

Access
600™



Mortise Lockset Installation Instructions
ML20600 TCRNE1 Series
M812 - iCLASS® Reader Option

**Corbin
Russwin**

ASSA ABLOY

FM312 6/09 (617419050)

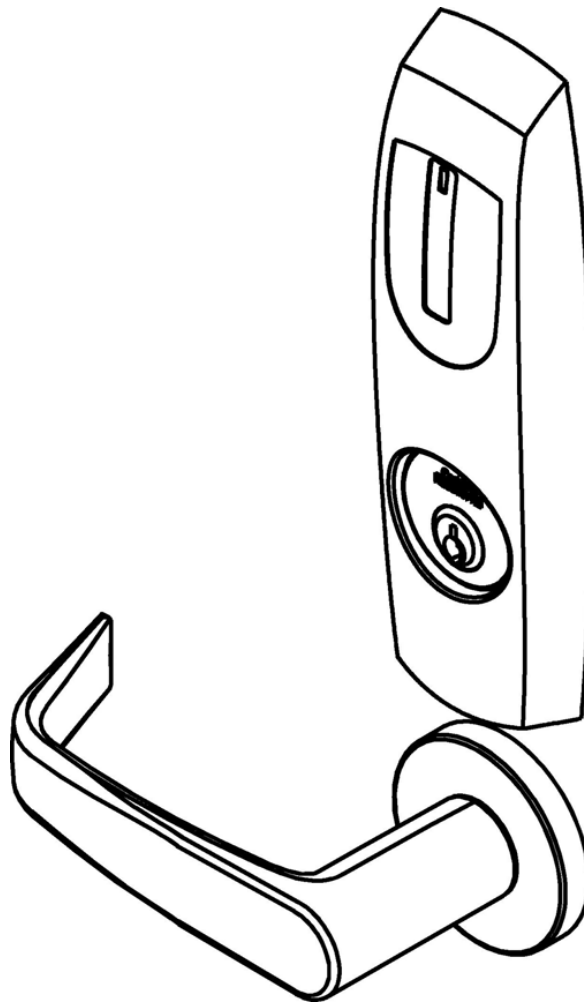
Attention Installer

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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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.



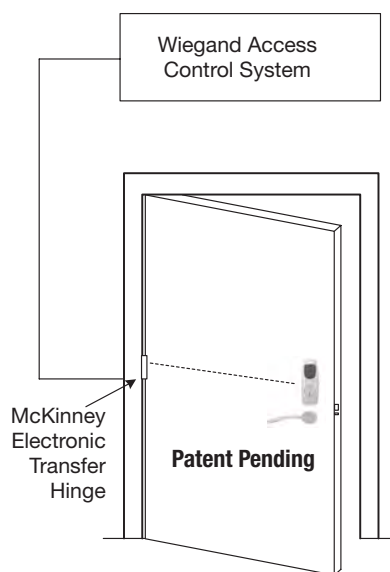
Observe precautions for handling electrostatic sensitive devices.

2) General Description

The Corbin Russwin Access 600™ TCRNE1 Series mortise lock is designed to interface with existing Wiegand Electronic Access Control (EAC) panels. The reader requires 12 or 24 VDC for power and is compatible with HID iCLASS® 13.56 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 and is available in 12VDC or 24VDC. Weatherseal gaskets are also included for outdoor applications. The **Access 600** reader provides visual (LED) and audible indication of lock state (locked/unlocked).

3) Specifications / Features

- Latch – Stainless Steel (Easily field reversible without disassembling lockbody)
- 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 reader or key retracts latch
- Inside Lever produces REX (request to exit) 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 standard iCLASS bit formats
- QC12 Hinge with ElectroLynx plug and play



12VDC System

- Reader Draw = 125mA (maximum)
- 12VDC Solenoid Draw = 800mA (normal state)
- Total System Draw = 925mA

Wire Gauge Charts

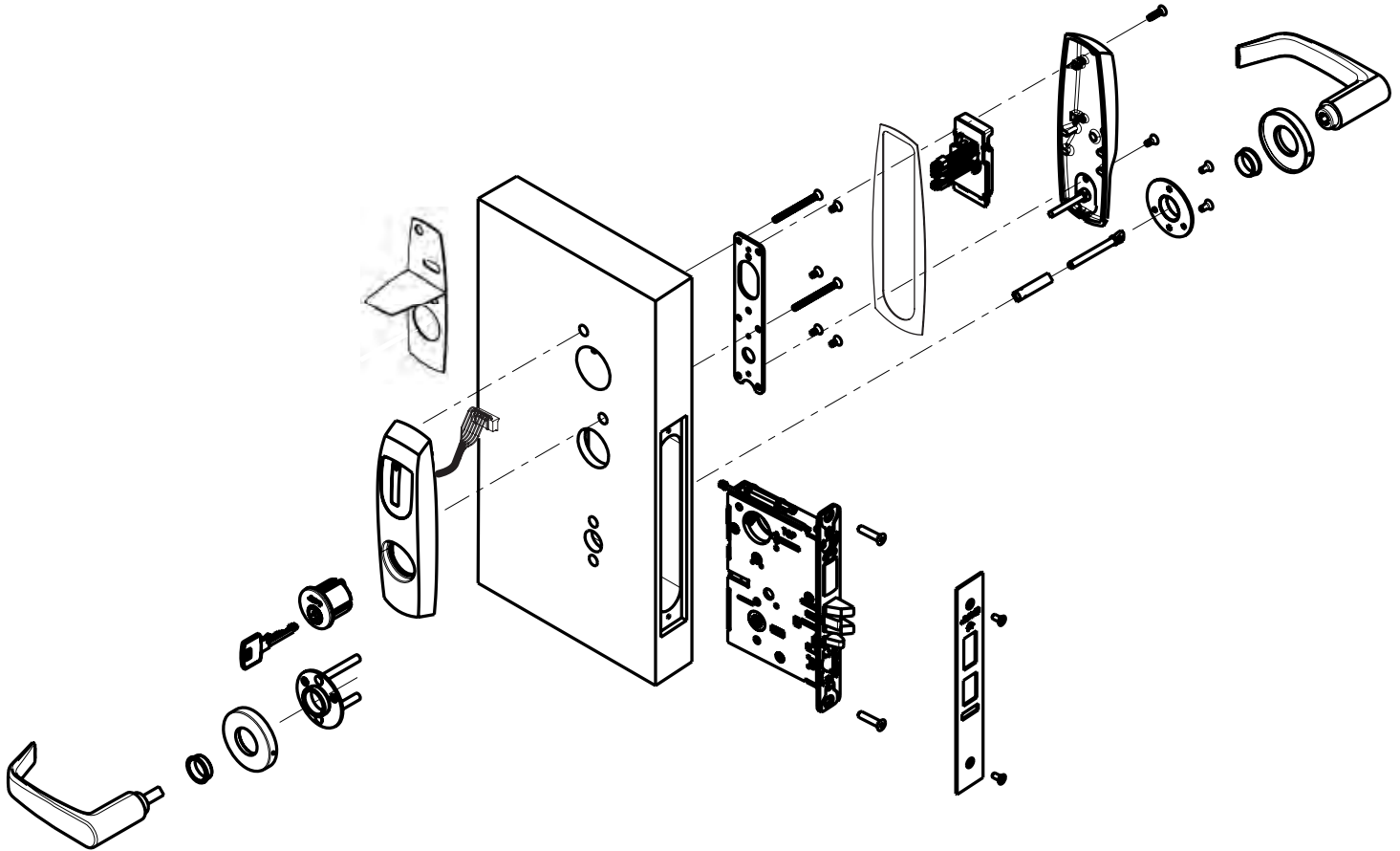
Total One-Way Length of Wire Run (ft)	Load Current @ 12VDC							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	20	18	16	14	14	12	12	10
150	18	16	14	12	12	12	10	—
200	16	14	12	12	10	10	—	—
250	16	14	12	10	10	10	—	—
300	16	12	12	10	10	—	—	—
400	14	12	10	—	—	—	—	—
500	14	10	10	—	—	—	—	—
750	12	10	—	—	—	—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

24VDC System

- Reader Draw = 125mA (inrush)
- 24VDC Solenoid Draw = 390mA (normal state)
- Total System Draw = 515mA

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	—	—	—	—	—	—

4) Product Illustration

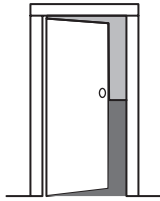


Tools Required:

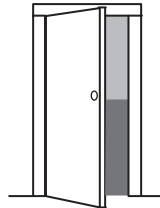
- Phillips Screw Driver (Standard size)
- Flat Blade Screw Driver (Standard size)
- 1/8" Allen Wrench

5) Installation Instructions

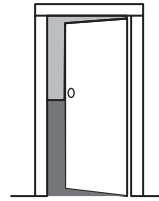
1. Verify Hand and Bevel of door. Illustrations shown are as viewed from the outside or secure side of opening.



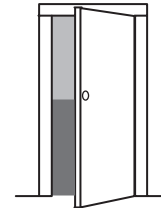
Left Hand
Hinges Left.
Open Inward.
"LH"



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

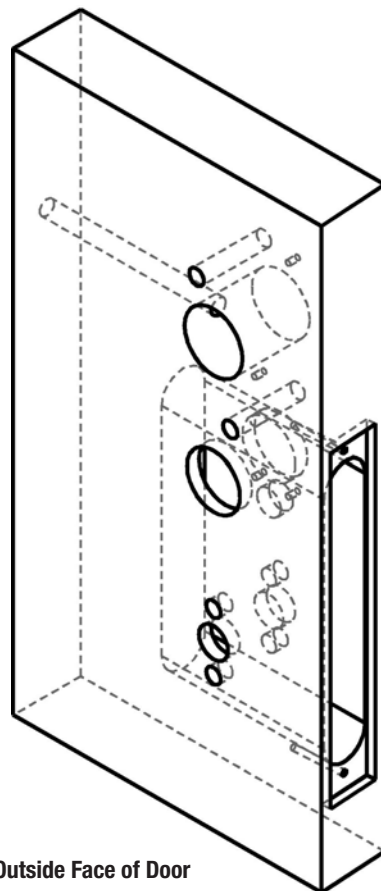


Right Hand
Hinges Right.
Open Inward.
"RH"

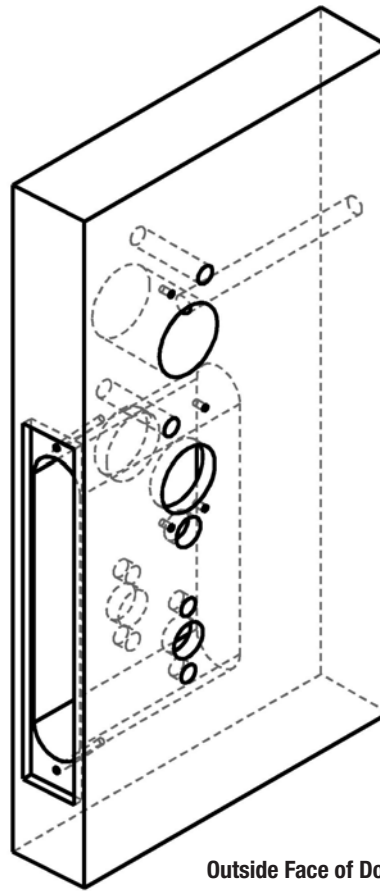


Right Hand
Reverse Bevel
Hinges Right.
Open Outward
"RHRB"

2. Prep door according to supplied door marker (FM293). For door manufacture templates visit www.corbinrusswin.com and reference template # T31070.



Outside Face of Door



Outside Face of Door

5) Installation Instructions (Continued)

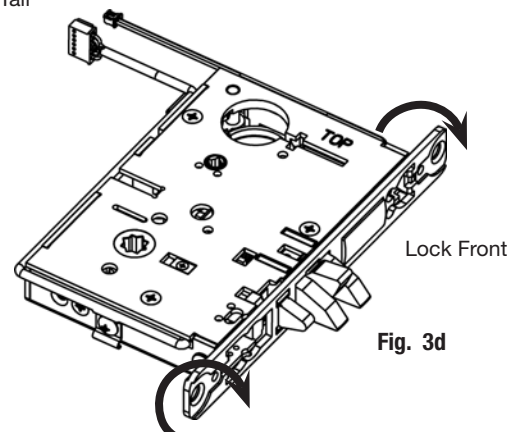
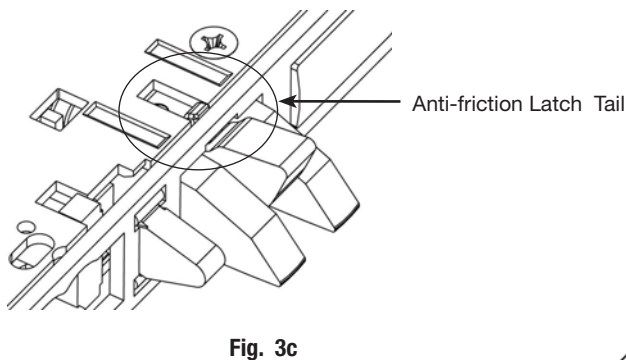
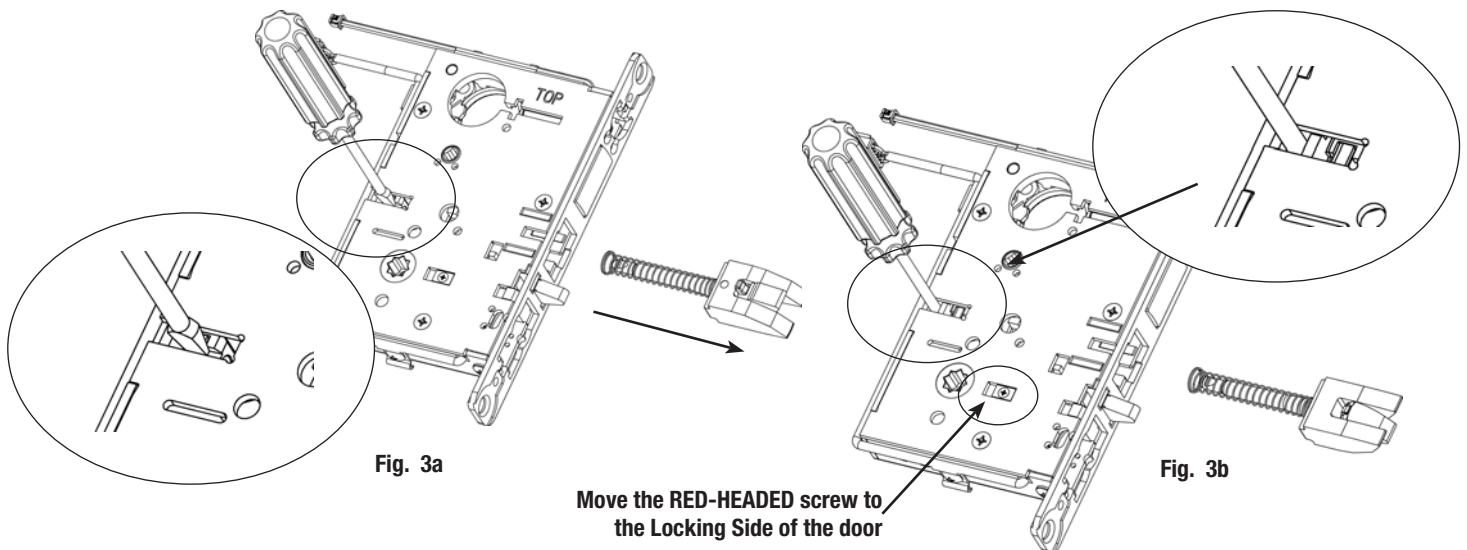
3. Handing of Lock Body:

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

- 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).



5) 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).

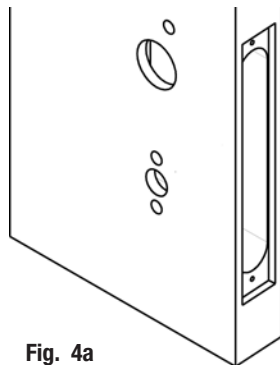


Fig. 4a

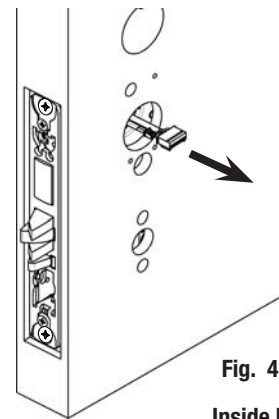
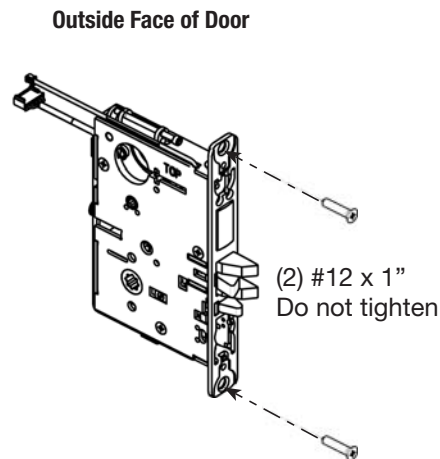


Fig. 4b

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.

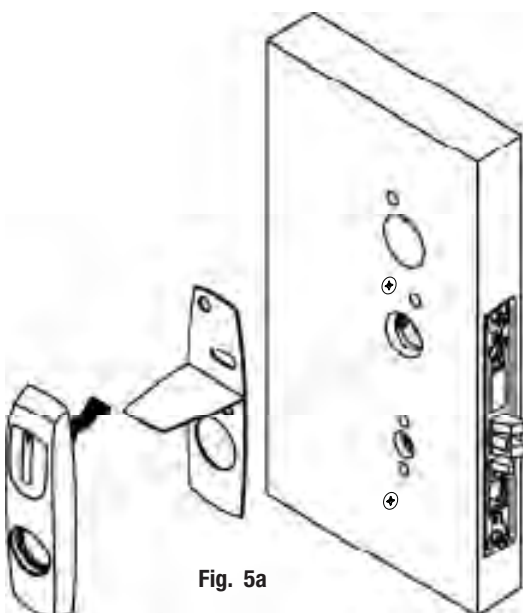


Fig. 5a

Outside Face of Door

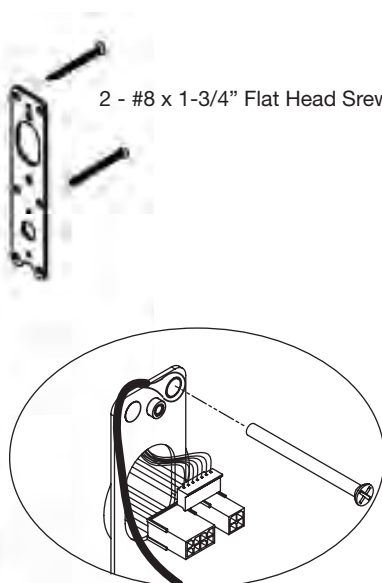


Fig. 5b Detail

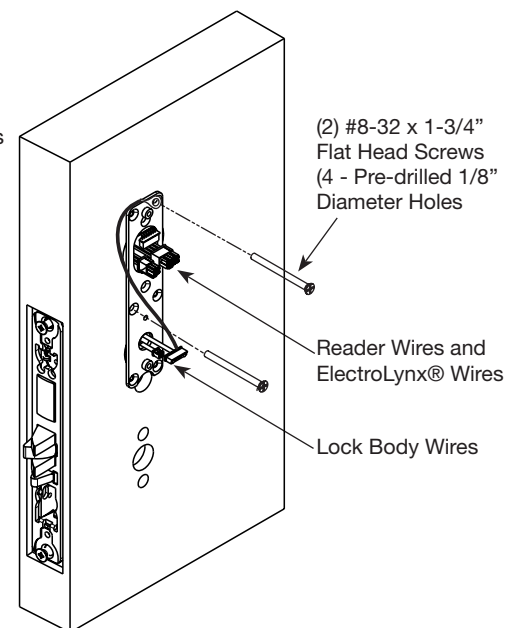


Fig. 5c

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 provide (Fig. 6b and 6b1).
- 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.

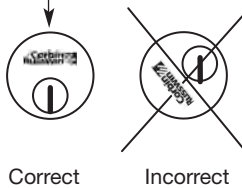


Fig. 6a1

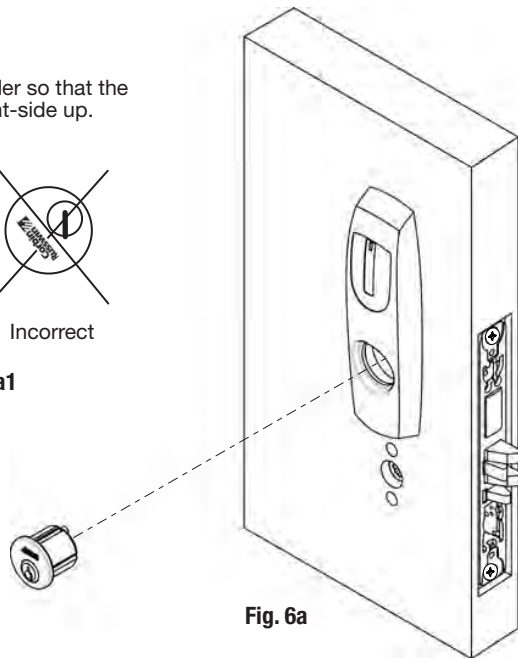


Fig. 6a

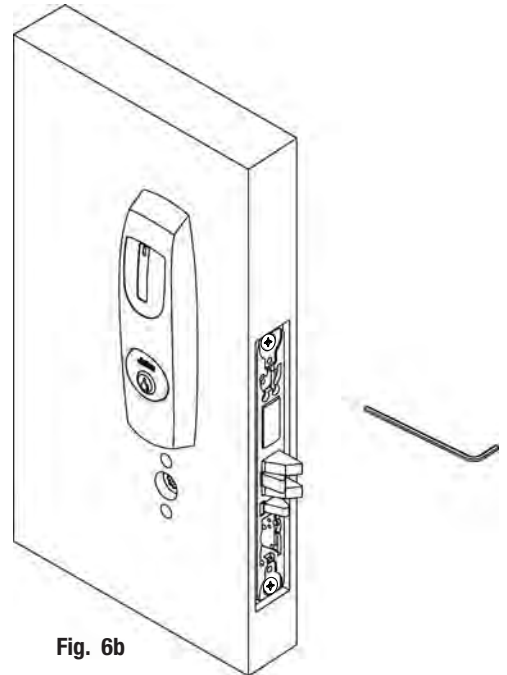


Fig. 6b

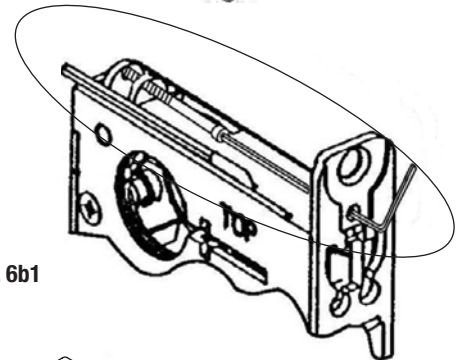


Fig. 6b1

7. Install Gasket:

Add Gasket (if necessary):

Remember to place the inside gasket when installing in an outdoor application.

Gasket fits snug around plate at top and sides, leaving room for the hole at the bottom.

Remove backing and place gasket on door (Fig. 7).

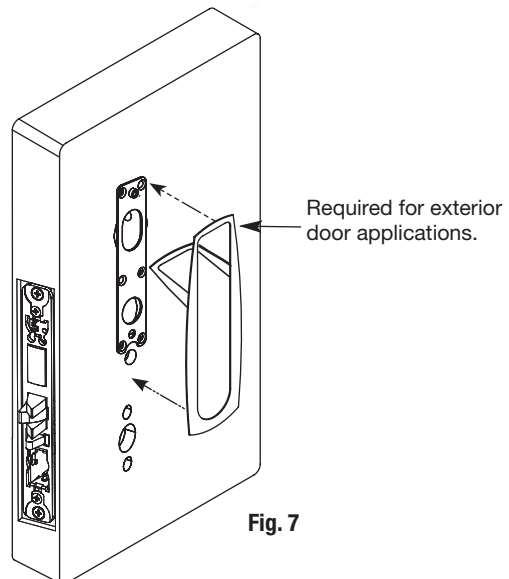


Fig. 7

5) Installation Instructions (Continued)

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

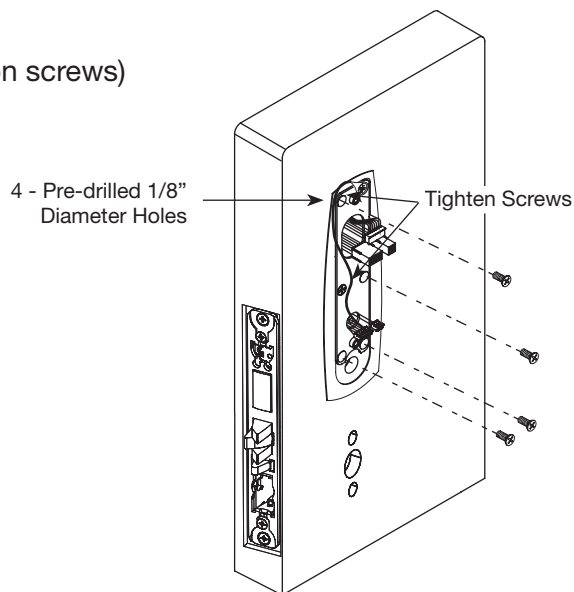


Fig. 8

9. Connector Attachment (Interior PCB Assembly):
 - a. Connect P5 (7 Pin Connector) from reader board to J5 on interior escutcheon PCB assembly (Fig. 9A).
 - b. Connect ElectroLynx harness (4 and 8-pin) from door harness to ElectroLynx harness on interior PCB assembly (Fig. 9A).

NOTES:

Neatly fold the wires onto themselves and into the remaining space to prevent pinching wires when mounting escutcheon.

Do not tuck extra mortise lockbody wires back inside the lock body cylinder hole.

Connectors go on only one way.

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

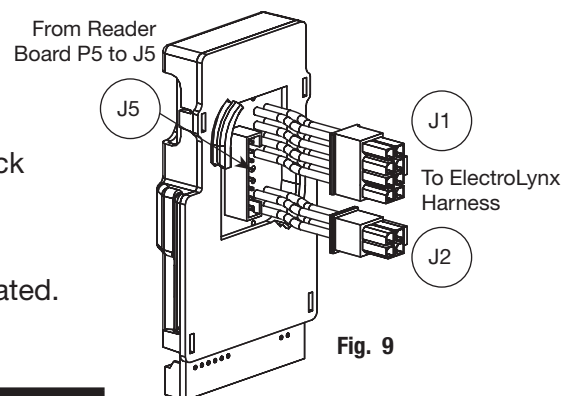


Fig. 9

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

5) Installation Instructions (Continued)

10. Outside Wire Positioning:

Please follow these steps prior to installing inside escutcheon to prevent any damage caused by pinching wires:

- Once wires are arranged, position piece at a rotated angle against the door, under earth ground wire.
- Press piece against door while turning clockwise (Fig. 10a).
- Twist into place, perpendicular with door (Fig. 10b).

Inside Face of Door

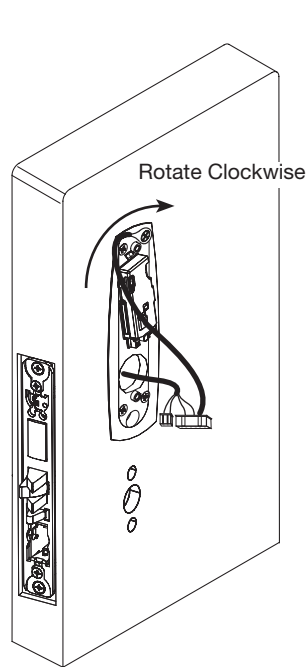


Fig. 10a

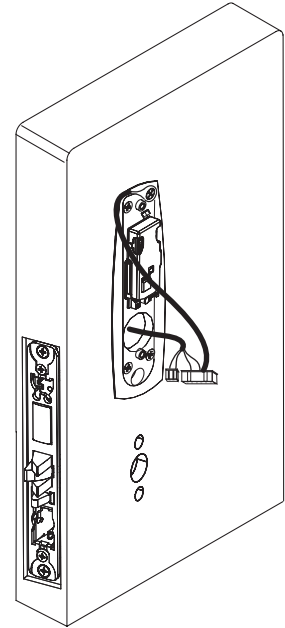


Fig. 10b

11. Connector Attachment (Exterior PCB Assembly):

- Connect P3 (2-pin connector) from lockbody to J3 on module (Fig. 11).
- Connect P4 (6-pin connector) from lockbody to J4 on module (Fig. 11).

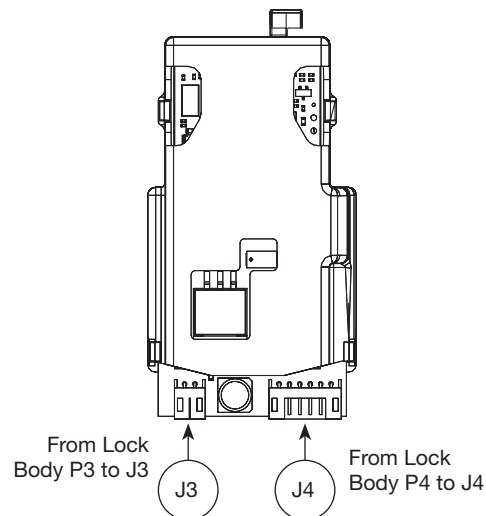


Fig. 11

5) Installation Instructions (Continued)

12. Inside Escutcheon Assembly:

- a. Tighten the inside escutcheon securely to the mounting plate with the Phillips flat head machine screws provided.

Use the 8-32 x 5/8" for the top of the escutcheon and the 8-32 x 1/4" screws for the bottom of the escutcheon located under the turn lever.

Remember the inside gasket must be used when installing in an outdoor application.

- b. Be sure the turn assembly is functional and, if equipped with a deadbolt, that the deadbolt functions properly.

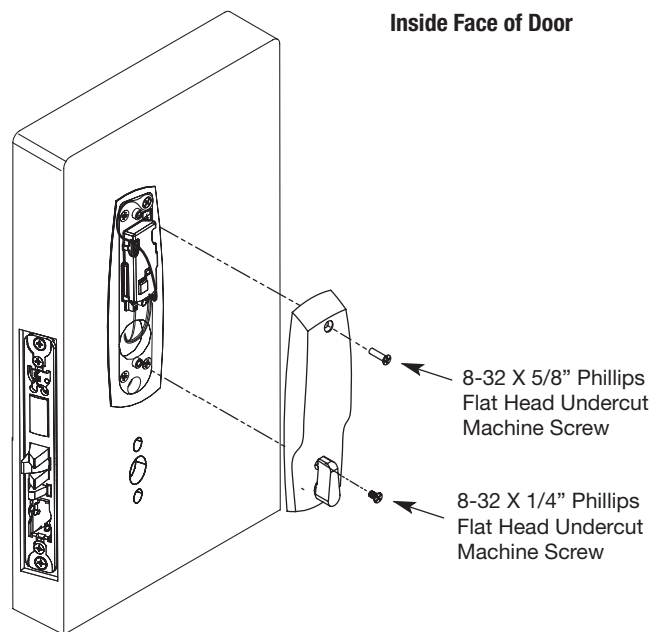


Fig. 12

13. Install Armored Front:

- a. Tighten (2) screws through lock body.
- b. Attach armored front with two #8 x 1/4" screws (Fig. 13).

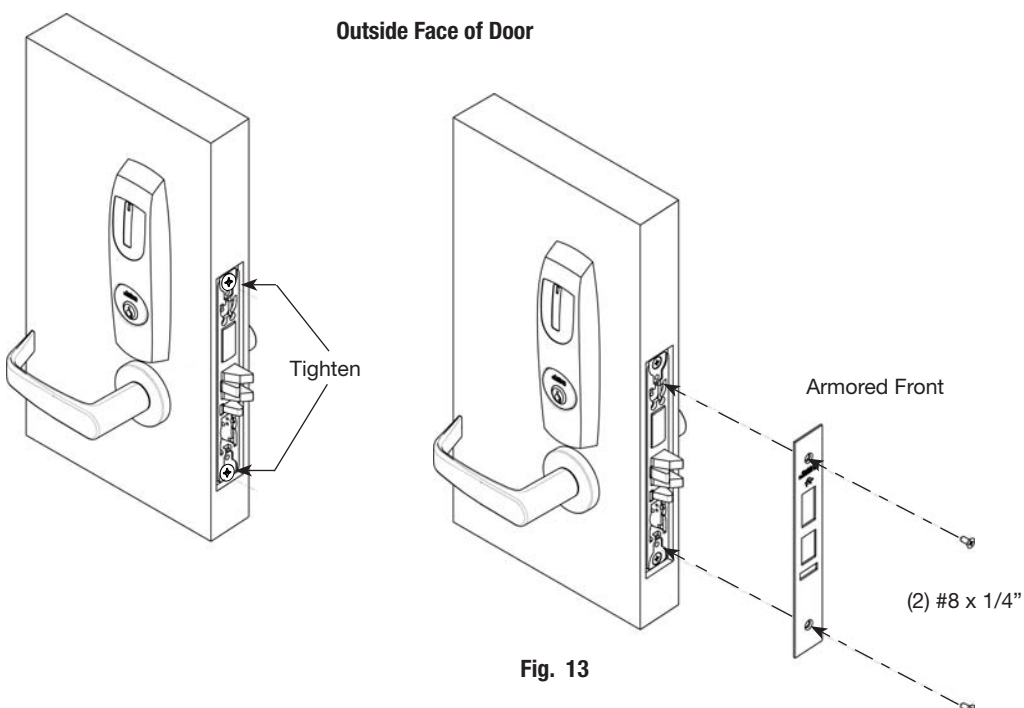
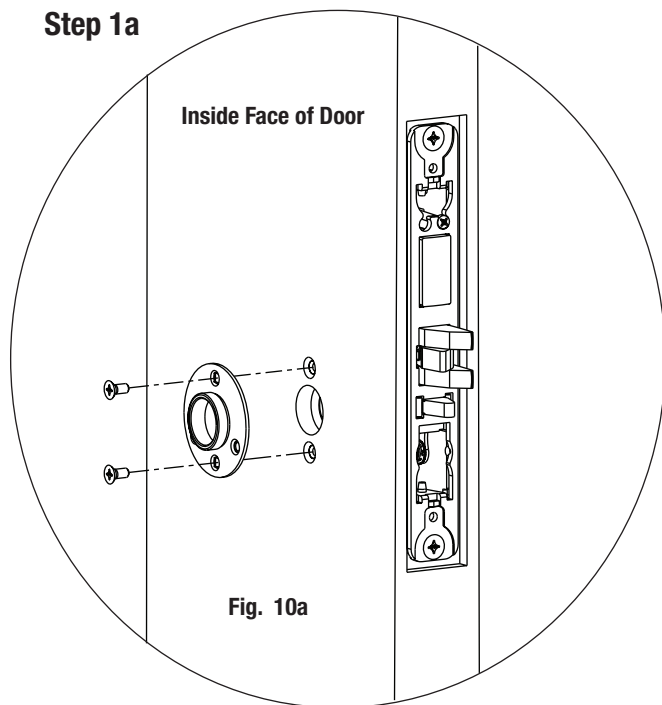


Fig. 13

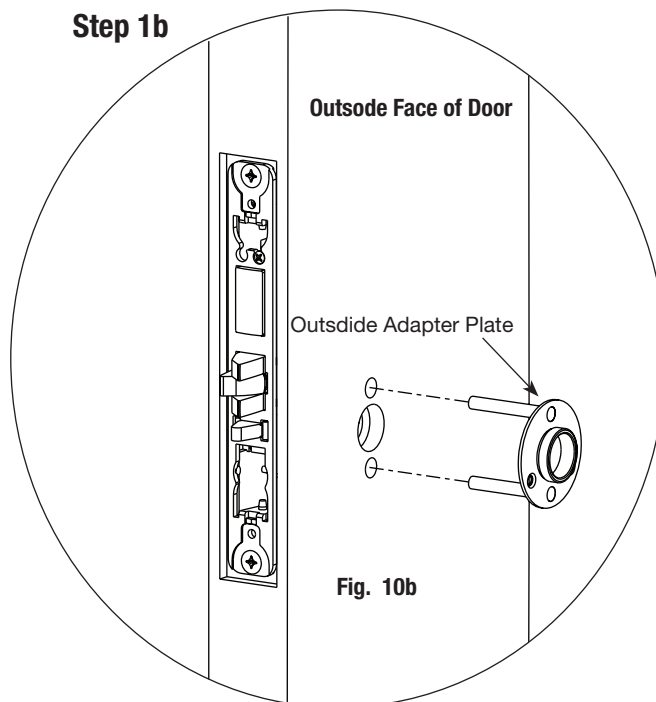
5) Installation Instructions (Continued)

14a. Install Standard Lever Trim. Refer to 10b on following pages for **MUSÉO™** Trim:

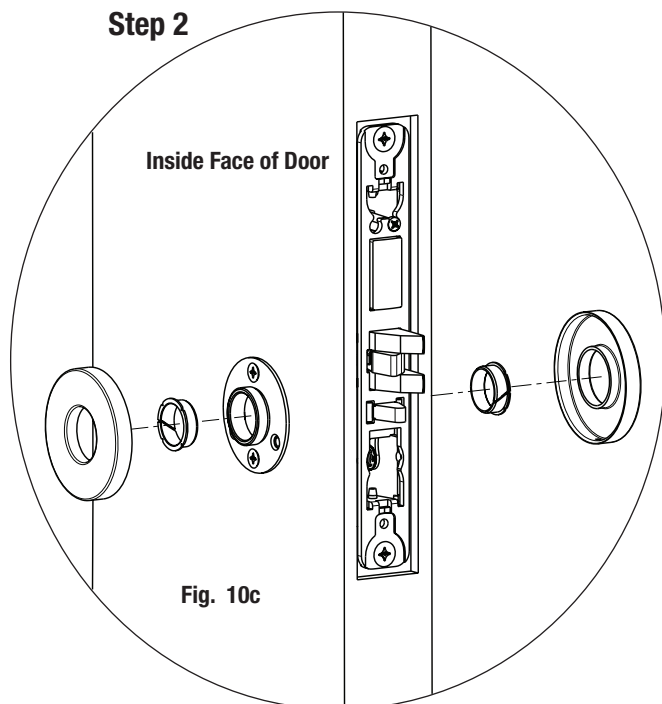
Step 1a



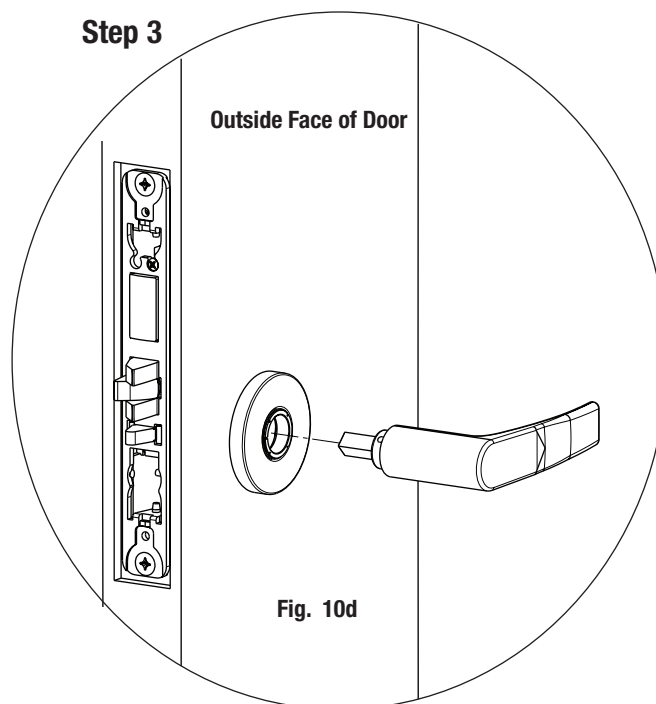
Step 1b



Step 2

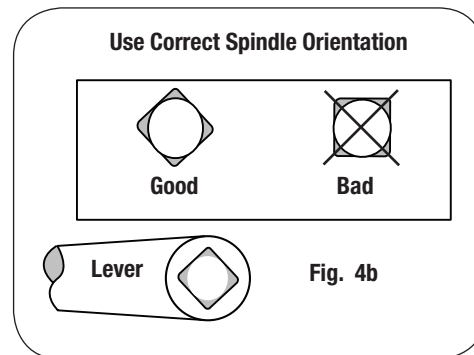
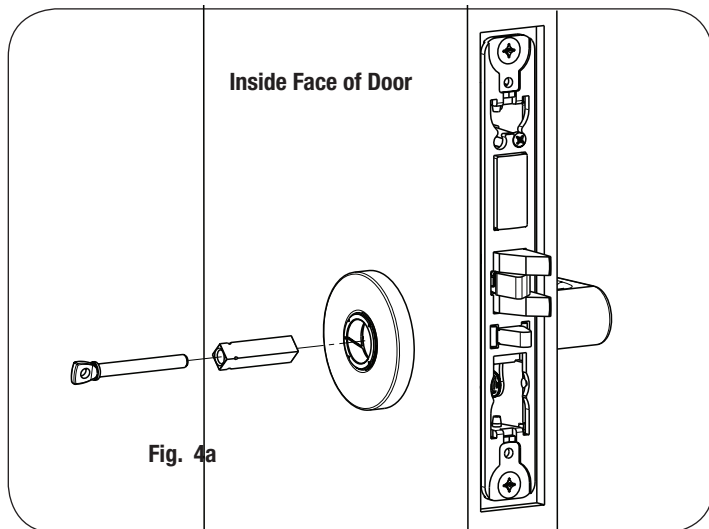


Step 3



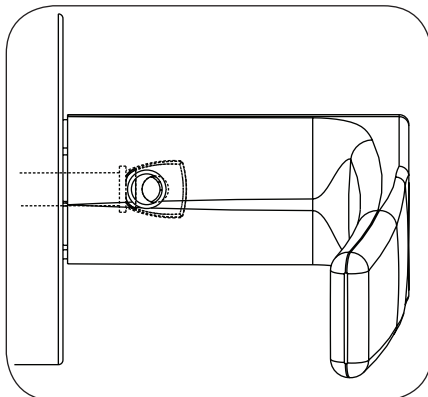
5) Installation Instructions (Continued)

Step 4

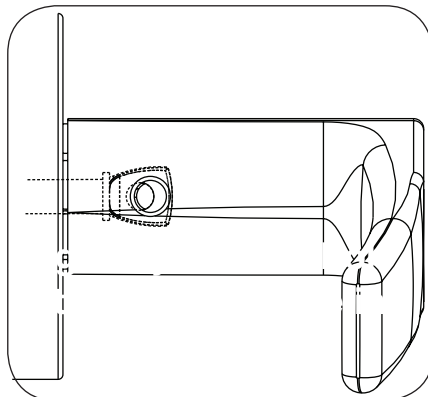


Step 5

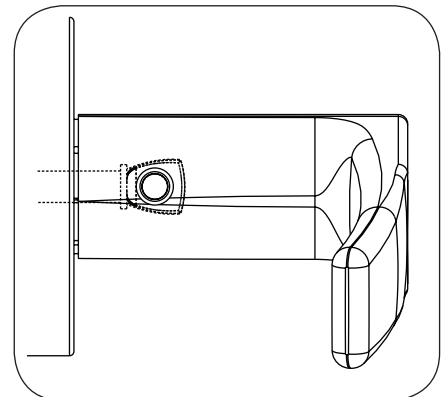
Align adjustment bolt with threaded hole in lever



Adjustment bolt needs to be threaded in farther.



Adjustment bolt needs to be unthreaded.

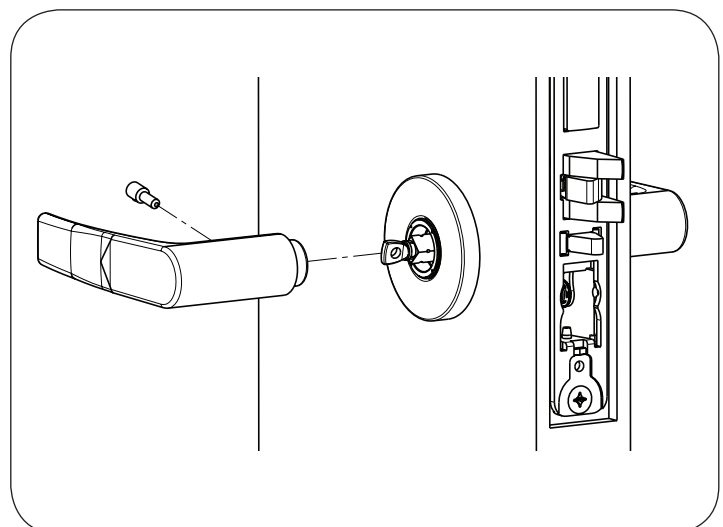


Adjustment bolt fully aligned.

Step 6

Notes:

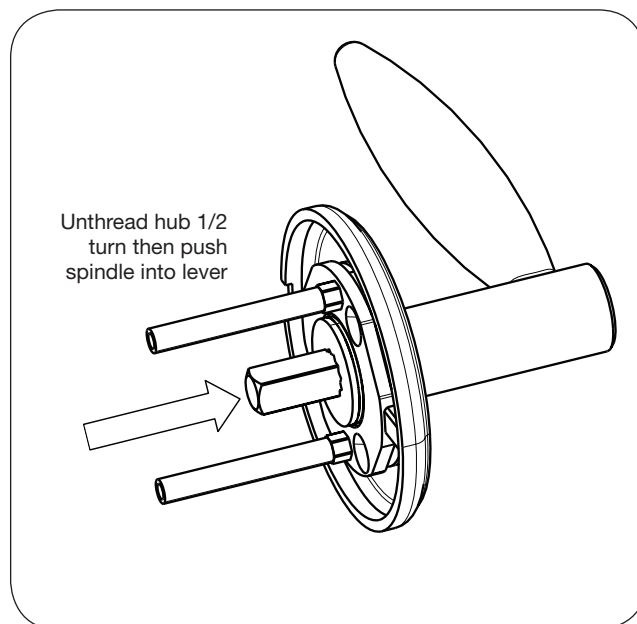
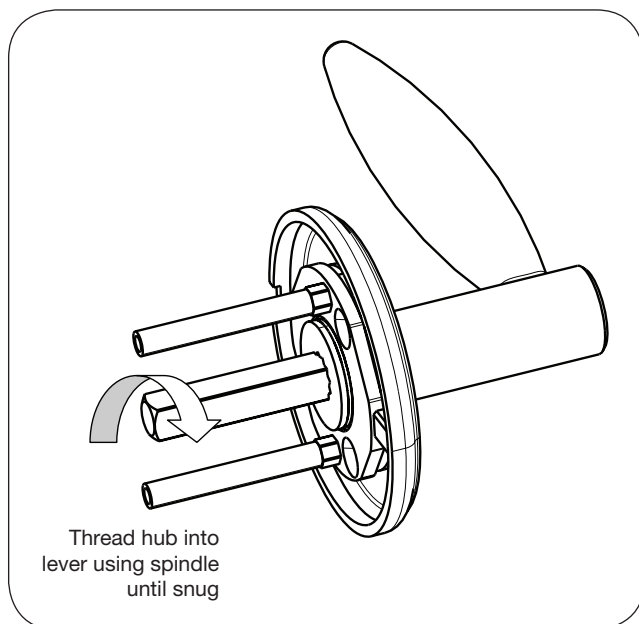
- Unthread Adjustment Bolt approximately four turns for a good starting point (After being fully tightened)
- Make sure O/S lever is fully inserted into adapter plate before aligning adjustment bolt.



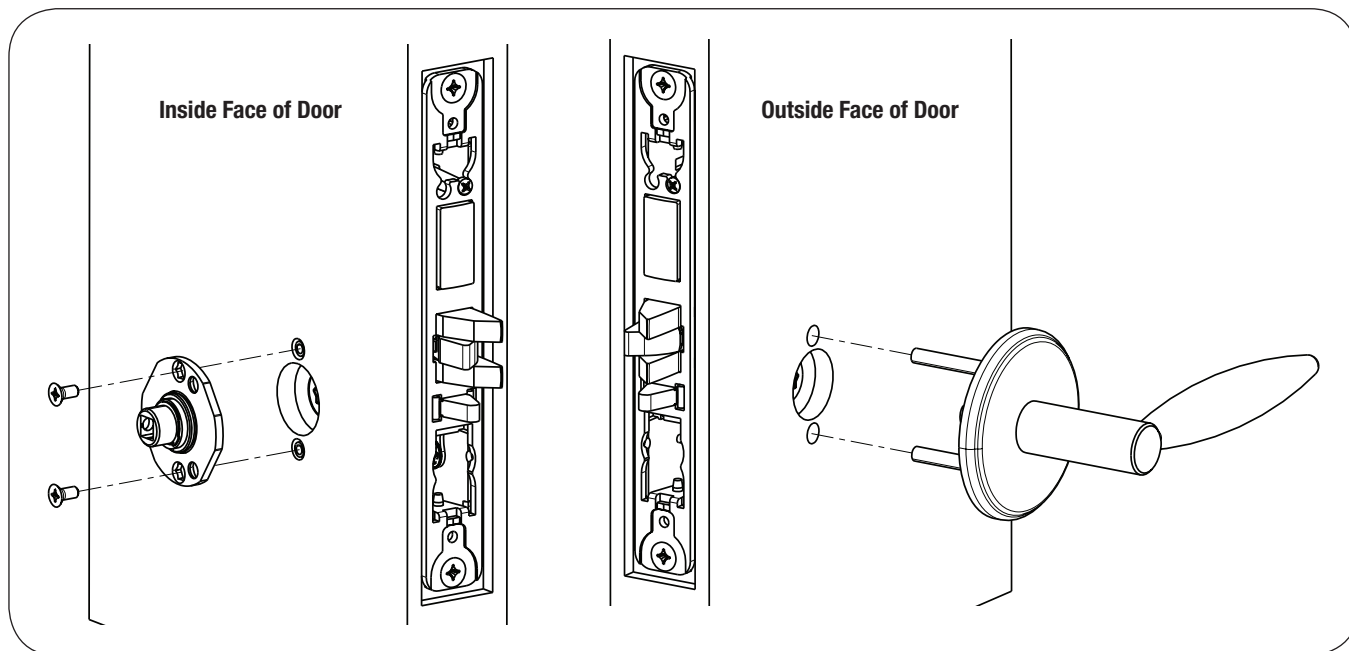
5) Installation Instructions (Continued)

14b. Install **MUSÉO** Trim:

Step 1



Step 2



6) Wiring Diagrams

Product	8 PIN CONNECTION								4 PIN CONNECTOR			
	1-Black	2-Red	3-White	4-Green	5-Orange	6-Blue	7-Brown	8-Yellow	9-Violet	10-Gray	11-Pink	12-Tan
ACCESS CONTROL DEVICES: Harmony H1 Mortise, ElectroLynx wire Color / Function assignments												
	12VDC		WIE- GAND	WIE- GAND	RX	RX	EGND	LED	12 OR 24 VDC (LOCK RELAY)		DPS	DPS
Corbin Russwin Access 600 ML20600 Series	NEG	POS	DATA_1	DATA_0	NO	COM	REF. DIA- GRAMS	REF. DIA- GRAMS	NEG	POS	NC	COM

Reader LED Configuration

The Access 600 series reader can be configured for (3) modes of LED operation:

Mode 1:

- Red LED 'ON' when powered.
- Presenting a 13.56MHz proximity card will cause LED to 'FLICKER' green and return to red state.
- Reference Diagram #1 or #4 as a function of power requirement (12VDC or 24VDC).

Note: LED wire is unconnected.

Mode 2:

- Green LED "ON" when powered.
- (No Flicker) after presenting valid 13.56MHz proximity card.
- Reference Diagram #2 or #5 as a function of power requirement (12VDC or 24VDC).

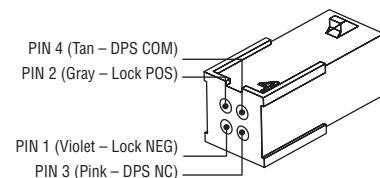
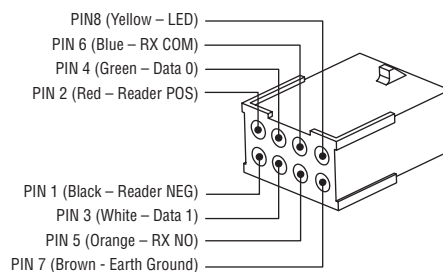
Note: LED wire must be connected to circuit GROUND of the system's power supply.

Mode 3:

- EAC Panel controls LED operation.
- Reference Diagram #3 or #6 as a function of power requirement (12VDC or 24VDC).

Note: Control of LED is a function of the EAC panel equipment (ie. 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 interfered (refer to Diagram #3 or #6).



6) Wiring Diagrams (Continued)

Typical ML20600 x M812 Series Lock Application Diagram (12/24VDC Lock)

DIAGRAM #1 – MODE 1: LED WIRE NOT USED = RED LED 'ON' WHEN POWERED

12/24VDC SYSTEM

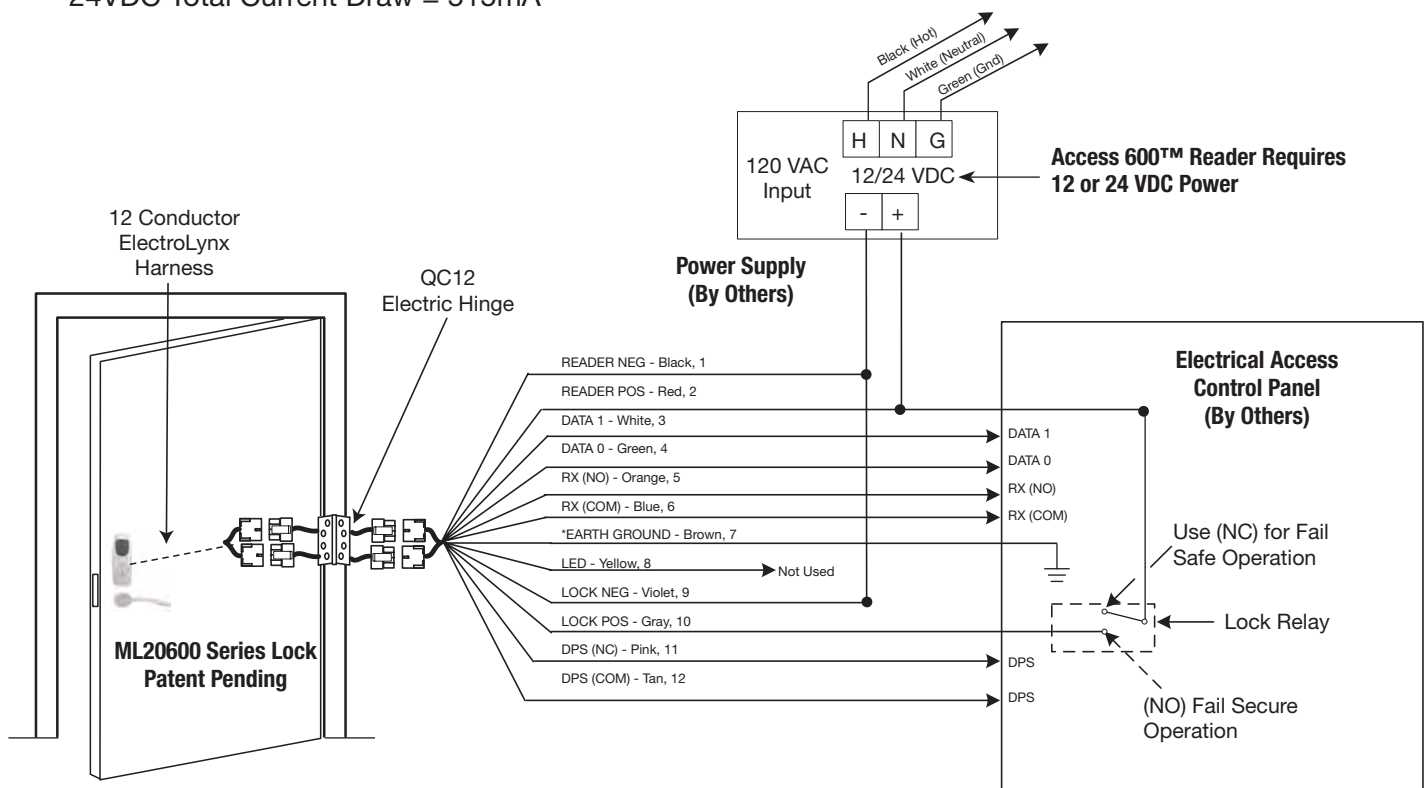
Reader Draw = 125mA (maximum)

12VDC Solenoid Draw = 800mA (normal State)

12VDC Total Current Draw = 925mA

24VDC Solenoid Draw = 390mA (normal State)

24VDC Total Current Draw = 515mA



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

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

6) Wiring Diagrams (Continued)

Typical ML20600 x M812 Series Lock Application Diagram (12/24VDC Lock)

DIAGRAM #2 – MODE 2: LED WIRE TIED TO GROUND = GREEN LED 'ON' WHEN POWERED

12/24VDC SYSTEM

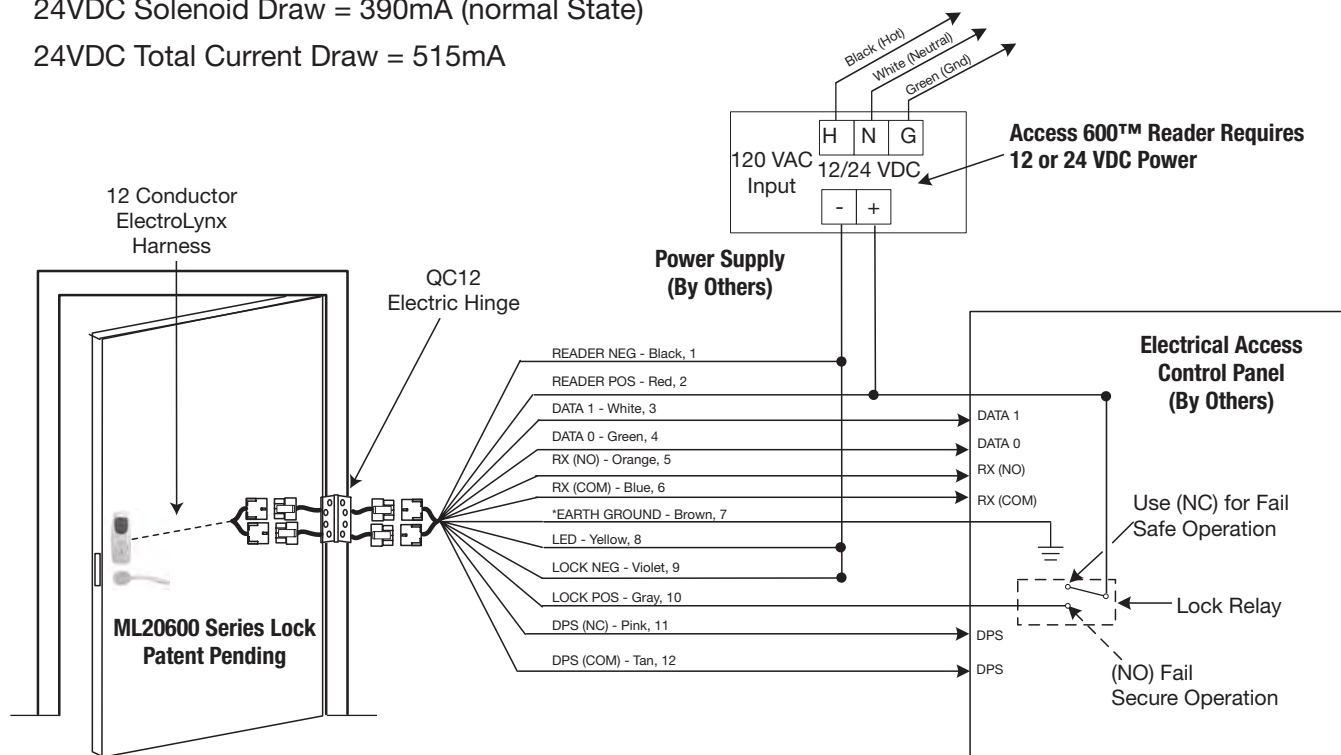
Reader Draw = 125mA (maximum)

12VDC Solenoid Draw = 800mA (normal State)

12VDC Total Current Draw = 925mA

24VDC Solenoid Draw = 390mA (normal State)

24VDC Total Current Draw = 515mA



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

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

6) Wiring Diagrams (Continued)

Typical ML20600 x M812 Series Lock Application Diagram (12/24VDC Lock)

DIAGRAM #3 – MODE 3: LED WIRE TIED TO EAC PANEL = EAC PANEL CONFIGURABLE

12/24VDC SYSTEM

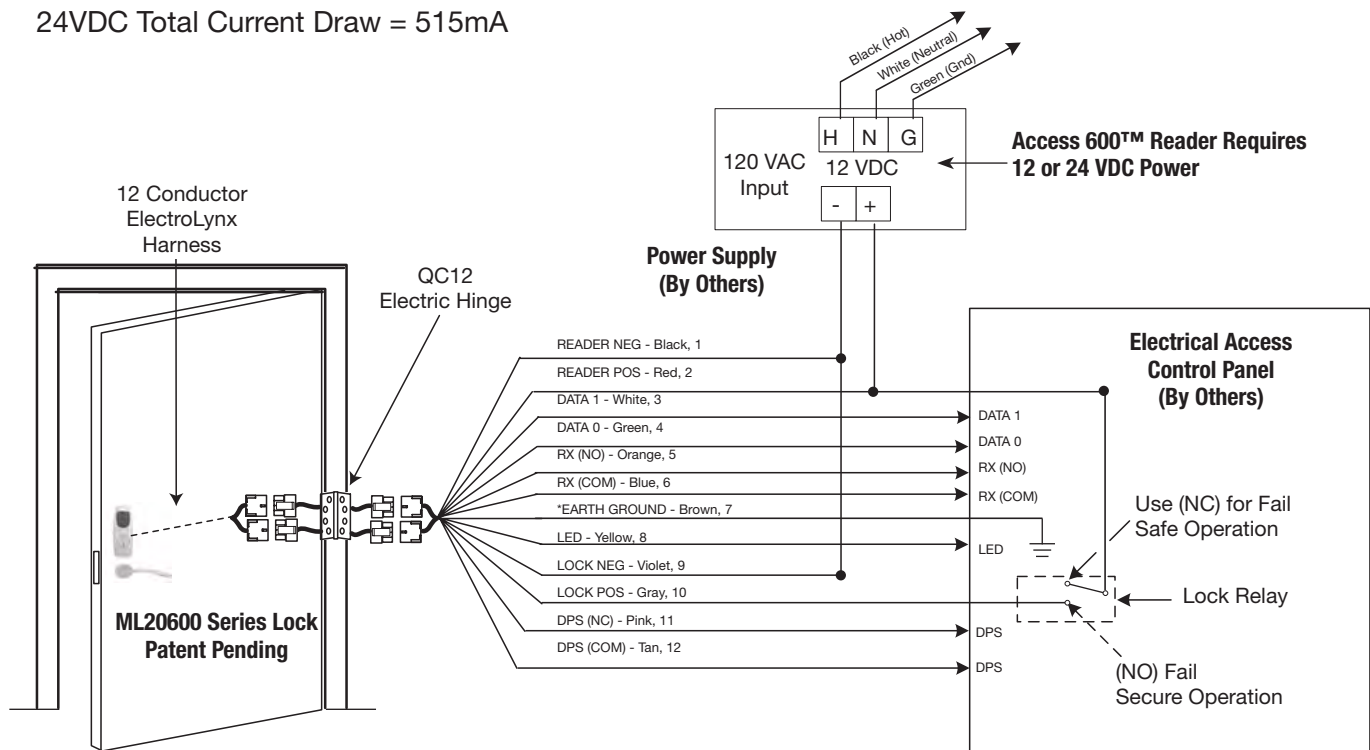
Reader Draw = 125mA (maximum)

12VDC Solenoid Draw = 800mA (normal State)

12VDC Total Current Draw = 925mA

24VDC Solenoid Draw = 390mA (normal State)

24VDC Total Current Draw = 515mA



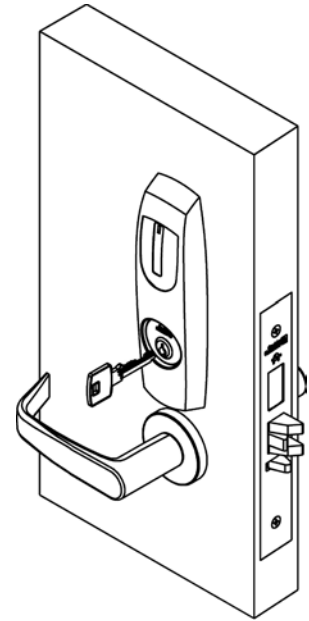
***IMPORTANT:** Pin 7 must be tied to ground in the access control panel.

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

7) Mechanical Operational Check

Before closing door, test lock cylinder and inside lever function:

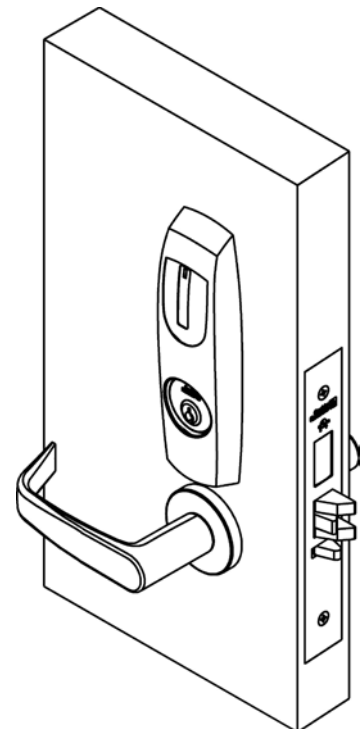
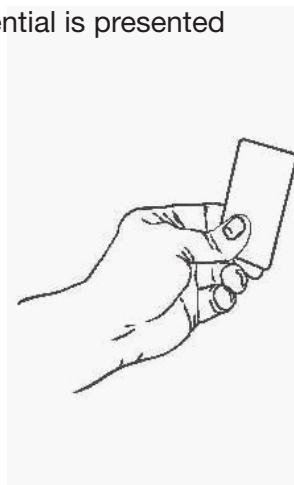
- a. Insert key into cylinder and rotate.
- b. Check to make sure that the key retracts the latch.
The key should rotate freely.
- c. Check to make sure that the inside lever retracts the latch.
- d. Close door. Ensure that the latch fully extends into strike and does not bind.



8) Electrical Operational Check

Once electrical wiring has been completed follow these steps:

- a. Turn power "ON" at EAC panel.
- b. Verify reader LED is "ON" (red or green depending on reader configuration. Refer to reader LED configuration).
- c. Present proximity credential and verify LED and sounder activity.
- d. Verify that a valid card read at EAC Panel.
- e. Verify system operation so that when a credential is presented credential to the reader, the door unlocks.



Access
600™



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