

**Series**  
**SN200 Wiegand**  
**SN210 OSDP**  
**Mortise Lock**  
**Installation Instructions**

**A8283A**  
12/20

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## 1 Regulatory Compliance

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:

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.

Cet équipement est conforme aux limites d'exposition aux radiations de la FCC définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps. Cet émetteur ne doit pas être co-localisé ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.

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.

## 2 Warning



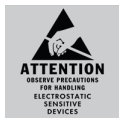
This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to: [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

Ce produit peut vous exposer au plomb qui, dans l'état de la Californie, est reconnu pour causer le cancer, des anomalies congénitales ou d'autres problèmes de reproduction.

Pour plus d'informations, visitez: [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).



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

### 3 General Description

The SARGENT SN200/210 Series brings the latest in security and versatility to our Integrated Wired access control solutions. Featuring Signo Reader Technology from HID Global®, the SN200/210 Series is ideal for mixed credential environments and enables easy migration to higher security credentials and mobile access. Available with either a keypad or non-keypad reader, the SN200/210 offers the convenience of using card or PIN for authentication or for added security, card plus PIN allowing dual factor authentication.

The SN200 is available with Wiegand communication protocol while the SN210 communicates via Open Supervised Device Protocol (OSDP) allowing for secure channel serial communication between the reader and the access control system.

Backed by SARGENT's Grade 1 hardware, the SN200/210 mortise lock features Request to Exit (RX) and Door Position (DPS) monitoring inside the lock body and is available in 12 or 24VDC. The SN200/210 reader provides visual (LED) and audible indicators of lock state (locked/unlocked).

### 4 Specifications / Features

- Latch - Stainless steel 3/4" projection one-piece
- Deadbolt - One-piece hardened stainless steel
- Guardbolt - Stainless steel, non-handed
- Handing - Easily field reversible without opening case
- Case - 12 gauge heavy duty wrought steel
- Outside lever controlled by compatible credential
- Inside lever provides RX signal and retracts latch and deadbolt
- Field-selectable to Fail Safe or Fail Secure\*
- Complete monitoring of door includes request to exit and door position monitoring with optional end-of-line resistors
- UL and CUL listed for use on Fire Doors
- Listed to UL 294 (Access Control System Units) within the U.S. only\*\*
- Door position switch (DPS) within lock body
- Locks furnished for 1-3/4" doors. Other door thicknesses require confirmation with factory.
- Wires directly to EAC Panels

**\*WARNING:** The system shall not be installed in the fail-secure mode unless permitted by the local authority having jurisdiction and shall not interfere with the operation of Listed panic hardware.

- Supports multiple credential formats:
  - **2.4 GHz credential compatibility**
    - Secure Identity Object™ (SIO) on Mobile IDs (Bluetooth Smart)
  - **13.56 MHz credential compatibility:**
    - Secure Identity Object™ (SIO) on iCLASS Seos, iCLASS SE/SR, MIFARE DESFire EV1/EV2 and MIFARE Classic (on by default)
    - Standard iCLASS Access Control Application, ISO14443A (MIFARE) CSN, ISO14443B CSN, and ISO15693 CSN
    - Apple Wallet
    - NFC-enabled mobile phones
  - **125 kHz credential compatibility:**
    - HID Prox®, AWID, EM4102

#### For Mobile Credential-Enabled versions of this electronic lock

(Indicated by "BIPS or BIKPS" in the product order string):

- Mobile Credentials are transmitted to the lock via Bluetooth Smart or NFC ISO/IEC14443 and must use a mobile device enabled with these technologies.
- Credential and mobile device versions are specified by the credential provider.
- User must acquire the latest HID "Mobile Access" application available from Apple iStore or Android PlayStore.

### 4 Specifications / Features (Continued)

- UL Listed\* - UL 294 Indoor Use
  - CUL Listed - S319: Class 1
  - ANSI/BHMA A156.25 Listed Grade 1 Compliant
- \*UL294 currently not applicable to SN200

#### UL 294 Access Control Ratings:

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

UL testing was conducted on product powered by UL Listed model 9001GR/AC injector; manufactured by Microsemi Corp.

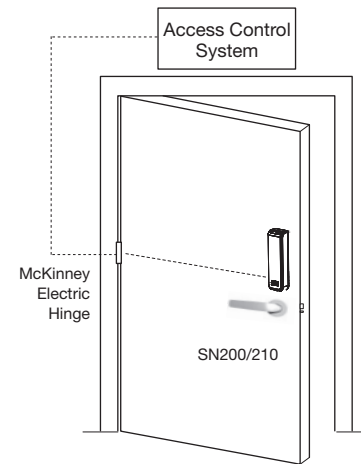
### Electrical Specifications 12/24VDC System

	12V		24V	
	Average	Peak	Average	Peak
<b>Reader**</b>	75mA	250mA	n/a	n/a
<b>Actuator</b>	15mA	500mA	15mA	500mA

\*\*Maximum AVG - RMS current draw during continuous card reads Not evaluated by UL.

Peak - highest instantaneous current draw during RF communication

The reader requires 12VDC for power, while the lock accepts either 12 or 24VDC.



### OSDP† and Wiegand Wire Specifications

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

Total One-Way Length of Wire Run (ft)	Wire Gauge Chart 24VDC 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	—	—	—	—	—	—

†Recommended wire specifications for OSDP: Four (4) conductor twisted pair overall shield such as UL approved, Belden 3107A or equivalent is recommended to remain fully TIA-485 compliant at maximum supported baud rates and cable distances. Belden 82842, Liberty Wire & Cable 24-29\_P485-WHT, West Penn Wire D254852, and CAT6 cable have been found to be suitable in typical applications and installations, including lower baud rates and cabling distances.

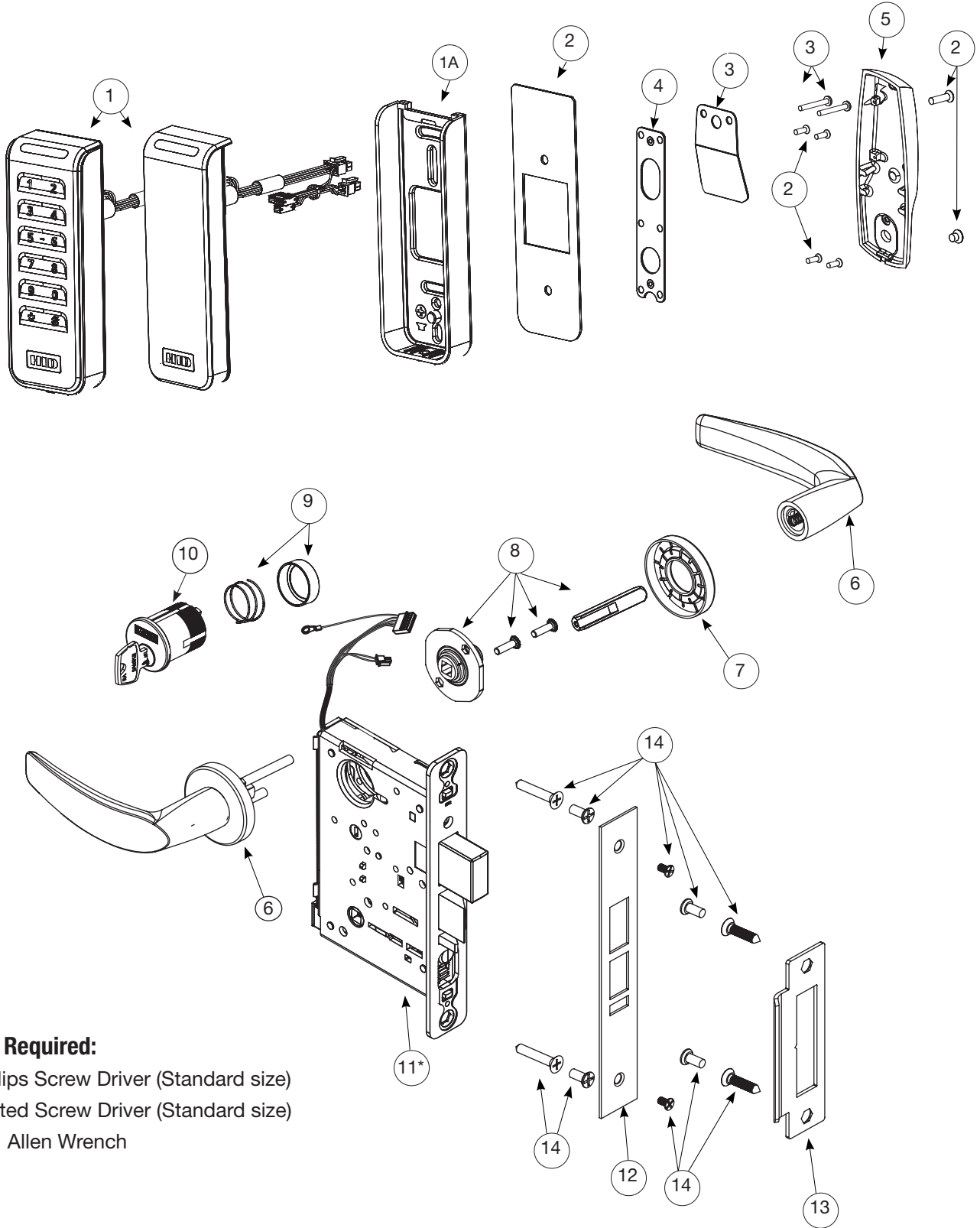
This product is not intended for outside wiring as covered by Article 800 in the National Electrical Code, NFPA 70.

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

Both reader and actuator current must be taken into account when determining wire length and gauge. OSDP installations may be more limited due to fewer cable options.

For OSDP cable lengths greater than 200 ft (61 m) or EMF interference, install 120Ω +/- 2Ω resistor across RS-485 termination ends.

### 5 Parts Breakdown



#### Tools Required:

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

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### 5 Parts Breakdown (Continued)

ITEM	PART #	Description	Req.	
1	52-6027	SN200 Reader & Harness Assembly - Wiegand	1	
	52-6028	SN200 Reader & Harness Assembly - Keypad, Wiegand		
	52-6031	SN210 Reader & Harness Assembly - OSDP		
	52-6032	SN210 Reader & Harness Assembly - Keypad, OSDP		
1A	--	Signo Reader Back Plate	1	
2	52-4539	Screw Pack	1	
3	52-6055	SN200/210 Standard Fire Kit	1	
4	52-5218	Inside Mounting Plate	1	
5	52-5196	Inside Escutcheon With Thumb Turn	1	
	82-0706	Inside Escutcheon Without Thumb Turn		
6	--	Reference SN200/210 Catalog For Available Lever Styles	1	
7	--	Reference SN200/210 Catalog For Available Rose Styles	1	
8	82-3211	Trim Pack - 8200 Standard Levers (shown)	1	
	82-5357	Trim Pack - 8200 Deco Levers & 7900 all lever styles	1	
9	--	Rosette Spring Assembly	1	
10	--	Cylinder (Size 41)	1	
11	Lock Body†	M1-82270-12/24 VDC x Finish	w/out Deadbolt, Fail Safe	1
		M1-82271-12/24 VDC x Finish	w/out Deadbolt, Fail Secure	1
		M1-82272-12/24 VDC x Finish	w/out Deadbolt, Fail Safe, Both Levers Lock	1
		M1-82273-12/24 VDC x Finish	w/out Deadbolt, Fail Secure, Both Levers Lock**	1
		M1-82280-12/24 VDC x Finish	w/ Deadbolt, Fail Safe	1
		M1-82281-12/24 VDC x Finish	w/ Deadbolt, Fail Secure	1
		M1-82282-12/24 VDC x Finish	w/ Deadbolt, Fail Safe, Both Levers Lock	1
		M1-82283-12/24 VDC x Finish	w/ Deadbolt, Fail Secure, Both Levers Lock**	1
12	82-0579	Outside Faceplate w/ Deadbolt	1	
	82-0578	Outside Faceplate w/out Deadbolt	1	
13	82-0110	Strike Plate	1	
14	77-4236	Lock Body and Strike Screw Pack	2	
16	A8123	Field Prep Template (not shown)	1	
17	4702	Door Manufacturer Template (not shown)	1	
18	A8283	Installation Instructions (not shown)	1	
19	A8129	Outside Field Prep Template (not shown)	1	

\*\*CAUTION: Not recommended for use on any door used for Life Safety Egress

†For End-of-Line Resistor and PHR options, please consult factory

### 6 Wiring Diagrams

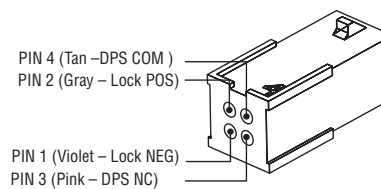
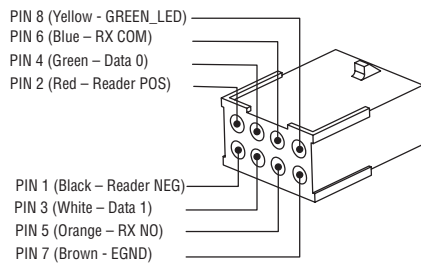
Product	8 PIN CONNECTOR								4 PIN CONNECTOR			
	1-Black	2-Red	3-White	4-Green	5-Orange	6-Blue	7-Brown	8-Yellow	1-Violet	2-Gray	3-Pink	4-Tan
ACCESS CONTROL DEVICES: SN200/210 Mortise, ElectroLynx wire Color / Function assignments												
SN200	12VDC (Reader)		WIEGAND	WIEGAND	RX	RX	EGND	GREEN_LED*	12/24 VDC (LOCK RELAY)		DPS	DPS
SN210			OSDP	OSDP				n/a				
SN200	NEG	POS	DATA_1	DATA_0	NO	COM	EGND	INPUT	NEG	POS	NC	COM
SN210			RS-485B	RS-485A				n/a				

\*Diagrams on following pages

**If your lock is configured with End of Line Resistors, reference instruction sheet A8191 for the wiring of RX & DPS outputs.**

#### Wiegand Operation Mode:

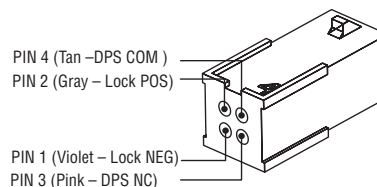
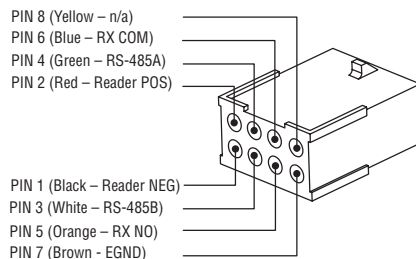
- Red LED 'ON' when powered.
- Presenting a 13.56MHz or 125 kHz credential causes LED to briefly turn green and then return to red state.



Note: NC = Normally Closed  
NO = Normally Open

#### OSDP Operation Mode\*:

\*LED/Sounder control and Tamper status communicated over OSDP serial protocol



For OSDP cable lengths greater than 200 ft (61 m) or EMF interference, install 120Ω +/- 2Ω resistor across RS-485 termination ends.

## 6 Wiring Diagrams

### Wiegand SN200 Mortise Application Diagram #1

Connect GREEN\_LED input to switch controlled by panel. Shorting GREEN\_LED to READER\_NEG (Black) with panel switch will override reader LED to keep it green.

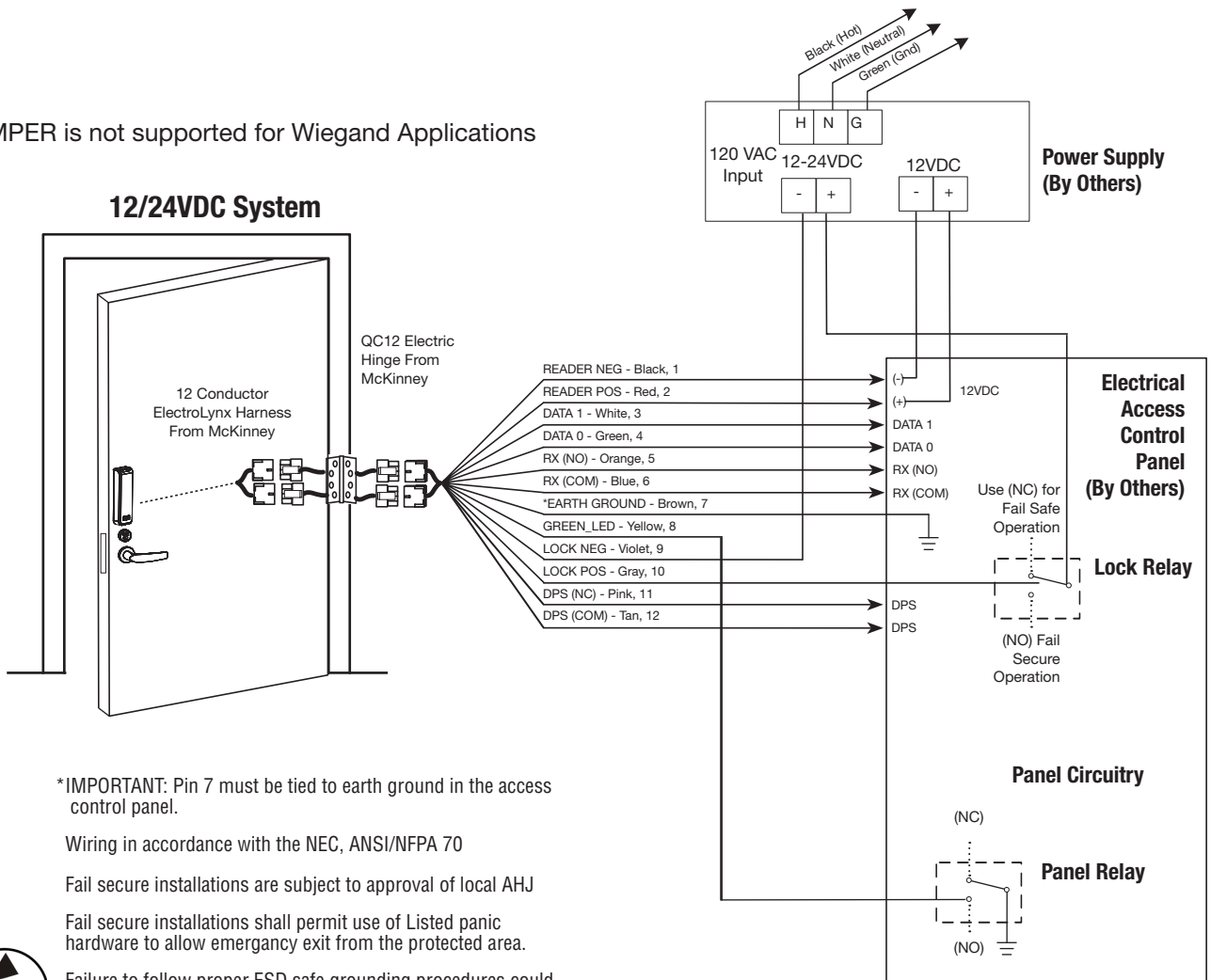
#### 12/24VDC System

	12V		24V	
	Average	Peak	Average	Peak
<b>Reader*</b>	75mA	250mA	n/a	n/a
<b>Actuator</b>	15mA	500mA	15mA	500mA

\*Maximum AVG - RMS current draw during continuous card reads  
Not evaluated by UL.

Peak - highest instantaneous current draw during RF communication

TAMPER is not supported for Wiegand Applications



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

Wiring in accordance with the NEC, ANSI/NFPA 70

Fail secure installations are subject to approval of local AHJ

Fail secure installations shall permit use of Listed panic hardware to allow emergency exit from the protected area.



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

\*\*UL294 currently not applicable to SN200

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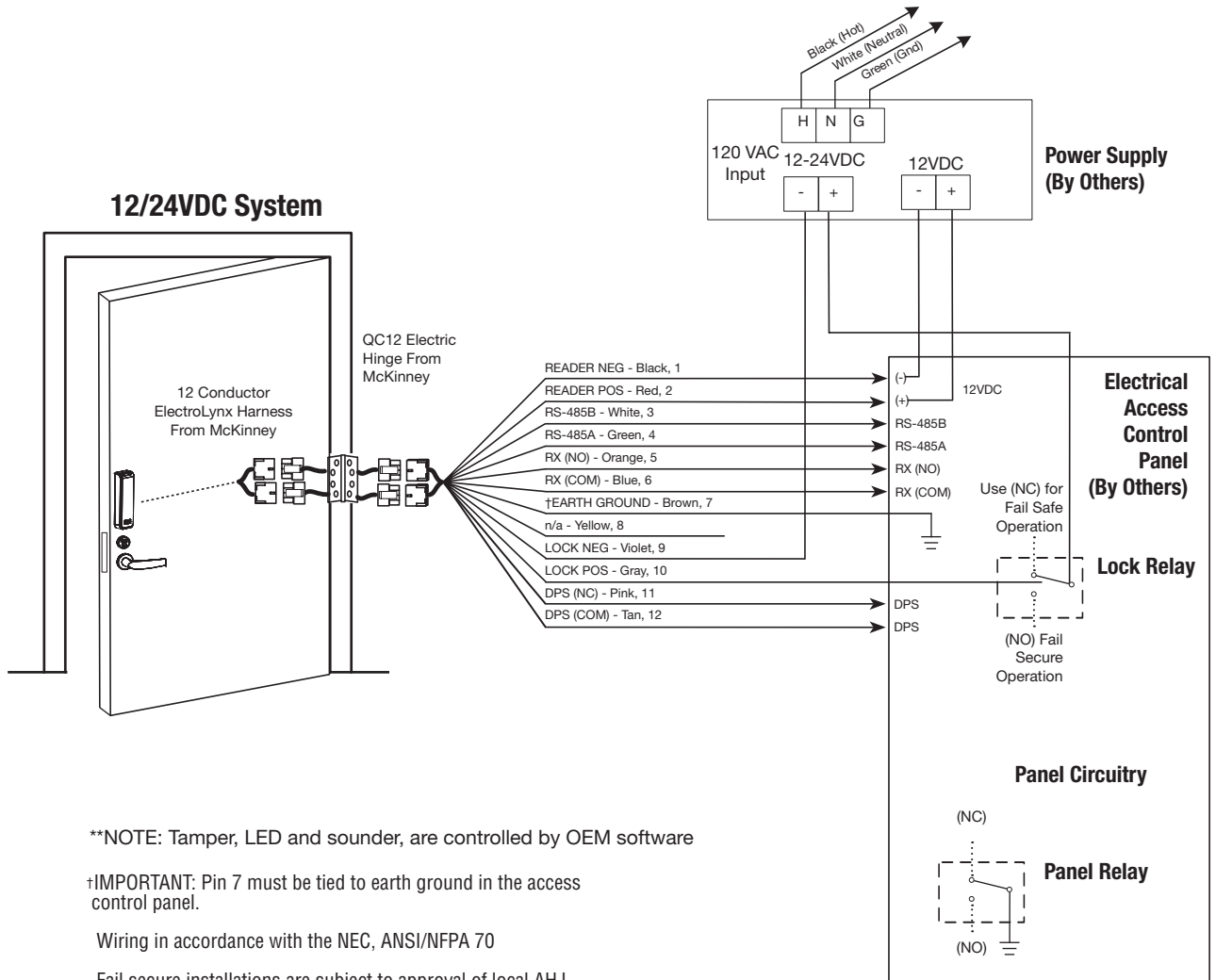
**6 Wiring Diagrams (Continued)**

**OSDP SN210 Diagram #2 (12/24VDC System)**

	12V		24V	
	Average	Peak	Average	Peak
<b>Reader*</b>	75mA	250mA	n/a	n/a
<b>Actuator</b>	15mA	500mA	15mA	500mA

**Reader Electronics Requires 12VDC Filtered and Regulated**

**Tamper will trigger when reader is removed from door and tamper monitoring is enabled at the panel\*\***



\*\*NOTE: Tamper, LED and sounder, are controlled by OEM software

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

Wiring in accordance with the NEC, ANSI/NFPA 70

Fail secure installations are subject to approval of local AHJ

Fail secure installations shall permit use of Listed panic hardware to allow emergency exit from the protected area.

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



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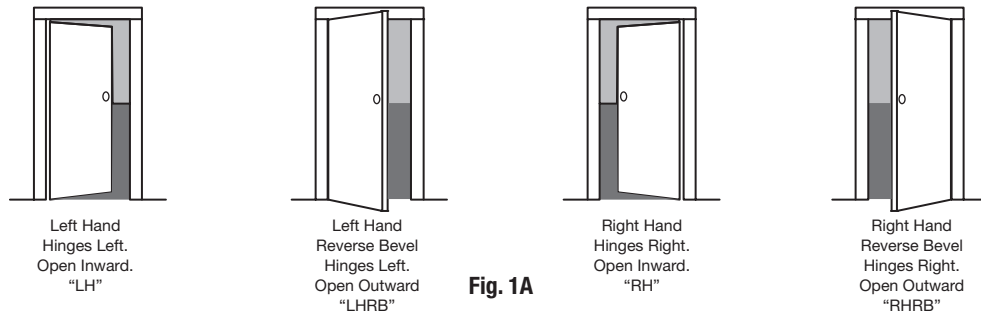
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## 7 Installation Instructions

### 1 Door Preparation

#### A. Verify Hand and Bevel of Door

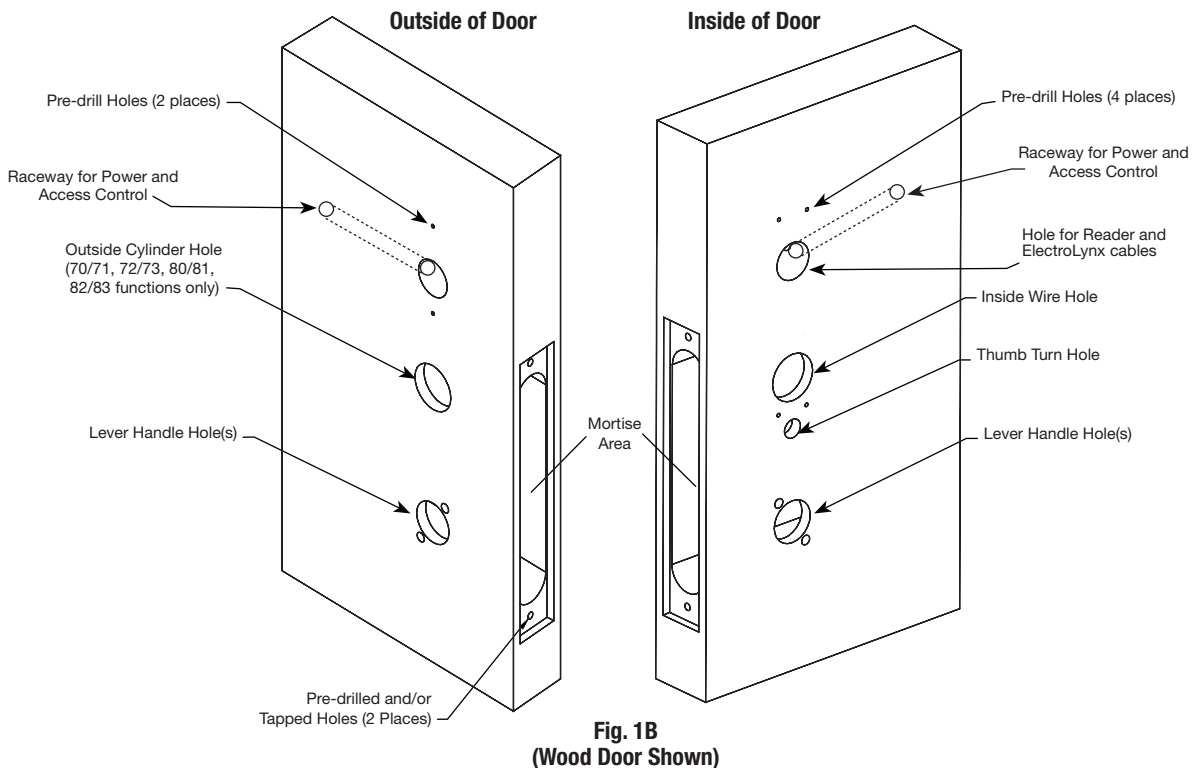
Stand on outside of locked door when determining door hand.



#### B. Door Preparation

Prepare door according to appropriate template. If necessary, refer to website [www.intelligentopenings.com](http://www.intelligentopenings.com).

- Prior to installation, make sure all holes are free of burrs, debris, and sharp edges.
- If doors are not properly reinforced per ANSI 115.2, commercially available reinforcements should be installed.
- Templates:
  - o Field Template: A8123 and A8129 (ships with product).
  - o Door Manufacturer's Template: 4702 metal and wood door.



## 2 How to Change Hand of Lock body

### A. Reverse Lock Hand

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

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

Note: Red indicates locked side (outside).

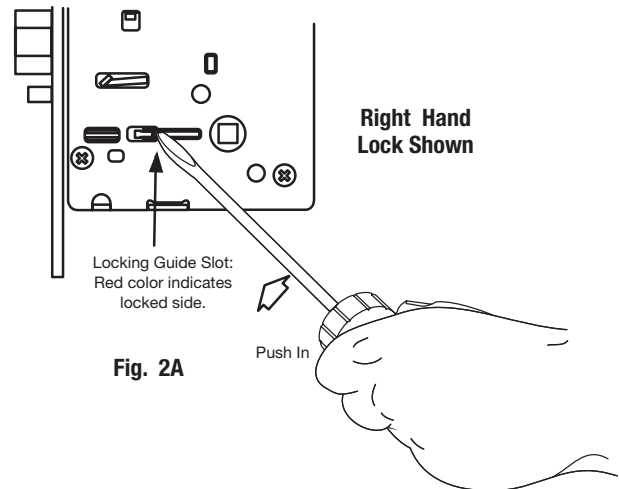


Fig. 2A

### B. Reverse Latch Hand

Beveled surface of latch must face strike (Fig. 2B).

The deadlatch is self adjusting.

To change hand of latchbolt:

- A. Insert screwdriver into the spade shaped slot.
- B. Rotate screwdriver 90° to push latch out until back of latch clears lock front; then rotate latch 180°.

Latch will then re-enter lock body.

Note: Latch cannot be unscrewed.

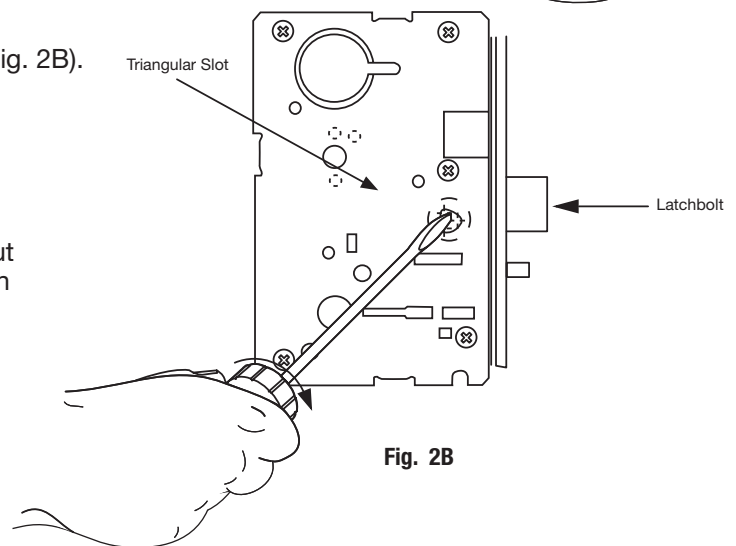
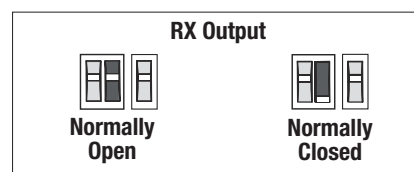
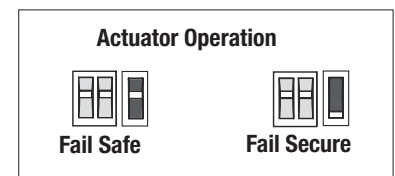
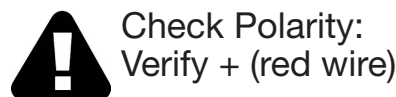
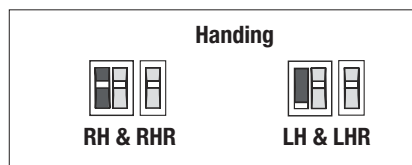
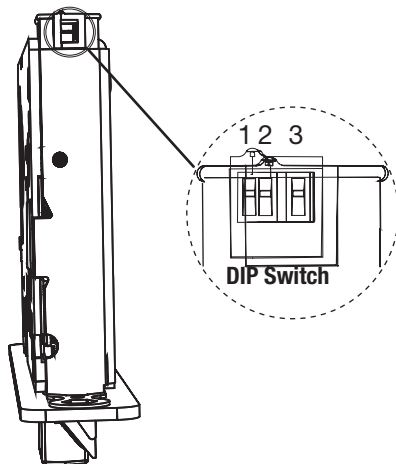


Fig. 2B

## 3 Configure the DIP Switch Settings

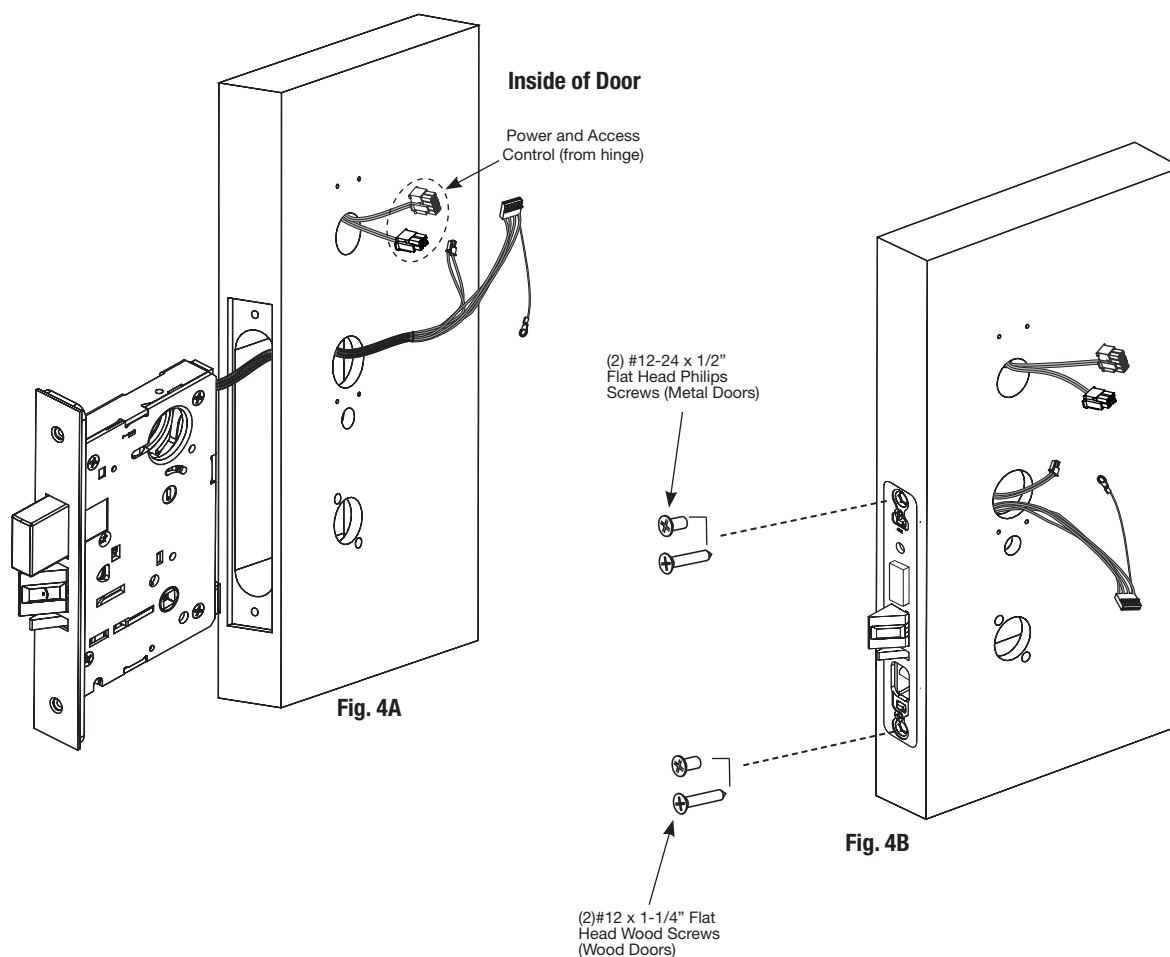
**IMPORTANT:** This product is built and factory tested to the configuration specified. Any change to the 3-position DIP-switch settings located at the bottom of the mortise lock body must be made prior to lock installation.



## 4 Install Lock Body

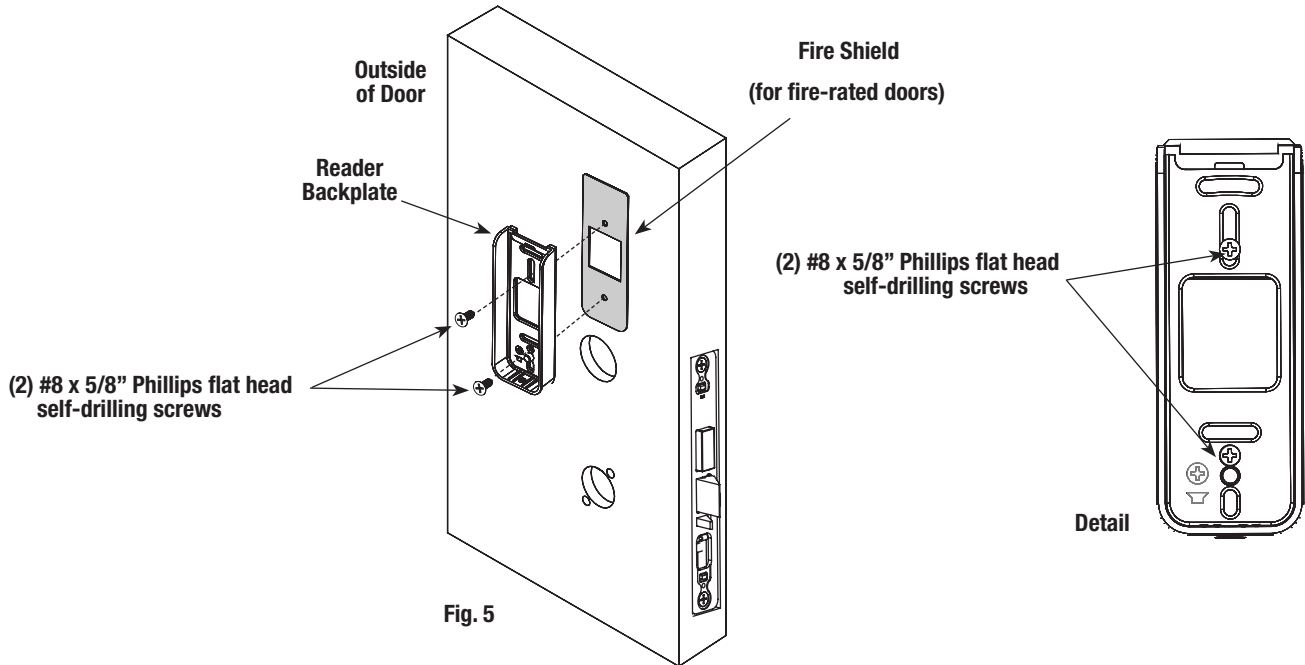
- A. First insert lock body wire harness into the mortised area and out of the inside cylinder hole (Fig. 4A).
- B. Insert mortise lock body into mortise door preparation, continuing to feed wires from lock body through the non-cylinder (inside) hole of the door preparation.
- C. Hold lock body loosely in place with (2) lock body screws (wood or metal depending on type of door).

**NOTE: Do not completely tighten screws at this time.**



### 5 Install Reader Backplate and (Optional\*) Fire Shield

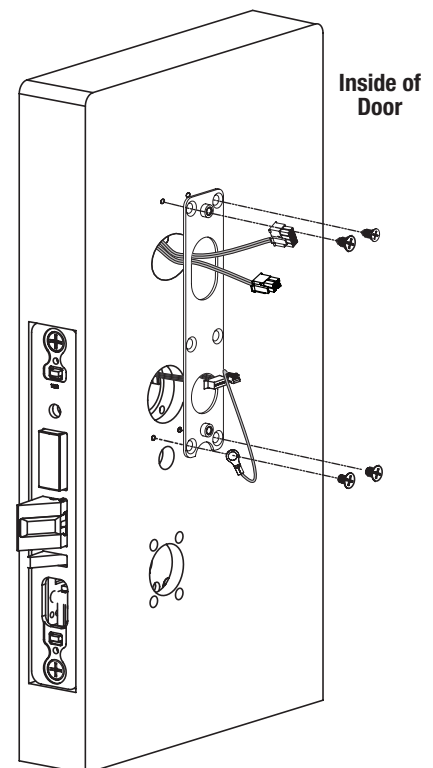
- For fire-rated doors only, install reader backplate and fire shield to door using two (2) #8-18 x 5/8" Phillips flat head self-drilling screws (Fig. 5).
- For exterior doors, install reader backplate using two (2) #8-18 x 5/8" Phillips flat head self-drilling screws (Fig. 5).
- \*For non-fire rated interior doors, no fire shield is required; simply install backplate using two (2) #8-18 x 5/8" Phillips flat head self-drilling screws.



### 6 Install Inside Mounting Plate

**NOTE:** Feed mortise connectors and door harness through the corresponding hole on the mounting plate.

- Attach the mounting plate using two (2) #8 x 1/2" lower screws (Fig. 6). Feed bottom left screw through green/yellow ground wire ring terminal. Install screw. Ensure that green/yellow wire points toward top of door in order to avoid interference with escutcheon.
- If fire kit is not being used, install (2) #8 x 1/2" in upper mounting plate holes.



## 7 Installation of SN200/210 Reader



Observe precautions for handling electrostatic sensitive devices.

- A. Hook the top of the reader on the top of the mounting plate.
- B. Align the bottom of the reader with the bottom of the mounting plate.
- C. Secure the reader to the mounting plate using the supplied 0.138-32 x 0.375" screw (Fig. 7B).

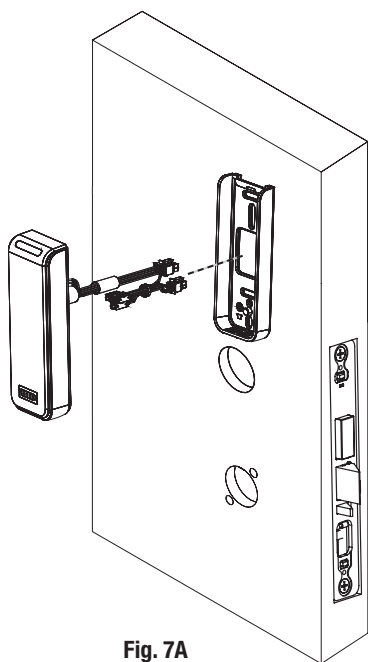
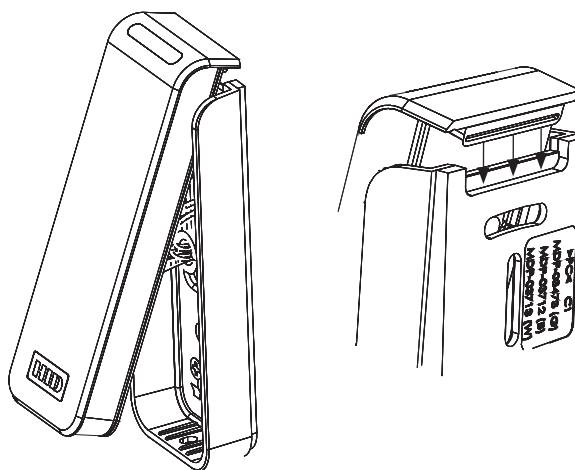
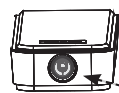


Fig. 7A



Bottom View  
of Reader



Detail

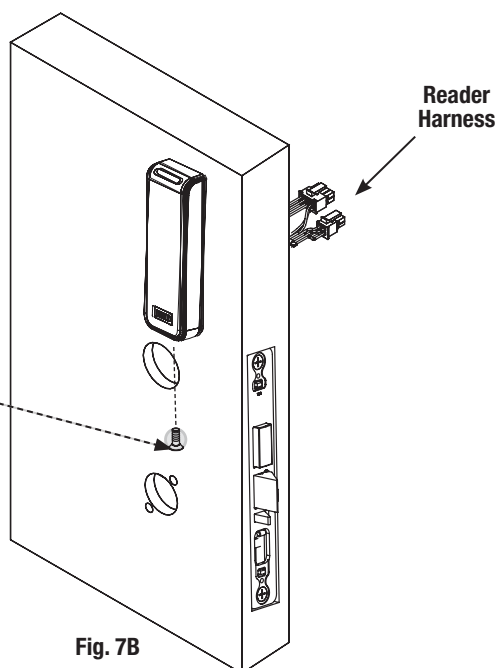


Fig. 7B

### 8 Wire Connections

Do not offset connectors and ensure that they are completely seated.

- A. Connect 6-pin connector from lock body to 6-pin connector on reader harness (Fig. 8A).
- B. Connect 2-pin connector from lock body to 2-pin connector on reader harness (Fig. 8A).

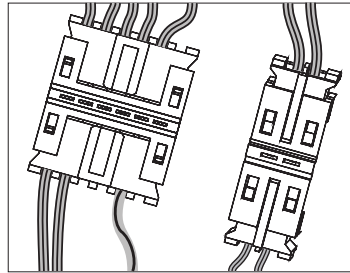
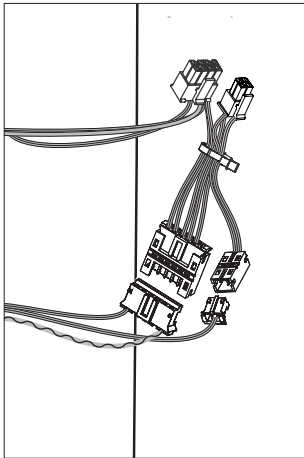


Fig. 8A

- C. Connect ElectroLynx 4- and 8-pin connectors from the door harness to (black) 4- and 8-pin connectors of the SN200/210 harness (Fig. 8B).
- D. Carefully tuck connected harnesses into one-inch hole in door (Fig. 8C).

NOTE: Neatly fold excess wires into remaining space to prevent pinching wires when mounting inside escutcheon (Fig. 8C).



Fig. 8C

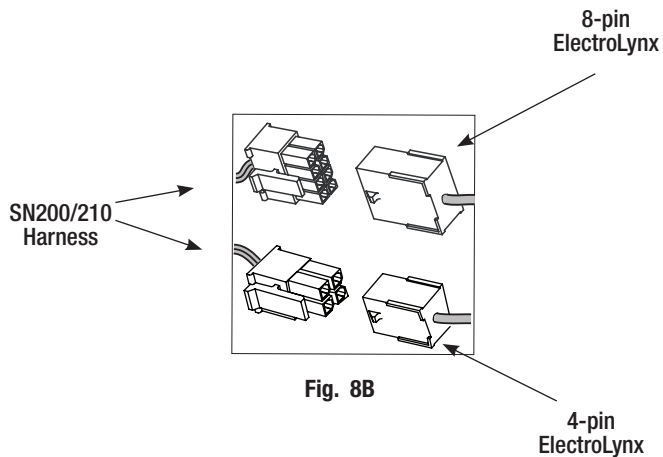


Fig. 8B

### 9 (Optional) Fire Plate Installation

- Install the fire plate to the mounting plate (Fig 9), being careful not to trap or pinch wires between fire plate and mounting plate. Fasten plate with two (2) #8 x 1 1/4" Phillips pan head self-drilling screws.
- Ensure wires from reader are properly routed under flap of fire plate. Complete securing mounting plate by fully tightening all four (4) mounting plate screws.

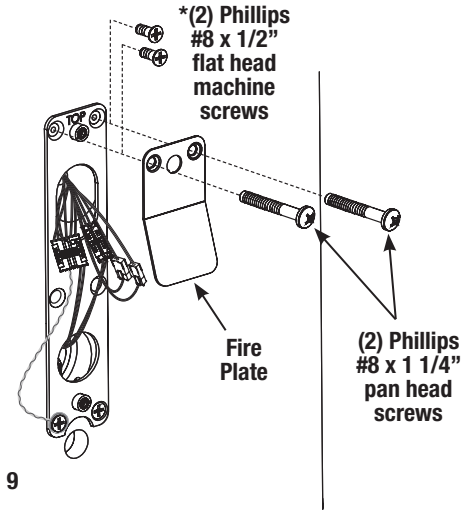


Fig. 9

### 10 Outside Cylinder Installation

NOTE: Verify that the lock body wires do not contact any moving parts as cylinder and deadbolt move.

- Verify orientation of cylinder so that SARGENT logo is right-side up (Fig. 10A).
- Withdraw the key about 25% out of the cylinder before inserting into the escutcheon (Fig. 10B).
- Rotate cylinder until it is nearly flush with the edge of rosette and the SARGENT logo is positioned correctly (Fig. 10A).

Note: Do not attempt to tighten all the way.

- Tighten the cylinder clamp set screw to prevent unscrewing of the cylinder (Fig. 10C).
- Test cylinder function:

- 70/71/72/73 Function: Key retracts latch.
- 80/81/82/83 Function: Key retracts latch and projects and retracts deadbolt.
- Ensure smooth operation of latchbolt and deadbolt.

NOTE: Use lever handle holes to manipulate mortise to ease thread engagement of cylinder.

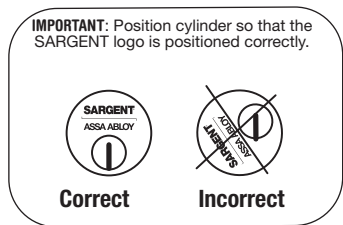


Fig. 10A

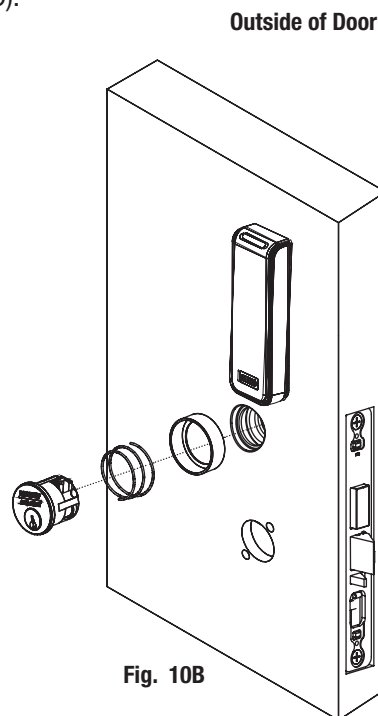


Fig. 10B

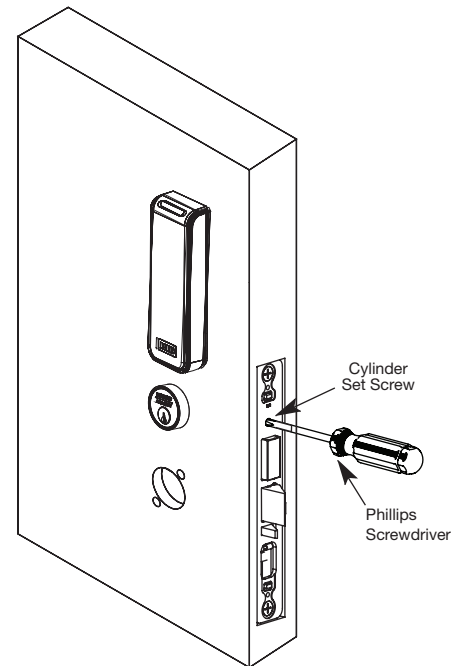
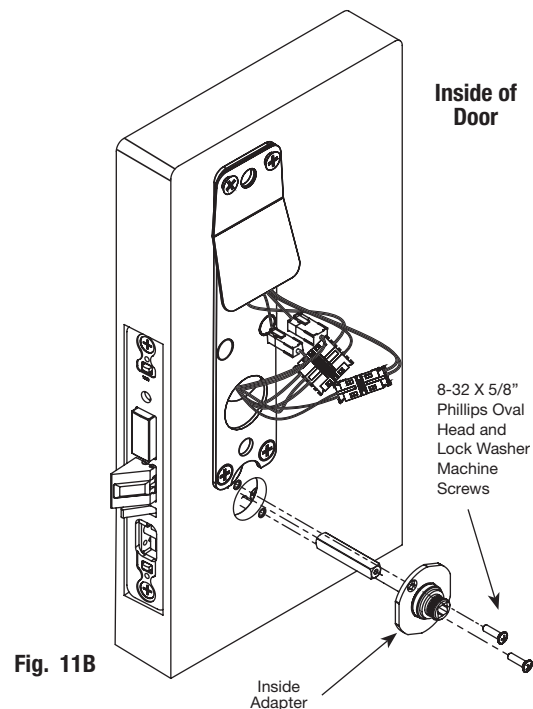
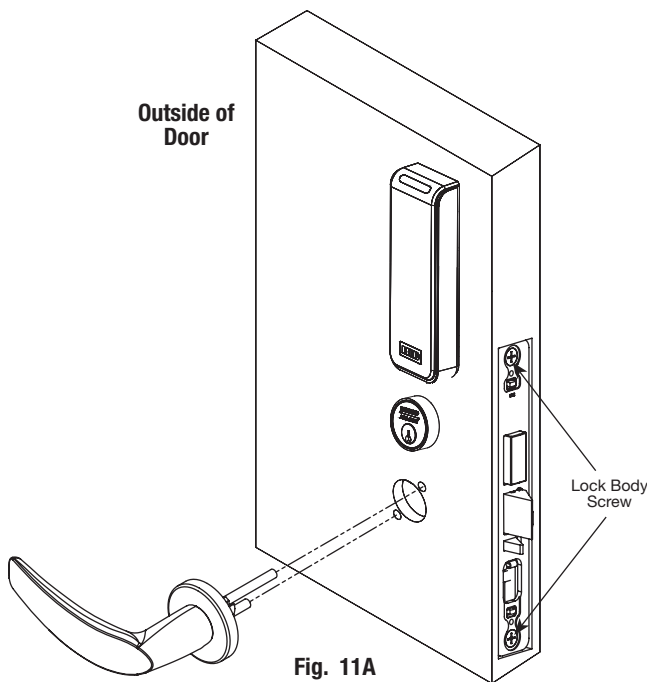


Fig. 10C

## 11 Inside Outside Lever and Inside Adapter Plate Assembly

- With outside lever horizontal, insert mounting posts through outside of door and lock body. Make certain the lever spindle is properly engaged inside the lock body (Fig 11A).
- On the inside of the door, insert spindle into square hole of mortise lock (Fig 11B).
- Slide inside adapter and plate assembly over spindle and secure with (2) 8-32 X 5/8" Phillips oval head and lock washer machine screws.

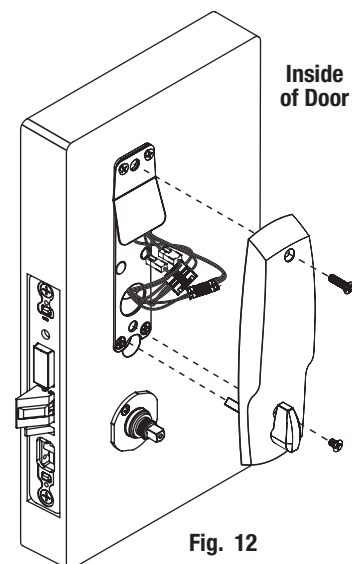


NOTE: For 8200 Deco levers and all 7900 lever styles, ensure that position of set screw hole on inside adapter is oriented to match location of hole in inside lever handle.

Also, ensure that slot in spindle is facing away from door (Fig. 11B), and is oriented to match location of hole in inside lever handle.

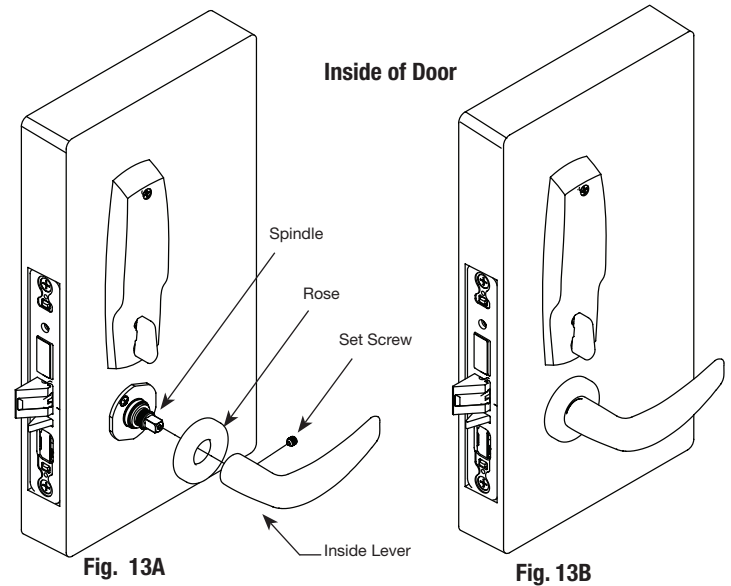
## 12 Install Inside Escutcheon Assembly

- Carefully and neatly fold back lock body wires.
- For locks equipped with deadbolts, align inside escutcheon turn lever with slot in lock body. Adjust wires as necessary to ensure that they are clear of inside escutcheon. Seat inside escutcheon against door.
- Tighten the inside escutcheon securely to the mounting plate with the Phillips flat head machine screws provided. Use 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.
- Be sure turn assembly and deadbolt function properly.



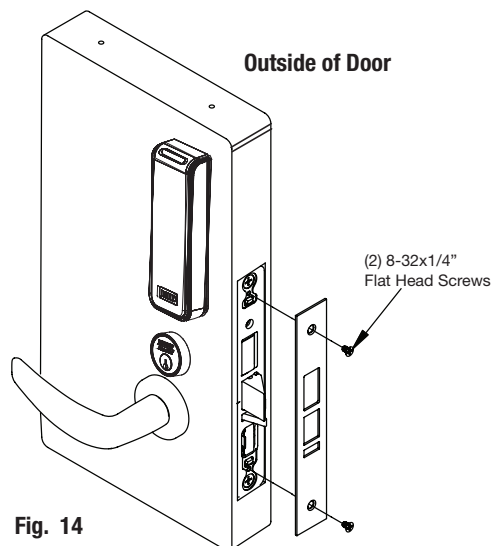
## 13 Install Inside Rose and Inside Lever Assembly

- A. Rotate the inside rose first counter clockwise to seat the threads then clockwise to securely tighten.
- B. Slide lever handle onto spindle until fully seated. Be sure handle is horizontal and facing the hinge side of the door. Push lever onto spindle so minimum gap is visible.
- C. Tighten the set screw securely with a 1/8" hex wrench.
- D. Before closing the door, test that the lever is functional and ensure smooth operation of the latchbolt and deadbolt.



## 14 Attach Front Plate

Attach front plate with (2) 8-32x1/4" flat head screws and tighten securely.



### 8 Operational Check

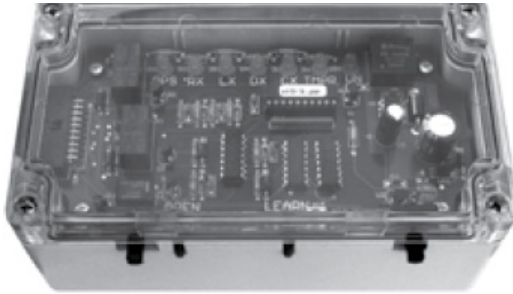
For 82280-82283 & 82270-82273 Function mortise locks with cylinders:

- A. Insert key into cylinder and rotate: There should be no friction against lock case, wire harness or any other obstructions.
- B. The key will retract the latch: Key should rotate freely.
- C. When the deadbolt is thrown: Ensure that the key retracts both the deadbolt and the latch.
- D. Inside lever: When used, ensure it retracts both the latch and deadbolt (if provided).
- E. Close door: Ensure latch and deadbolt fully extend and do not bind.

#### Wiegand Test Unit

The ASSA ABLOY Wiegand Test Unit verifies your installation in the field\*. The test unit checks for proper wiring, card reader data integrity, lock functionality including lock/unlock, door position status, and request-to-exit (REX) status.

In addition, this tool provides product demonstration abilities to highlight the product's features and capabilities\*\*.



Wiegand Test Unit - WT1



Wiegand Test Unit - WT2

Feature	WT1	WT2
12 or 24VDC solenoid lock voltage adjustable	X	X
Operates as Fail Safe or Fail Secure	X	X
"Learn" mode allows testing of specific cards without programming at panel level	X	X
Card reader data integrity is validated at test unit	X	X
Displays detailed Wiegand data, including hexadecimal string and total bits received		X
Displays measured end-of-line resistor values (if applicable)		X
Displays key-press data from keypad readers†		X

\*For directions on use, see operating instructions provided with unit.

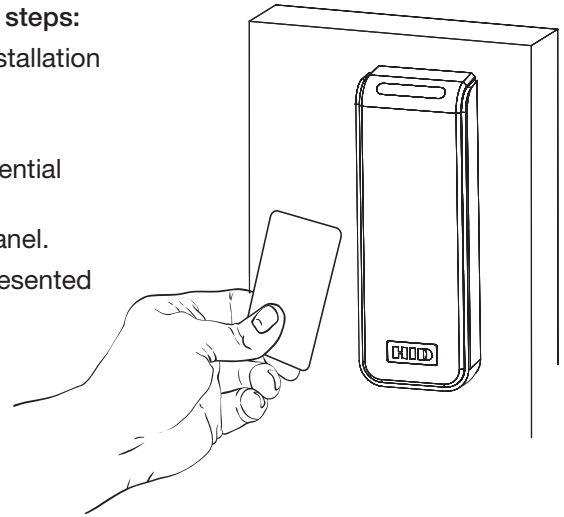
\*\*SN200/210 keypad version works only with WT2

† WT2 unit with 1.03 firmware or later is required

## 8 Operational Check (Continued)

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

- A. Ensure lock is interfaced with Wiegand Test Unit to verify installation and wiring up to (frame side) point of hinge.
- B. Turn power ON.
- C. Wait for LED to turn RED and then present compatible credential and verify LED and sounder activity.
- D. Verify valid card read on Wiegand Test Unit or at the EAC panel.
- E. Verify system operation functions; i.e., when credential is presented to reader, the door should unlock.



**NOTE:** Ensure LED operates as configured:

- LED remains green when panel asserts GREEN\_LED signal or issues OSDP command

**If the lock fails to operate when DC voltage is applied:**

- A. Remove power.
- B. Confirm the polarity of the supply (i.e., '+' is positive).

**If the lock is functioning opposite to the desired fail-safe or fail-secure operation:**

- A. Remove power and check the "Fail" condition by attempting to rotate the outside lever (e.g. if fail-secure, the outside lever should be rigid with power removed).
- B. If the function is incorrect, remove the lock and repeat **section 6, step 3** (DIP Switch configuration).



# SN200/210 Mortise Lock

**SARGENT®**

**ASSA ABLOY**

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12/31/20

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ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, frames, door and window hardware, locks, perimeter fencing, access control and service.

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*Founded in the early 1800s, SARGENT<sup>®</sup> is a market leader in locksets, cylinders, door closers, exit devices, electro-mechanical products and access control systems for new construction, renovation, and replacement applications. The company's customer base includes commercial construction, institutional, and industrial markets.*

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