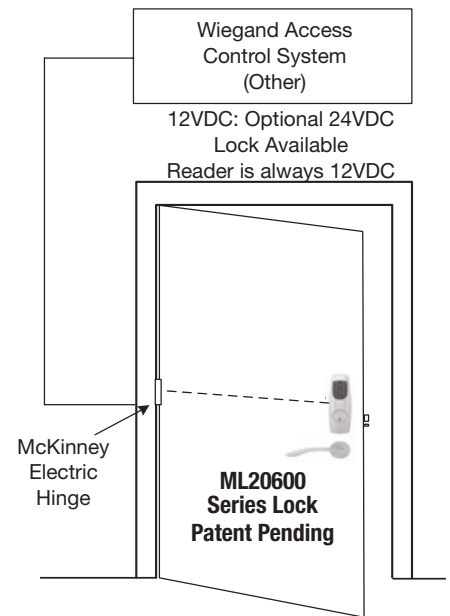
*Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and Corbin Russwin, Inc. makes no representations or warranties concerning what such impact may be in any specific situation. When retrofitting any portion of an existing fire rated 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 Access 600 TCRNE1 Series mortise lock is designed to interface with existing Wiegand Electrical Access Control (EAC) panels. The reader requires 12VDC for power and is available with 125 kHz HID proximity technology. The Access 600 technology is designed around Corbin Russwin's Grade 1 hardware. The mortise lock comes with complete door monitoring which is all integrated inside the lockbody (RX – Request to Exit & DPS – Door Position Switch) and is available in 12VDC or 24VDC. Weather seal gaskets are also included for outdoor applications. The Access 600 reader provides visual (LED) and audible indication of lock state (locked/unlocked).

3) Features

- Latch - Stainless steel 3/4" projection one-piece
- Deadbolt - One-piece hardened stainless steel
- Guardbolt - Stainless steel, non-handed
- Handed - Easily field reversible without opening case
- Case - 12 gauge heavy duty wrought steel
- Outside lever controlled by any 125 kHz HID prox credential
- Inside lever provides RX signal and retracts latch and deadbolt
- Fail Safe or Fail Secure Operation (must specify)
- UL fire listed
- Wire from EAC Panel to door must be shielded with a drain.
Drain terminated at EAC Panel controller
- Wires directly to EAC Panels
- Accepts all HID 125 kHz Bit formats
- McKinney QC12 Hinge with ElectroLynx plug and play



4) Regulatory Specifications

12/24VDC System

- Reader Draw = 150mA @12VDC
- Actuator Draw = 400mA inrush, 15mA Continuous
- Total System Draw = 550mA

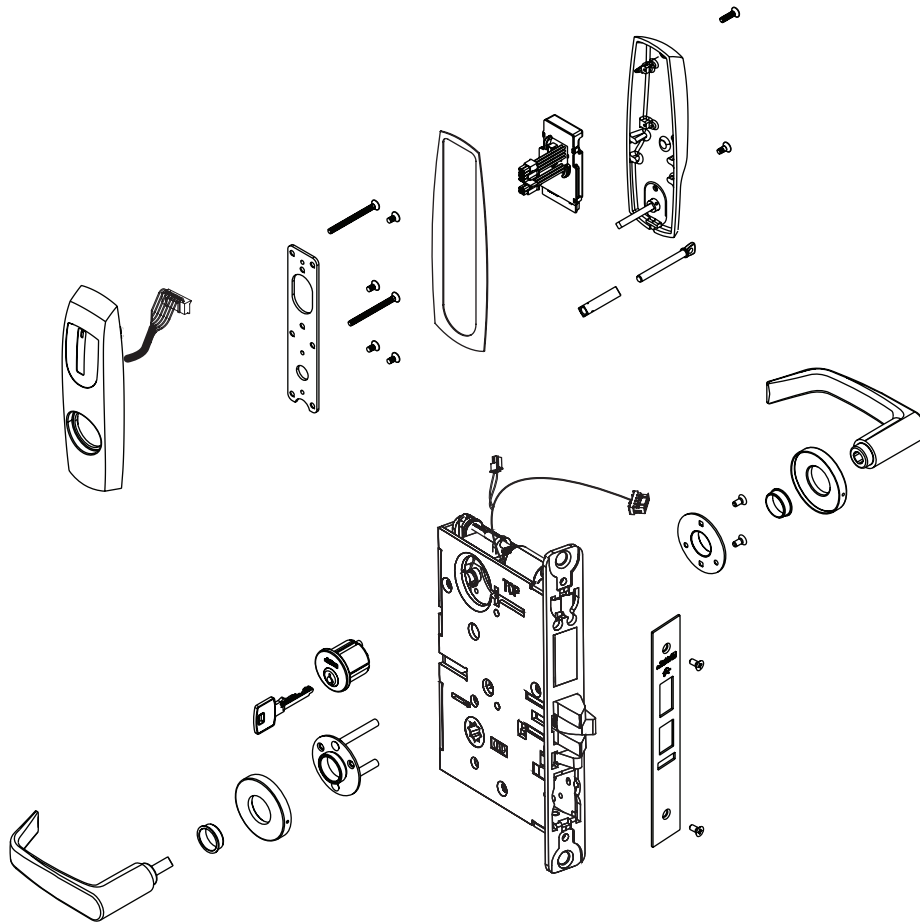
- UL294 6th Edition (Access Control System Units)
- This product meets the requirements of CAN/ULC-S319-05 Equipment Class I
- ANSI/BHMA A156.25 Listed Grade 1 Compliant

- UL 294 Access Control Performance Ratings:

Destructive Attack	Level I
Line Security	Level I
Endurance	Level IV
Standby Power	Level I

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), CSA 22.1, Canadian Electrical Code (CEC), Part I, Safety Standard for Electrical Installations, local codes, and the authorities having jurisdiction.

5) Product Illustrations



Item	Part Number	Description	Req.
1	752F602 26D	Mortise No Cyl/ No TP Function (ML20607)	1
	752F612 26D	Mortise Cyl/ No TP Function (ML20606)	
	752F622 26D	Mortise Cyl/ with TP Function (ML20608)	
	752F632 26D	Mortise No Cyl/ with TP Function (ML20609)	
2*	816F008	ML20606/ML20607 Fail Safe (SAF)	1
	816F018	ML20606/ML20607 Fail Secure (SEC)	
	816F028	ML20608/ML20609 Fail Safe (SAF)	
	816F038	ML20608/ML20609 Fail Safe (SAF)	

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

6) Wiring Diagrams

Product	8 PIN CONNECTOR								4 PIN CONNECTOR			
	1-Black	2-Red	3-White	4-Green	5-Orange	6-Blue	7-Brown	8-Yellow	1-Violet	2-Gray	3-Pink	4-Tan
ACCESS CONTROL DEVICES: Access600 Mortise, ElectroLynx wire Color / Function assignments												
Corbin Russwin Access 600 Mortise	12/24VDC (Reader)		WIE-GAND	WIE-GAND	RX	RX	EGND	LED	12/24 VDC (LOCK RELAY)		DPS (NC)	DPS (COM)
	NEG	POS	DATA_1	DATA_0	NO	COM	REF. *DIA-GRAMS	REF. *DIA-GRAMS	NEG	POS	DPS	DPS
Cylindrical/Exits	NEG	POS	DATA_1	DATA_0	NO	COM			NEG	POS	-	-

Reader LED Configuration

The Access 600 Series reader can be configured for (3) modes of LED operation. Call 1-800-810-WIRE for details.

Mode 1:

- Red LED 'ON' when powered.
- Presenting a valid credential causes LED to 'FLICKER' green and return to red state.

Mode 2:

- Green LED "ON" when powered.
- No Flicker after presenting valid valid credential.

Note: LED wire must be connected to circuit GROUND of the system's power supply.

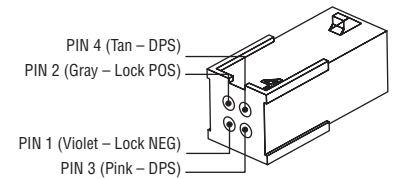
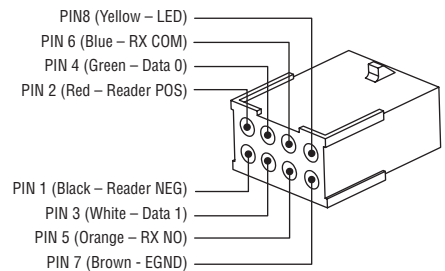
Mode 3:

- EAC Panel controls LED operation.

Note: Control of LED is a function of the EAC panel equipment (i.e. relay) to toggle between green and red.

Note: When LED wire is tied directly into EAC panel relay, no AC signals should be applied on wire or door reader performance will be impacted.

Wire from EAC panel to door must be shielded with drain terminated at EAC panel controller



Wire Gauge Charts

Total One-Way Length of Wire Run (ft)	Load Current @ 12VDC							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	20	18	16	14	14	12	12	10
150	18	16	14	12	12	12	10	—
200	16	14	12	12	10	10	—	—
250	16	14	12	10	10	10	—	—
300	16	12	12	10	10	—	—	—
400	14	12	10	—	—	—	—	—
500	14	10	10	—	—	—	—	—
750	12	10	—	—	—	—	—	—
1,000	10	—	—	—	—	—	—	—
1,500	10	—	—	—	—	—	—	—

Total One-Way Length of Wire Run (ft)	Load Current @ 24VDC							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	24	20	18	18	16	16	14	12
150	22	18	16	16	14	14	12	10
200	20	18	16	14	14	12	12	10
250	18	16	14	14	12	12	12	10
300	18	16	14	12	12	12	10	—
400	18	14	12	12	10	10	—	—
500	16	14	12	10	10	—	—	—
750	14	12	10	10	—	—	—	—
1,000	14	10	10	—	—	—	—	—
1,500	12	10	—	—	—	—	—	—

6) Wiring Diagrams (Continued)

Typical ML20600 x M802 Series Lock Application Diagram (12/24VDC Lock)

MODE 1: LED WIRE NOT USED = RED LED ON WHEN POWERED

Standard Application Shown - For Alternative Applications Contact 1-800-810-WIRE (9473)

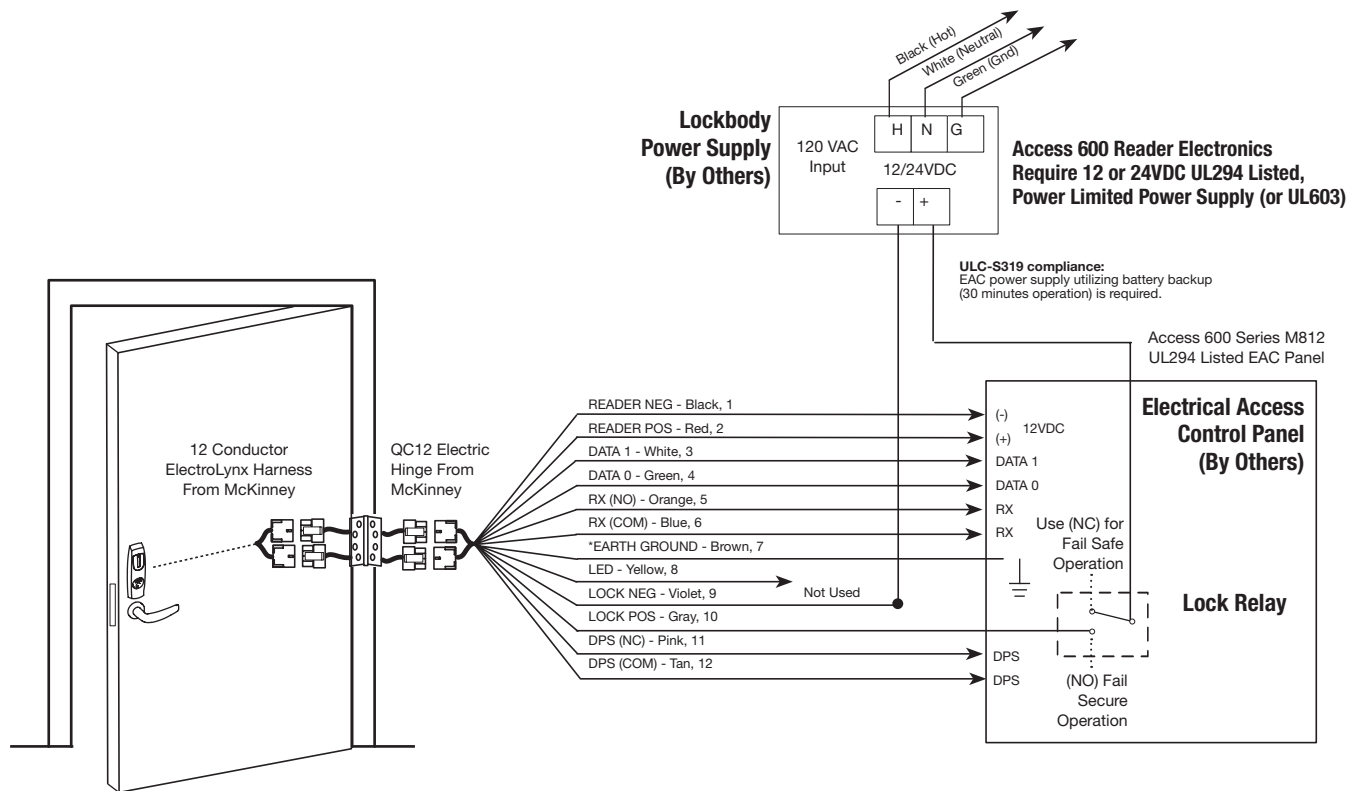
Reader Electronics Require 12 or 24VDC UL294 Listed, Power Limited Power Supply (or UL603)

12VDC System with 12/24VDC (Lock body)

Reader Draw = 150mA

Actuator Draw = 15mA Continuous (400mA Inrush)

Total System Draw = 550mA



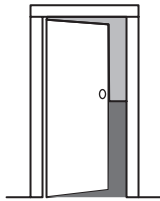
* IMPORTANT: Pin 7 must be tied to earth ground in the access control panel.

Failure to follow proper ESD safe grounding procedures could lead to equipment failure.

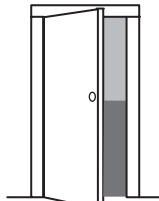
7) Installation Instructions

1. Verify Hand and Bevel of door.

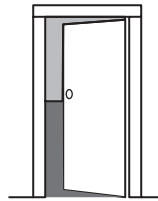
Illustrations shown are as viewed from the outside or **secure side of opening**.



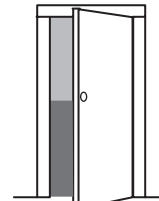
Left Hand
Hinges Left.
Open Inward.
"LH"



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



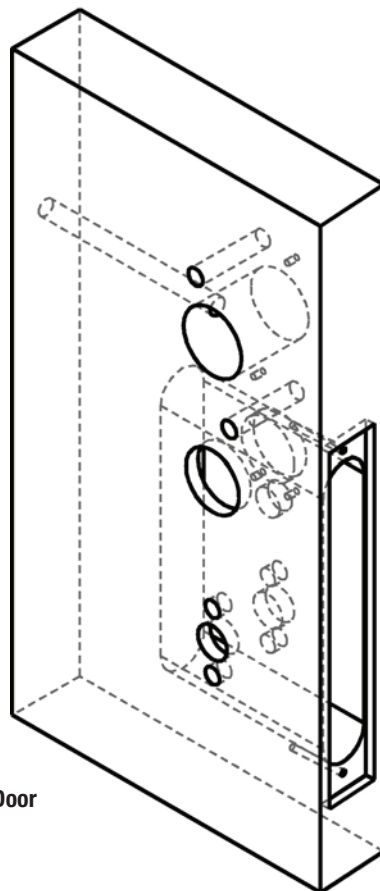
Right Hand
Hinges Right.
Open Inward.
"RH"



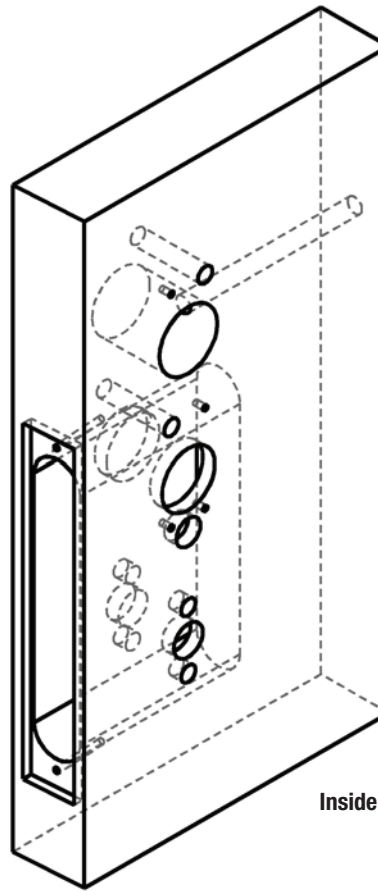
Right Hand
Reverse Bevel
Hinges Right.
Open Outward
"RHRB"

2. Prep door according to supplied door marker (FM293).

For door manufacture templates visit www.corbinruswin.com and reference template # T31070.



Outside Face of Door



Inside Face of Door

7) Installation Instructions (Continued)

3. Handing of Lock Body:

If necessary re-hand latch and move RED locking screw to side of lockbody to side of lock body to be locked:

- Push in latch while gently pushing on catch plate with screwdriver (Fig. 3a).
- Release latch and remove from lock body.
- Turn over latch and re-install in lock body; Be sure anti-friction latch tail hooks into front (Fig. 3c).
- Hold screwdriver behind tail socket while pushing in latch. Push latch until 'click' is heard (Fig. 3b).

Note: Pull on latch to make sure it is secure.

- Rotate lock front to match bevel of door by inserting screwdriver into lock mounting holes and twisting (Fig. 3d).

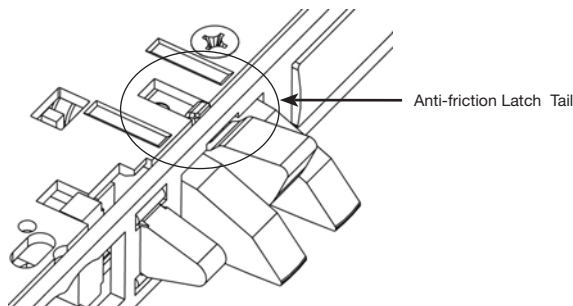
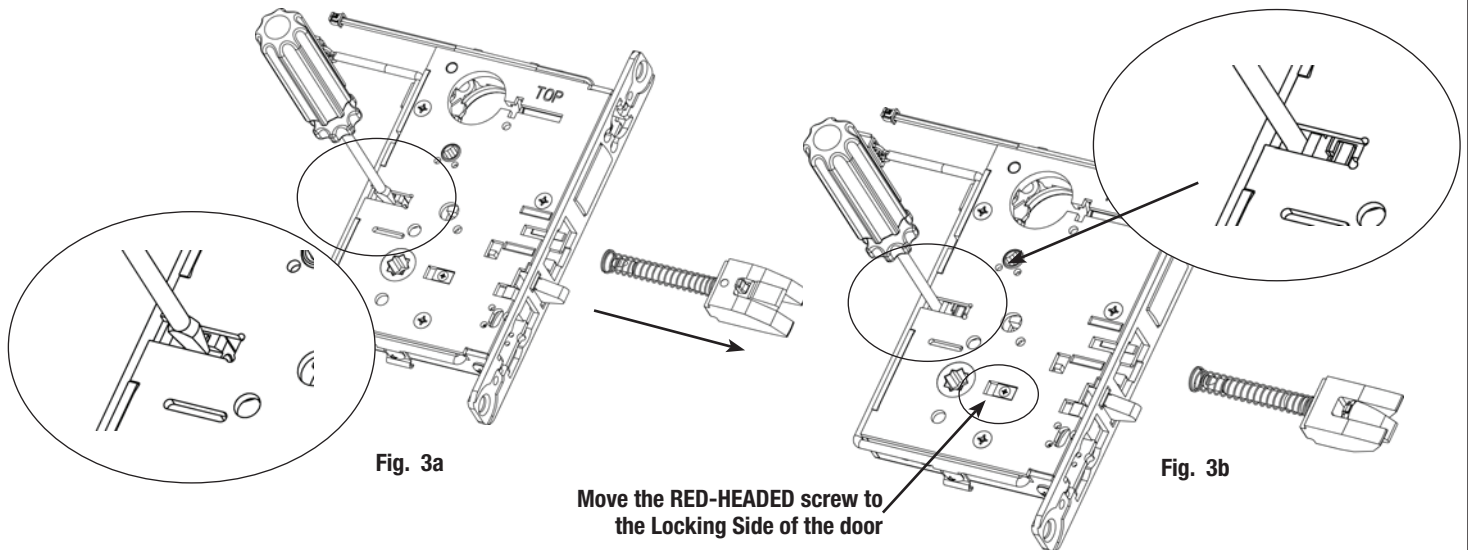


Fig. 3c

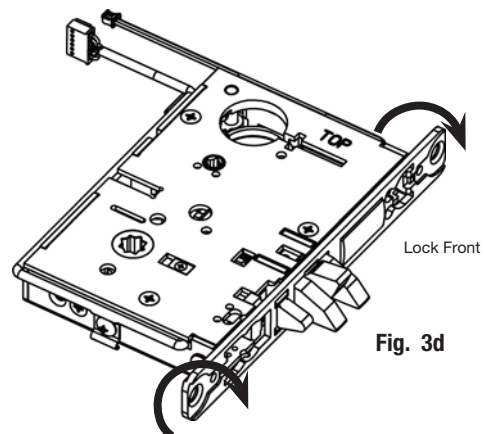


Fig. 3d

7) Installation Instructions (Continued)

4. Install Lock Body into Door:

- Feed wires through 1-5/16" diameter hole on INSIDE of door while installing lock body (Fig. 4a).
- Pull wires through hole while inserting lockbody. DO NOT push wires back into cylinder hole (Fig. 4b).
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. 4a).

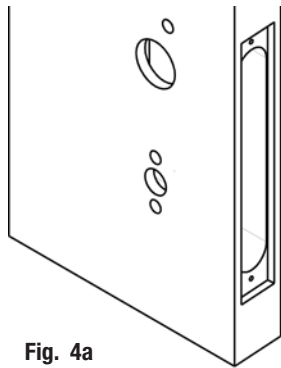


Fig. 4a

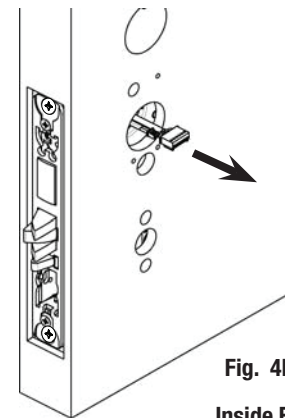
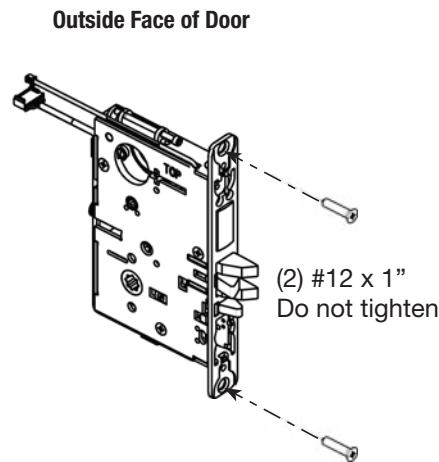


Fig. 4b

Inside Face of Door

5. Install Outside Escutcheon and Inside Mounting Plate With Earth Ground

- Feed wires through mounting plate as shown (Fig. 5a).
- Insert (2) #8 x 1-3/4" flat head screws finger tight into pre-drilled 1/8" diameter holes (Fig. 5a).
- Connect ring terminal from pin 5 green/yellow ground wire to top right screw (Fig. 5b and 5c).
Note: DO NOT tighten at this time.

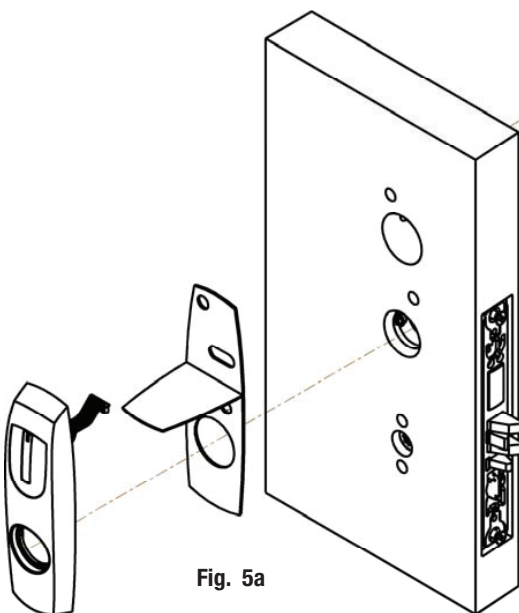


Fig. 5a

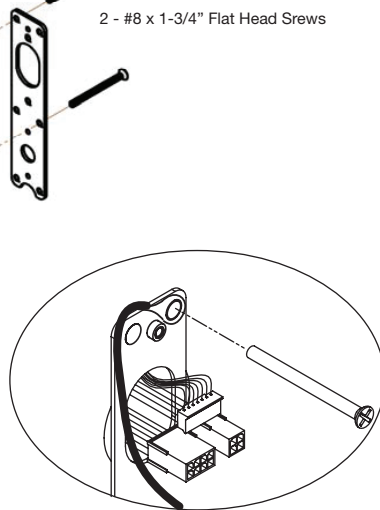


Fig. 5b Detail

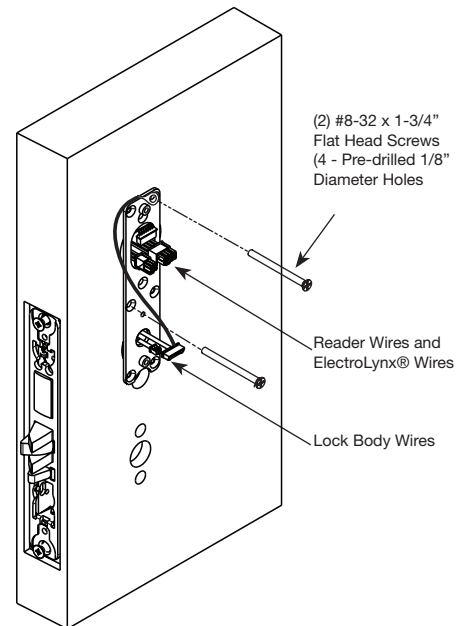


Fig. 5c

7) 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).

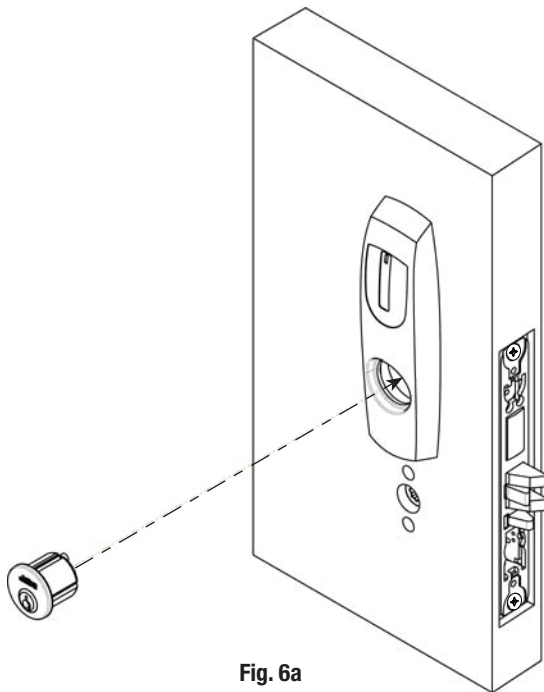
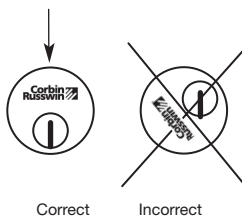


Fig. 6a

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



Correct

Incorrect

Fig. 6a1

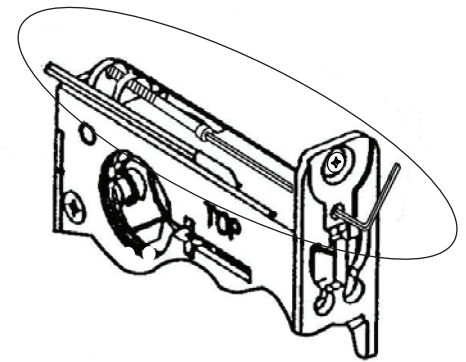


Fig. 6b1

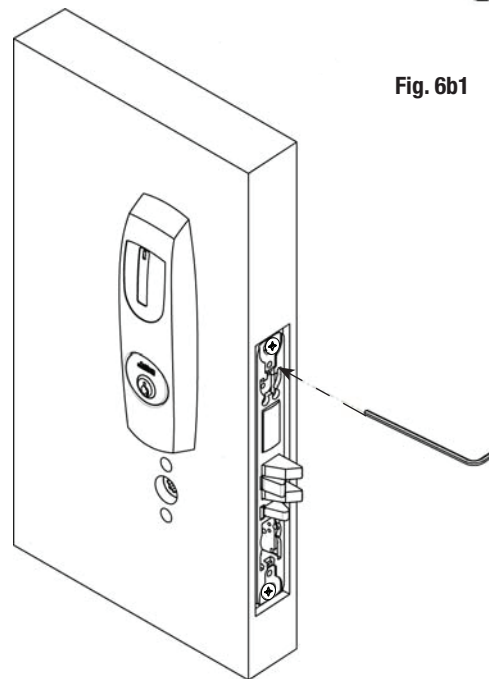


Fig. 6b

7) Installation Instructions (Continued)

7. Install Mounting Screws:

- Tighten two screws installed at Step 5.
- Install 4 surface mount (#8 x 3/4" combination screws) into pre-drilled 1/8" diameter holes.

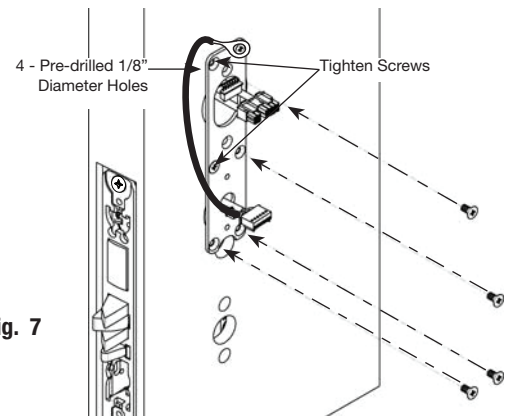


Fig. 7

8. Connector Attachment (Interior PCB Assembly)

- Connect P3 (2-pin connector) from lockbody to J3 on interior PCB assembly.
- Connect P4 (6-pin connector) from lockbody to J4 on interior PCB assembly.
- Connect P5 (7-pin connector) from Reader board to J5 on interior PCB assembly.
- Connect ElectroLynx harness (4 and 8-pin) from door harness to ElectroLynx harness on interior PCB assembly.

NOTE: Connectors go on only one way.

- Do not offset connector and be sure they are completely seated.

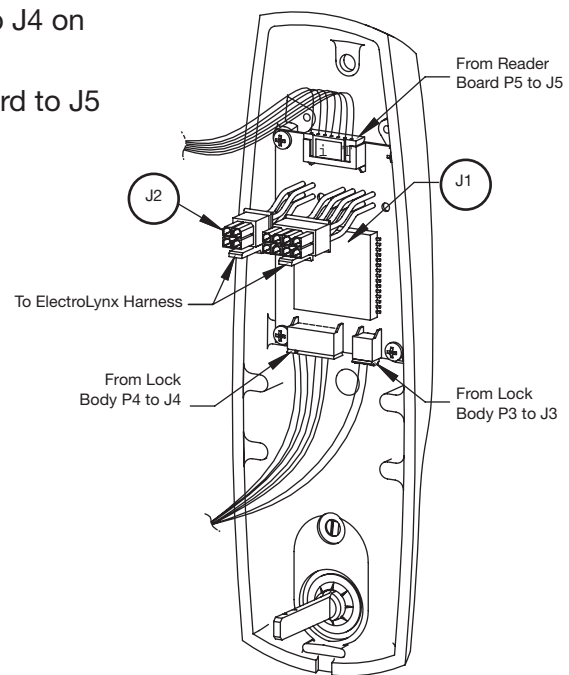
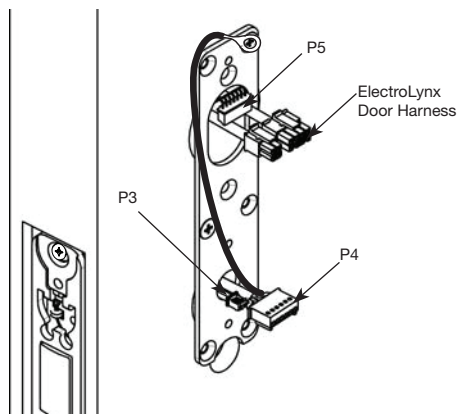
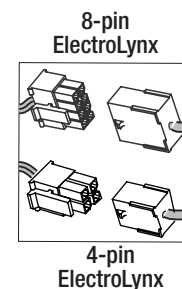


Fig. 8



PCB Layout - Wire Assignments - ElectroLynx Assembly (Molex)							
J2		J1					
1-Violet Lock Neg (Solenoid, neg)	3-Pink DPS (NC)	1- Black PWR NEG	3-White DATA 1	5-Orange RX (NO)	7-Brown EGND		
2-Gray Lock Pos (Solenoid, pos)	4-Tan DPS (COM)	2-Red PWR POS	4-Green DATA 0	6-Blue RX (COM)	8-Yellow LED		



7) Installation Instructions (Continued)

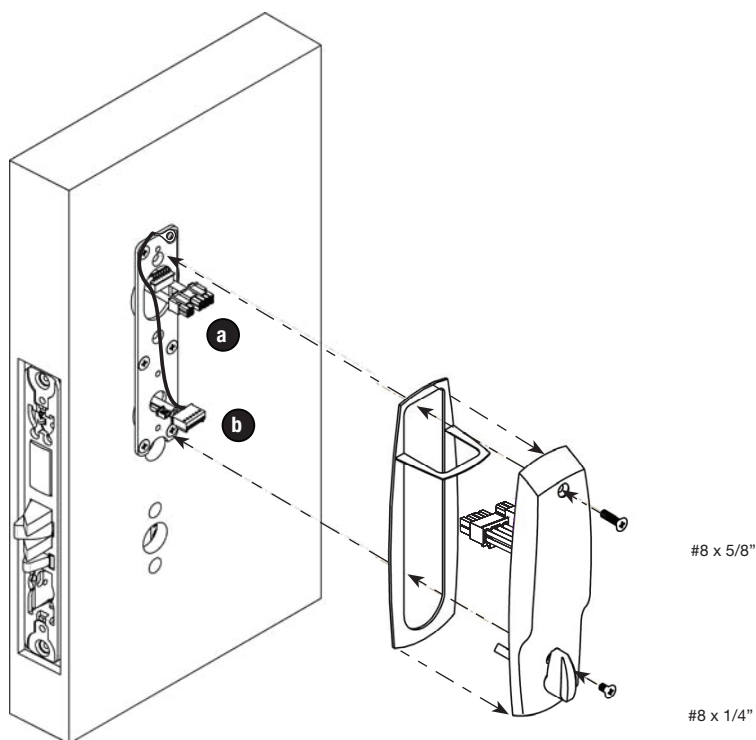
9. Install Inside Escutcheon:

- a. Attach connectors according to previous instructions.
- b. Feed excess ElectroLynx and reader wires into door prep.
- c. Tuck excess body wire harness under escutcheon.

Do NOT push back into door prep.

- d. Install two #8-32 oval head screws through escutcheon.

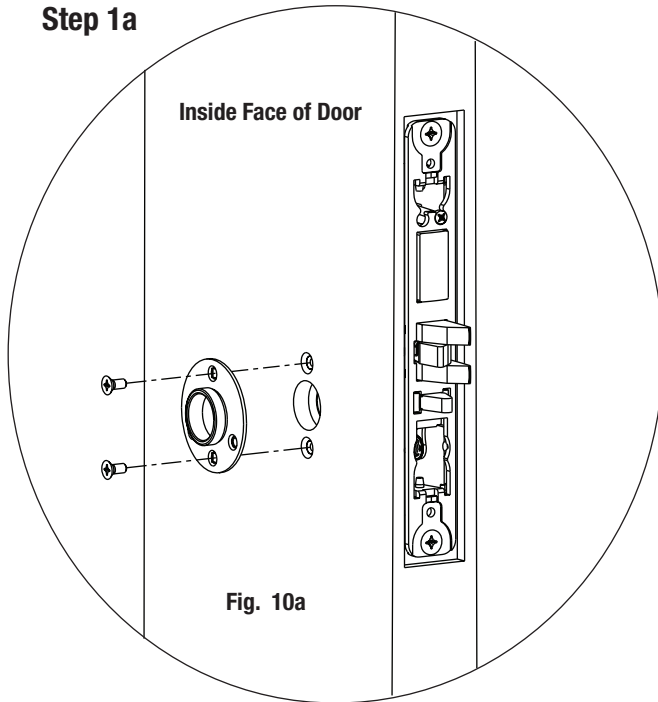
Be careful not to pinch wires under escutcheon when tightening screws.



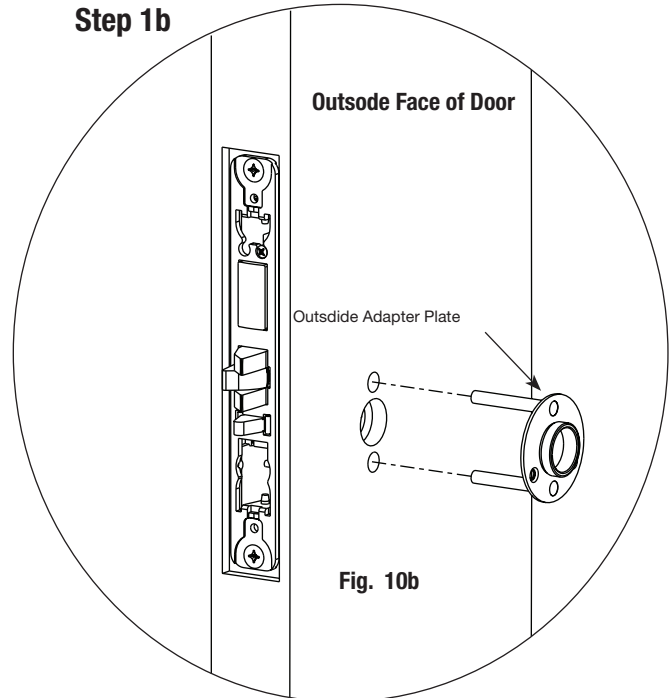
7) Installation Instructions (Continued)

10a. Install Standard Lever Trim. Refer to 10b on following pages for Muséo Trim:

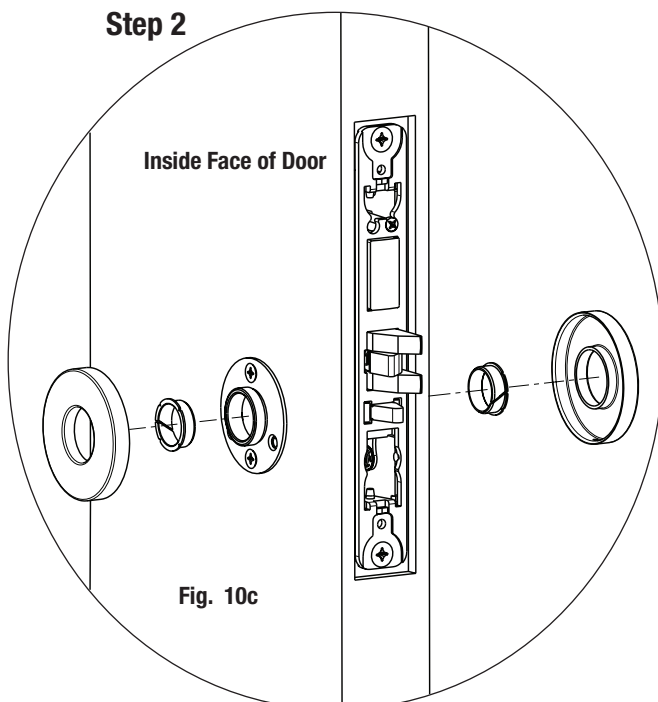
Step 1a



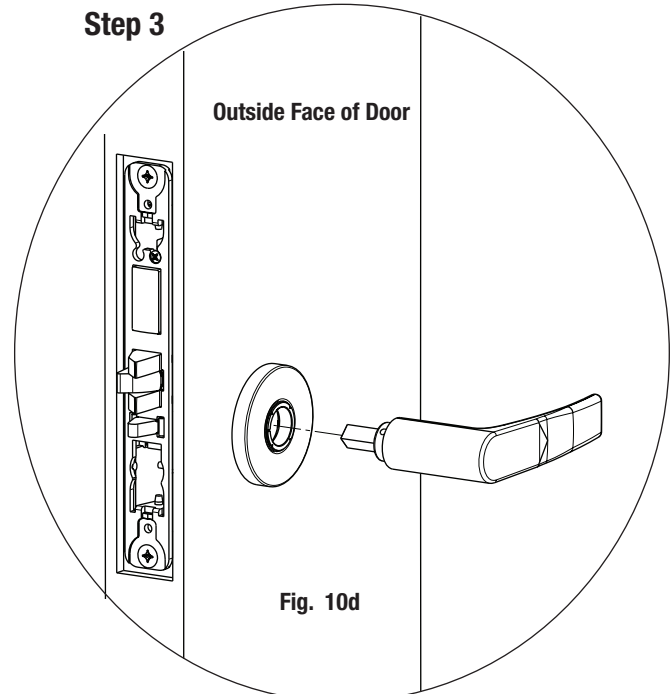
Step 1b



Step 2

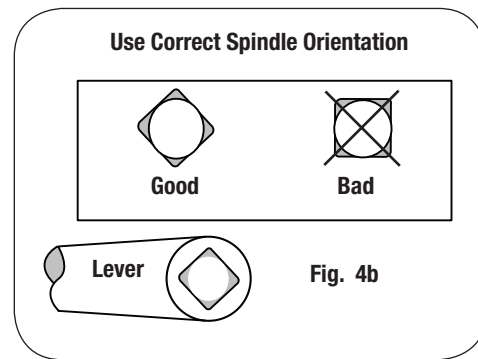
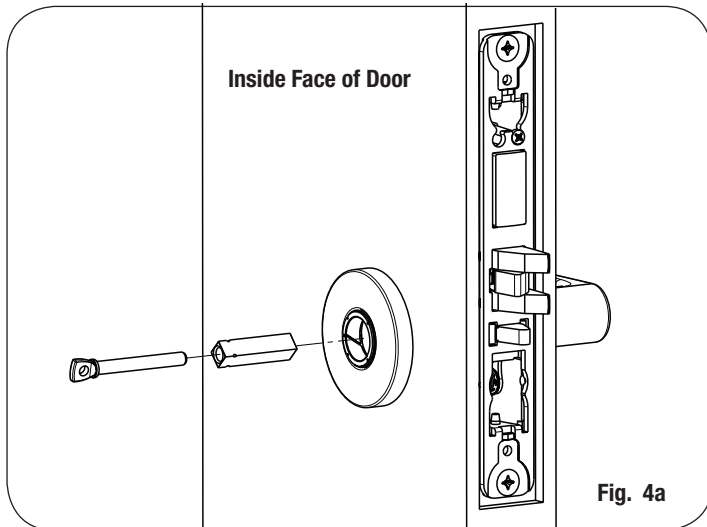


Step 3



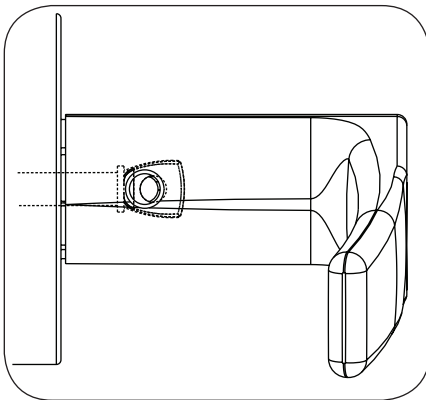
7) Installation Instructions (Continued)

Step 4

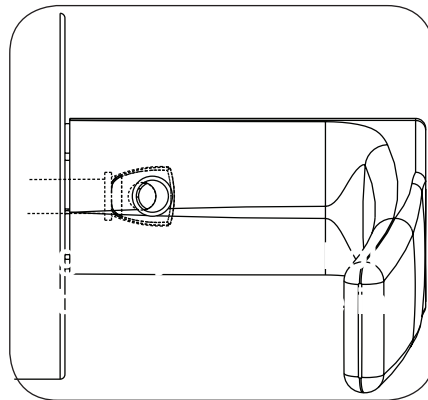


Step 5

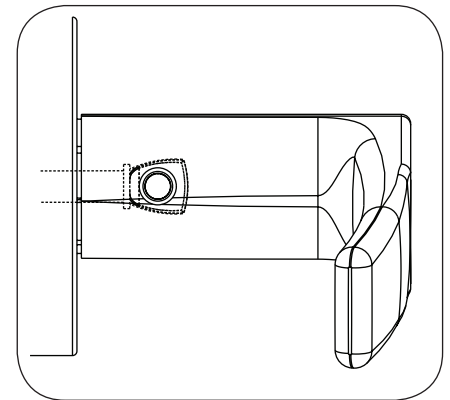
Align adjustment bolt with threaded hole in lever



Adjustment bolt needs to be threaded in farther.



Adjustment bolt needs to be unthreaded.

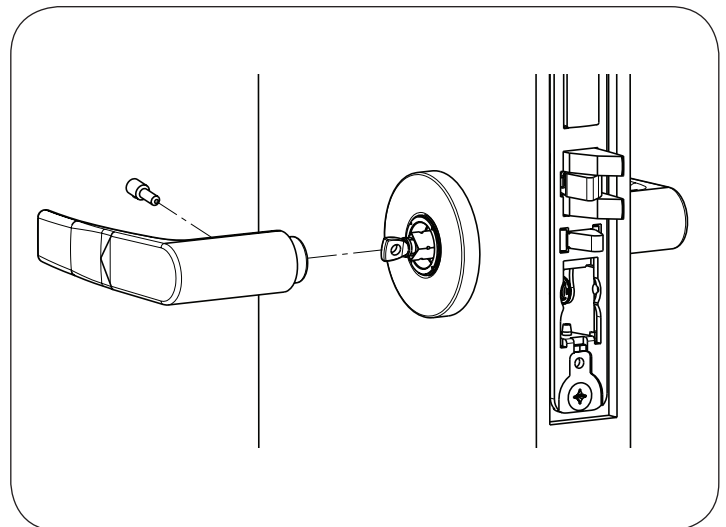


Adjustment bolt fully aligned.

Step 6

Notes:

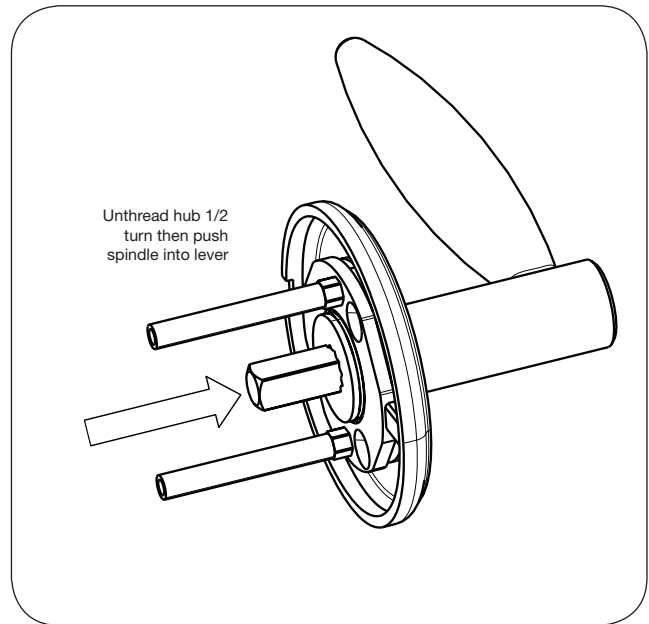
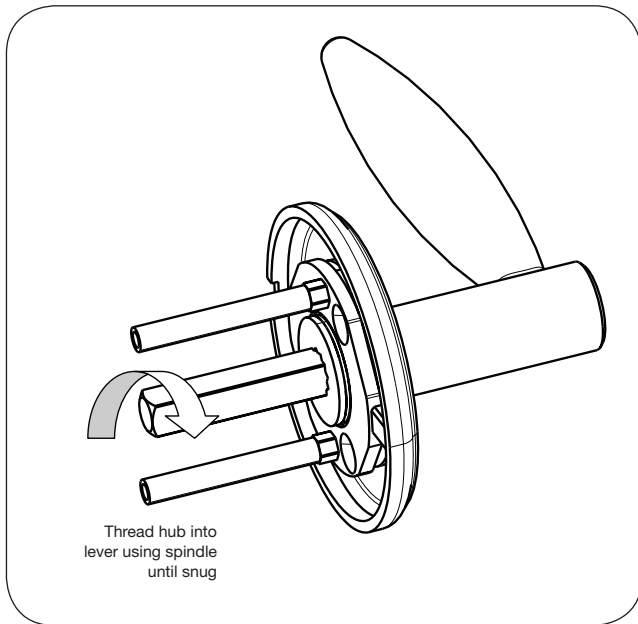
- Unthread Adjustment Bolt approximately four turns for a good starting point (After being fully tightened)
- Make sure O/S lever is fully inserted into adapter plate before aligning adjustment bolt.



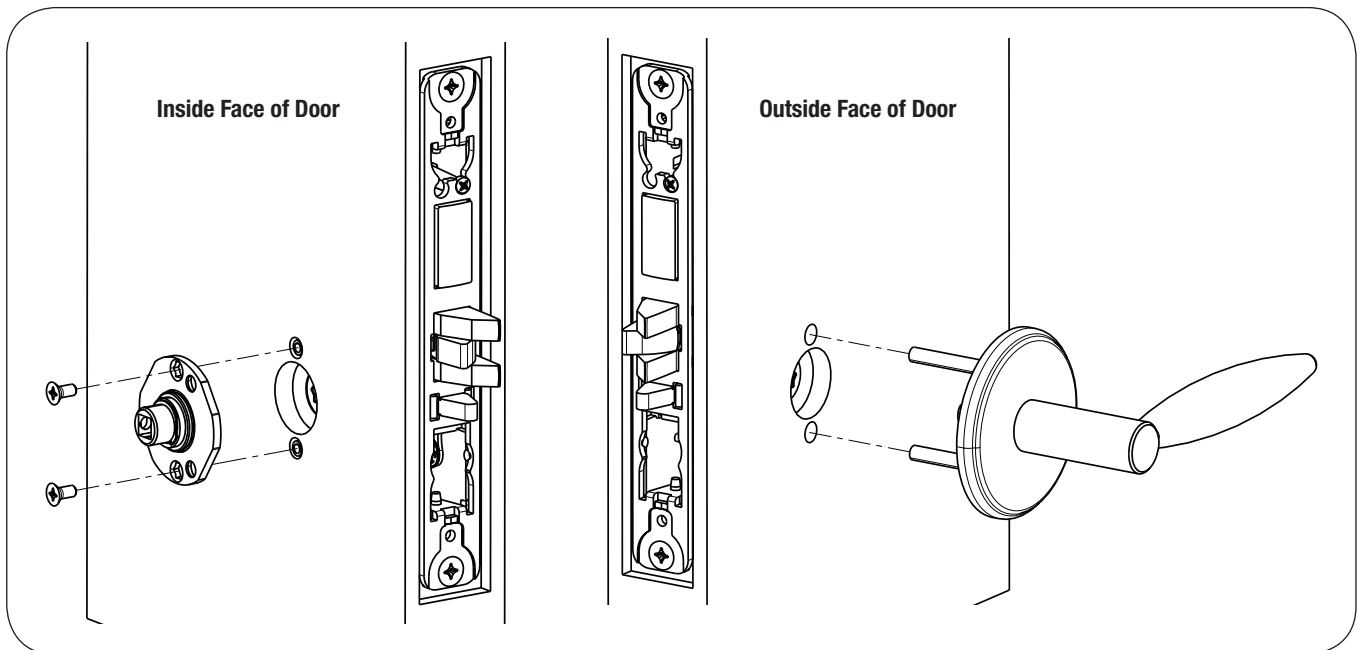
7) Installation Instructions (Continued)

10b. Install Muséo Trim:

Step 1



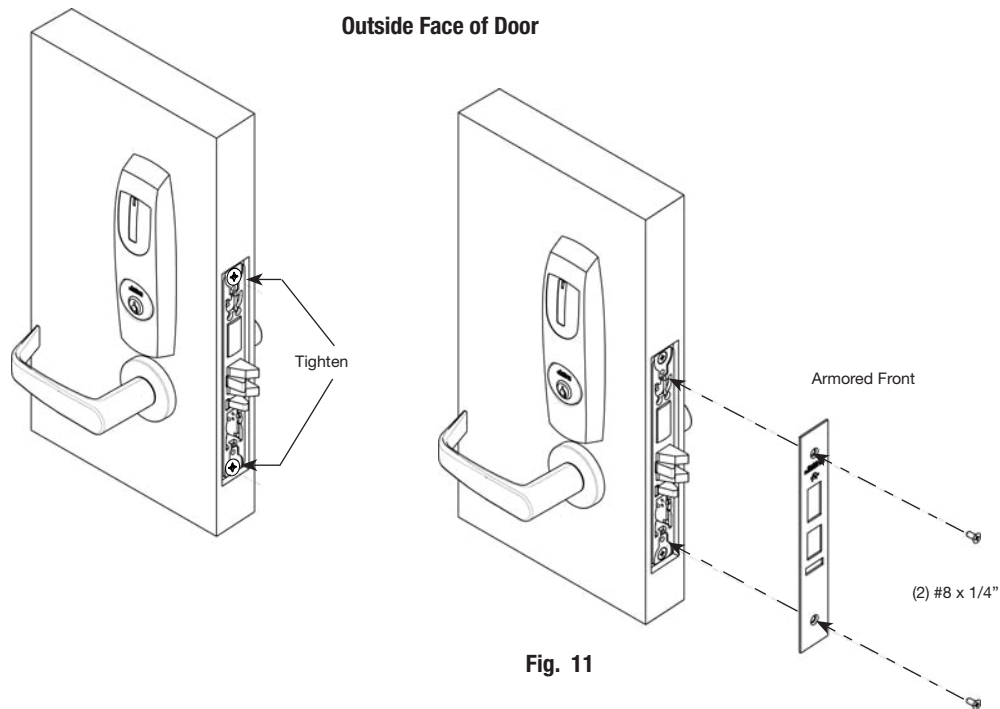
Step 2



7) Installation Instructions (Continued)

11. Install Armored Front:

- a. Tighten (2) screws through lock body.
- b. Attach armored front with two #8 x 1/4" screws (Fig. 11).



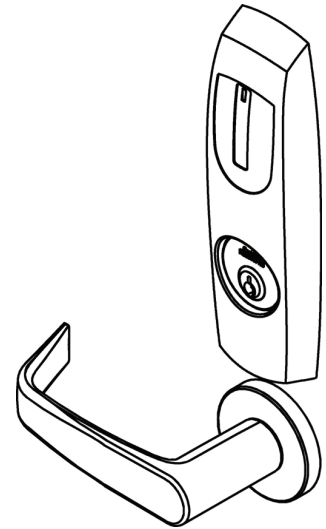
8) Operational Check

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. When the deadbolt is thrown: Ensure that the key retracts both the deadbolt and the latch.
- d. Inside lever: When used, ensure it retracts both the latch and deadbolt (if provided).
- e. Close door: Ensure latch and deadbolt fully extend and do not bind.

Note: Once electrical wiring has been successfully completed according to proper application, perform the following:

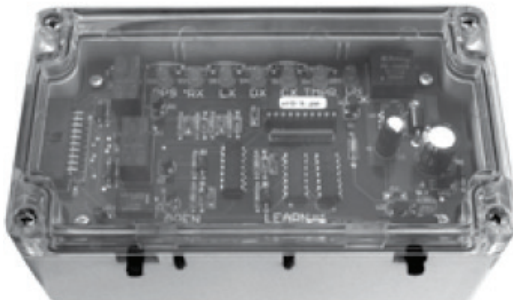
- a. Turn power ON.
- b. Verify LED located on reader is ON (Red or Green depending on reader configuration (See reader LED Configuration)).
- c. Present proximity credential and verify LED and sounder activity.
- d. Verify valid card read at EAC Panel.
- e. Verify system operation functions; i.e., when prox credential is presented to reader that the door unlocks.



Wiegand Test Unit

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.



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



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ASSA ABLOY is the global
leader in door opening solutions,
dedicated to satisfying
end-user needs for security,
safety and convenience