Excellence in Compliance Testing

Certification Exhibit

FCC ID: U4A-SCYICLS0
IC: 6982A-SCYICLS0

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

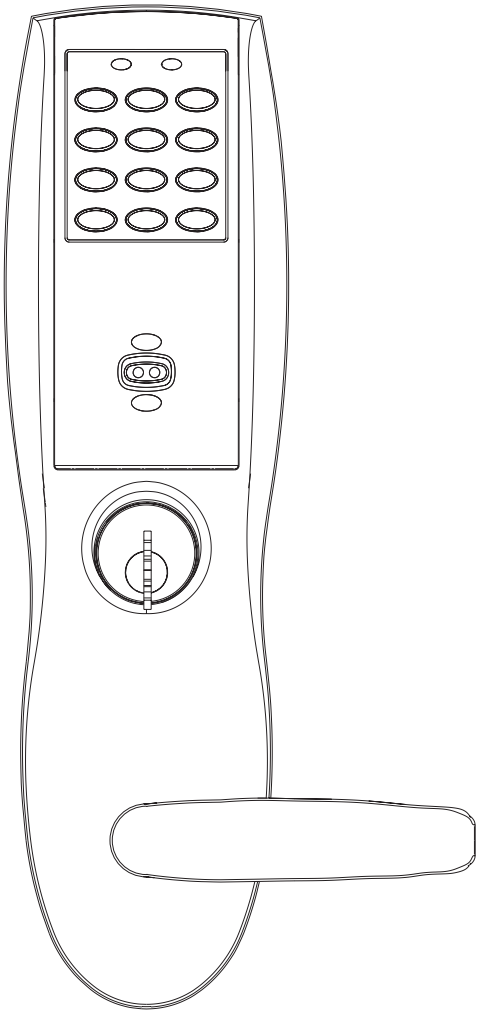
ACS Report Number: 10-0199.W06.11.A

Manufacturer: Assa Abloy, Inc.
Model: S1-IA/IK, S2-IA/IK

Manual
Model S1-IA/IK

Installation Instructions
Profile Series v.S1 PoE
Mortise Lock

SARGENT®
ASSA ABLOY



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ASSA ABLOY, the global leader in door opening solutions

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1 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.

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.

Industry Canada:

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.

Warning SARGENT Mfg. Co. v.S Series locksets utilizing a door position switch (DPS) are not rated for, or intended for use in life safety applications.

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2 General Description

The SARGENT Profile Series v.S1 Mortise Lock is available with either an HID® 125 kHz prox or 13.56 MHz iCLASS® technology reader. It utilizes existing infrastructure and IEEE 802.3af PoE (Power over Ethernet) technology as a proven alternative to traditional access control installations.The v.S1 is a self-contained microprocessor-controlled access control product with non-volatile memory. It uses the existing network cable to communicate with access control systems. The v.S1 lock holds a total of 2400 different user codes.

- Using PoE technology coupled with third party software, this v.S1 online lock offers a complete, integrated access control system.
- The Profile Series v.S1 Mortise lock may be used for both indoor and outdoor applications. A weather-protective gasket is recommended for outdoor applications.

HID and iCLASS are registered trademarks of HID Global Corporation.

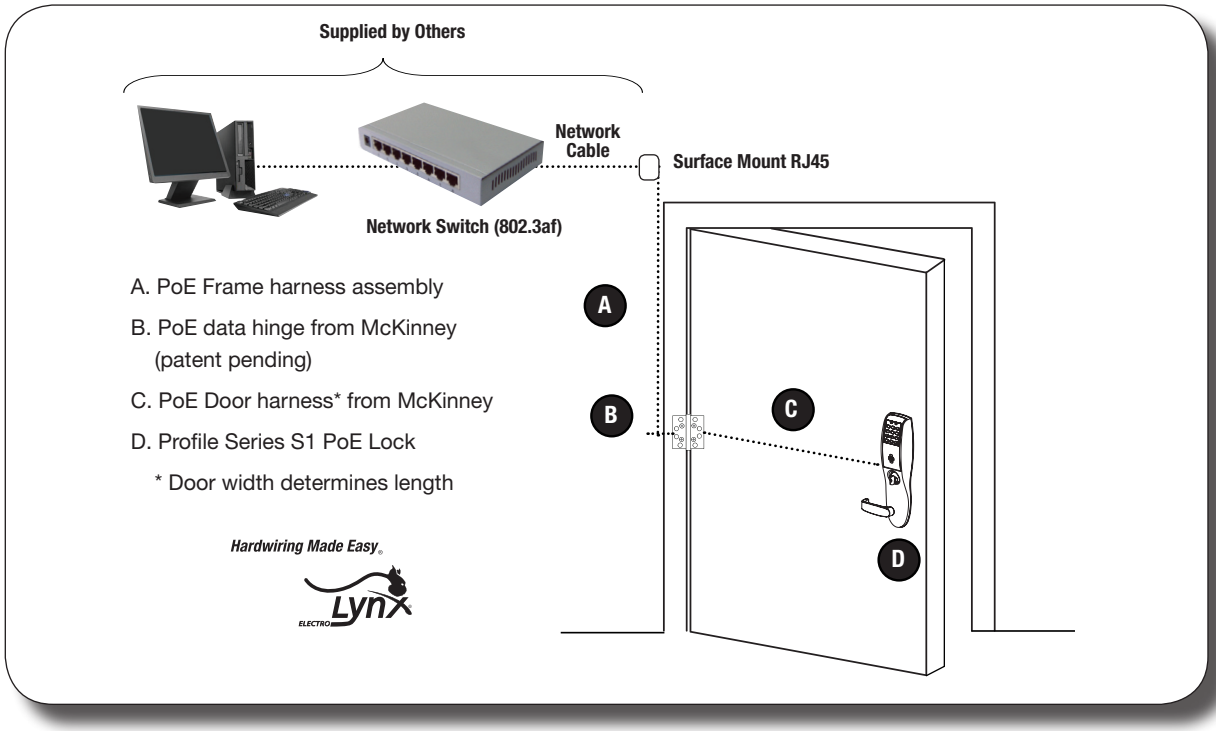
3 Hardware Specifications

- Complete lockset with on-board memory
- Available without keypad (Prox/iCLASS only)
- ADA compliant
- Latch: One-piece stainless steel, 3⁄4"projection
- Deadbolt: One-piece hardened stainless steel
- Guardbolt: Stainless steel, non-handed
- Case - 12 gauge, heavy duty, wrought steel
- Inside lever retracts latch and deadbolt
- UL Listed (3 hr.)
- Handing (RH/LH/RHR/LHR) can be specified but is easily field-reversible without disassembling the lock body
- Locks furnished for 1-3/4" doors. Can be furnished for other door sizes upon request. Consult factory.
- Wire from EAC Panel to door must be shielded with drain terminated at EAC Panel controller
- Outside lever for iCLASS controlled by any HID 13.56 MHz iCLASS credential
- Outside lever for prox controlled by any HID 125 kHz prox credential
- Outside lever is controlled by any combination of keypad, credential reader, or mechanical cylinder

4 Electronic Specifications

- 2,400 users per lock; 10,000 event audit trail
- Multiple time zone and holiday access scheduling
- Centralized lock management
- Real time door status monitoring
- First-In unlock configuration, either by time or by user (selectable)
- Lock down capable
- Input Power: PoE Class 1 Device, as defined by IEEE 802.3af, requires up to 4 watts over structured cabling

5 Installation Wiring Overview



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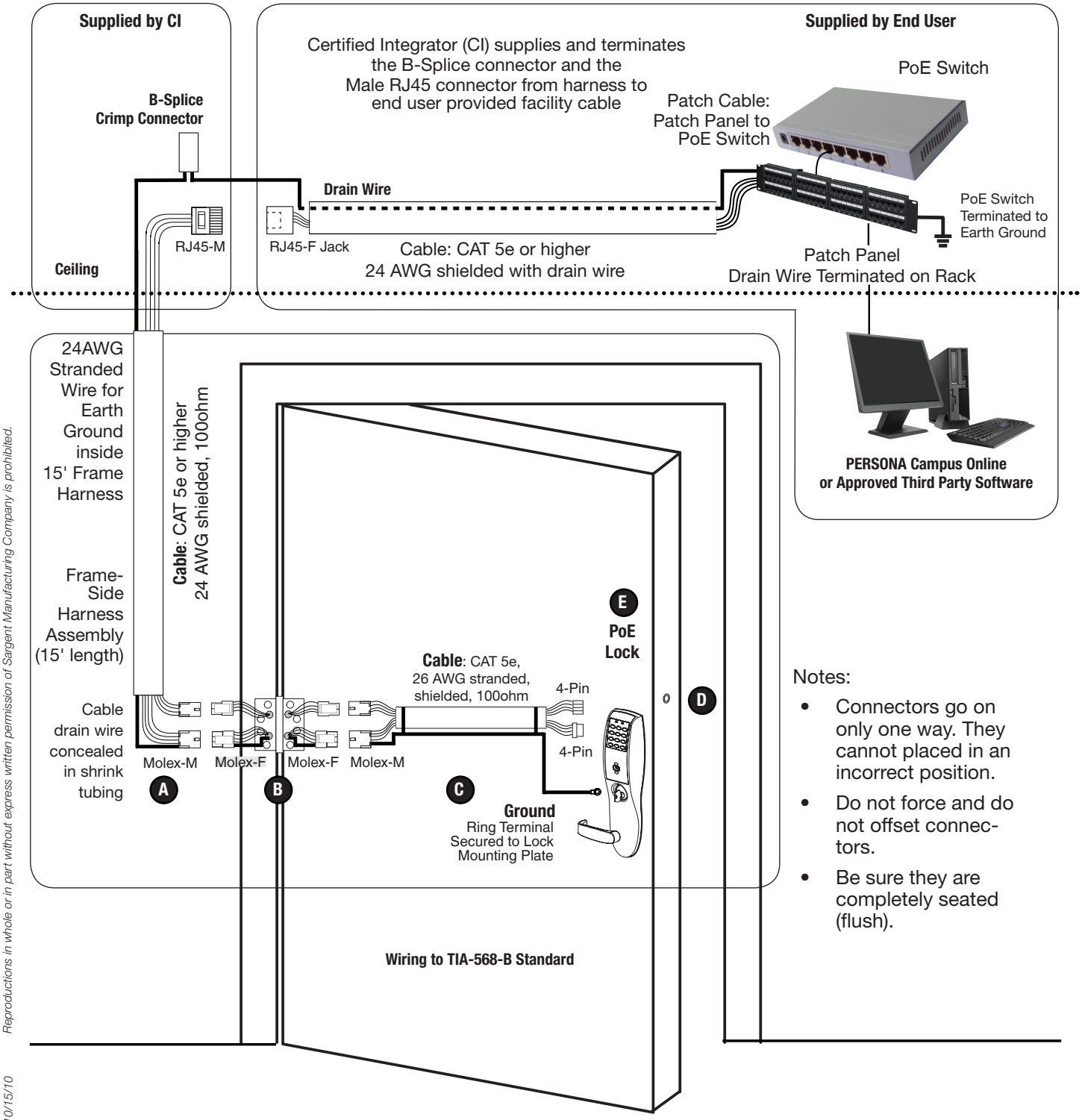
6 Installation Wiring

- **A** PoE frame harness assembly (From McKinney)
- **B** PoE data hinge (Patent Pending) (From McKinney)
- **C** PoE door harness* (From McKinney)
- **D** DPS: Door Position Switch (cylindrical and exits only)
- **E** Profile Series v.S1 Online P1 PoE lock

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



Notes:

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

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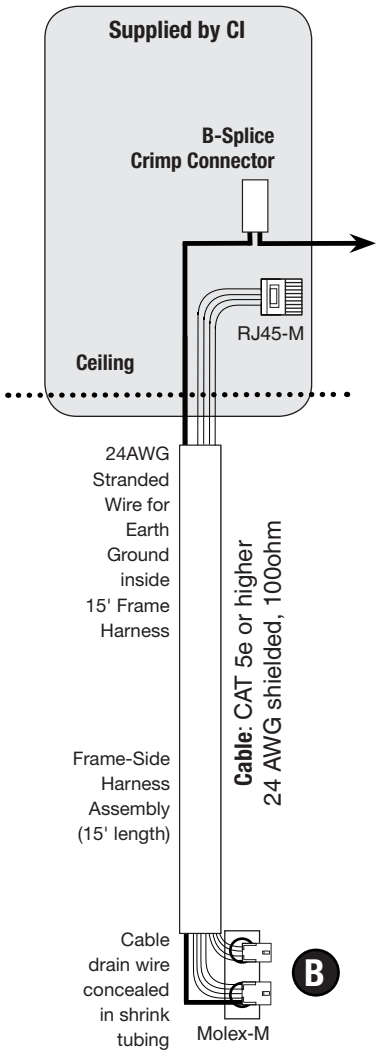
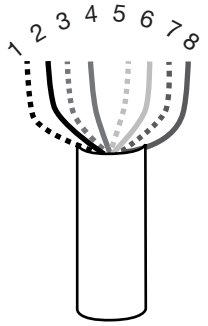
A Frame Harness Installation



Cut end / ceiling-side PoE harness:

Suggested installation of components and wire harness supplied by McKinney:

TIA-568-B Standard Wiring



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

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

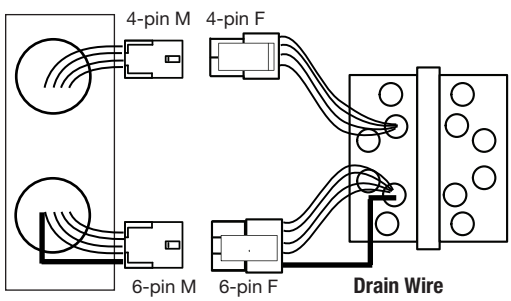
Hinge side of PoE harness:

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.

B PoE Data Hinge



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

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B Hinge Installation

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

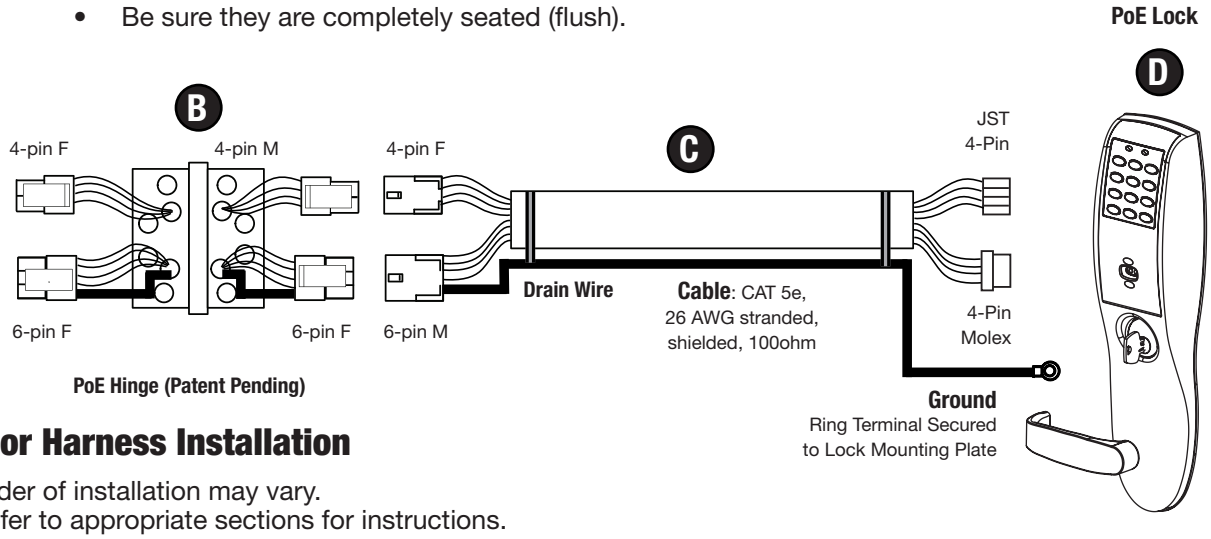
Hinge-side harness connectors:

- 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)

C Door Harness Installation

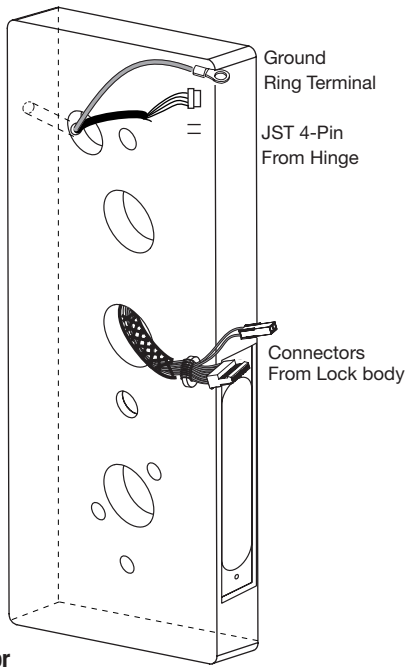
Order of installation may vary.
Refer to appropriate sections for instructions.

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 placed in an incorrect position.
   - Do not force and do not offset connectors.
   - Be sure they are completely seated (flush).



Inside of Door

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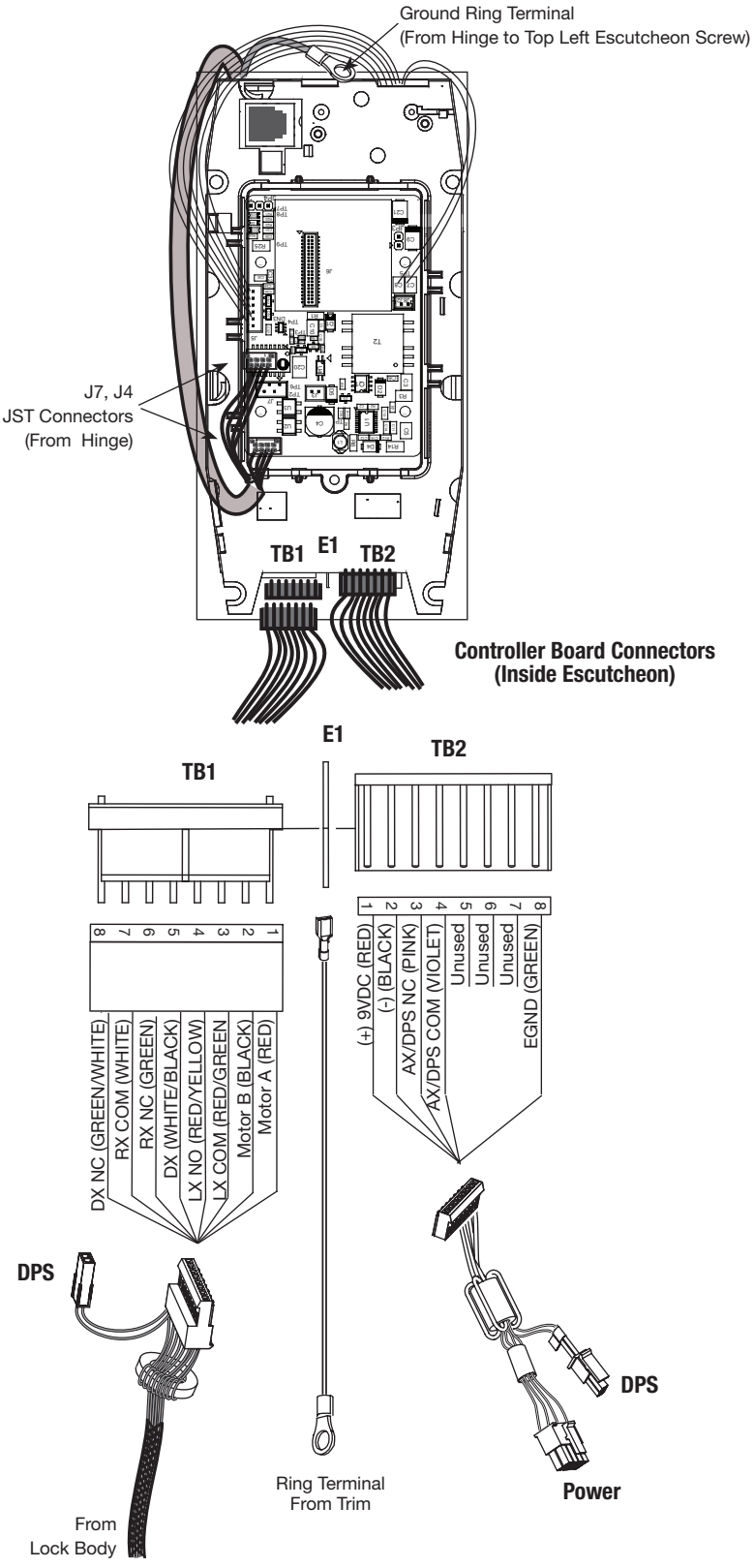
D PoE Lock Wiring



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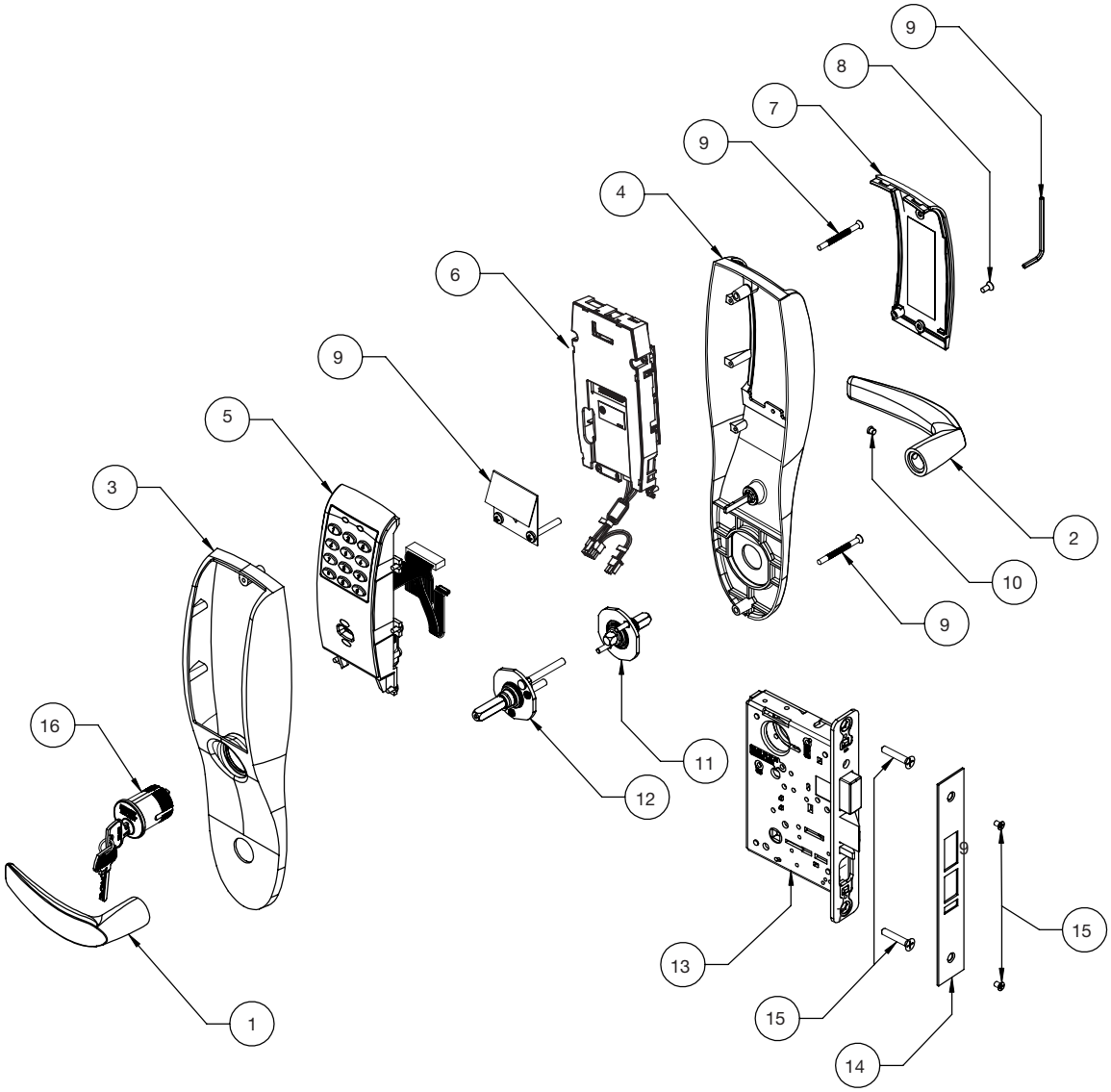
6 Parts Breakdown 125 kHz Prox and 13.56 MHz iCLASS



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Parts Breakdown 125 kHz Prox and 13.56 MHz iCLASS, continued

ITEM	PART NO.	DESCRIPTION	QTY.
1	Outside Lever	Reference 8200 Catalog for available levers	1
2	Inside Lever	Reference 8200 Catalog for available levers	1
3	82-0493	O/S Escutcheon only with Cylinder	1
	82-0495	O/S Escutcheon only without Cylinder	1
4	82-0492	Inside Escutcheon only without Thumb Turn	1
	82-4571	Inside Escutcheon only with Thumb Turn	1
5	52-2431	125kHz Prox Only Assembly (PA)	1
	52-2432	Keypad and 125kHz Prox Assembly (PK)	
		OR	
	52-4255	13.56MHz Prox Only Assembly (IA) *When ordered seperately, 13.56 mHz reader assemblies (52-4255/52-4256) ship configured for battery powered operation and need to be configured for PoE/Hardpower use if necessary.	
	52-4256	Keypad and 13.56MHz Prox Assembly (IK) *When ordered seperately, 13.56 mHz reader assemblies (52-4255/52-4256) ship configured for battery powered operation and need to be configured for PoE/Hardpower use if necessary.	
6	52-4201	S1 Controller Assembly (Double Pulse)	1
7	52-3855	Battery Cover Assembly	1
8	01-1212	Security Screw	1
9	52-2427	Profile Screw Pack - Specify Finish (Includes: Fire Stop Plate, Trim Mounting Screws, Security Allen Wrench)	1
10	Consult Factory	Lever Handle Screw (Depends on Lever Style)	1
11	Consult Factory	Inside Adapter Assembly (Depends on Lever Style)	1
12	Consult Factory	Outside Adapter Assembly (Depends On Lever Style)	1
13	S1-82276-hand-finish	Lockbody with Dead Bolt with Cylinder	1
	S1-82277-hand-finish	Lockbody with Dead Bolt without Cylinder	
	S1-82278-hand-finish	Lockbody without Dead Bolt with Cylinder	
	S1-82279-hand-finish	Lockbody without Dead Bolt without Cylinder	
14	82-0084	Faceplate with Dead Bolt (shown)	1
	82-0081	Faceplate without Dead Bolt	1
15	77-4336	Mortise Screw Pack - Specify Finish (Includes: Wood and Metal Lock body Screws, Faceplate Screws, and Strike Screws)	1
16	Consult Factory	#43 Mortise Cylinder	1

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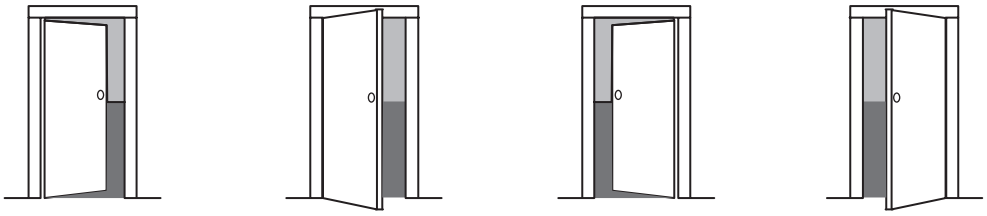
8 Lock Installation

Step #1 – Door Preparation

A. Verify Hand and Bevel of Door

Stand on outside of locked door when determining door hand.



LH
Left Hand
Hinges Left
Open Inward

LHRB
Left Hand
Reverse Bevel
Hinges Left
Open Outward

RH
Right Hand
Hinges Right
Open Inward

RHRB
Right Hand
Reverse Bevel
Hinges Right
Open Outward

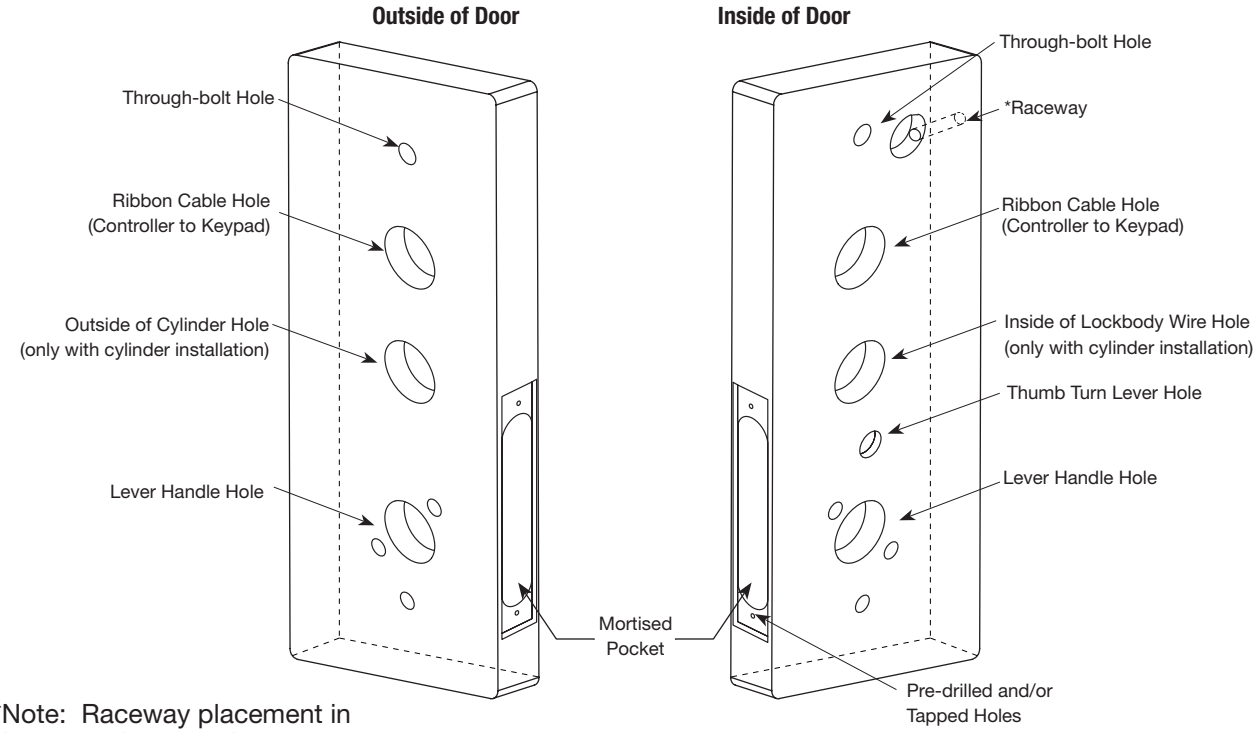
Fig. 1A

B. Door Preparation

Prior to installation, all holes must be free of burrs, debris and sharp edges.

Prepare door according to appropriate template (see website www.intelligentopenings.com):

- Wood door: A7457 (ships with product)
- Metal door: 4533



*Note: Raceway placement in document is approximate.

Fig. 1B

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Step #2 – How to Change Hand of Lockbody

A. Reverse Lock Hand

Red surface of locking piece must face the outside/locked side of door. To rotate locking piece (Fig. 2A):

1. Position lock body with red surface of locking piece visible.
2. Insert blade type screwdriver into locking piece slot to rotate locking piece toward back of lock body.
3. Rotate the locking piece 180° until RED surface is on opposite side.

Note: Red indicates locked side (outside). Wire harness MUST exit through the inside/non-cylinder side of the lockbody.

B. Retaining Ring

Make sure the plastic retaining ring is seated correctly (Fig. 2B):

1. The wires and the plastic retaining ring must be located on the non-cylinder side.
2. Orient the plastic retaining ring so that the word **Bottom** is located at the bottom of the cylinder hole.
3. Route the wires from the top of the cylinder hole into the slot on the top of the plastic retaining ring, NOT through the retaining ring.

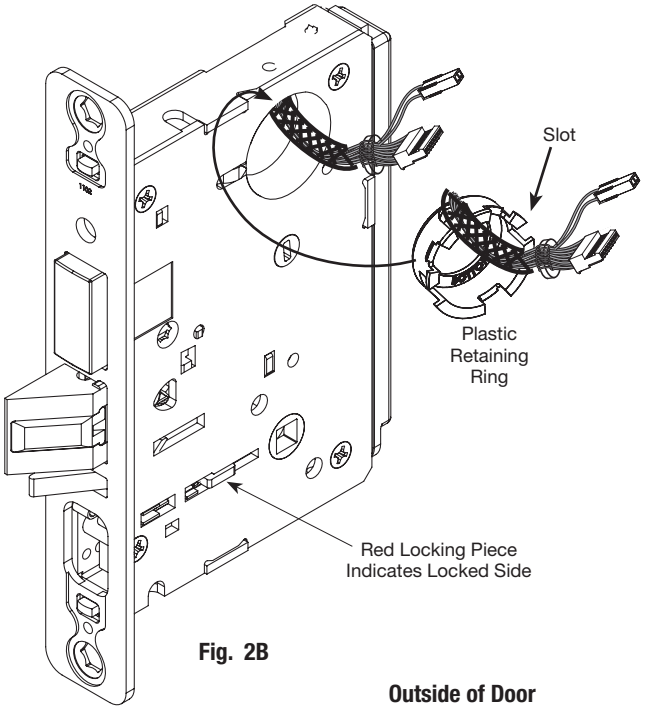
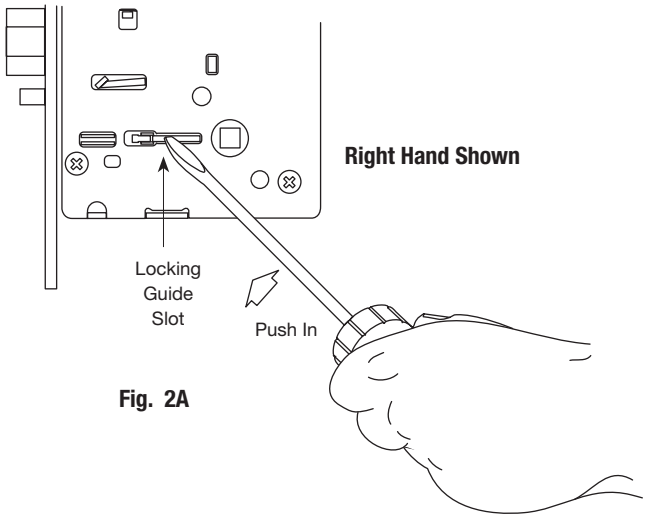


Fig. 2B

Outside of Door



Right Hand Shown

Fig. 2A

C. Reverse Latch Hand

Beveled surface of latchbolt must face strike.

The deadlatch is self adjusting.

To change the hand of the latchbolt:

1. Insert the blade of a slotted screwdriver (>1/4") into the spade shape slot behind latch.
2. Rotate the screwdriver 90° to push latchbolt out until back of bolt clears lock case front.
3. Rotate latchbolt 180° until the latchbolt drops back into the lockbody.

Note: Latch cannot be unscrewed.

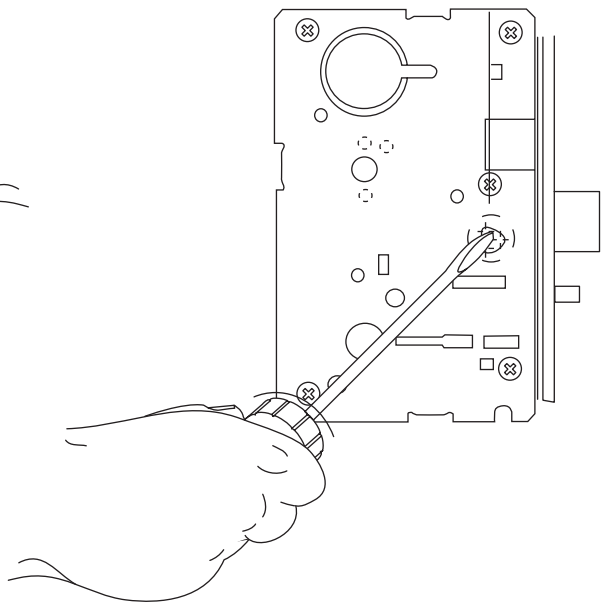


Fig. 2C

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Step #3 – Install Lockbody

1. Feed the wires first through the mortise pocket and out the inside prep, followed by the lockbody (Fig. 3A).

   Note: Connectors and wires must be fed through non-cylinder side.

2. The wires from the lockbody exit the inside door prep through the mortise cutout.
3. Loosely secure the lockbody in the door with two #12 x 1-1/4" wood screws or #12-24 x 1/2" machine screws.

   Note: Do not completely tighten at this time.

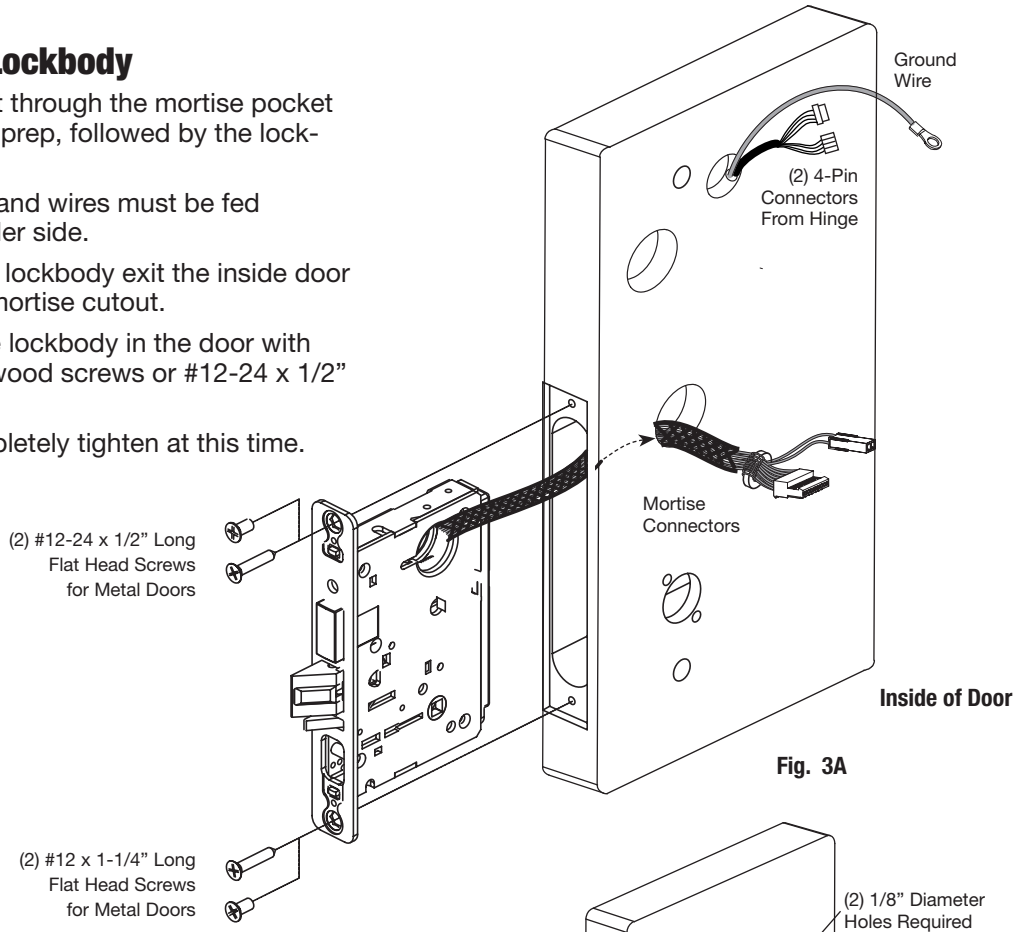

Fig. 3A

Step #4 – Exterior Door Options

A. Fire Stop Plate

Fire-rated doors require a fire stop plate on the outside of the door (Fig. 4A).

1. Drill (2) 1/8" x 1-1/4" deep holes in the door, if not already present.

   Refer to template for fire-stop prep locations.

2. Attach with flap up and out using (2) #8 x 1/2" self-tapping screws for wood and metal doors.

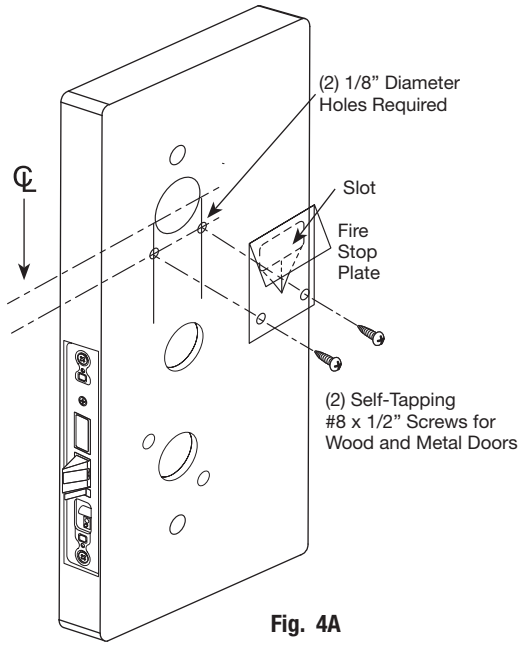

Fig. 4A

B. Weather Conduit

Install weather conduit (part number 52-2847) on **NON Fire-Rated** exterior doors only (Fig. 4B).

Note: Once weather conduit is assembled, it can be difficult to take apart.

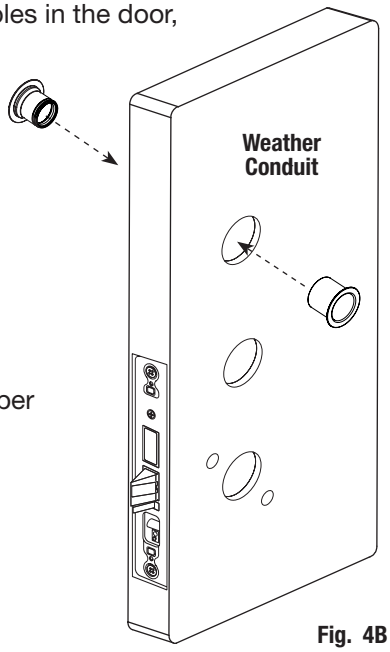

Fig. 4B

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Step #5 – Install Gasket (for Exterior Doors)

1. Carefully remove the backing from the gasket.
2. Apply gasket to escutcheon:
   - Starting in one place, press the adhesive side of the gasket firmly against the escutcheon.
   - Work around the escutcheon, pressing the sticky side of the gasket firmly against the escutcheon edge.
   - The gasket should be aligned so that all edges of the escutcheon are covered.
3. Attach escutcheon to the door after the wires are connected.

   Note: The 43 cylinder may be used with or without a gasket.

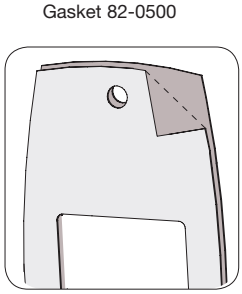

Fig. 5A

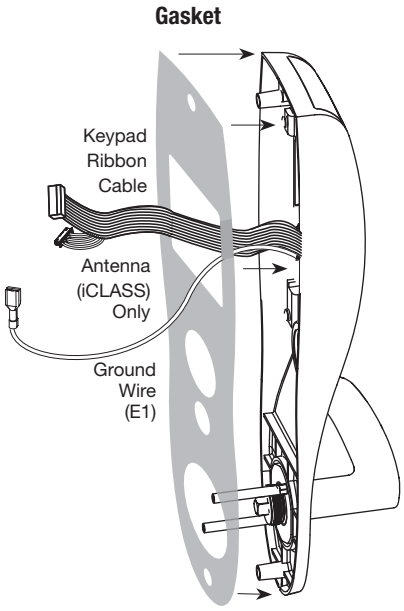

Fig. 5B

Step #6 – Install Outside Escutcheon and Lever Assembly

1A. For fire rated doors, feed ribbon cable with connector and ground wire from outside of door through weatherseal gasket and fire stop plate (Fig. 6A).

Note: Install ribbon cable with cable exiting down

1B. For non-fire rated doors, feed ribbon cable with connector and ground wire from outside of door through weatherseal gasket (if used) and weather conduit (Fig. 6A).

Note: Install ribbon cable with cable exiting down

2. With outside lever horizontal, locate the outside escutcheon on the door, while directing the mounting posts through the door and lock body (Fig. 6B).

   Make sure the lever spindle is properly engaged in lock.
3. On the inside of the door, insert spindle into square hole of mortise lock.
4. Slide inside adapter and plate assembly over spindle and loosely secure with 2 through bolt screws (#8-32 x 5/8").

   Note: For 8276 and 8278, loosely thread cylinder through escutcheon and into the lock body before tightening the lock case screws and escutcheon through bolts.

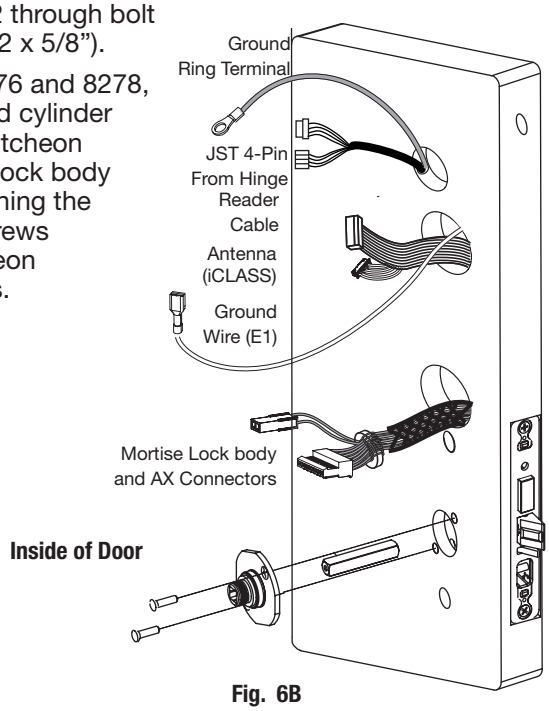

Fig. 6B

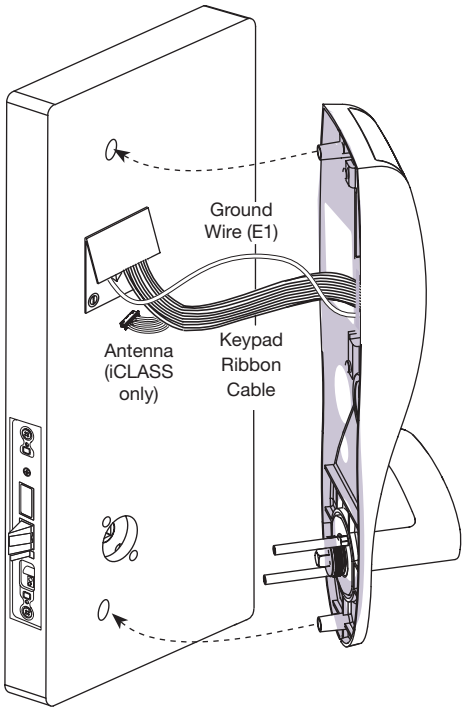

Fig. 6A

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Step #7 – Escutcheon Wire Connections

Images are shown without gasket. If gasket is necessary, refer to Step #5.

Before the controller is attached to the door:

1. Attach the reader assembly ribbon cable into the back of the controller assembly (side that faces towards the door when mounted (Fig. 7C Detail).
2. Attach the antenna to the circuit board in the plastic housing under the controller assembly.

   Note: The difference between the wiring for the iCLASS 13.56 MHz reader and the 125 kHz Prox is that the iCLASS wiring includes an antenna wire.
3. Attach the ground wire to the bottom of the controller assembly (E1, Fig. 7A).

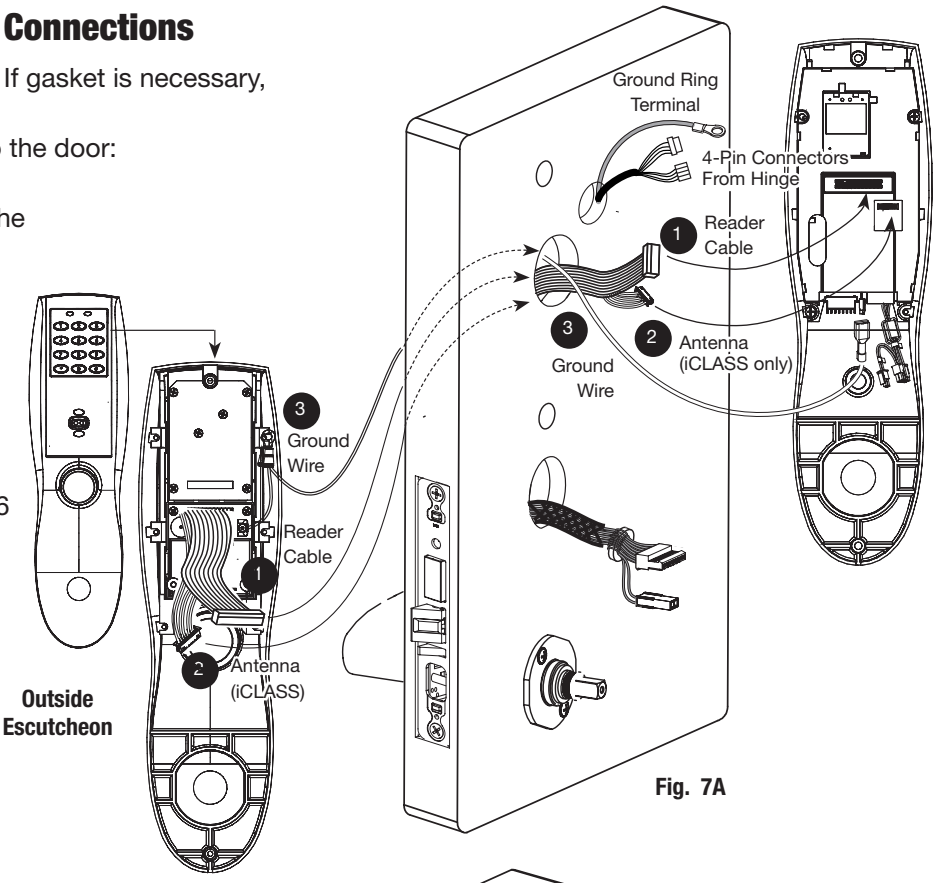

Fig. 7A

Step #8 – Additional Wiring Connections

Lock, DPS and raceway wire connections:

1. Connect the cable from the mortise lock to the bottom of the controller assembly (TB1, Fig. 8A).
2. Connect the AX/DPS connector to the 2-pin harness.
3. Push the two connectors from the raceway over the controller assembly, through the gap between the plastic controller assembly and the escutcheon, to the front of the circuit board.

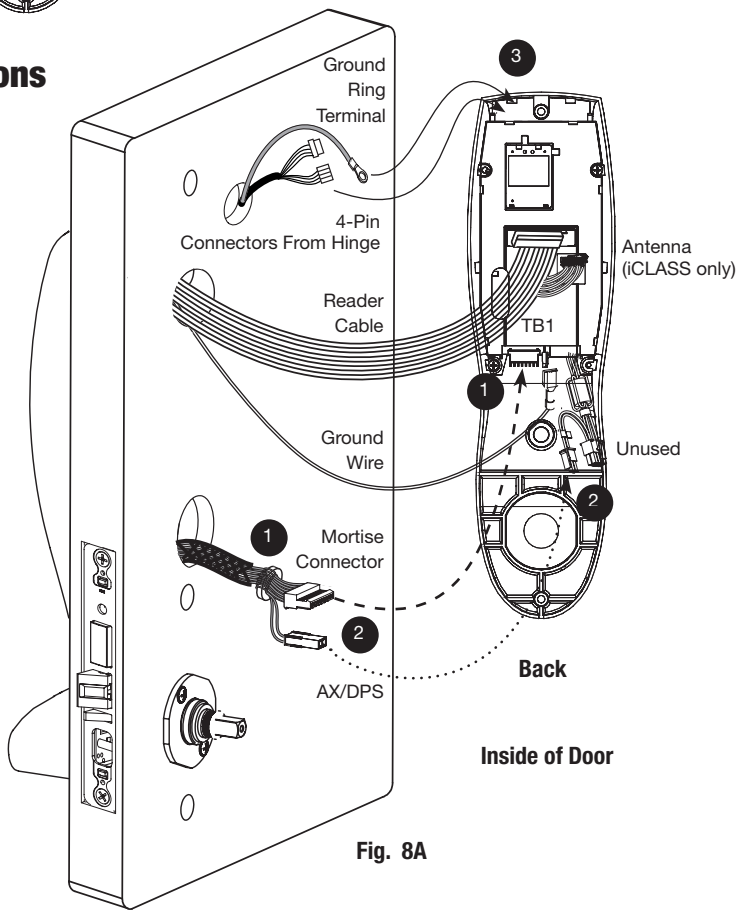

Fig. 8A

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Step #9 – Ciruit Board Wiring

Before installing escutcheon, route raceway cables and ground attach to front of circuit board.

Turn the controller assembly over:

1. Route the raceway connectors over the top of the controller assembly and plug into the front of the circuit board (side that faces out when mounted (J7, J4; Fig. 9A).
2. Route the 2 ground ring terminals, one from the lock and the other from the hinge wiring, over the top of the controller assembly and connect both to the top escutcheon screw.

   Note: Connectors go on only one way.

   Do not offset connectors and make sure they are completely seated.

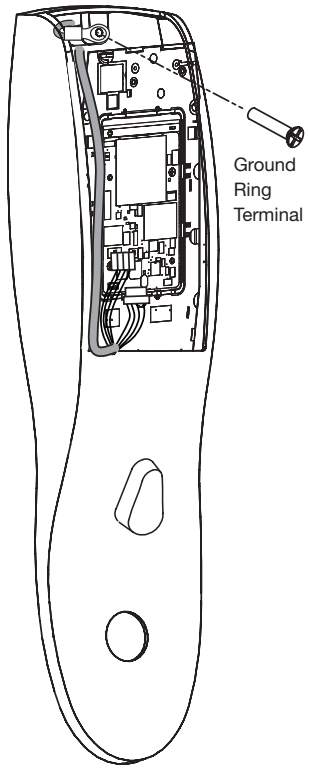

Fig. 9A

Step #10 – Install Inside Escutcheon

1. Gently fold the excess ribbon connector and ground wire into the top hole, JST connectors and ground wire into offset middle hole, and mortise and AX/DPS wires into bottom hole, being careful not to pinch wires (Fig. 10A).
2. Insert (2) #8-32 x 1-1/4" screws through inside escutcheon and thread into outside escutcheon (Fig. 10B)

   Straighten escutcheons and tighten securely.

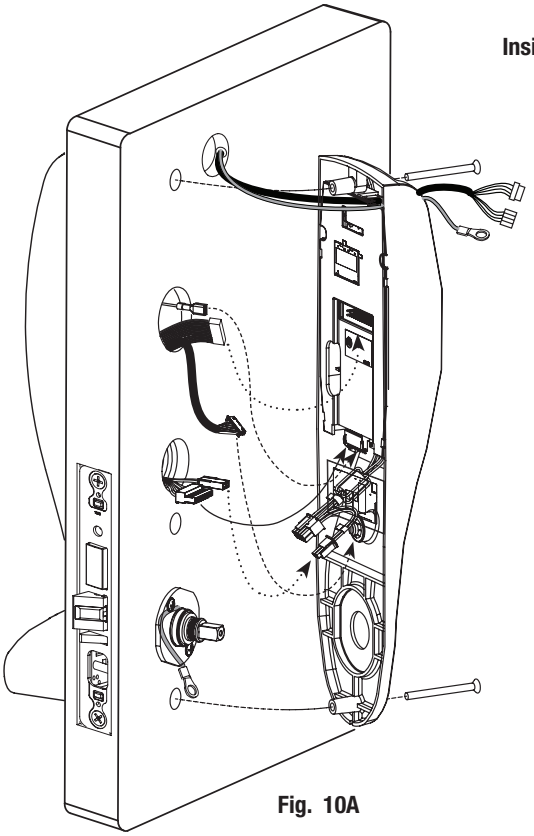

Fig. 10A

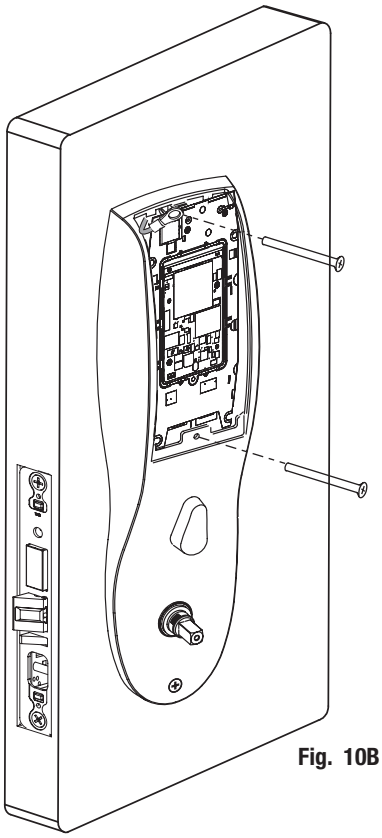

Fig. 10B

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Step #11 – Install Inside Lever

1. Slide lever handle onto spindle until fully seated (Fig. 11A).
2. Tighten the set screw securely with 1/8" hex wrench.

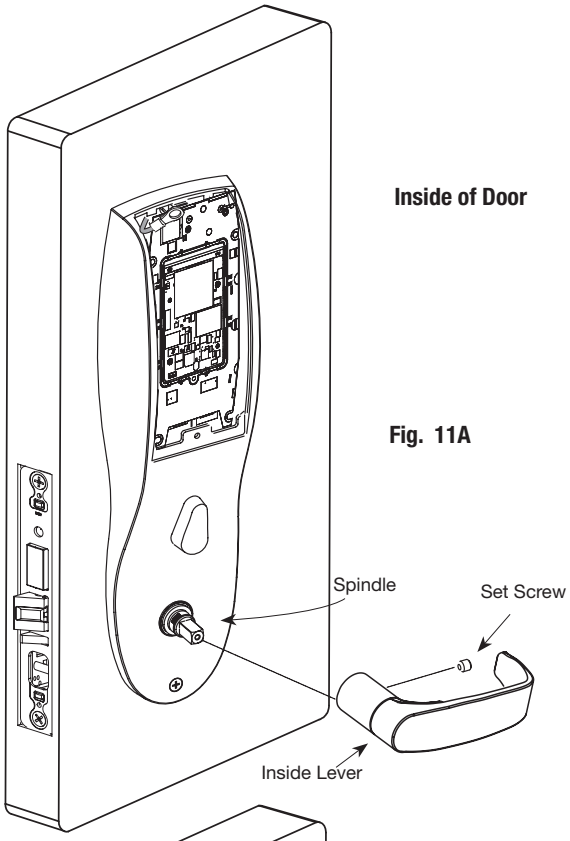

Fig. 11A

Step #12 – Install and Secure Cylinder

1. Slide cylinder through the spring and rosette/collar and screw into lockbody, rotating the cylinder clockwise (Fig. 12A).

   Cylinder should be flush with rosette/collar.

   Note: The 43 cylinder may be used when installing this product with or without a gasket.

   Note: SARGENT logo must be horizontal and on the top of the cylinder (Fig. 12B).
2. Secure the cylinder by tightening cylinder clamp screw located above the deadbolt using #2 Phillips screwdriver (Fig. 12C).
3. Using the key, test cylinder functions:
   - 8278 Function: Key retracts latch-.
   - 8276 Function: Key retracts latch and projects and retracts deadbolt-.

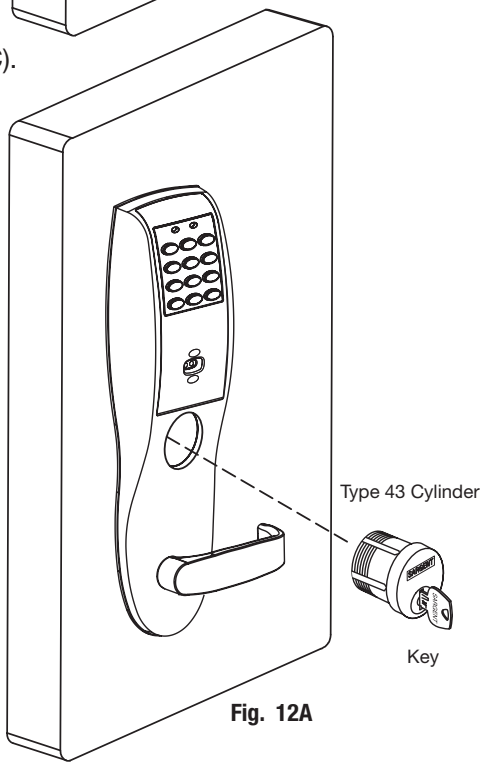

Fig. 12A

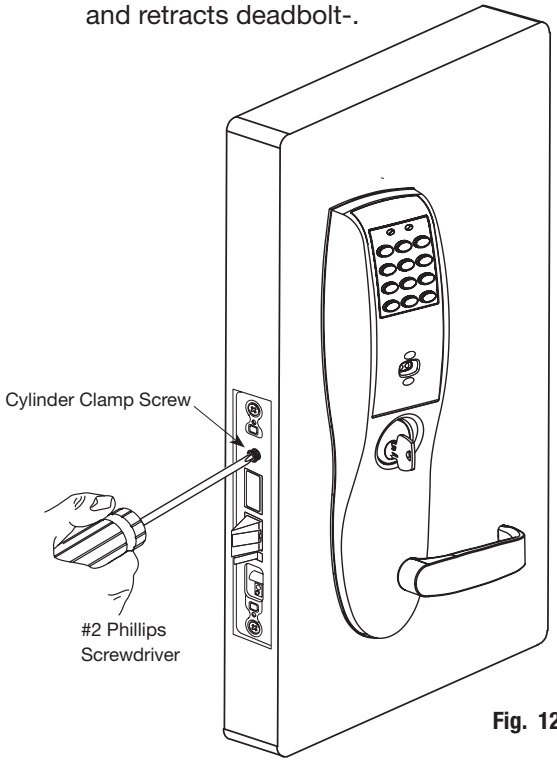

Fig. 12C

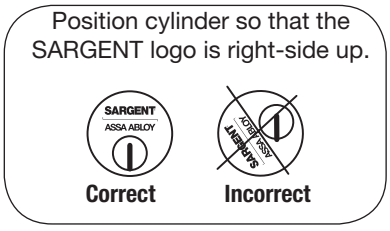

Fig. 12B

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Step #13 – Attach Front Plate

Attach front plate with (2) flat head screws.

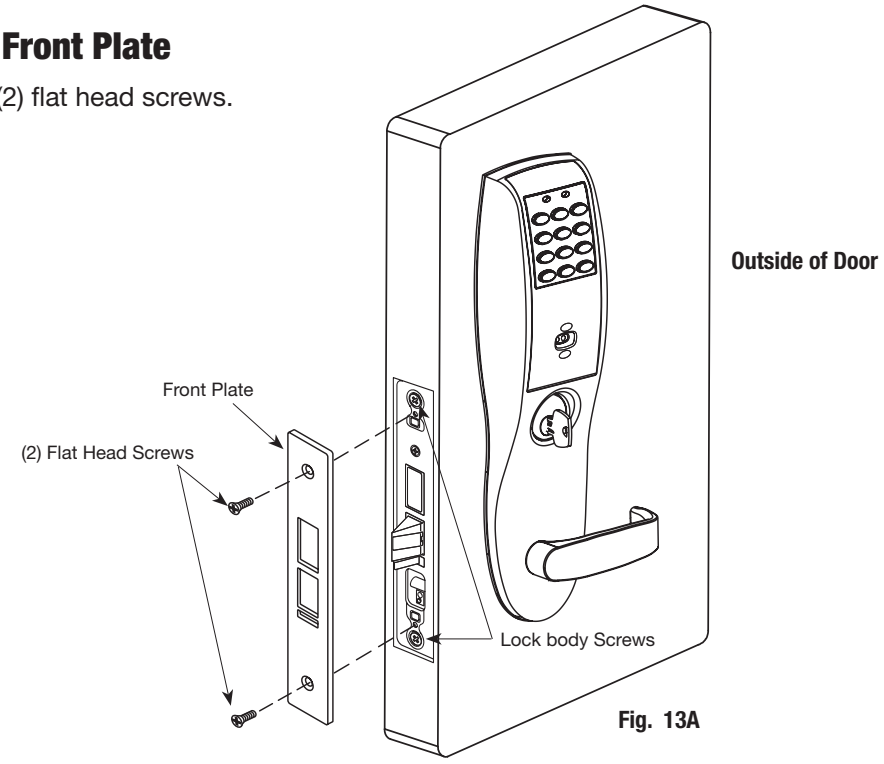

Fig. 13A

9 Operational Check

For 8276- and 8278-function mortise locks with cylinders:

1. Insert key into cylinder and rotate.

   There should be no friction against lock case, wire harness or any other obstructions.

   Refer to **Section 6, Step 8 Wiring** if harness friction exists).
2. Check that the key retracts the latch:

   They key should rotate freely.
3. Throw the deadbolt:

   Check that the key retracts both the deadbolt and the latch.
4. Try the inside lever:

   Ensure it retracts latch and deadbolt (if provided).
5. Enter a valid PIN code or present a valid iCLASS/PIN credential.

   This should unlock the outside lever and allow the latch to be retracted.

   Refer to the **Network & Lock Configuration Tool User Manual** (WFCD1) for additional information.

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