



Excellence in Compliance Testing

---

## **Certification Exhibit**

**FCC ID: U4A-SCYICLS2  
IC: 6982A-SCYICLS2**

**FCC Rule Part: 15.225  
IC Radio Standards Specification: RSS-210**

**ACS Report Number: 11-0071.W06.11.A**

**Manufacturer: Assa Abloy, Inc.  
Model: TCP/IP-M819/M820, TCPWI-M819/M820**

## **Manual**

**Access 700™** TCPWI1/TCPIP1  
**Installation Instructions**  
**ML20700 TCPWI1 & TCPIP1 Series**  
**Mortise Lockset**

**Corbin  
Russwin**

**ASSA ABLOY**

FM324 04/11

**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)

## Table of Contents

<b>1) Warning.....</b>	<b>2</b>
<b>2) General Description.....</b>	<b>3</b>
<b>3) Specifications / Features .....</b>	<b>3</b>
<b>4) Product Illustration .....</b>	<b>4</b>
<b>5) Installation Instructions.....</b>	<b>5</b>
<b>6) TCPIP (PoE) Wiring Instructions.....</b>	<b>19</b>
<b>7) Operational Check.....</b>	<b>22</b>

### 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.

TCPIW1 FCC 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 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 radio/TV technician for help.

Statement: 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.

TCPIP1 FCC NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Industry Canada: The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

This Class A 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 A 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.

## 2) General Description

Designed specifically for the campus market, the Corbin Russwin Access 700 series mortise Locks are available in WiFi (PWI) and PoE (PIP) configurations. Coupled with third party software the PWI and PIP offers a complete, integrated access control system. The Access 700 may be used for both indoor and outdoor applications (weather-protective gasket supplied).

HID and iCLASS are registered trademarks of HID Global Corporation.

## 3) Specifications / Features

### Hardware Specifications

- Latch – Stainless Steel (Easily field reversible without disassembling lockbody)
- Deadbolt – Stainless Steel
- 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 keypad, magnetic swipe, iCLASS reader, or mechanical key.
- Inside lever retracts latch
- BHMA Grade 1; UL Fire Listed
- Outside lever for iCLASS controlled by HID iCLASS credential or other 13.56 MHz credential (such as CSN, Chip Serial Number, read only supported, including MiFare, DesFire, and FeliCa).

### Electrical Specifications:

- 2400 users per lock; 10,000 event audit trail
- Multiple time zone and holiday access scheduling
- First-In unlock configuration, either by time or by valid time or by user (selectable)
- Use existing magstripe ID cards (high or low coercivity)
- Card Coercivity: HiCo (400 Oersted) or LoCo (300 Oersted)
- Supports 13.56 MHz iCLASS credentials (26-39 bit); supports CSN reads for other common 13.56 MHz including MiFare, DesFire, and FeliCa.

#### TCPWI - Wireless

WiFi 802.11 b/g

DC9V, 1.5A (6 AA Alkaline Batteries or Electrical Power)

#### TCPIP - PoE

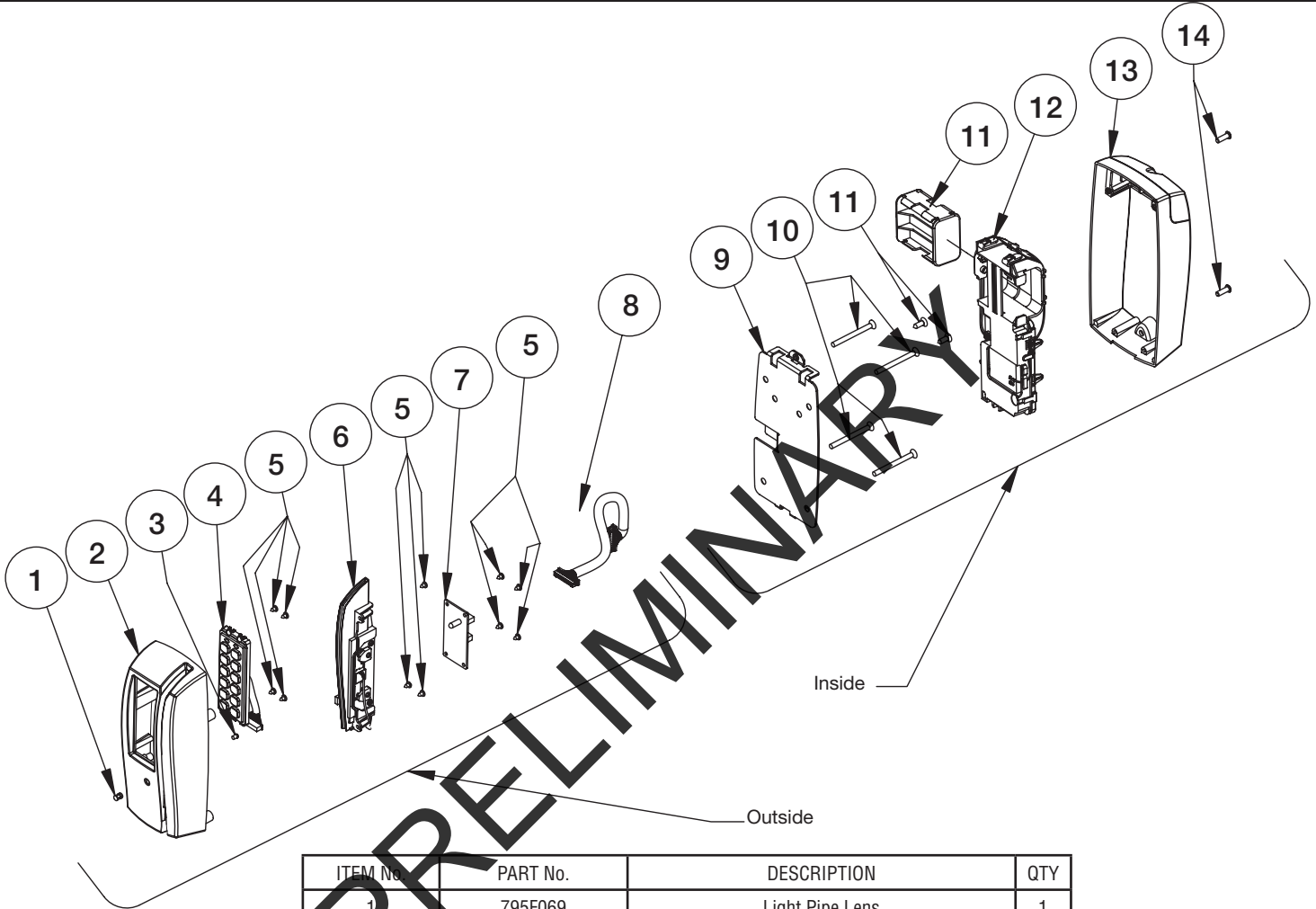
Class 1 Device, as defined by IEEE 802.3af, requires up to 4 watts over structured cabling



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

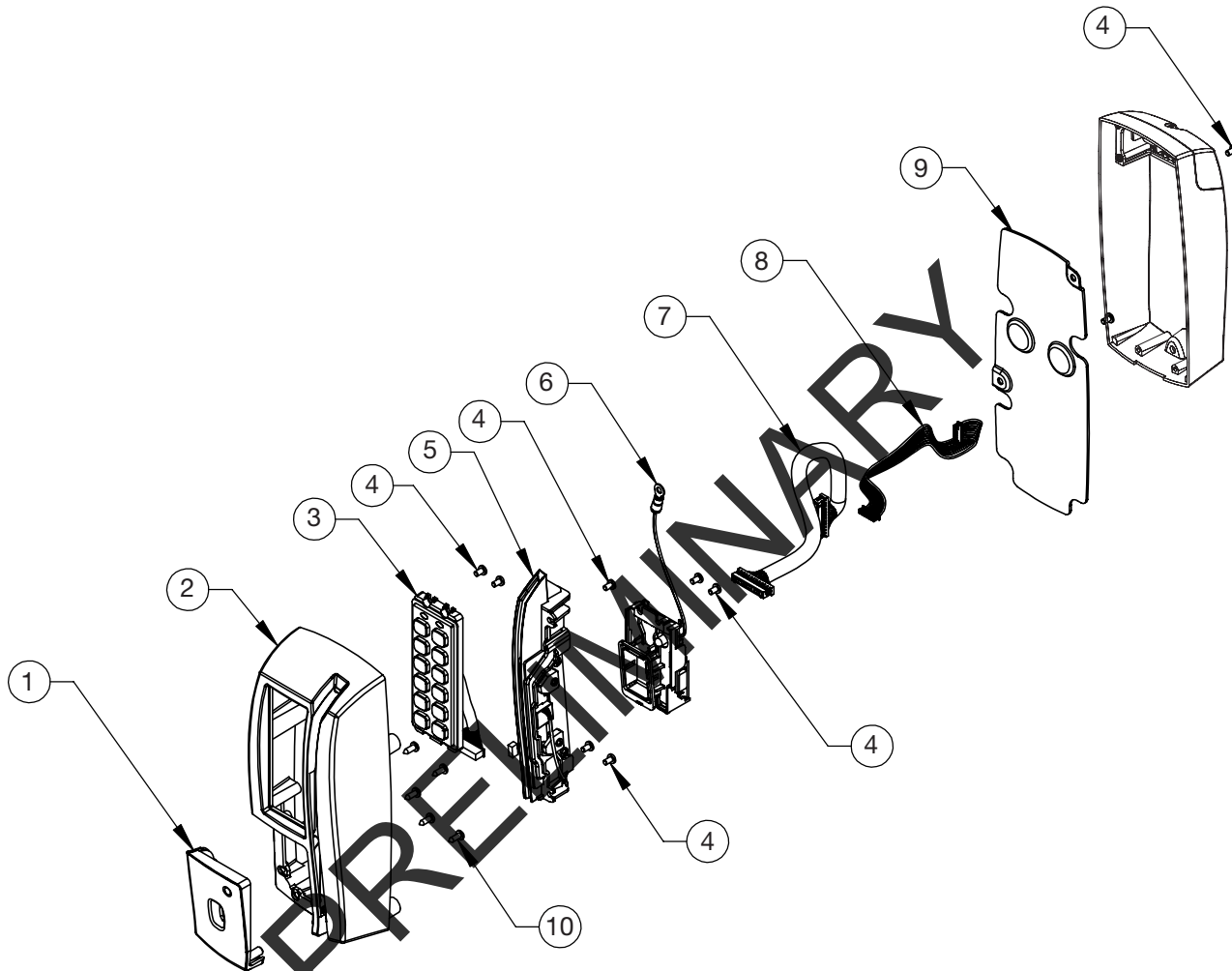
Observe precautions for handling electrostatic sensitive devices.

## 4) Product Illustration- PoE Lock with Magnetic Card Swipe, 125 kHz Prox and Keypad



ITEM No.	PART No.	DESCRIPTION	QTY
1	795F069	Light Pipe Lens	1
2	795F145 FIN	Escutcheon, O/S, PWI With Keypad	1
2	795F135 FIN	Escutcheon, O/S, PWI Without Keypad	1
3	795F059	Light Pipe	1
4	795F039	Keypad Assy	1
5	795F318	Screw #4-40x1/4	11
6	795F849	Swipe Reader	1
7	795F859	Online Interface PCB	1
8	795F079	Online Harness	1
9	795F088	Mounting Plate	1
10	323F818	Screw, #8-32 x 2	4
11	743F768	Screw, #8 x 3/8	2
12	795F839	Electronics, Access 700PWI	1
	795F829	Electronics, Access 700PIP	1
13	795F105 FIN	Escutcheon, I/S	1
14	795F197	Screw, #8-32 x 1/2" Torx-Pin	2

## 4) Product Illustration- Magnetic Card Swipe With 13.56 MHz iCLASS and Keypad (M820)

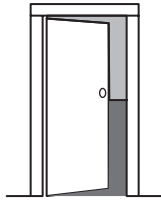


ITEM No.	PART No.	DESCRIPTION
1	741F579	Outside Mask Assembly
2	741F555 x FIN	Outside Escutcheon - iCLASS
3	795F039	Slim Style Keypad Assembly
4	795F318	#4-40 x 3/16" Machine Screw
5	741F599	Swipe Reader Assembly
6	741F549	iCLASS Module Assembly
7	795F079	Harness Assembly
8	741F589	iCLASS Harness
9	741F568	Back Plate
10	795F328	#4-32 x 5/16" Plastite Screw

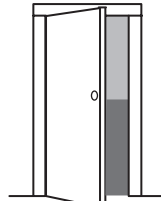
## 5) Installation Instructions

1. Verify Hand and Bevel of door:

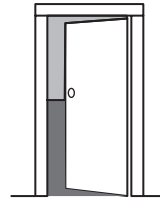
Illustrations shown are as viewed from the outside or secure side of opening.



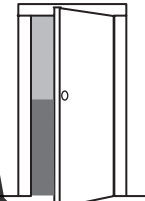
Left Hand  
Hinges Left.  
Open Inward.  
"LH"



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

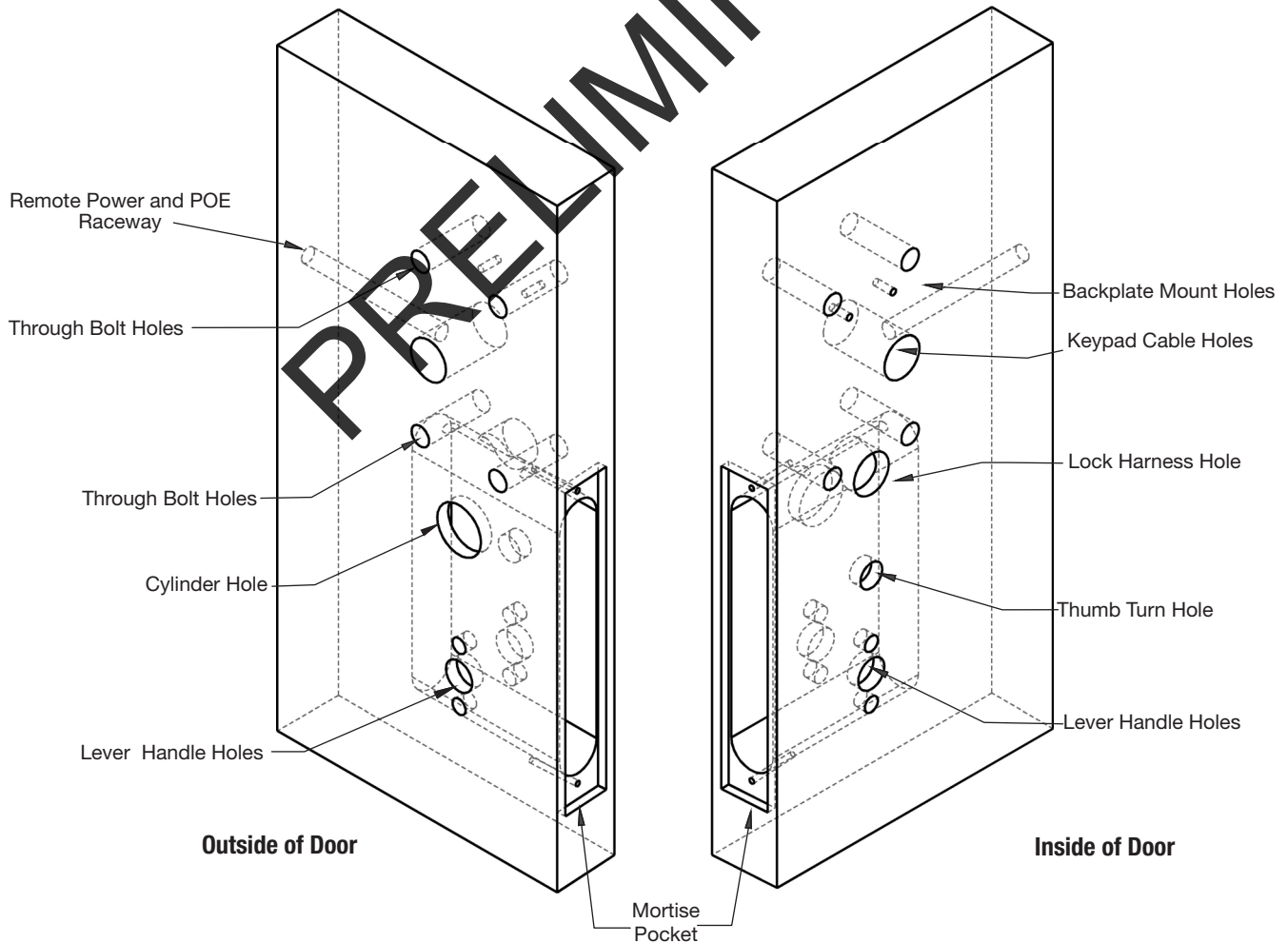


Right Hand  
Hinges Right.  
Open Inward.  
"RH"



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

2. Prep door according to door template T31167 : visit [www.corbinrusswin.com](http://www.corbinrusswin.com).





## 5) Installation Instructions (Continued)

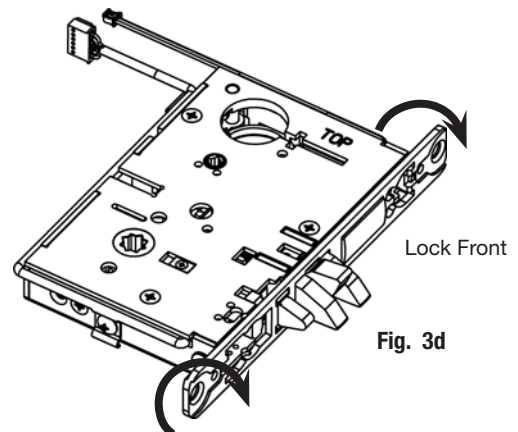
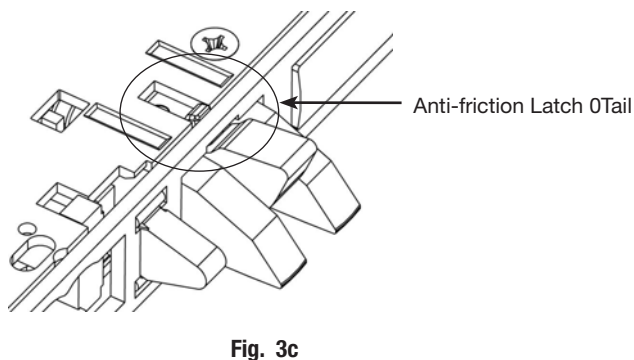
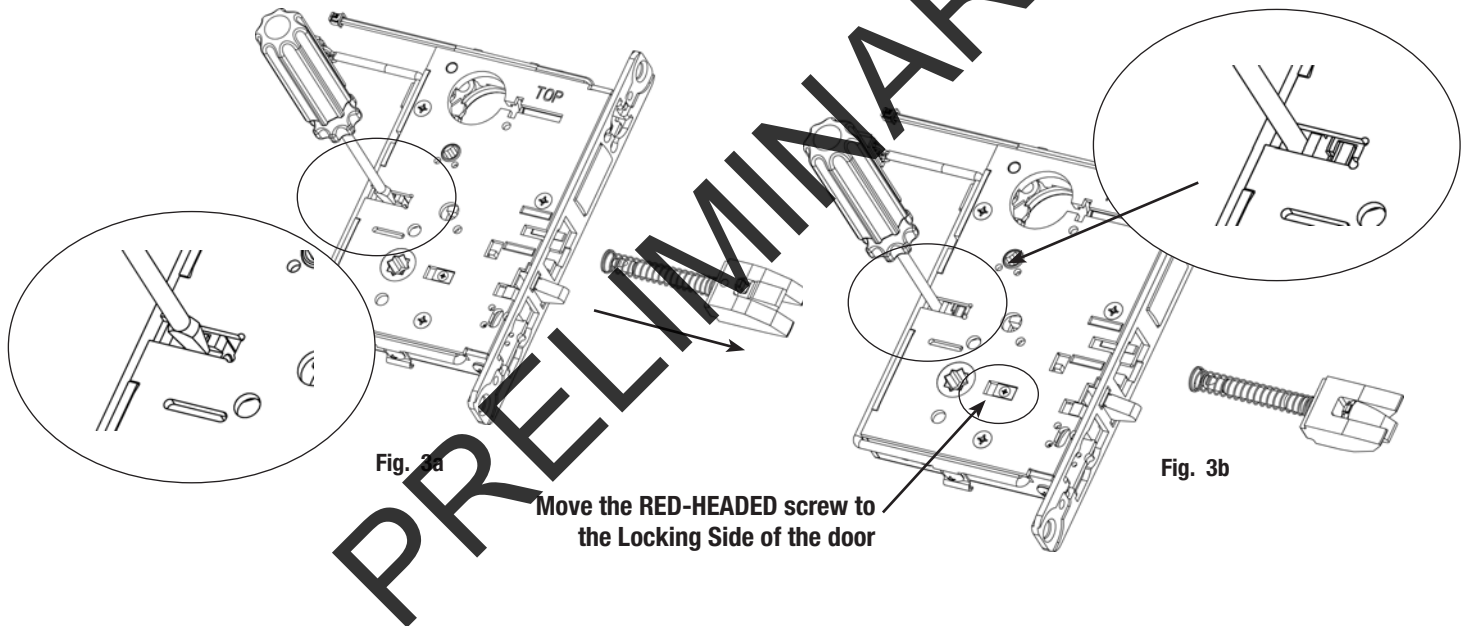
### 3. Handing of Lock Body:

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

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

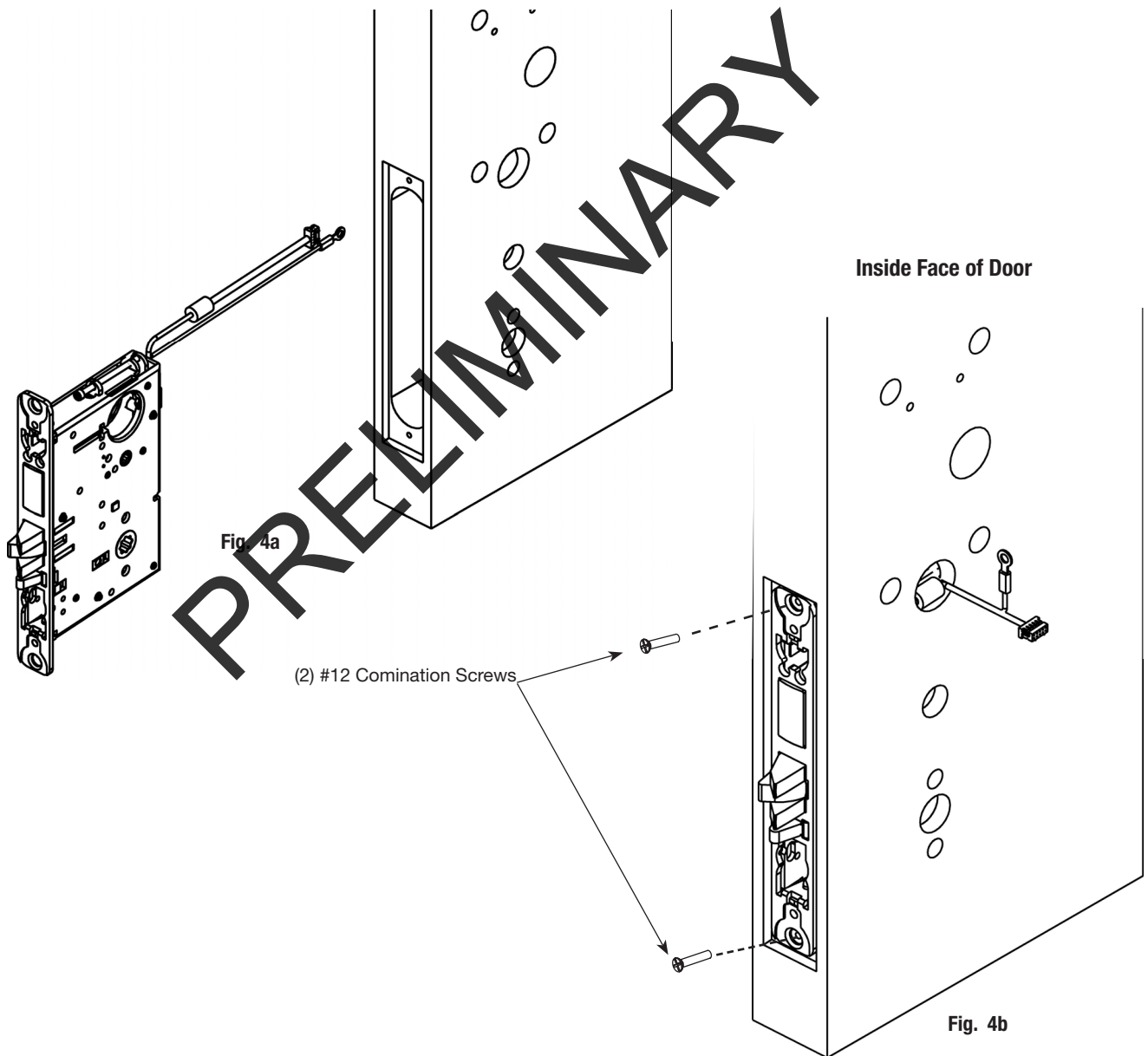
- e. Rotate lock front to match bevel of door by inserting screwdriver into lock mounting holes and twisting (Fig. 3d).





## 5) Installation Instructions (Continued)

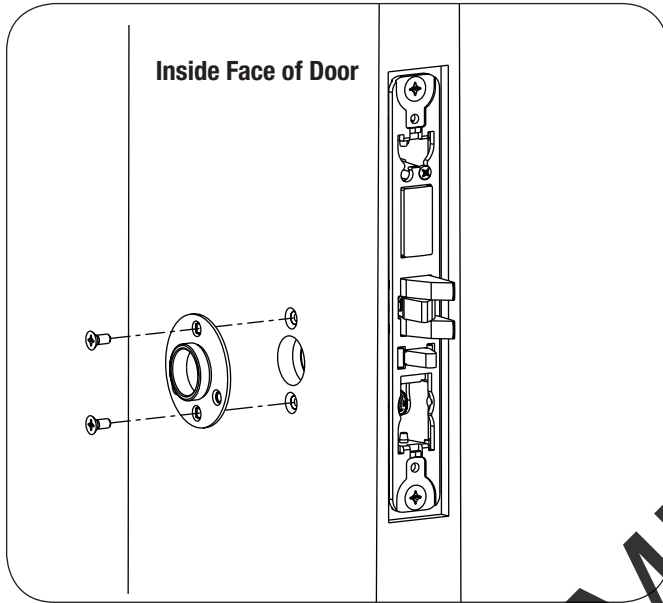
4. Install Lock Body into Door:
  - a. Feed wires through hole on INSIDE of door while installing lock body (Fig. 4a).
  - b. Pull wires through hole while inserting lockbody (Fig. 4b).  
DO NOT push wires back into cylinder hole.  
**IMPORTANT:** Door must remain open during installation. Use door stop.
  - c. Install, but do not tighten two #12 x 1" combination screws through lock body (Fig. 4b).



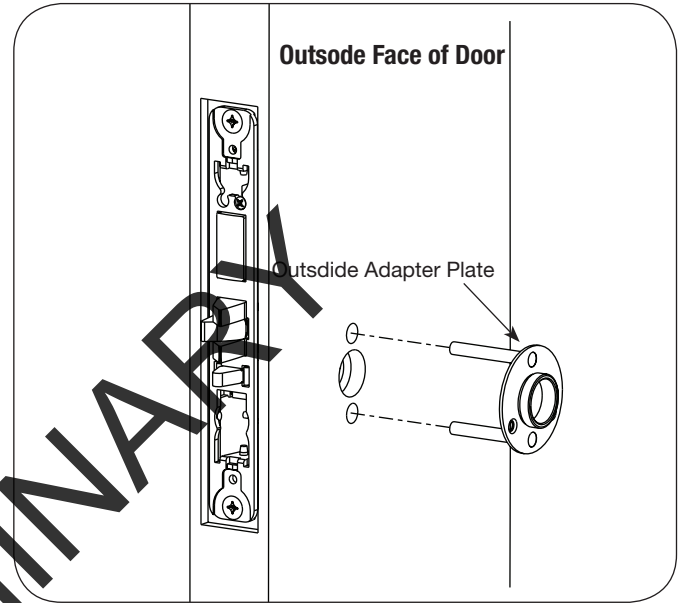
## 5) Installation Instructions (Continued)

5. Install Standard Lever Trim Instructions:

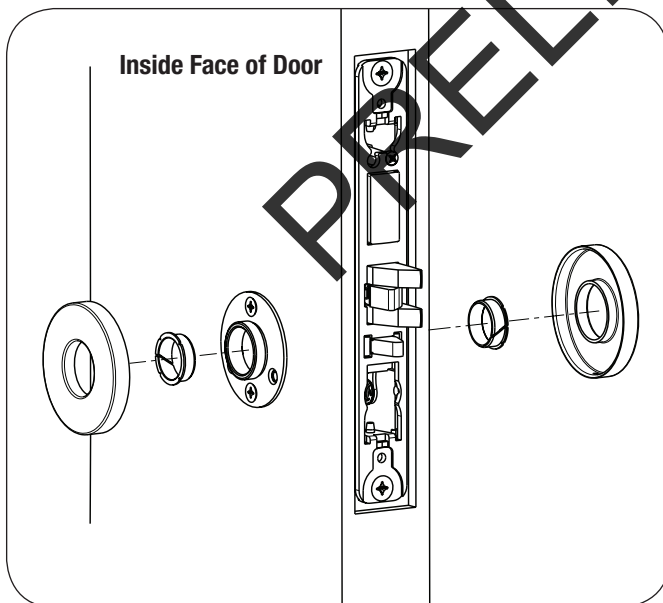
Step 1a



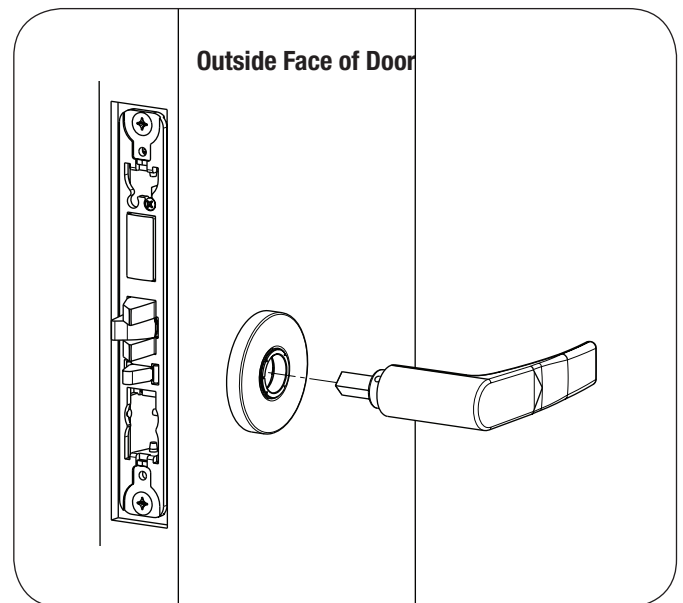
Step 1b



Step 2



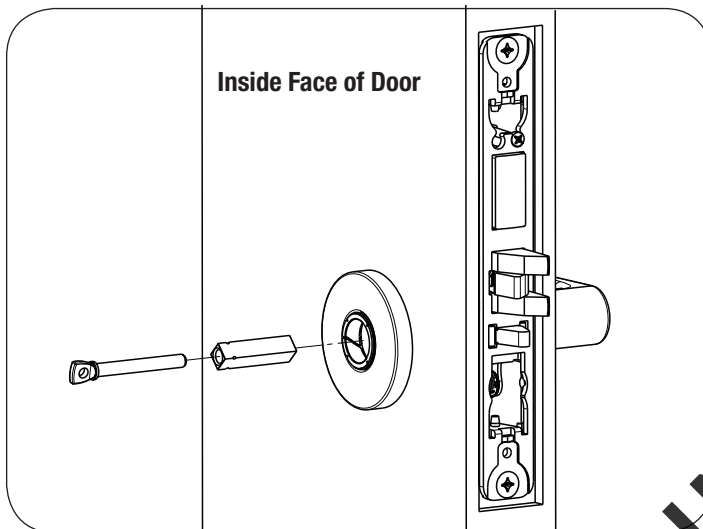
Step 3



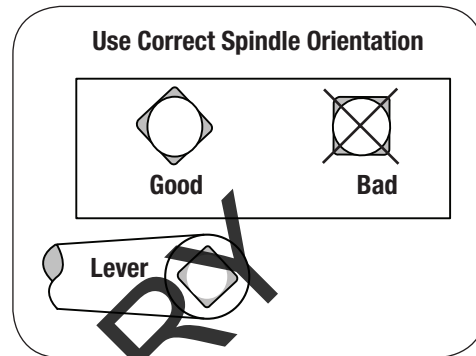
## 5) Installation Instructions (Continued)

5. Install Standard Lever Trim Instructions (continued):

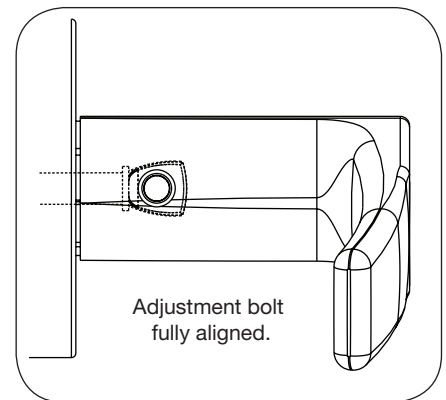
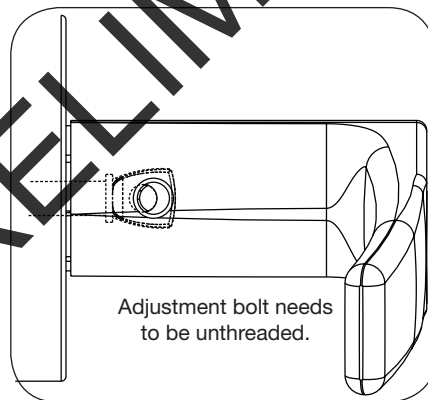
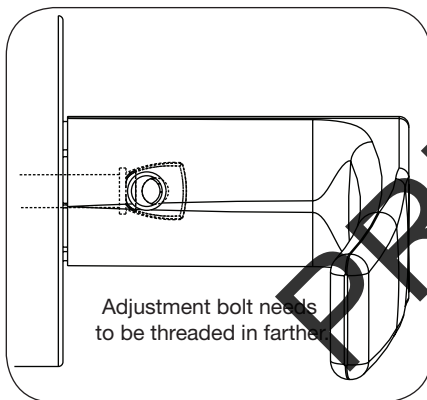
### Step 4A



### Step 4B



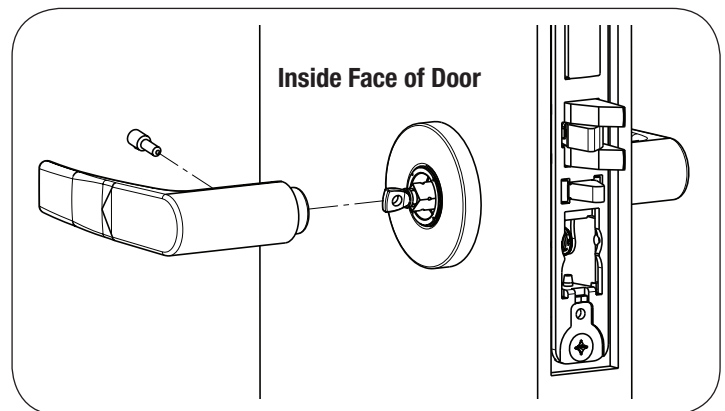
### Step 5 - Align adjustment bolt with threaded hole in lever



### Step 6

**Notes:**

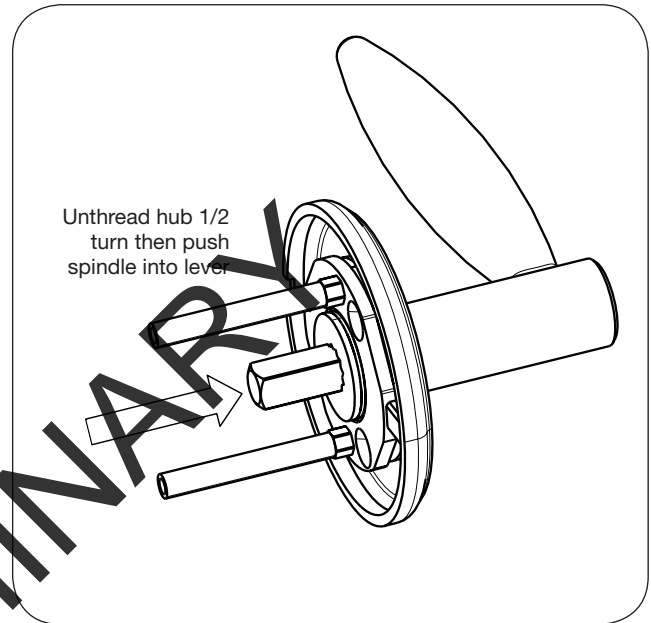
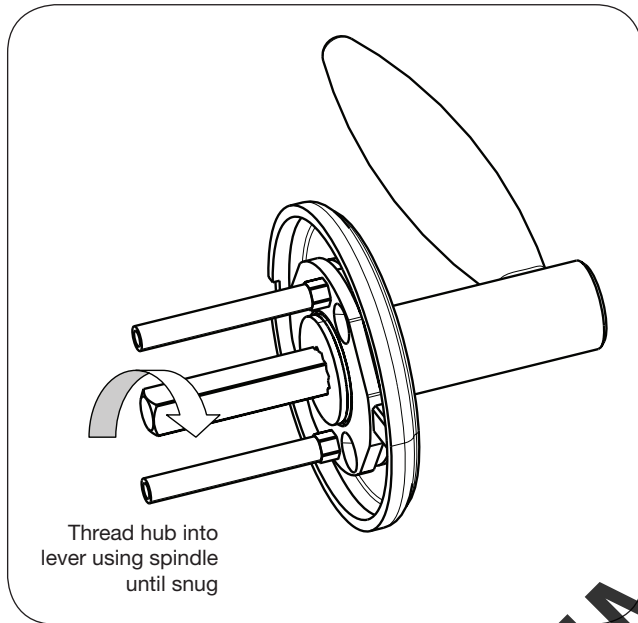
- Unthread Adjustment Bolt approximately four turns for a good starting point (After being fully tightened)
- Make sure O/S lever is fully inserted into adapter plate before aligning adjustment bolt.



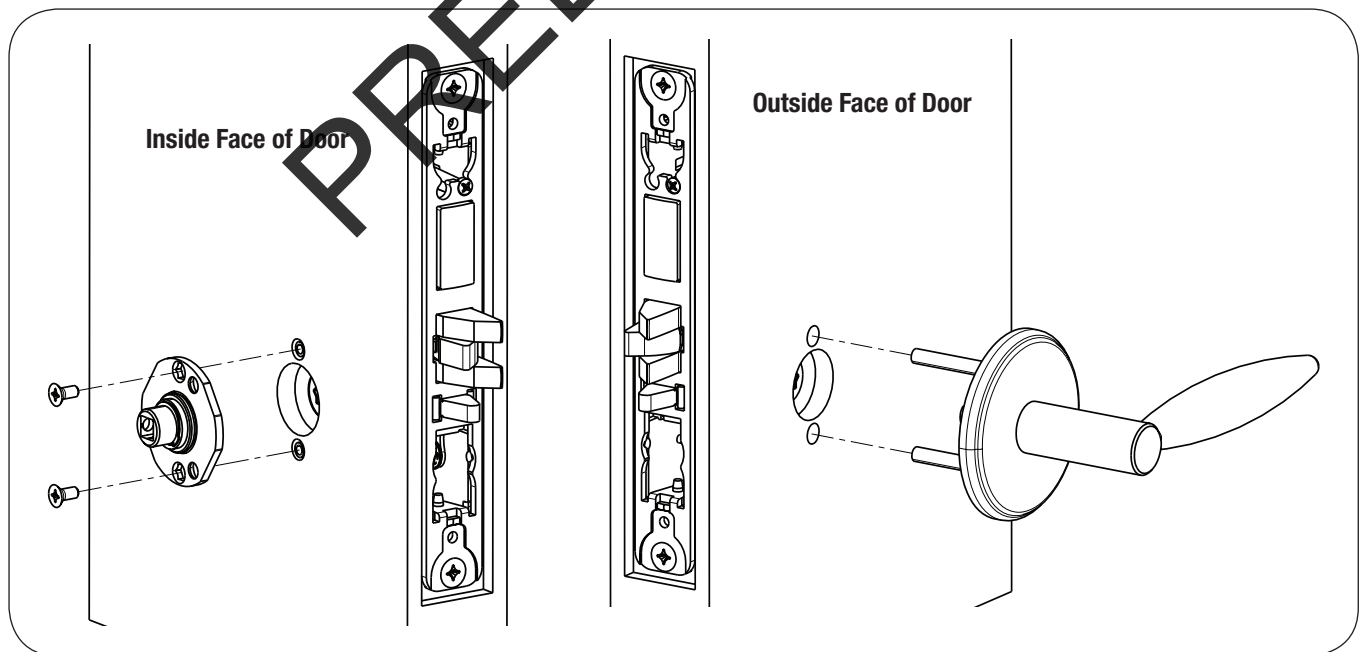
## 5) Installation Instructions (Continued)

6. Install **MUSÉO™** Lever Trim:

### Step 1



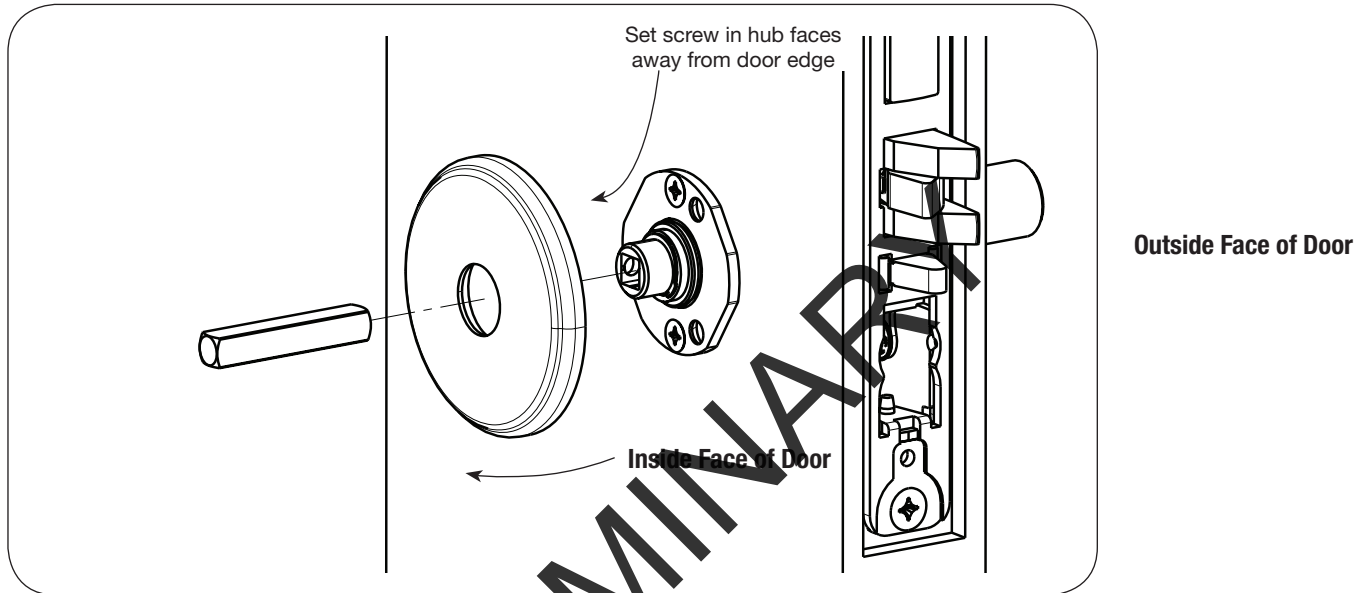
### Step 2



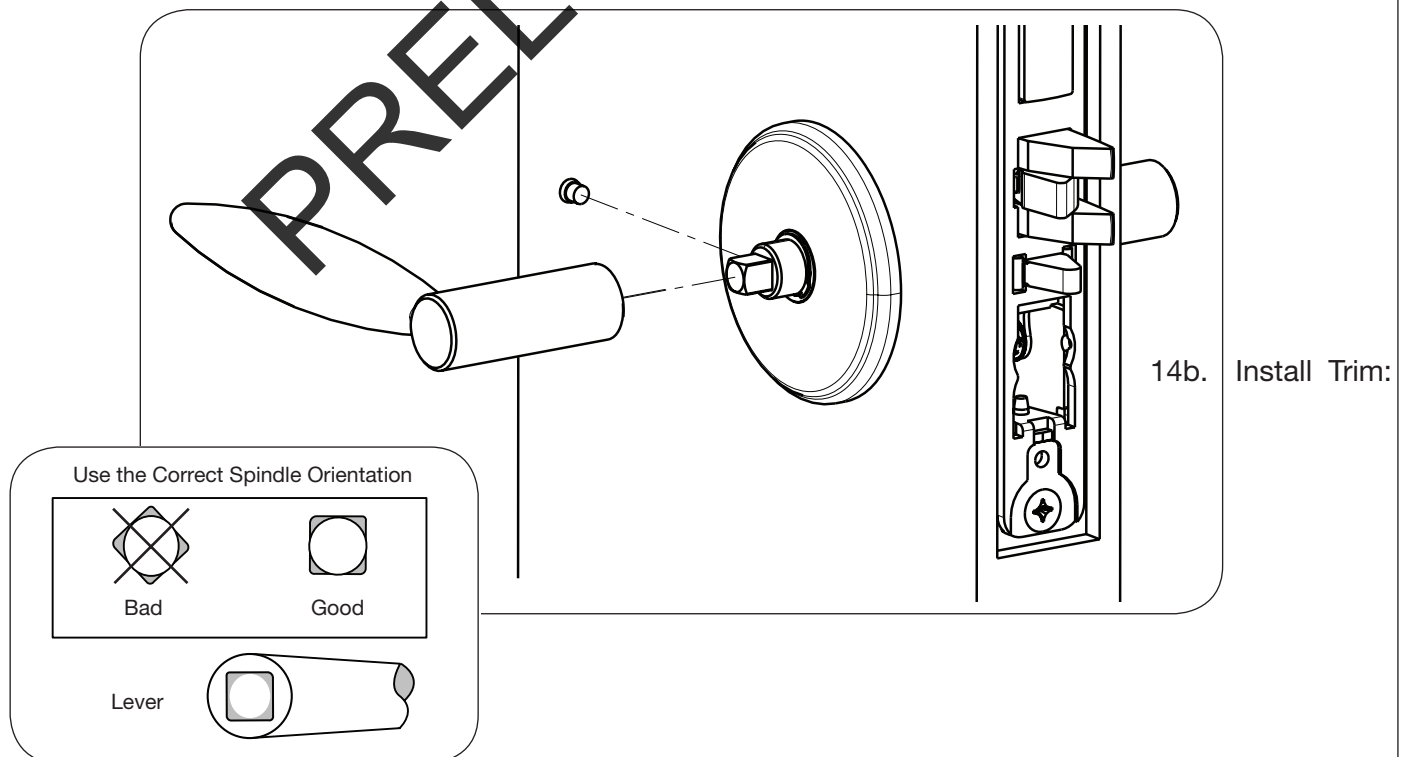
## 5) Installation Instructions (Continued)

6. Install **MUSÉO™** Trim (continued):

### Step 3



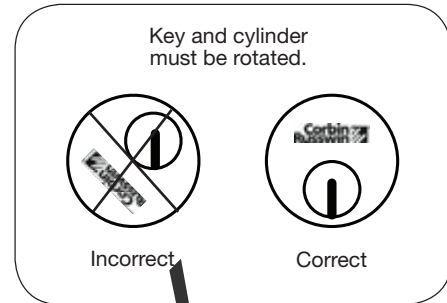
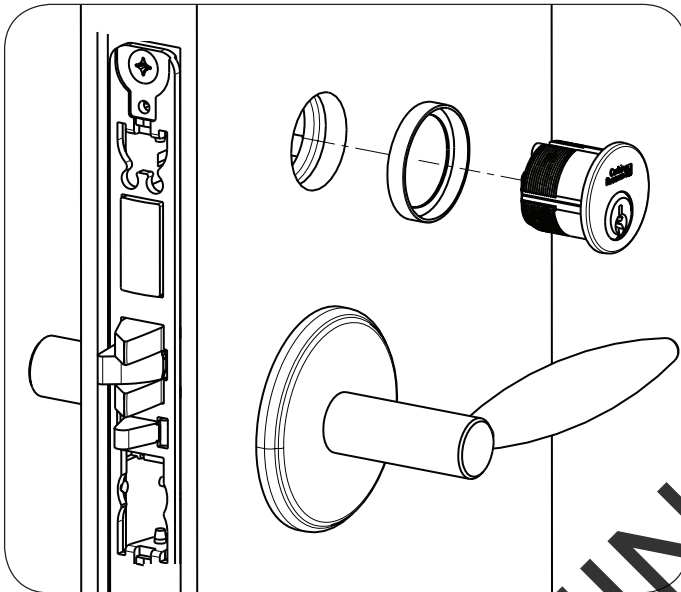
### Step 4



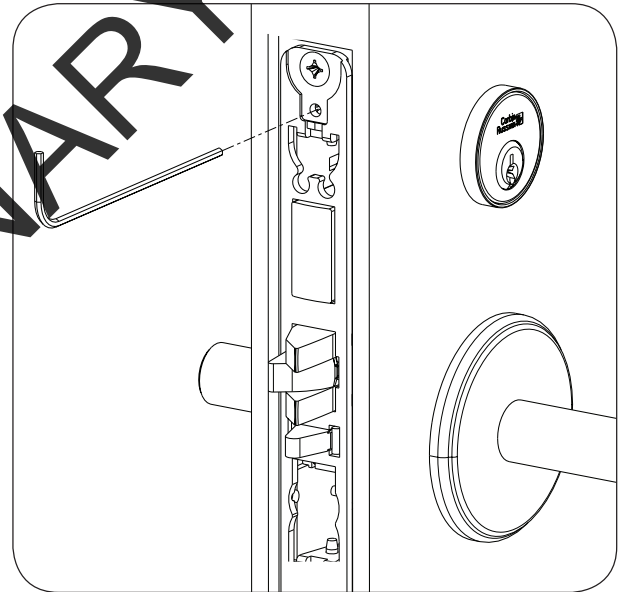
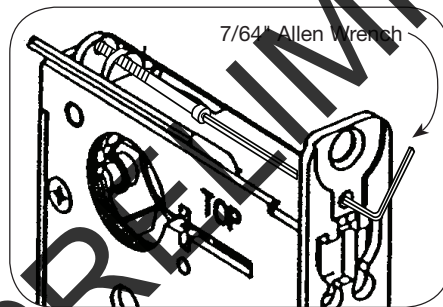
## 5) Installation Instructions (Continued)

### 7. Install Cylinder and Scalp:

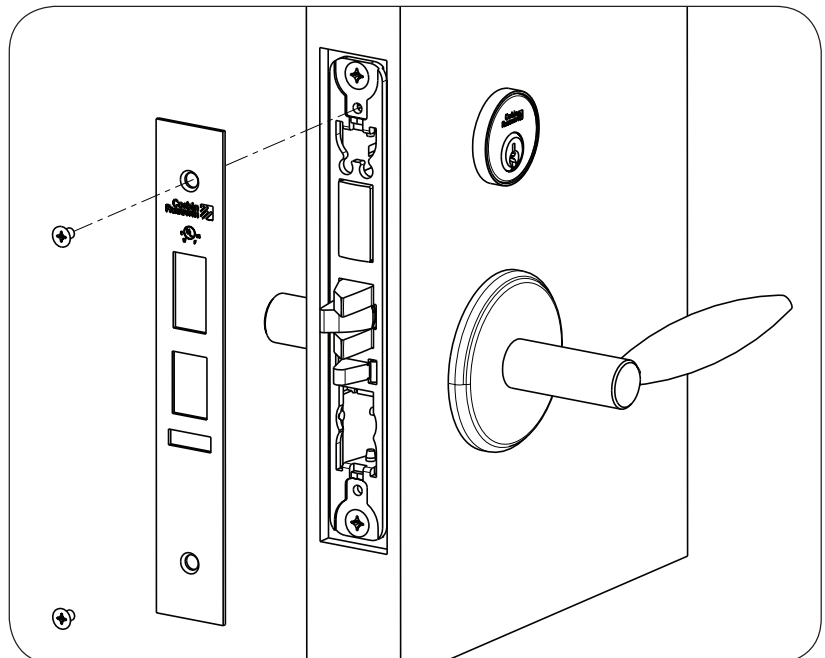
#### Step 1



#### Step 2



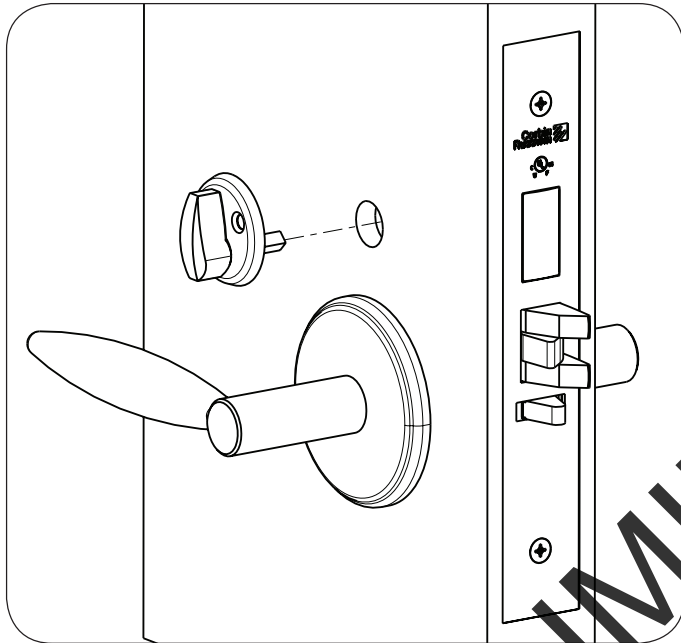
#### Step 3



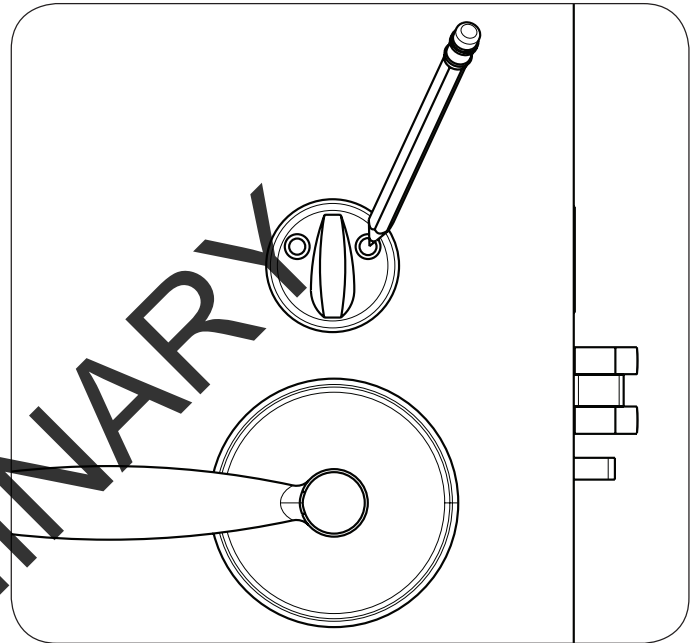
## 5) Installation Instructions (Continued)

8. Install Turn Piece:

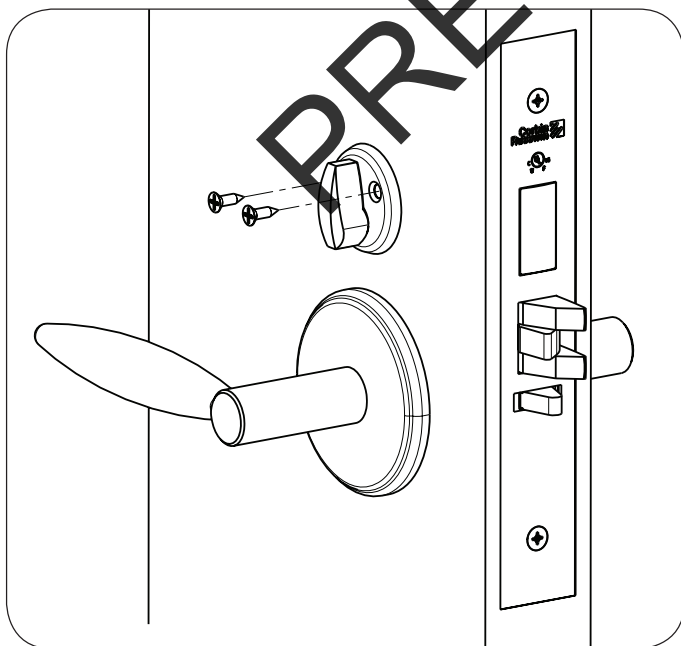
**Step 1**



**Step 2**



**Step 3**





# ML20700 PWI/PIP Series Mortise Lock

## 9. Install (optional) Weatherseal Gasket:

For non-fire rated door applications, an optional gasket may be used as a weatherseal between the escutcheon and the outside door surface.

Peel off the adhesive backing on the gasket and install the gasket along the edge of the outside escutcheon assembly (Fig. 9a).

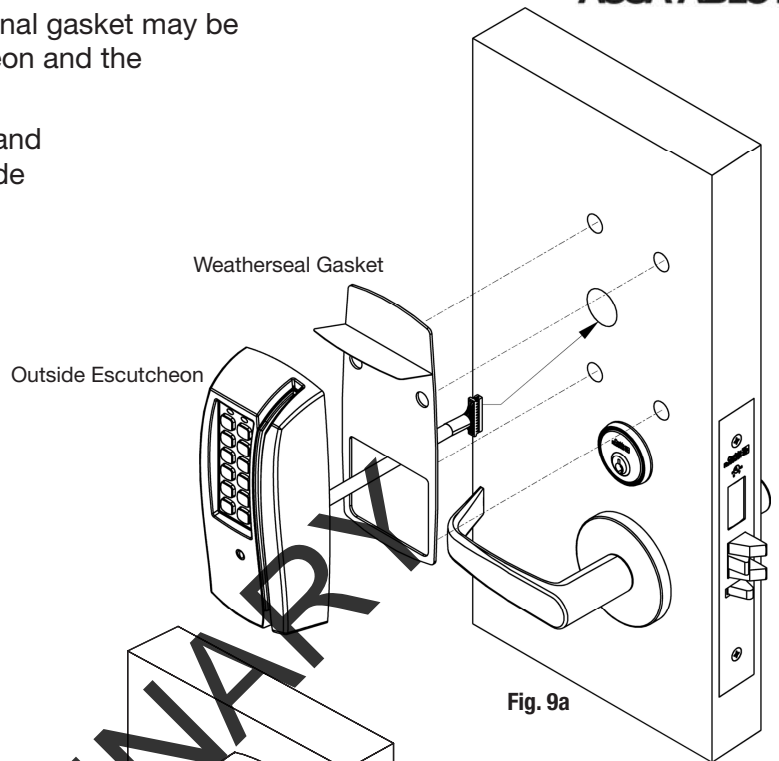
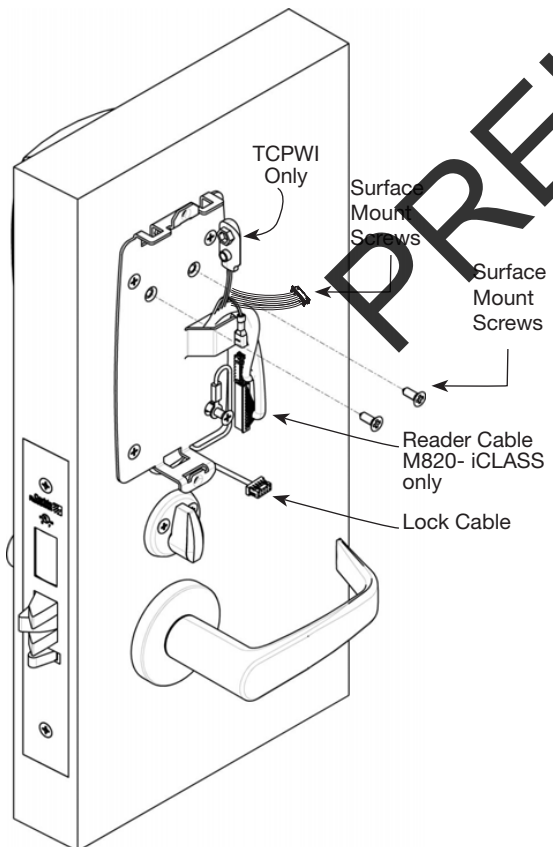


Fig. 9a

## 10. Install Inside Mounting Plate:

Install face plate using four #8-32 machine screws.

**IMPORTANT:** For fire rated doors, also use two #8 surface mount screws. Correctly position the lock body harness and ground wire.



Outside Face of Door

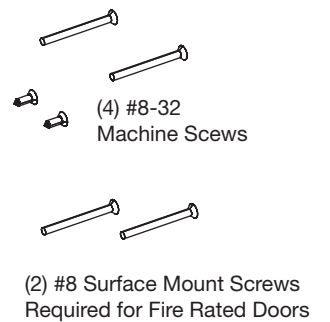
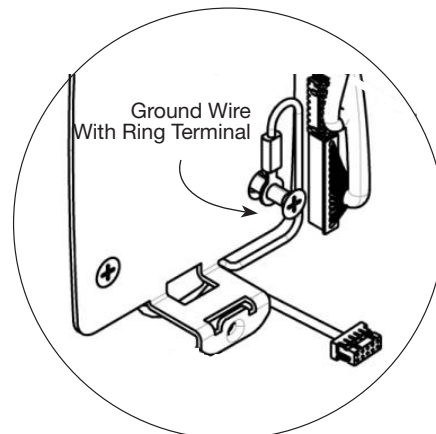


Fig. 10a



## 5) Installation Instructions (Continued)

### 12. Install Electronics Module:

- a. Insert the single tab on the electronics module into the single tab at the bottom of the mounting plate.
- b. Tilt the module upward and secure the top two tabs into the mounting plate (Fig. 12a).

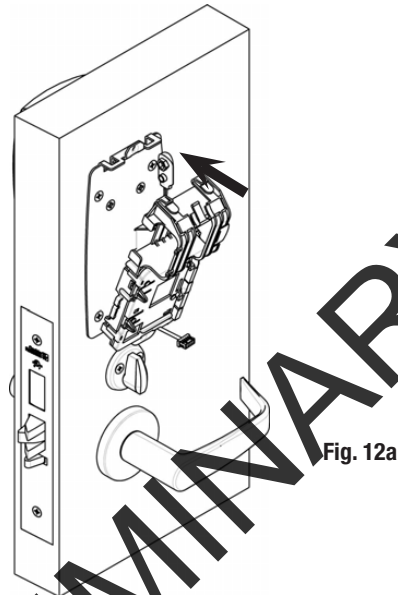


Fig. 12a

### 13. Attach PWI Connectors (For PIP skip to Step 15):

Secure the following connectors to the circuit board as shown (Fig. 13a and 13b Detail).

- a. Secure the mortise lock body assembly connector (10-pin).
- b. Secure the mortise keypad/card reader connector (24-pin).

Note: Connectors go on only one way. Do not force and do not offset connector. Be sure they are seated (completely flush).

- c. Secure the 9-pin reader cable (M820- iCLASS only).

**IMPORTANT:** Door must remain open during installation. Use door stop.

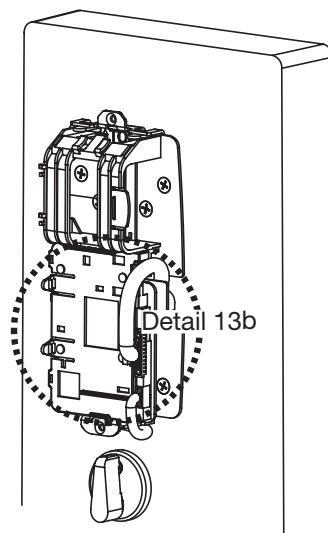


Fig. 13a

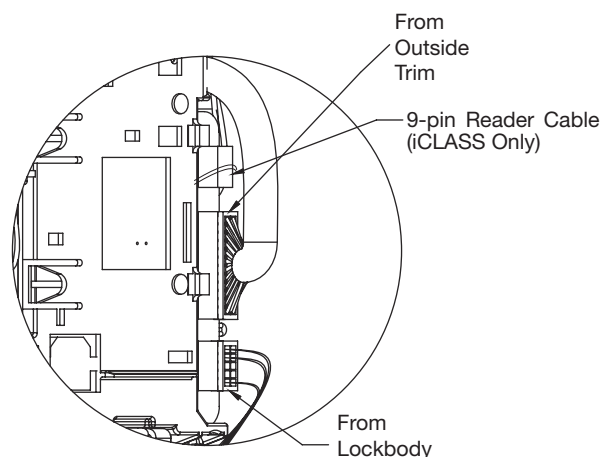
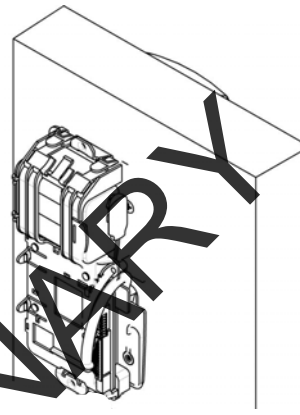
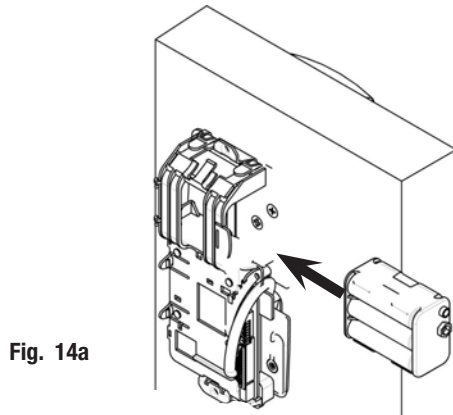


Fig. 13b Detail

## 5) Installation Instructions (Continued)

### 14. PWI Battery/ Battery Pack Installation (For PIP skip to Step 15):

- Place (6) "AA" batteries into the compartment being careful to align polarity (- & +) according to case markings (Fig. 13a).
- Insert battery pack and click into place, making sure polarity terminals on the battery pack are oriented upward (Fig. 13b).



### 15. Attach PIP Connectors:

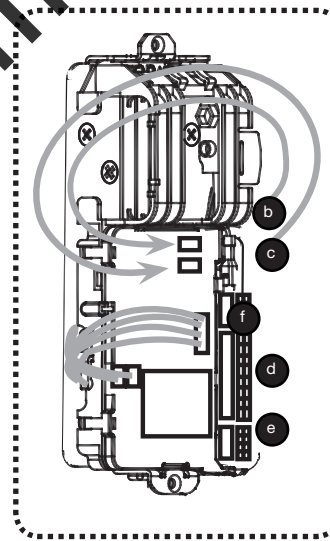
Secure the following connectors onto the circuit board (Fig. 15A and 15B):

- Secure the 10-pin lock body assembly connector (e).
- Secure the 24-pin keypad/card reader connector (d).
- Secure two 4-pin PoE connectors (b and c).
- Secure 9-pin reader cable (M820- iCLASS only).

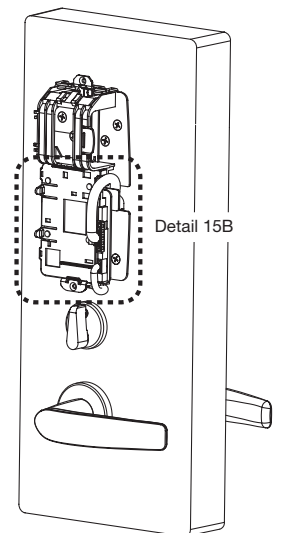
Route wires from behind backplate through battery compartment.

#### Notes:

- Connectors go on only one way.
- Do not force and do not offset connectors.
- Be sure they are completely seated (flush).

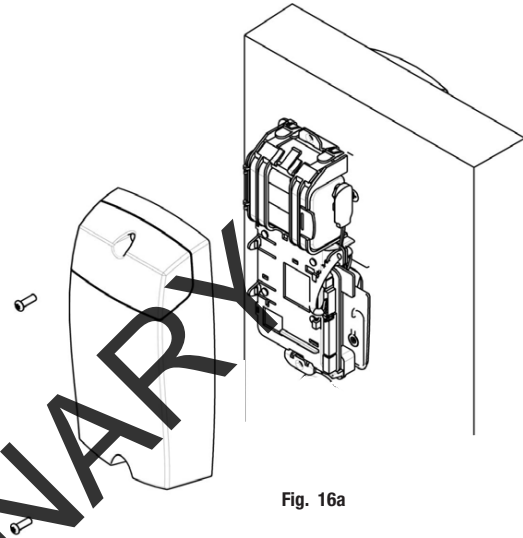


- b** & **c** } (2) 4-Pin PoE connectors
- d** } 24-pin from reader
- e** } 10-pin from lock body
- f** } 9-pin reader cable (iCLASS only)



## 5) Installation Instructions (Continued)

16. Install Inside Escutcheon:  
Install escutcheon using two #8-32 T20 Security Torx Screws.  
Be careful not to pinch wires under escutcheon.



## Important Note: Wiring Installation

If you are installing PIP (PoE) please go to Page 19 PIP Installation Wiring

If you are installing PWI please go to Page 21 Operational Check

**PRELIMINARY**

**Continue With Installation...**

## 6) PIP (PoE) Installation Wiring

### 17. PIP (PoE) Installation Wiring:

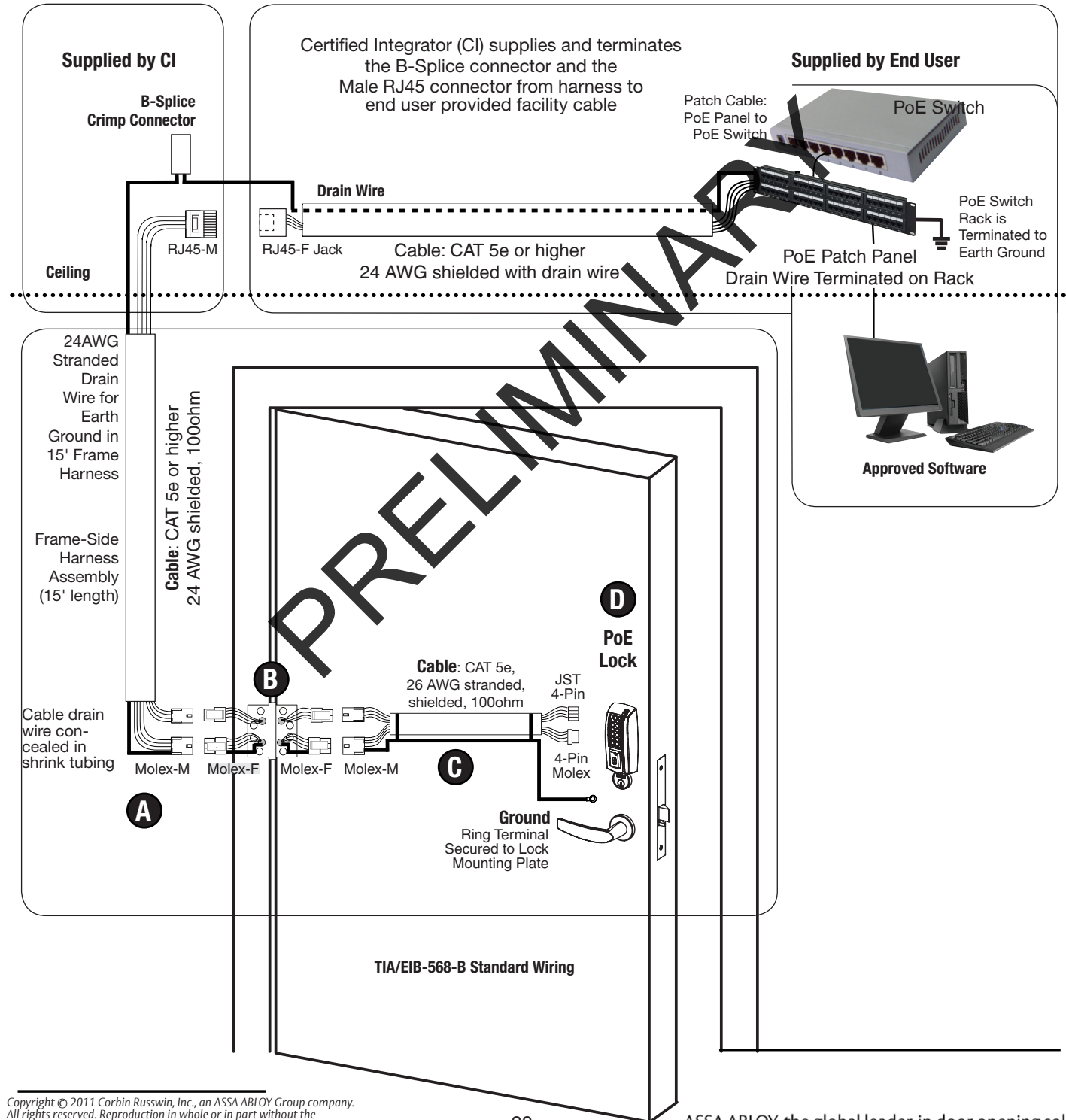
**A** PoE Frame harness assembly  
(From McKinney)

**B** PoE data hinge (Patent Pending)  
(From McKinney)

**C** PoE Door harness\*  
(From McKinney)

**D** Access 700 PIP (PoE Lock)

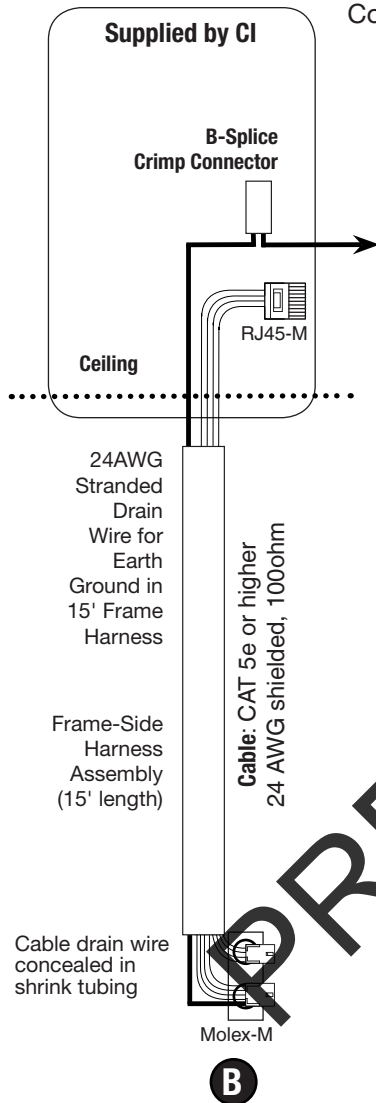
\* Order of installation may vary.  
Refer to appropriate sections for instructions.



## 6) PIP (PoE) Installation Wiring (Continued)

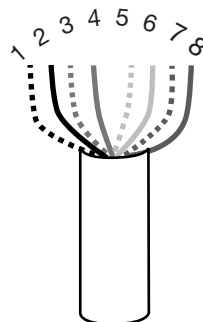
### A Frame Harness Installation

Components and wire harness supplied by McKinney: Suggested installation.



### Cut end / ceiling-side PoE harness:

TIA/EIB-568-B Standard Wiring



Pair Number	Wire	PIN
1	White/Blue	5
	Blue	4
2	White/Orange	1
	Orange	2
3	White/Green	3
	Green	6
4	White/Brown	7
	Brown	8

Do not confuse pair numbers with pin numbers. A pair number is used for reference only (eg: 10BaseT Ethernet uses pairs 2 & 3). The pin numbers indicate actual physical locations on the plug and jack.

### Hinge side of PoE harness:

1. Feed cut end of harness into hole on hinge-side through single access hole.
2. Push one of the connectors back through hole and feed into separate access hole.

Each of the hinge-side harness connectors should end up threaded through a different access hole and matched to the same size pin connector from the door harness:

- 4-pin male Molex connector.
- 6-pin male Molex connector with ground wire.

### Notes:

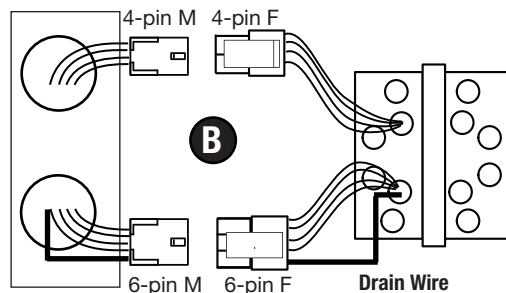
- Connectors only go on one way. They cannot be plugged to incorrect position.
- Do not force and do not offset connectors.
- Be sure they are completely seated (flush).

### Hinge-side harness connectors:

- 4-pin male molex connector
- 6-pin male molex connector with ground wire

### Lock-side harness connectors:

- Ring terminal
- (2) 4-pin connectors



Frame

PoE Hinge (Patent Pending)



## 6) PIP (PoE) Installation Wiring (Continued)

### C Hinge Installation

Order of installation may vary. Refer to appropriate sections for instructions.

Hinge-side harness connectors:

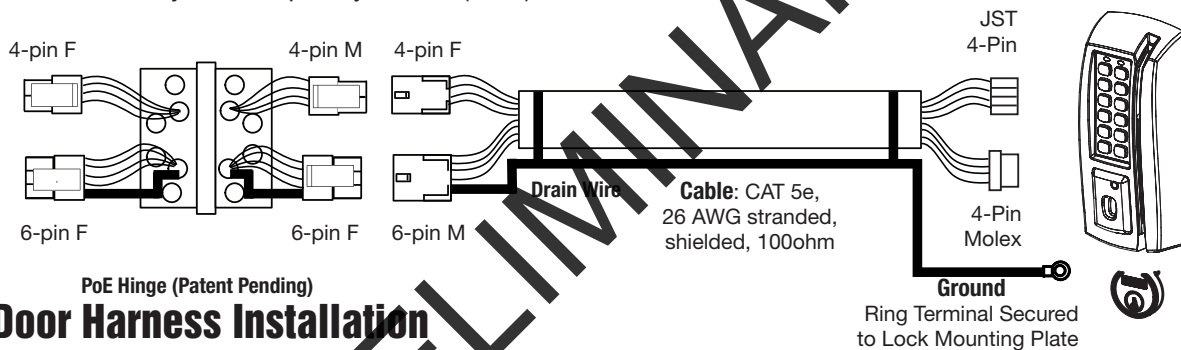
- 4-pin male Molex connector
- 6-pin male Molex connector with ground wire

Lock-side harness connectors:

- Ring terminal
- (2) 4-pin connectors:
  - 4-pin Molex connector
  - 4-pin connector

Notes:

- Connectors go on only one way. They cannot be plugged to incorrect position.
- Do not force and do not offset connectors.
- Be sure they are completely seated (flush).



PoE Hinge (Patent Pending)

### D Door Harness Installation

Order of installation may vary. Refer to appropriate sections for instructions.

1. Prop door open.
2. Tape the two lock-side 4-pin connectors to the ring terminal.
3. Using the ring terminal, carefully fish the assembly through the door channel to the lock.
4. Remove tape from ring terminal and door harness connectors.

Hinge-side harness connectors:

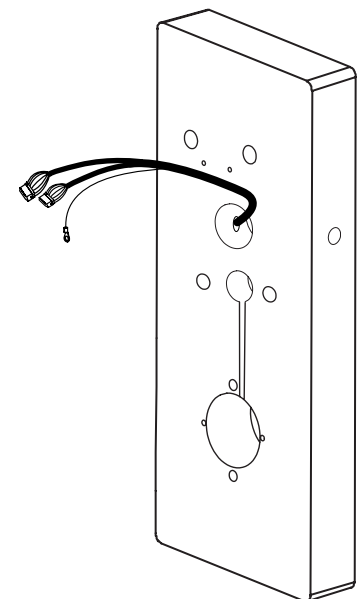
- 4-pin male Molex connector
- 6-pin male Molex connector with ground wire

Lock-side harness connectors:

- Ring terminal
- (2) 4-pin connectors:
  - 4-pin Molex connector
  - 4-pin connector

Notes:

- Connectors go on only one way. They cannot be plugged to incorrect position.
- Do not force and do not offset connectors.
- Be sure they are completely seated (flush).



## 7) Operational Check

**IMPORTANT:** Be sure to test functions prior to closing door.

In all cases, perform the following checks:

1. Ensure that inside lever retracts latch (and deadbolt for deadbolt functions).
  - For units with cylinders, the following checks apply:  
Insert key into cylinder and rotate
    - a. There should be no friction against lock case, wire harness, or any other obstructions. If friction or binding occurs, readjust cylinder and wiring harness to eliminate issues.
    - b. The key should retract the latch and the key should rotate freely.
    - c. The key should extend and retract the deadbolt.
  - For units without a keypad, add card using LCT software and test.
  - For units with a keypad, add pin and card using LCT software and test.
2. LED signalling:
  - After using a valid credential, a green flash followed by three fast amber flashes indicates a low power condition.  
Check the input voltage.  
If the input voltage is low, disconnect the lock from the power source and check the power source voltage. If the power source voltage is correct, inspect the lock wiring for a possible short.
  - If the lock loses power, it will flash rapid amber for approximately one minute.  
After that, the lock will no longer be functional.
3. When you have completed the tests, close the door to ensure latchbolt and deadbolt fully extend into strike plate without binding.

