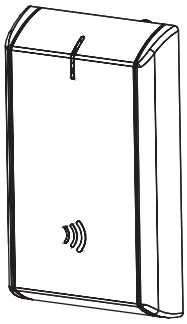
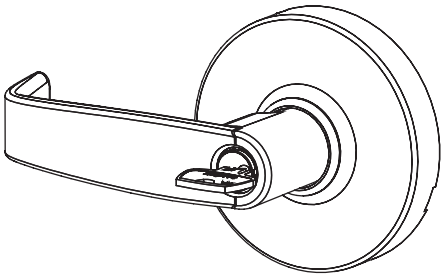
SARGENT®

ASSA ABLOY



IN120



WiFi
Cylindrical Lock
Installation Instructions

A8152E
04/16

ASSA ABLOY, the global leader in door opening solutions

Table of Contents

1 Warning

Changes or modifications to this device not expressly approved by ASSA ABLOY could void the user's authority to operate the equipment.

FCC:

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:

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.
"This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter."

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and SARGENT Manufacturing 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.

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

2 General Description

The IN120 WiFi lock offers the ease and flexibility of WiFi in a streamlined design, setting a new standard for aesthetics and performance. The IN120 uses IEEE 802.11 WiFi communication and a flexible feature set for easier, more cost-effective installations, allowing facilities to leverage their IT infrastructure to expand access control coverage to more doors. Featuring HID® multiCLASS SE™ technology, it supports heightened identity security and multiple credentials, including mobile access.

This product is operated by six (6) "AA" alkaline batteries, or can be hard-powered using an optional 9-24VDC power supply connected by a harness through the door.

SARGENT cylindrical locks are designed with quality components to provide high security, performance and durability.

HID, iCLASS, iCLASS SE, and multiCLASS SE are registered trademarks or trademarks of HID Global in the U.S. and/or other countries.

3 Hardware Specifications

- Complete lockset with on-board memory
- ADA compliant
- Easily retrofits existing (cylindrical lock) door preps
- Latch - 1/2" standard 3/4" throw fire-rated double doors (optional) (41- prefix)
- Deadlocking latch - Stainless steel, non handed
- Lock furnished for 1-3/4" doors. For other thicknesses, consult factory.
- May be used for indoor and outdoor applications
- ANSI/BHMA A156.25 Listed Grade 1 Compliant
- Outside lever controlled by contactless reader or mechanical cylinder

NOTE: A weather-protective gasket is required for outdoor applications.

4 Electronic Specifications

- HID® multiCLASS SE® technology offers support for the following credentials:
  - 2.4 GHz credential compatibility:
    - Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)
  - 13.56 MHz credential compatibility:
    - iCLASS®
    - iCLASS SE® (SIO-enabled)
    - iCLASS Seos®
    - SIO on MIFARE® Classic
    - SIO on MIFARE® DESfire® EV1
    - MIFARE® Classic
    - DESfire® EV1
    - NFC-enabled mobile phones
  - 125 kHz credential compatibilty:
    - HID Prox®
- Multiple time zone and holiday access scheduling
- First-in unlock or automatic unlock configuration, based on specified time schedule
- 2,400 users per lock; 10,000 event audit trail
- Privacy button

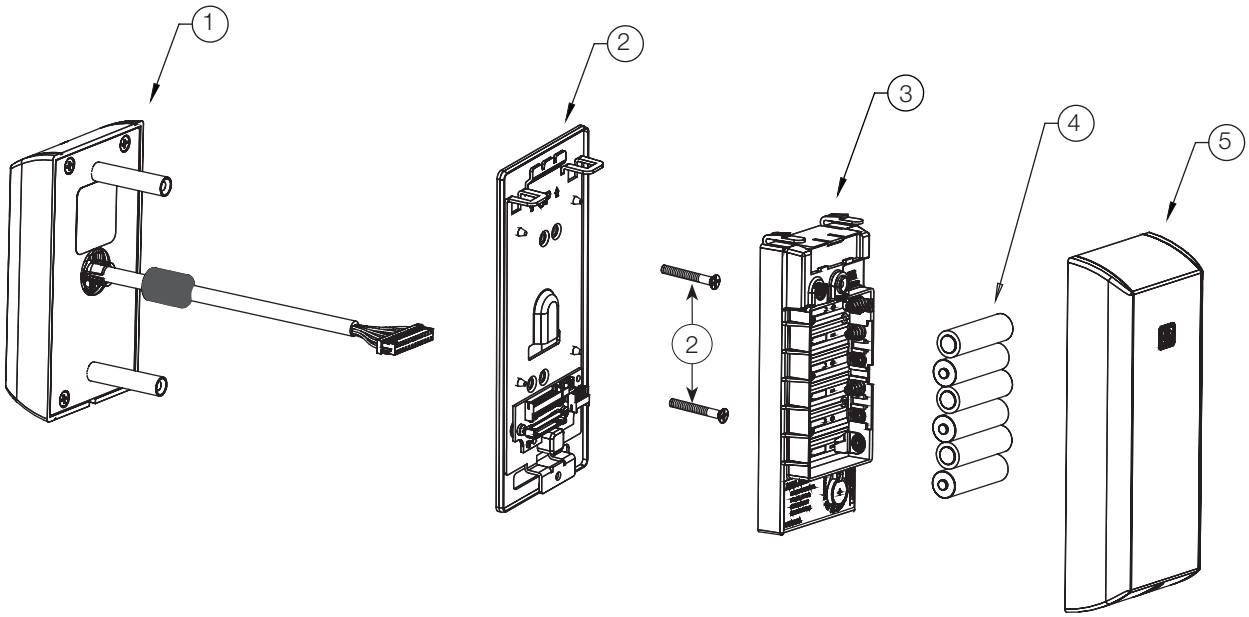
Power Requirements:

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

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

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

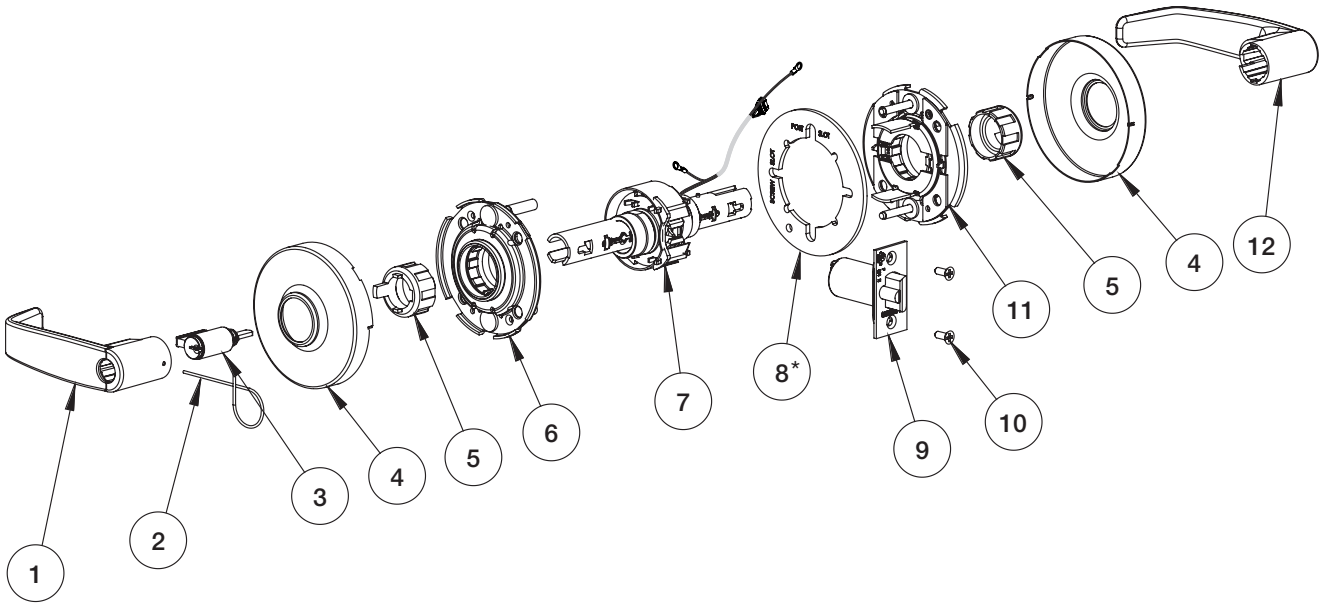
5 Parts Breakdown

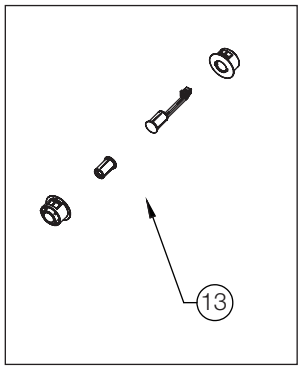


ITEM	PART NUMBER/ORDER STRING	DESCRIPTION	COLOR/TRIM	QTY
1	IN-120-EM01-IP-B	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	Black	1
	IN-120-EM01-IP-W	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	White	
	IN-120-EM01-IP-MB-[finish]*	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	Black with metal trim	
	IN-120-EM01-IP-MW-[finish]*	HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos™, HID MIFARE® SE, HID DESfire® EV1 SE, HID Prox®, NFC-enabled mobile phones	White with metal trim	
	IN-120-EM01-IPS-B	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	Black	
	IN-120-EM01-IPS-W	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	White	
	IN-120-EM01-IPS-MB-[finish]*	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	Black with metal trim	
	IN-120-EM01-IPS-MW-[finish]*	All credentials supported by the IP option plus MIFARE Classic and DESfire EV1	White with metal trim	
	IN-120-EM01-CP-B	FeliCa, HID Prox®, NFC-enabled mobile phones	Black	
	IN-120-EM01-CP-W	FeliCa, HID Prox®, NFC-enabled mobile phones	White	
	IN-120-EM01-CP-MB-[finish]*	FeliCa, HID Prox®, NFC-enabled mobile phones	Black with metal trim	
	IN-120-EM01-CP-MW-[finish]*	FeliCa, HID Prox®, NFC-enabled mobile phones	White with metal trim	
2	IN120-EM04	Inside Mounting Kit (mounting plate & hardware)		1
3	IN120-EM03	WiFi Controller		1
4	N/A	AA battery		6
5	IN-120-EM02-B	Inside Escutcheon	Black	1
	IN-120-EM02-W	Inside Escutcheon	White	
	IN-120-EM02-MB-[finish]*	Inside Escutcheon	Black with metal trim	
	IN-120-EM02-MW-[finish]*	Inside Escutcheon	White with metal trim	
6	A8149	Field prep template (not shown)		1
7	4712	Door manufacturers template (not shown)		1
--	A8152	Instructions (this manual)		1

* Specify finish

Parts Breakdown (Continued)





ITEM	PART NO./ORDER STRING	DESCRIPTION	QTY.
1	---	Outside Lever (Reference Catalog for Available Styles)	1
2	10-0043	Lever Retainer Key (In Screw Pack 10-2052)	1
3	---	Cylinder Assembly (Reference Catalog for Available Cylinders)	1
4	---	Rose (Reference Catalog for Avalable Styles)	2
5	10-0792	Spacer Bushing	2
6	10-3049	Outside Rose Spring Assembly	1
7	10-3407	Lockbody Assembly 10G77 (Standard Cylinder)	1
	10-3412	Lockbody - LFIC	
	10-3417	Lockbody - SFIC	
8	10-0847	Adapter Plate/Spacer (Only Included With 1-3/8" Thick Doors)	1
9	10-3192	Latch Assembly	1
10	10-2052	Screw Pack	2
11	10-3048	Inside Rose Spring Assembly	1
12	---	Inside Lever (Reference Catalog for Available Styles)	1
13	52-5373	DPS (Door Position Switch) Kit	1

*__Adapter Plate/Spacer__ (10-0847) is only shipped with orders that specify 1-3/8" doors.

Tools Required:

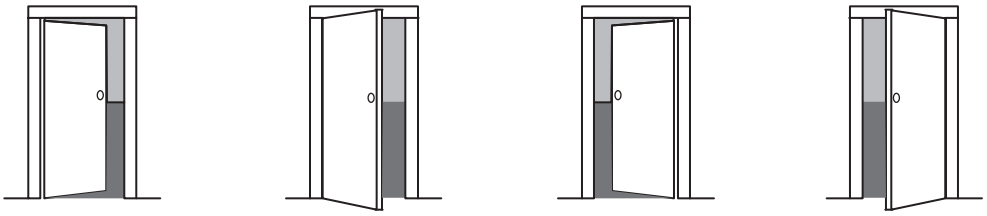
- #2 Phillips screwdriver
- Flat head screwdriver
- Security allen wrench

6 Lock Installation

1 Prepare Door

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. Prepare Door

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**).

- Field Template: A8149 (ships with product)
- Door Manufacturer's Template: 4712

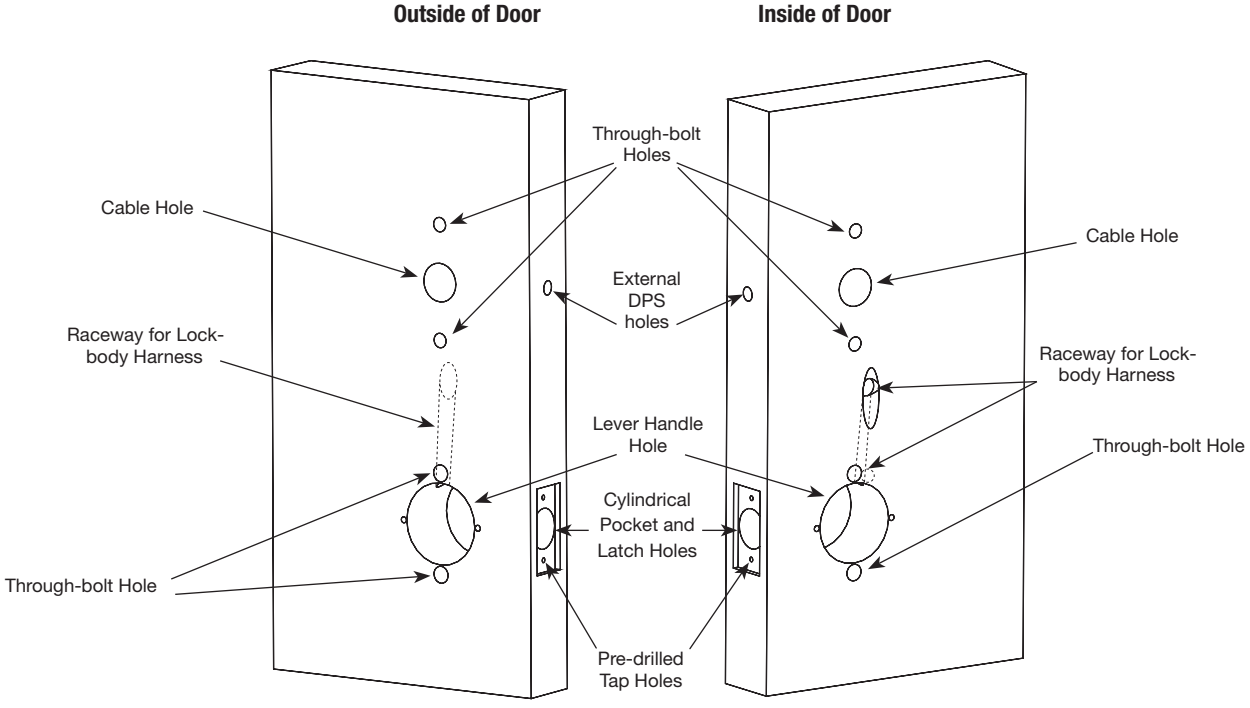


Fig. 1B Wood Door Preparation

2 Install Strike

Install strike in the door frame (Fig. 2).

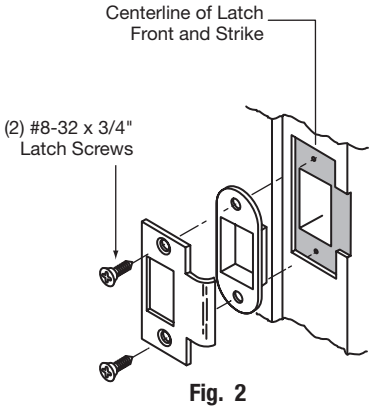


Fig. 2

3 Install Latchbolt

1. Install latch with beveled bolt facing the strike.
2. Attach with two screws but DO NOT tighten completely at this time. See section **8 - Secure Lock to the Door**.

IMPORTANT: Latch bevel must match door bevel and deadlocking latch must stop on strike when door is closed.

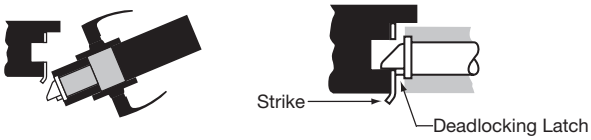


Fig. 3B

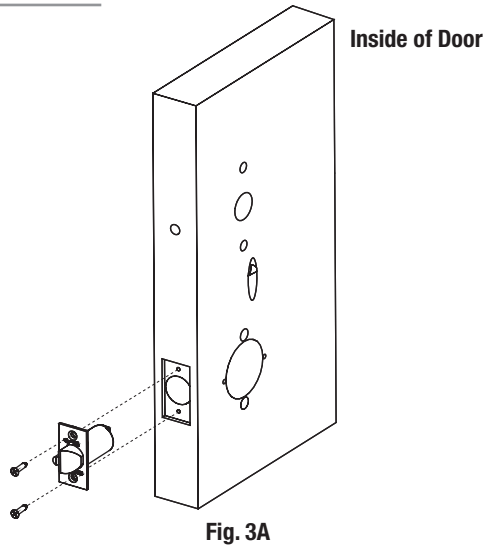


Fig. 3A

4 Install Door Position Switch (DPS)

1. Push wires through raceway toward lock prep.
2. Push DPS firmly into place by hand.

   Note: DO NOT TAP SWITCH WITH ANY TOOL.
3. Install magnet into door frame. Push firmly into place by hand. See A7983A.
4. To connect DPS to lock controller per diagram, refer to the wiring in Step #14 section 3.

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

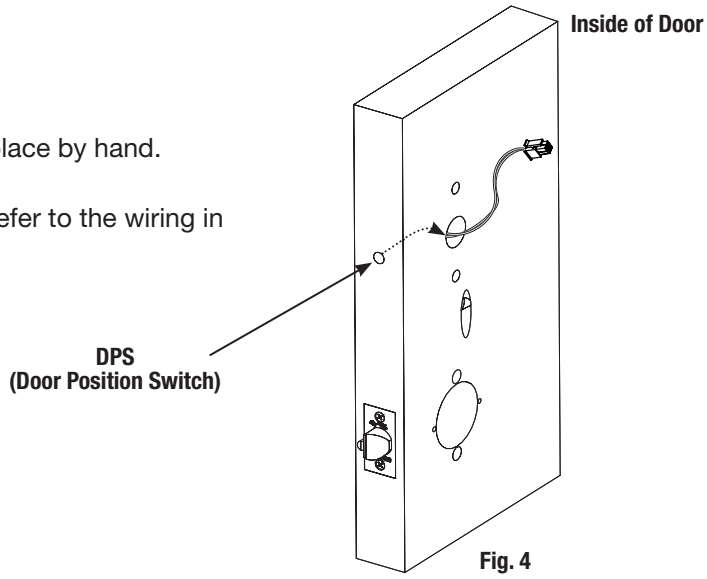


Fig. 4

5 Lock Adjustments

A. Lock Preset:

- Lockbody holes: 12 and 6 o'clock (Fig. 5).

The lock is shipped "preset" and does not require adjustment for 1-3/4" thick doors.

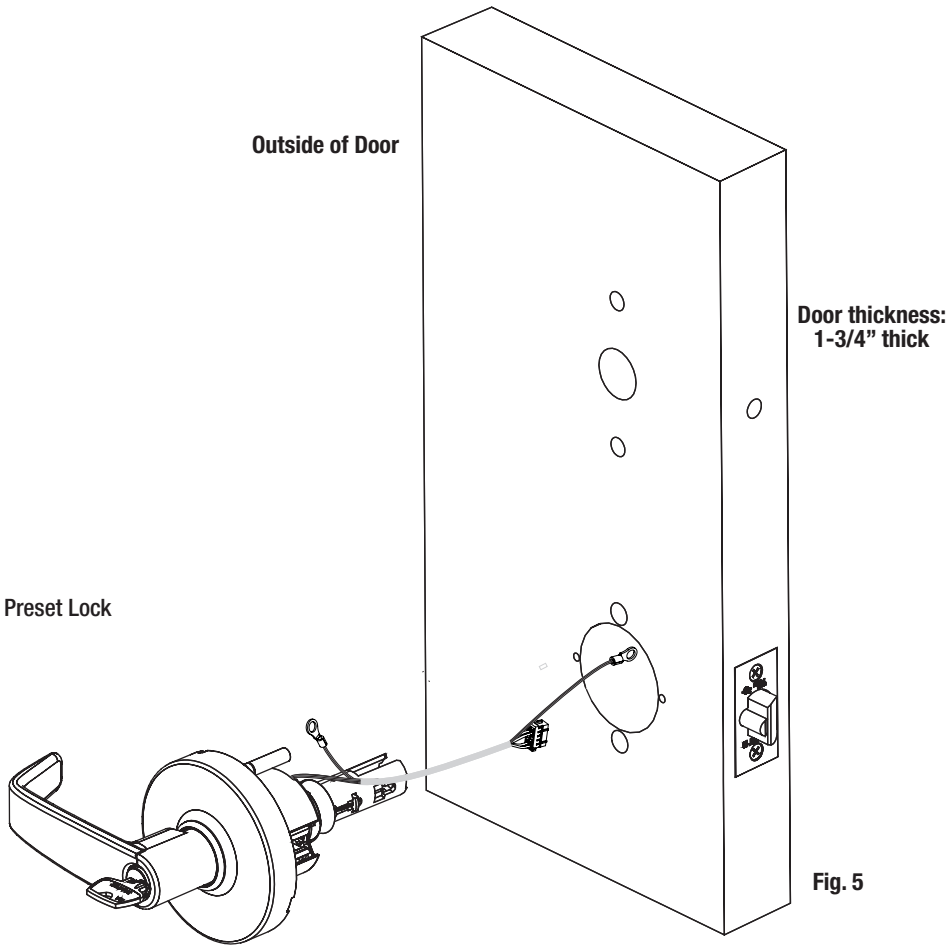


Fig. 5

NOTE: Adjusting for a thicker door requires removal of the outside lever, scalp and spacer bushing; see the following sections.

If preset lock does not require adjustment, proceed to Step 7 - Install Lock

6 Through-Bolt and Door Thickness Adjustment (If Required)

A. Remove Outside Lever

1. Insert key, rotate 45° clockwise and hold.
2. Depress lever retainer with push pin tool (provided).
3. Pull lever outward.

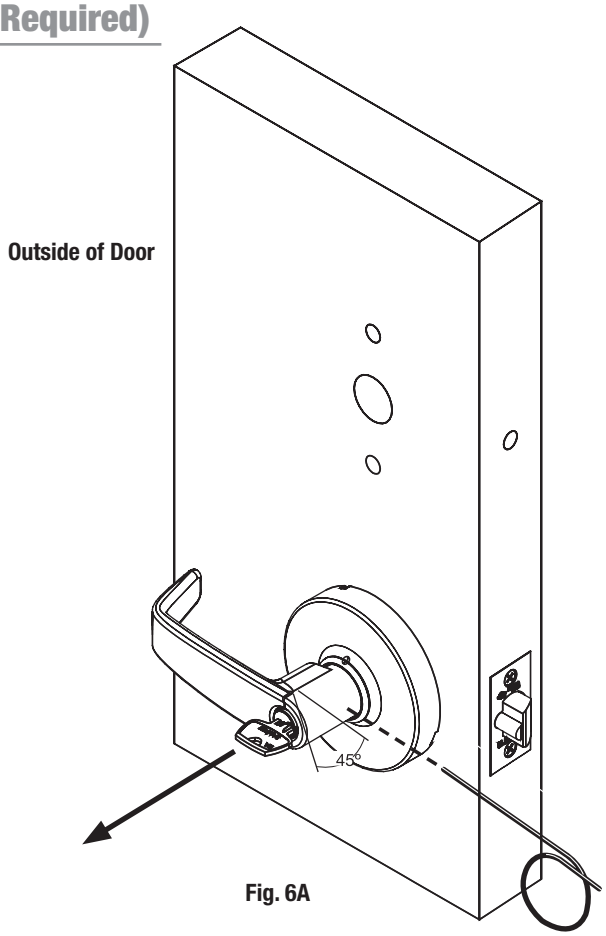


Fig. 6A

B. How To Change Cylinder (If Necessary)

1. With outside lever in hand, use standard pliers to pull out cylinder retainer.
2. Remove key and cylinder from lever.
3. Insert new cylinder.
4. Secure by pressing cylinder retainer flush with the lever.

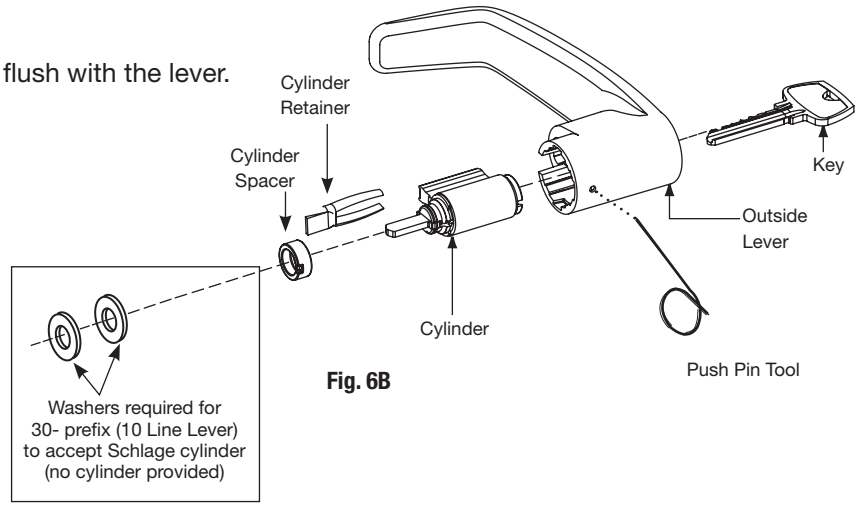


Fig. 6B

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C. Through-Bolt and Door Thickness Adjustment

1. (If necessary) remove outside lever, scalp and spacer bushing (Fig. 6C).

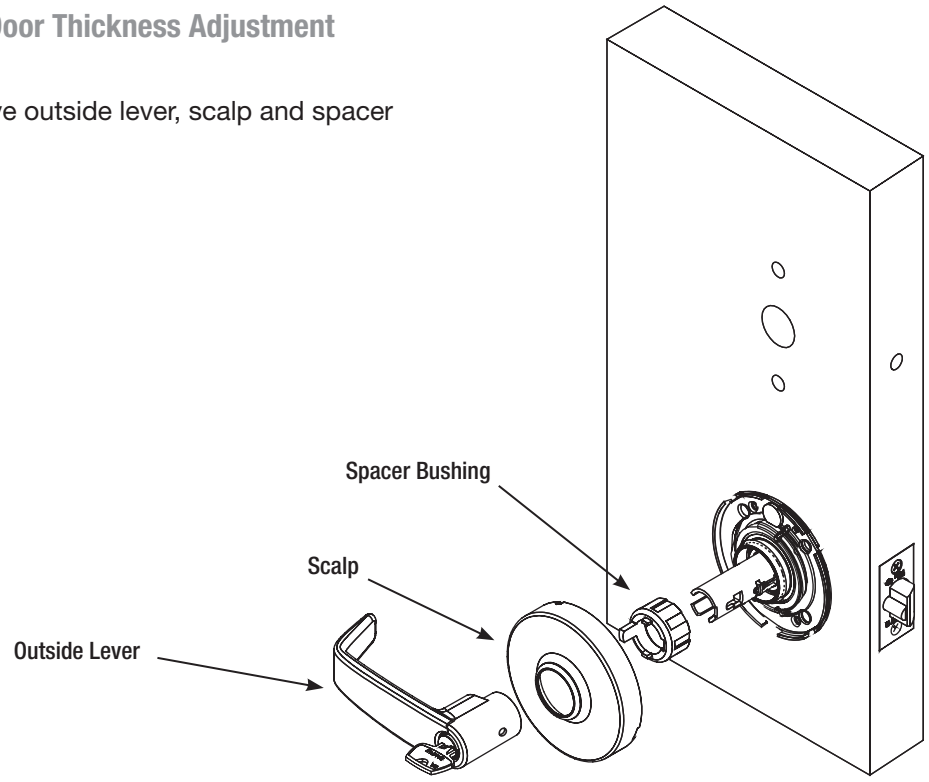

Fig. 6C

2. Rotate mounting plate to either align with through-bolt holes in door, or adjust for proper door thickness (Fig. 6D).

   Refer to markings on through-bolt post (Fig. 6C Detail).

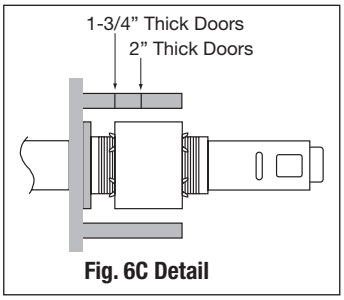

Fig. 6C Detail

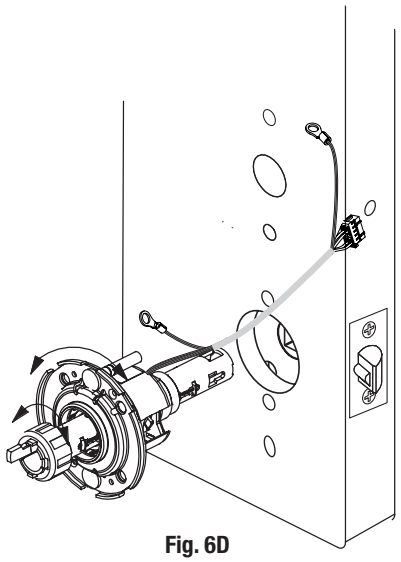

Fig. 6D

3. Re-install spacer bushing to align with back of lever, scalp, and lever (Fig. 6D).

7 Install Lock

1. From outside of door feed lockbody harness into the lockbody hole (Fig. 7A).
   For metal door: Feed harness through inside of door (not shown).
2. Continue to feed harness into raceway (towards top of door), exiting raceway hole on inside of door (Fig. 7B).
3. Slide lockbody into cross-bore hole from outside of door.
4. Lockbody must engage both the latch unit prongs and tail piece (Fig. 7C).

IMPORTANT:

- Door must remain open during installation (use door stop).
- Lockbody must be centered in the door.
- Tuck excess wires into raceway to avoid pinching wires.

NOTE: Cable lengths exaggerated for illustrative purposes.

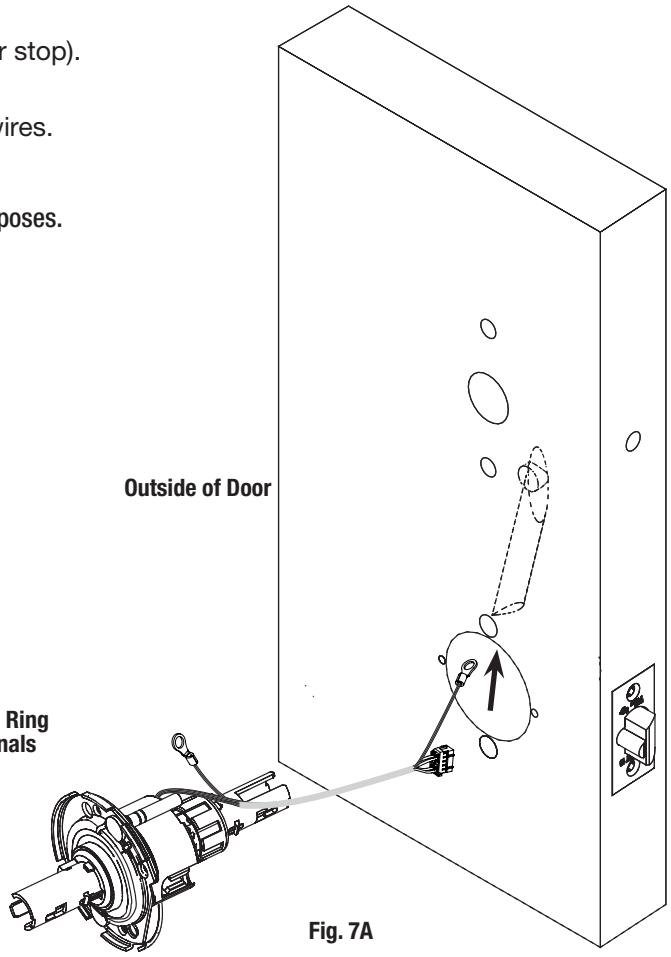

Fig. 7A

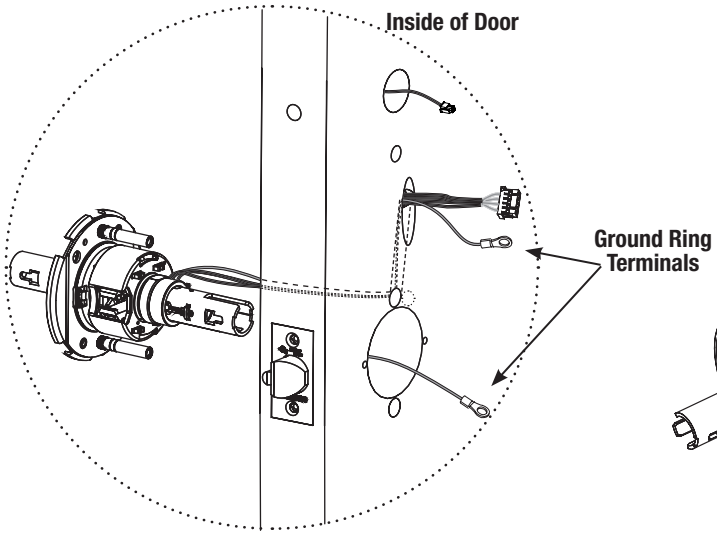

Fig. 7B Detail

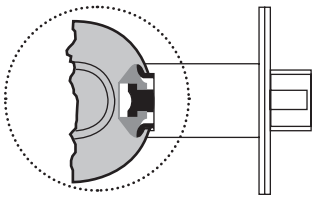

Fig. 7C Detail

8 Secure Lock To Door

1. Feed wire and connector:
   - For wood door, feed connectors and wires through the door and up the wire run channel (Fig. 8A).
   - For metal door (not shown), feed connectors and wires into the lockbody hole and out the controller hole.
2. Position ground lug between (top) #10-32x1-1/4" through-bolt and rose assembly (Fig. 8A).

NOTE: Proper placement of ground wire (Fig. 8A, B) will prevent pinching/damage to the ground wire.

3. Secure rose assembly with (2) #10-32x1-1/4" through-bolts.
4. Secure latch by fully tightening (2) #6 x 3/4" self-tapping screws (refer to previous section **3 - Install Latchbolt**).

NOTE: Cable lengths exaggerated for illustrative purposes.

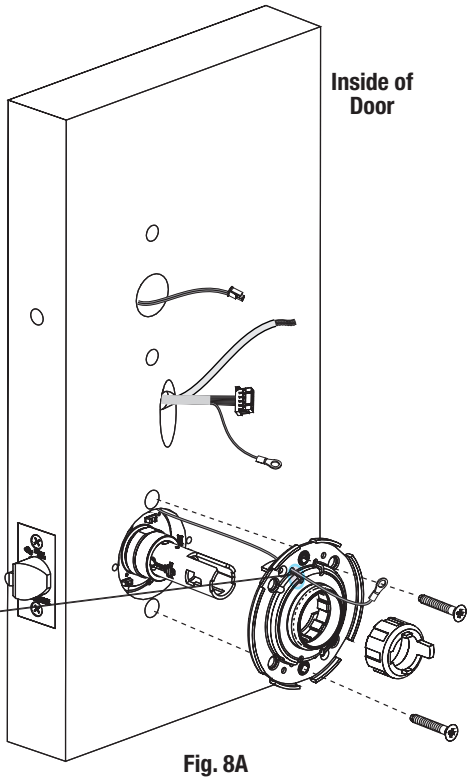

Fig. 8A

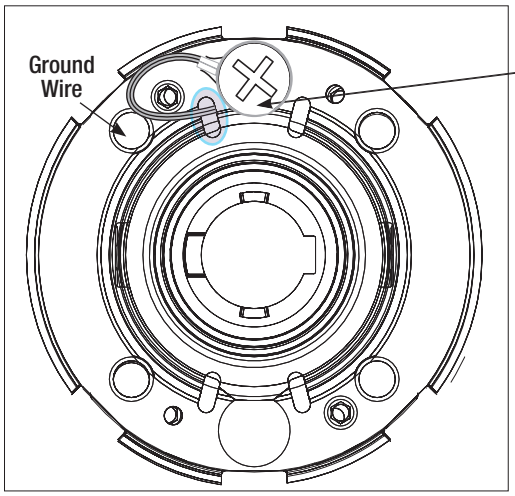

Fig. 8B Detail

9 Assemble Inside Trim

1. Verify spacer bushing is inserted horizontally and aligned with lever (Fig. 9).
2. Place rose over shaft of lock body against the surface of the door; hand-tighten, turning **clockwise**.
3. Attach lever. Push until engaged.

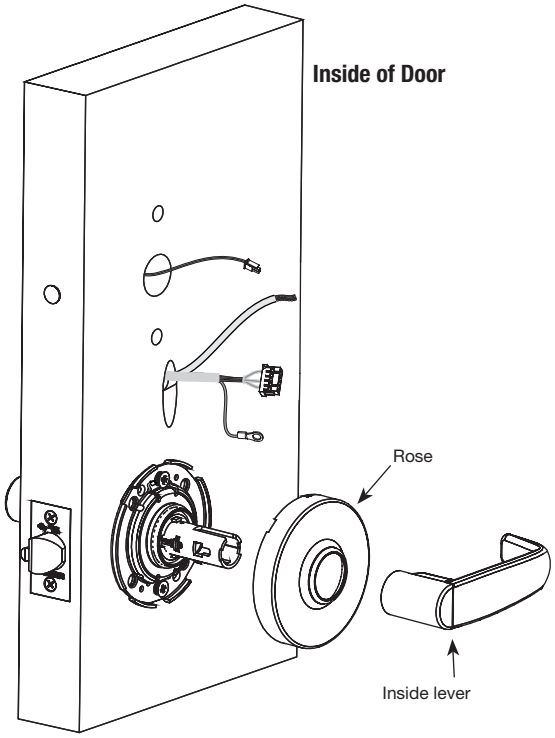

Fig. 9

10 Outside Reader Installation

1. Orient the reader so the LED lens is at the top.
2. Feed the cable/connector through the door (from outside to inside).
3. Install the reader to the outside of door by aligning the mounting posts with the door preparation holes. Hold the reader flush against door while ensuring proper alignment.

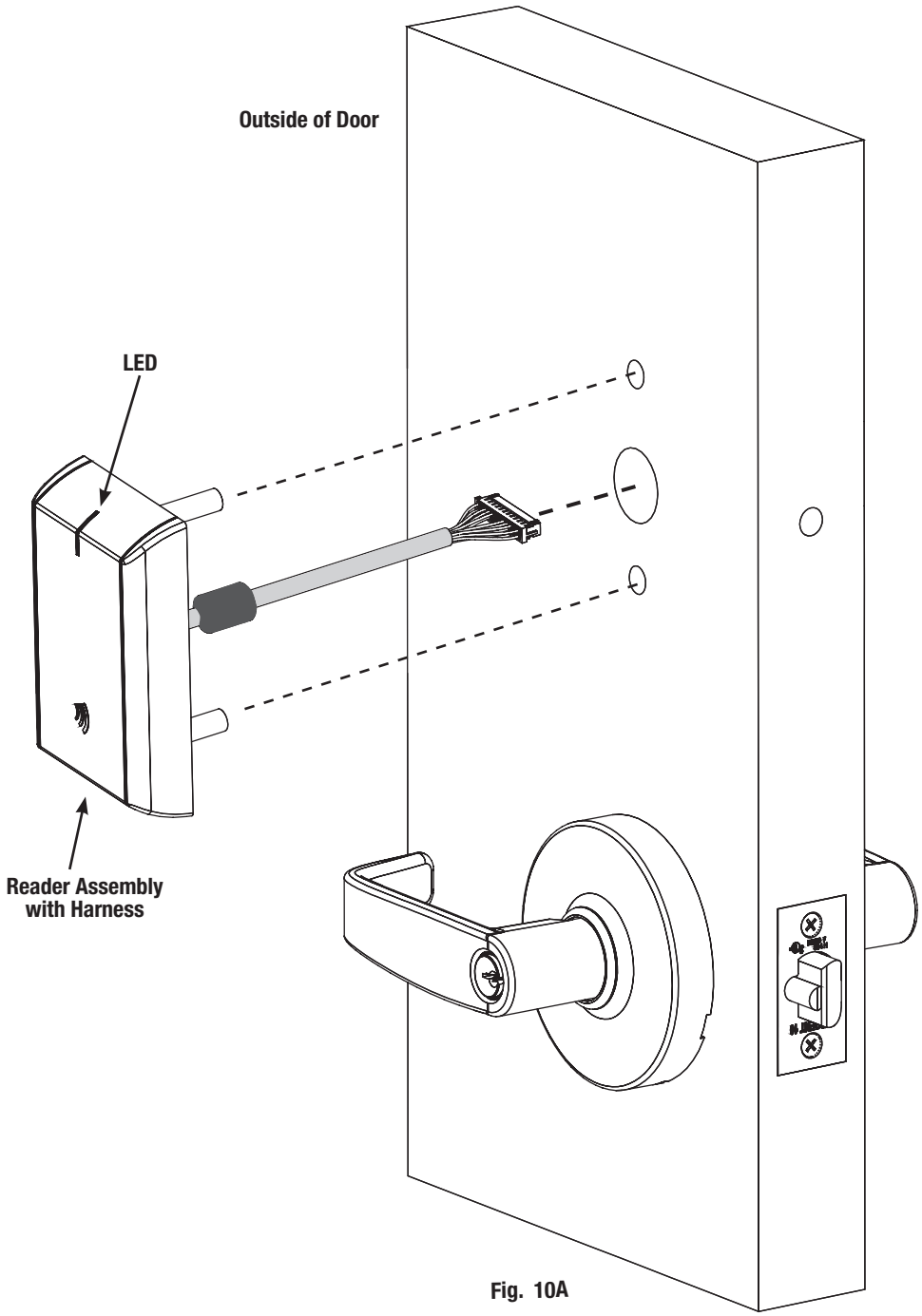

Fig. 10A

10 Outside Reader Installation (Continued)

4. Next feed the cables/connectors through the inside mounting assembly (and gasket if required*).
5. **Insert and partially tighten (2) through-bolts prior to installation of connectors (Fig. 10B).**

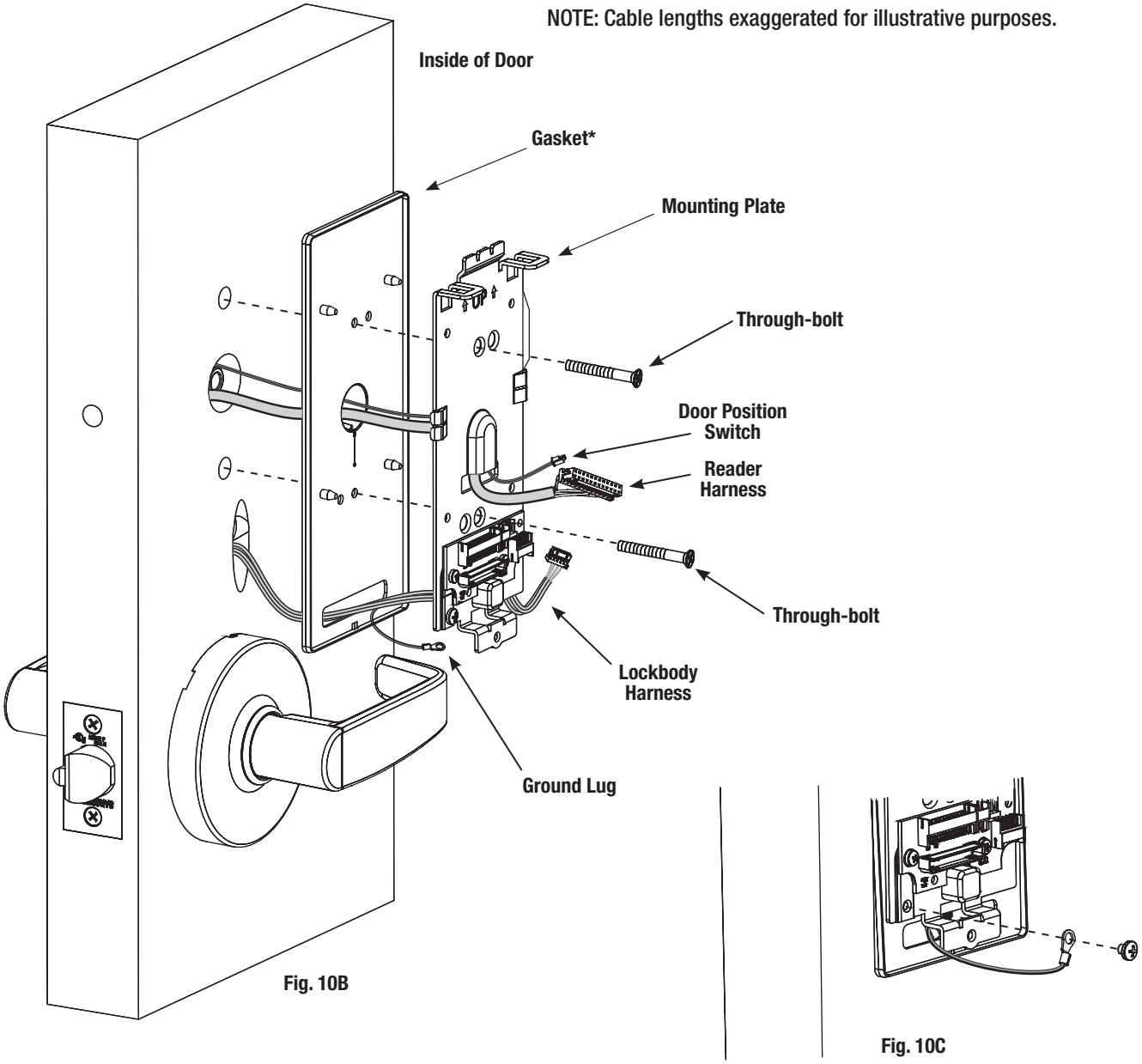

Fig. 10B

Fig. 10C

6. Secure ground lug with #6-32 machine screw (Fig.10C).

*Gasket is required for outdoor installations.

If installing with gasket; separate gasket from mounting plate to feed cables/connectors through holes as indicated (Fig. 10B).

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

11 Installation of Connectors

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

Secure the following connectors to their respective terminals (Fig. 11A, B):

A. Secure the 4-pin DPS connector.

B. Secure the 10-pin lock body assembly connector.

IMPORTANT: Do not run wires through bottom hole in plate (Fig. 11A, B) - it will damage wires and the controller connector. Route wires around flange, do not route wires through the flange hole (Fig. 11B).

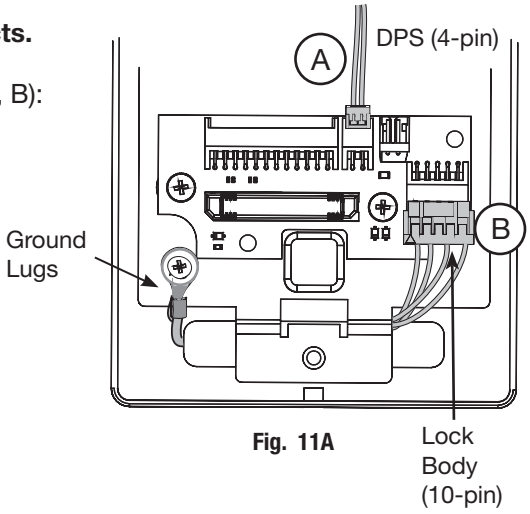

Fig. 11A

Secure Mounting Plate

1. Tuck excess cable into wire hole on inside of door.
2. Secure the mounting assembly while ensuring proper alignment of outside reader and **fully** tighten the (2) through-bolts on the inside of the door to secure the reader and plate to the door.

C. Secure the 24-pin card reader connector (Fig. 11B).

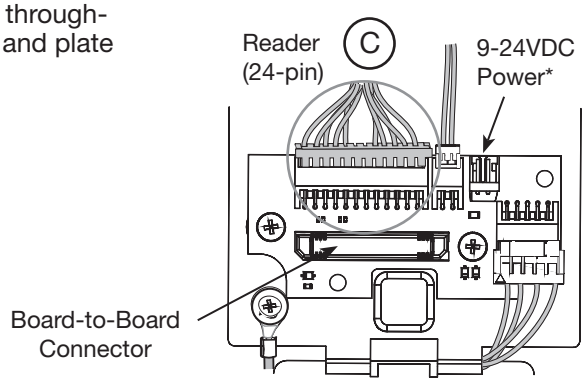

Fig. 11B

12 Install Inside Module Component Assembly

1. Insert top tabs of controller into slots on mounting plate (Fig. 12).
2. Ensure proper alignment of board-to-board connectors while pivoting bottom of controller toward door until tab on bottom snaps securely into place on mounting plate.

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

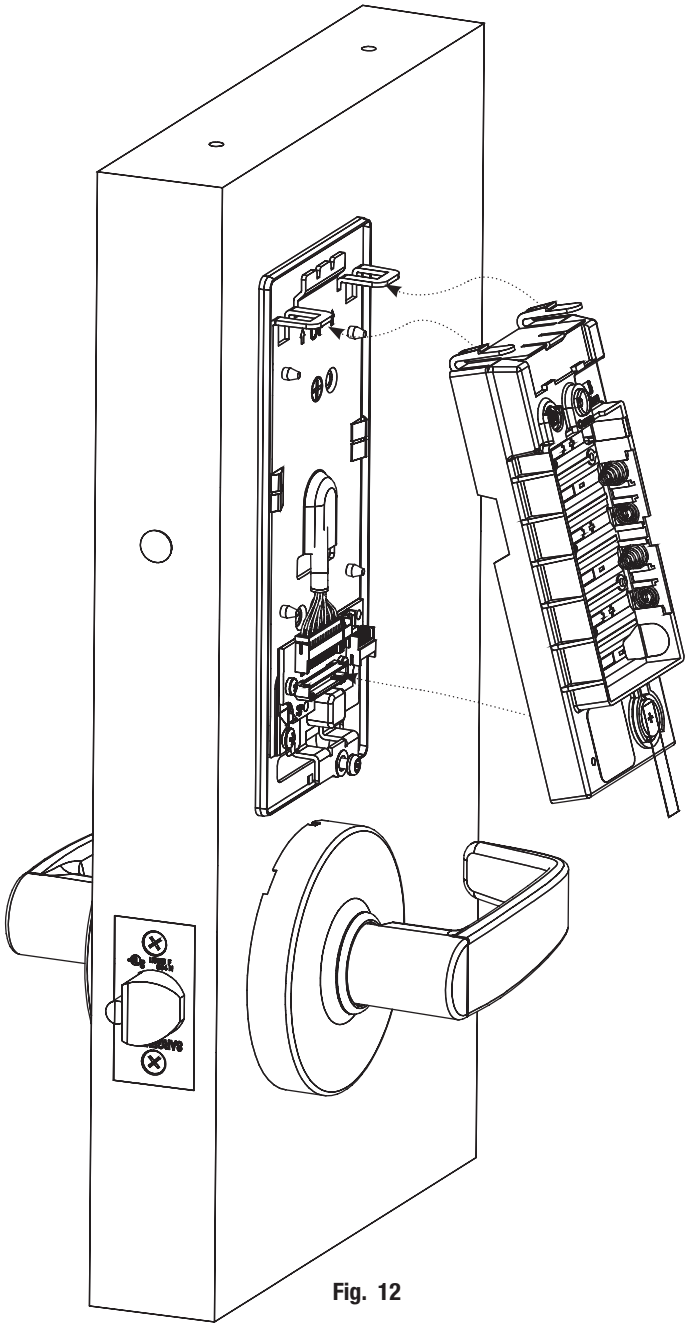

Fig. 12

13 Battery Installation

Before installing batteries for the first time:

Remove **pull tab** from its position beneath the coin cell by pulling on tab in direction of arrows printed on tab (Fig. 13).

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

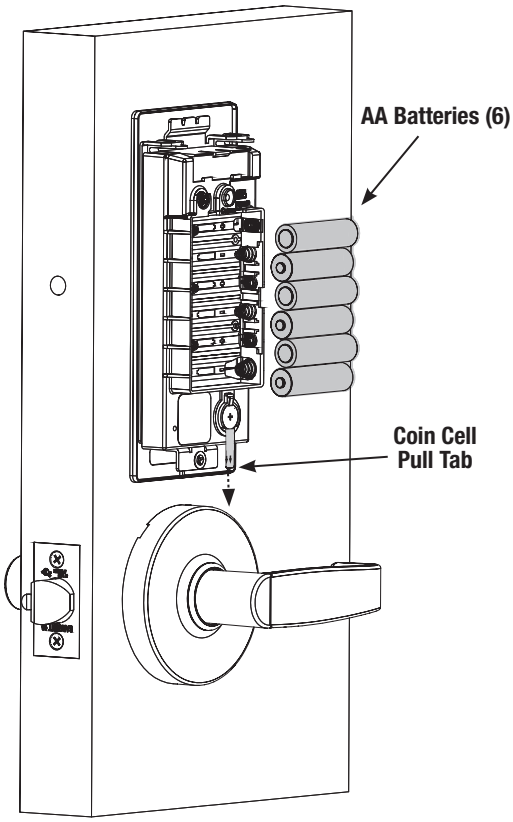

Fig. 13

14 Inside Cover Installation

1. Assemble cover by hooking top edge on inside mounting plate.
2. Carefully press bottom of cover toward door without pinching any wires.
3. Secure cover utilizing security allen wrench.

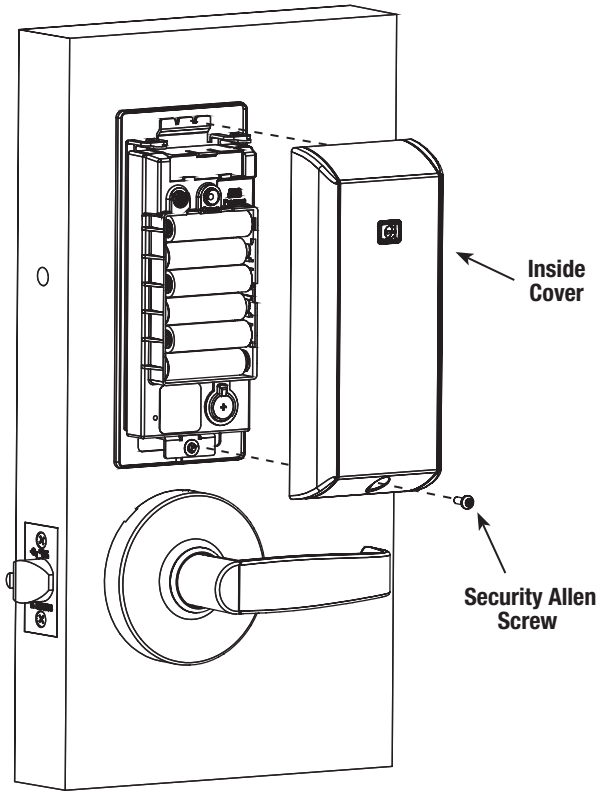

Fig. 14

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7 Operational Check

1. Insert key into cylinder and rotate (Fig. 15A).

   There should be no friction against lock case, wire harness or any other obstructions.
2. Check that the key retracts the latch.
3. The key should rotate freely.
4. Try the inside lever; ensure it retracts latch.
5. Use a valid credential* set up with the **Lock Configuration Tool** to unlock outside lever and retract latch.

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

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

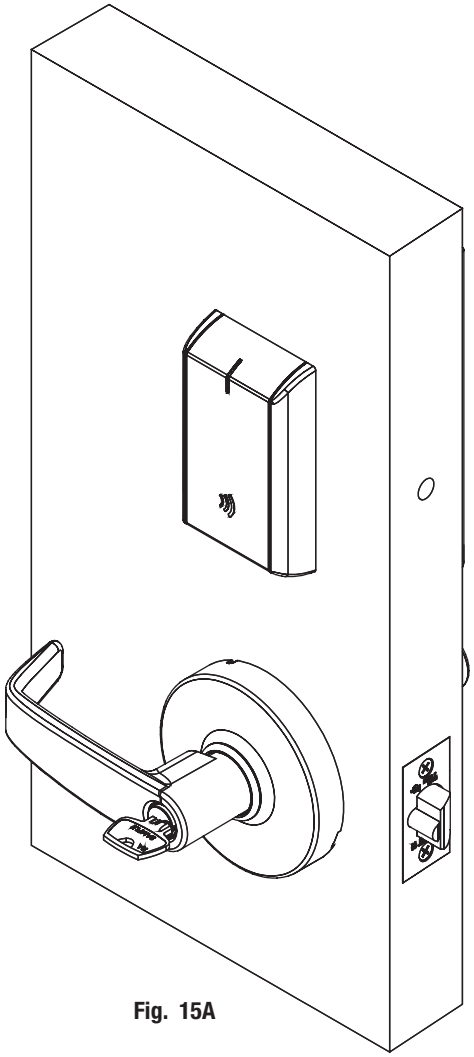

Fig. 15A

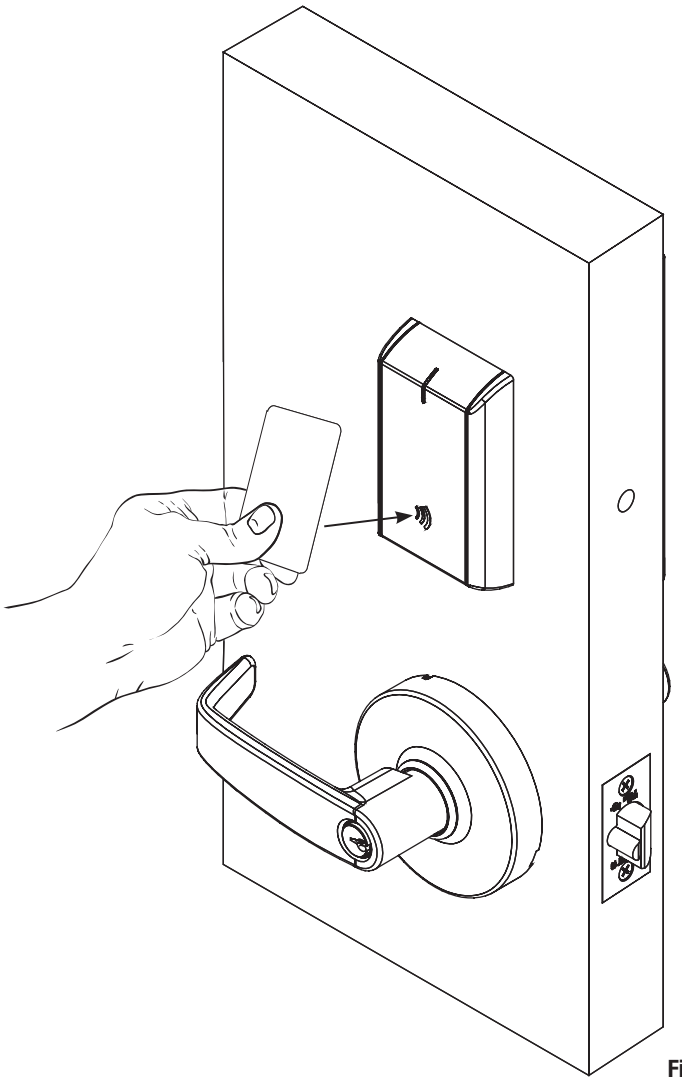

Fig. 15B

Note: The credential should approach the inscription on the reader as indicated (Fig. 15B) to ensure the credential is read properly.

Do not wave credential.

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