

MX-SERIES

With EZ Connect

INSTALLATION GUIDE



 **Proxess**

To learn more: visit www.proxess.com
or call (303) 317-6656

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INTRODUCTION

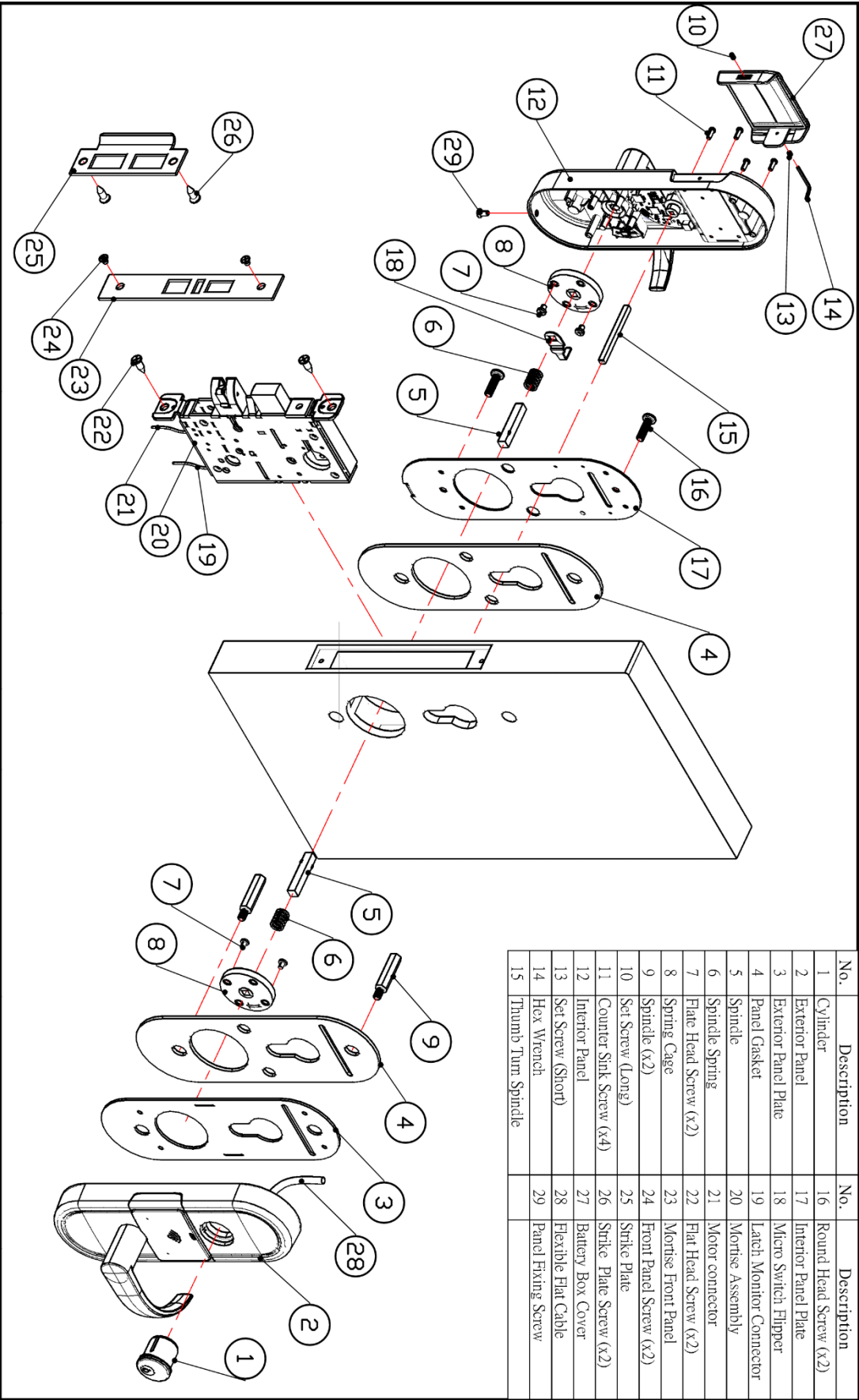
The *Proxess MX-Series Installation Guide* contains important information to assist you in installing your Proxess Mortise Lockset.

CERTIFICATIONS AND STANDARDS

- ANSI/BHMA A156.25 (Indoor/Outdoor)
- ANSI/BHMA A156.2 Grade 1
- ULC S319 PDR
- ULC Canada
- RoHS
- UL10C Fire-Rated
- UL10B Neutral Pressure Rated
- FCC Part 15
- ADA Compliant
- Industry Canada (IC)

TECHNICAL SUPPORT

The first source for technical answers is the MX Series Service Manual. All documentation and training materials are also available on our website: www.proxess.com. If you are not able to find an answer in this manual, contact your local Proxess Representative. If you do not know your local Proxess Representative, contact the Customer Service Department at Proxess (303) 317-6656.

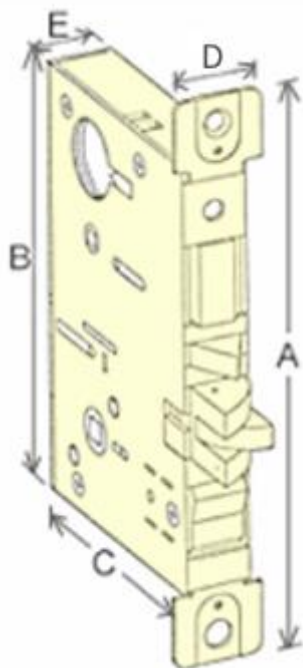


PART NUMBERS AND DESCRIPTIONS

ITEM	PART NUMBER	DESCRIPTION
1	M00-0031A	Cylinder
2	M00-0006A	Exterior Trim
3	M00-0018A	Exterior Backplate
4	M00-0020A	Gasket
5	M00-0013A	Spindle
6	M00-0014A	Spindle Spring
7	M00-0033A	Flat Head Screw (x2)
8	M00-0015A	Spring Cage
9	M00-0013A	Spindle
10	M00-0035A	Set Screw (Long)
11	M00-0037A	Counter Sink Screw (x4)
12	M00-0007A	Interior Trim
13	M00-0036A	Set Screw (Short)
14	M00-0042A	Hex Wrench
15	M00-0016A	Thumb Turn Spindle
16	M00-0038A	Round Hex Screw (x2)
17	M00-0017A	Interior Backplate
18	M00-0008A	Micro-Switch Flipper
19		Latch Monitor Connector

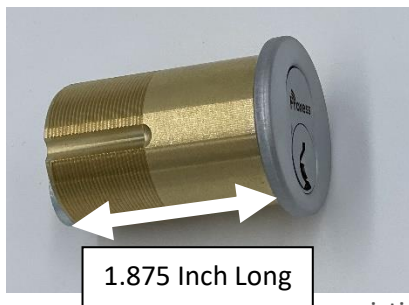
ITEM	PART NUMBER	DESCRIPTION
20	M01-0011A	Mortise Chassis for Bolt Functions
	M02-0011A	Mortise Chassis for Latch Only
21		Motor Connector
22	M00-0034A	Flat Head Screw (x2)
23	M01-0012A	Chassis Faceplate for Bolt Functions
	M02-0012A	Chassis Faceplate for Latch Only
24	M00-0039A	Front Panel Screw (x2)
25	M01-0030A	Strike Plate for Bolt Functions
	M02-0030A	Strike Plate for Latch Only
26	M00-0040A	Strike Plate Screw (x2)
27	M00-0005A	Battery Cover
28	M00-0021B	6-Pin Cable
29	M00-0041A	Trim Fixing Screw
30	M06-0001A	for Angled Return
	M08-0001A	For Curved Return

PROXESS MX CASE AND STRIKE DIMENSIONS



A : 8" (203mm)
 B : 6 - 1/16" (154mm)
 C : 3 - 15/16" (100mm)
 D : 1 - 1/4" (31.5mm)
 E : 29/32" (23mm)

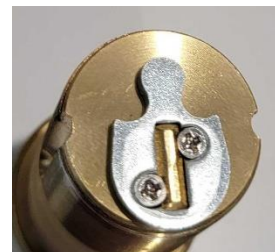
CYLINDER/KEYING



Due to the extra thick trim that houses RF and battery components, Proxess mortise locks require special length (1 $\frac{7}{8}$ inch) cylinders (with Schlage L series style cam). When using other manufacturers' cylinders, ensure that you have the proper 1 $\frac{7}{8}$ inch long cylinder.

Proxess locks are typically supplied with small format removable cores (SFIC), and we strongly recommend that these locks are keyed differently than other cylinders in the

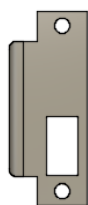
existing lock system. Keys for Proxess locks are meant to be used only in emergency situations that require a mechanical key bypass. Proxess software monitors when a mechanical key is used. Proxess supplies custom keyed cores to match existing Proxess locks/systems. You will see a core mark on the face of the core. Simply provide your account name and this core mark in order to receive custom "matching" keying. Most Proxess cores contain several "spool" segments standard as a safeguard to resist picking. The software will notify the administrator of entry audits when access was gained by a key or in the unlikely event the lock was picked.



Additional cylinder options may be available, contact your local Proxess Representative for up-to-date information.

TRIM PARTS

STRIKE PLATES



ITEM	PART NUMBER	DESCRIPTION
SL	M02-0030A	Latch only strike plate
SB	M01-0030A	Bolt and latch strike plate

LEVERS



6

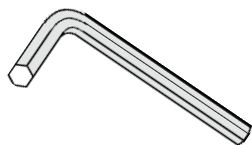


8

ITEM	PART NUMBER	DESCRIPTION
6	M06-0001A	Angled Return
8	M08-0001A	Curved Return

MAINTENANCE

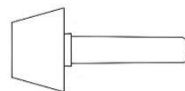
TOOLS FOR MAINTENANCE



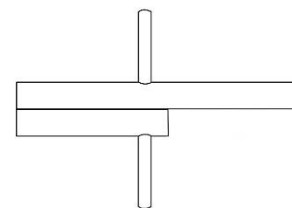
1.5mm Hex Wrench



#2 Philips Screwdriver



Core Turn Knob Tool
PN#: AX-309



Cylinder and Core Testing Wrench
PN#: AX-609

TROUBLESHOOTING HARDWARE

The following table illustrates possible causes and solutions for common problems after installing the lock hardware.

PROBLEM	CAUSE	SOLUTION
No beeps or blinks when the batteries are installed	Improper plug connection	Check all wiring and connectors to make sure the connectors are secure, and the cable is not pinched
	Reversed battery or dead batteries	Check the position of the batteries to make sure they are seated correctly
	Pinched wires or damaged cabling	Ensure the internal cabling is routed properly and cables have not been damaged during assembly
LED does not beep or blink on exterior when credential is presented	Batteries are dead and need to be replaced	Replace the batteries, synchronize the lock with the MPD and try the credential again
	Damaged or disconnected 6 pin cable	Check both ends of the 6-pin cable for proper connection.
MPD does not connect to the lock	Bluetooth is not enabled on the MPD	Enable Bluetooth in Settings
Red LED When credential is presented (Access Denied).	Improper Credential Permissions	Ensure the credential has appropriate access to the door.
	Lockset is in Lockdown	Have administrator take the lockset out of lockdown, or program the necessary credential to have "Pass-Through" privileges. (See software manual).

INSTALLATION INSTRUCTIONS

The following pages contain the Installation Manual for the MX- Series Mortise Lock

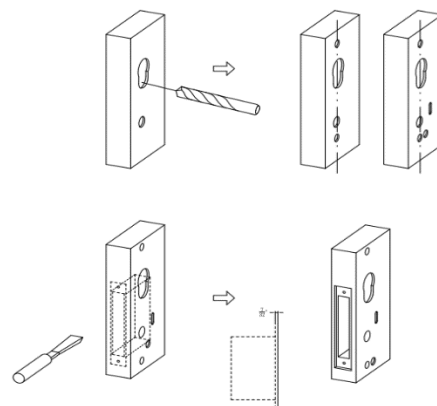
A. PARTS CHECKLIST

Each Proxess MX-Series lockset includes:

- Door Preparation Template
- Mortise Installation Instructions
- Mortise Lever Lockset
 - Exterior lock assembly
 - Interior lock assembly
 - Mortise Chassis
 - Cylinder
- 4 AA Batteries
- Hardware box includes:
 - Strike Plate pack Includes:
 - Front Panel Screw x2 pcs
 - Strike Plate Screw x2 pcs
 - ASA Strike Plate (Deadbolt or Latch Only)
 - Spindle Pack Includes:
 - Spindle x2 pcs
 - Thumb Turn Spindle
 - Thru bolt x2 pcs
 - Micro Switch CAM with Magnet
 - Spindle Spring x2 pcs
 - Round Head Screw x2 pcs
 - Spring Cage Pack Includes:
 - Spring Cage x2 pcs
 - Flat Head Screw x4 pcs
 - Screw Pack includes:
 - Interior Flat Top Screw x4 pcs
 - Panel Set Screw
 - Hex Wrench

B. Door Preparation

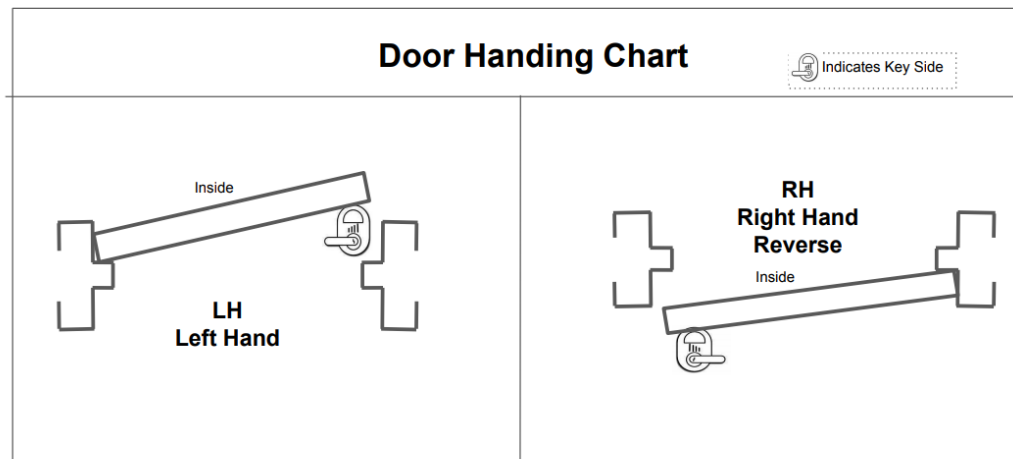
1. Measure the desired height from the floor to the door handle.
2. Using the Mortise Lock Installation Template, drill out the proper holes in the door.
 - a) Hole sizes are listed on the template, drill using an equivalent or larger drill bit or hole saw. Larger holes may become visible when the lock is installed, so it is recommended to drill holes as close to template size as possible.



Front Panel Size: L 8-1/32" x W 1-5/16" x D 7/32"

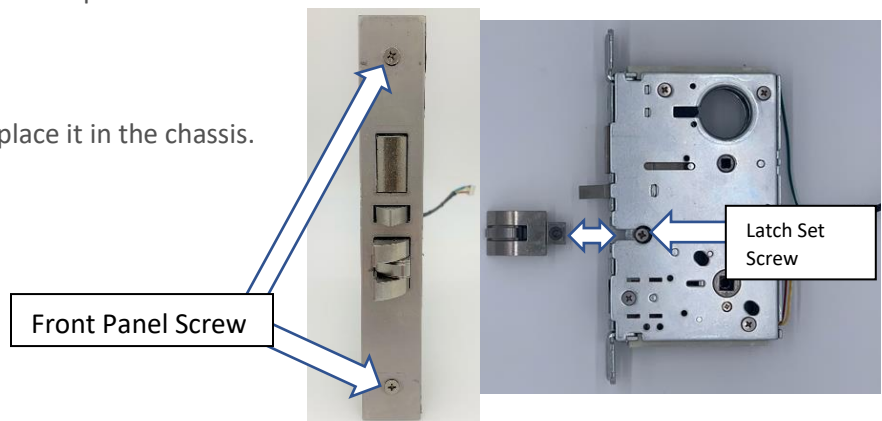
C. Left-Hand and Right-Hand Reverse Set Up (See D for RH and LHR Set Up)

Note: The lock is right handed by default. To rehand the lock, you will need to change the lock bolt orientation.



C.1 Latchbolt Orientation Setup

1. Remove the front panel screw and the front panel.
2. Unscrew the latch set screw.
3. Pull out the latch, turn it 180°, and replace it in the chassis.
4. Reinsert and tighten the set screw.



C.2 Remove Free Wheeling Lever Set Screw

Note: Arrow must point down.



Note: Only remove the screw from the external / "insecure" / reader side of the Mortise assembly.

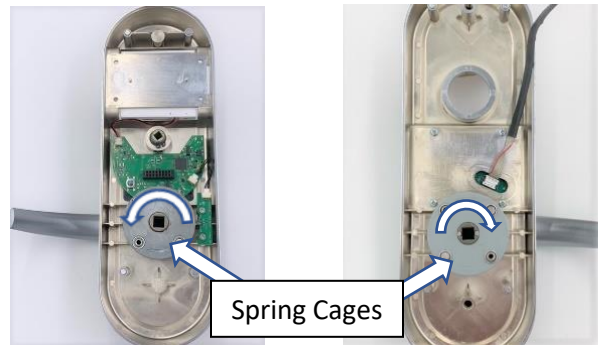
C.3 Proper Spring Cage Orientation Set Up (For Left Hand or Right-Hand Reverse)

For Exterior Escutcheon Spring Cage:

1. Place the spring cage on the mount posts of the trim. Arrow should point clockwise (or in the direction you want the handle to engage the latch).
2. Then, screw in two of the included flat-top screws.

For Interior Escutcheon Spring Cage:

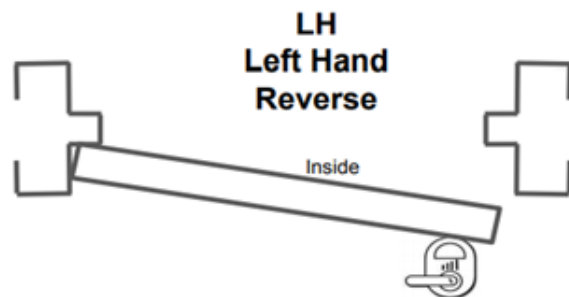
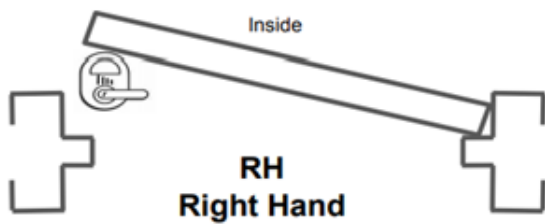
1. Place the spring cage on the mount posts of the trim. Arrow should point counterclockwise (or in the direction you want the handle to engage the latch).
2. Then, screw in the last two of the included flat-top screws.



D. Right Hand and Left-Hand Reverse Setup

Door Handing Chart

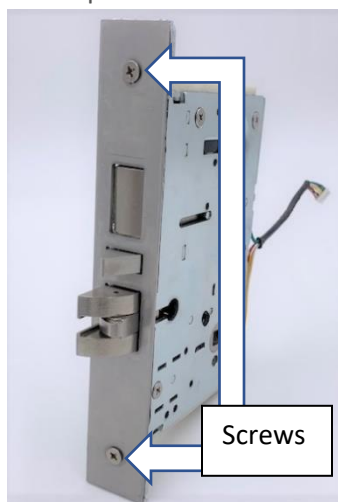
 Indicates Key Side



D.1 Right Hand and Left Hand Reverse

Do not remove the latchbolt.

1. Remove the front panel set screw and the front panel .



D.2 Remove Free Wheeling Lever Set Screw

Note: Arrow must point down.



Note: Only remove the screw from the external / "insecure" / reader side of the Mortise assembly.

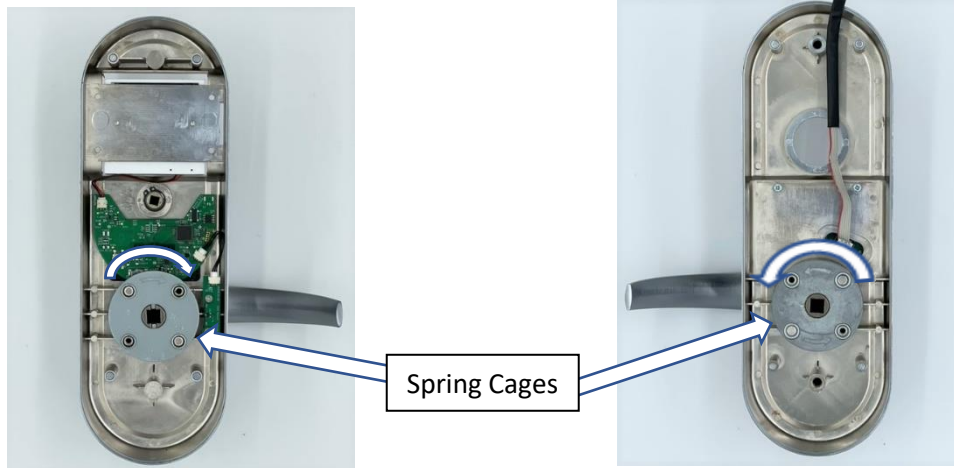
D.3 Proper Spring Cage Orientation Set Up (For Right Hand or Left Hand Reverse)

For Exterior Escutcheon Spring Cage:

3. Place the spring cage on the mount posts of the trim. Arrow should point clockwise (or in the direction you want the handle to engage the latch).
4. Then, screw in two of the included flat-top screws.

For Interior Escutcheon Spring Cage:

3. Place the spring cage on the mount posts of the trim. Arrow should point counterclockwise (or in the direction you want the handle to engage the latch).
4. Then, screw in the last two of the included flat-top screws.



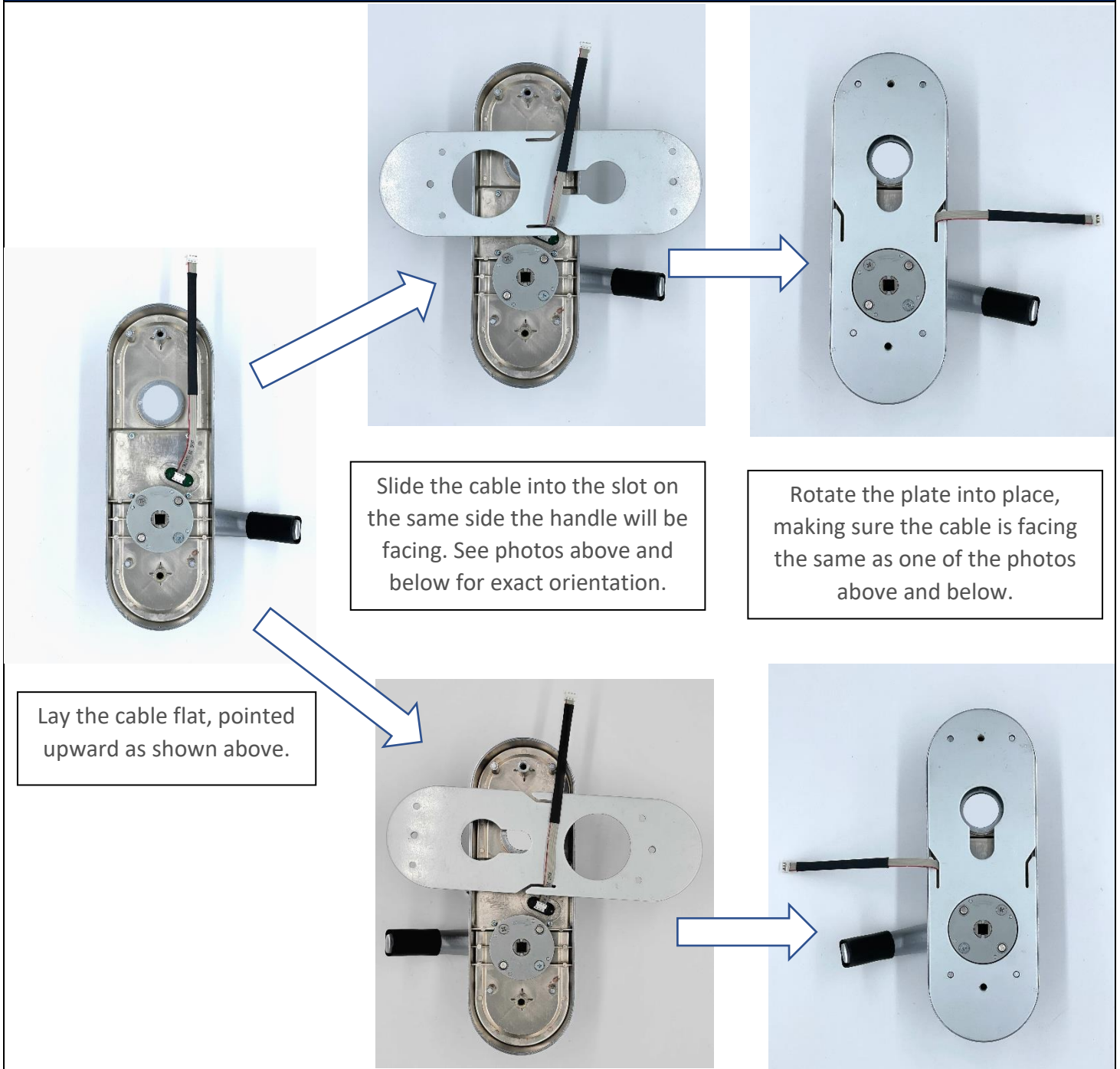
E. Mortise Chassis Installation

1. Insert the cables through the door hole.
2. Slide the chassis cable through the door hole as shown. Pliers may be helpful to fish it through.
3. Then, slide the chassis into the door and start screws as shown (do not tighten screws at this point). It may be easiest with a second person to hold the chassis.



F. Exterior Escutcheon Installation

F.1 Routing the Ribbon Cable through the Backplate

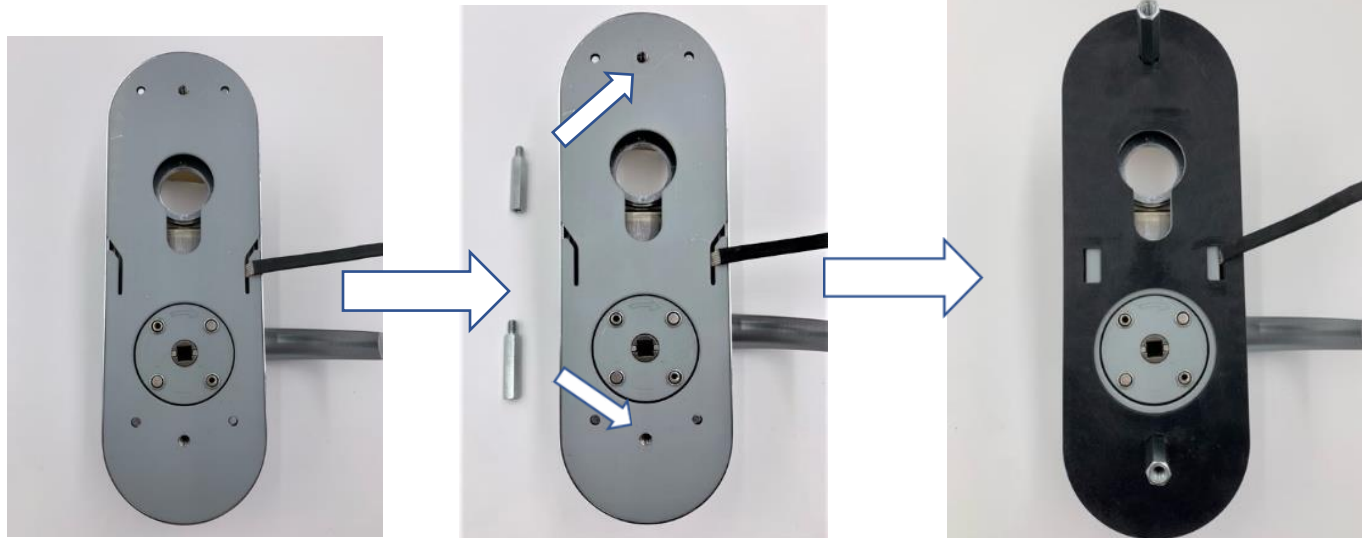


F.2 Attaching Hex Bolts and Gasket

Ensure the plate is fully seated into place.

Insert Hex Bolts onto the Exterior Escutcheon.

Then install Exterior Gasket onto the Exterior Escutcheon.



F.3 Insert Spindle

1. Insert a spindle and spindle spring into the spring cage.
2. Ensure the lever rotates smoothly and drives the spindle properly.



Tip: Having a hard time installing the spindle? Make sure the handle is 90° perpendicular to the trim in the desired orientation. Shifting the handle slightly may help particularly troublesome spindles.

NOTE: Pay close attention to the spring. The small spring is not attached to anything and can be easily misplaced.

F.4 Insert Ribbon Cable

1. Insert the ribbon cable into the 5/8" hole on the side.
2. Pull the ribbon cable through the other side of the door. Pliers may be helpful to fish it thru. Make sure the cable is not bent or pinched.



Ensure this arrow is pointing down when installing exterior housing



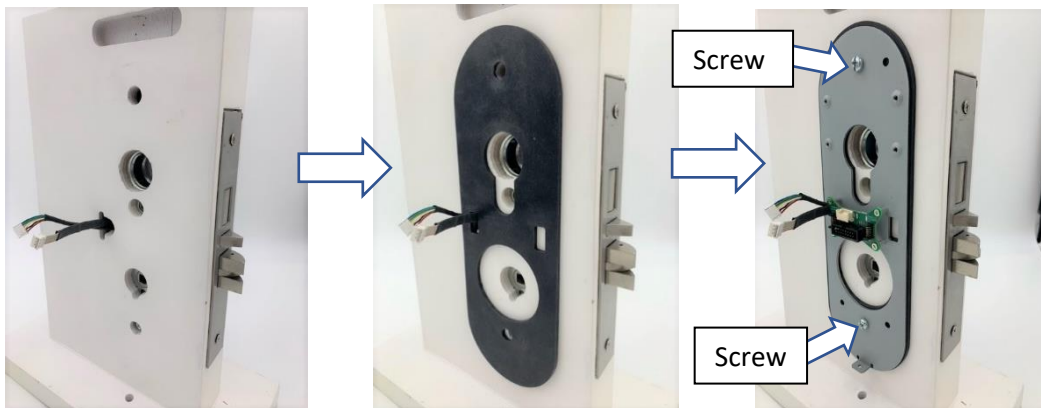
F.5 Attach the Exterior Escutcheon to the door

1. Line up the spindle with the matching hole in the chassis and the thru bolts with their matching holes in the door, then carefully but firmly push the escutcheon and spindle into place.
 - a. If the assembly does not fit into place and sit flush against the door, verify nothing is blocking the thru bolts and the arrow is pointing down for the spindle hole in the chassis (see above)



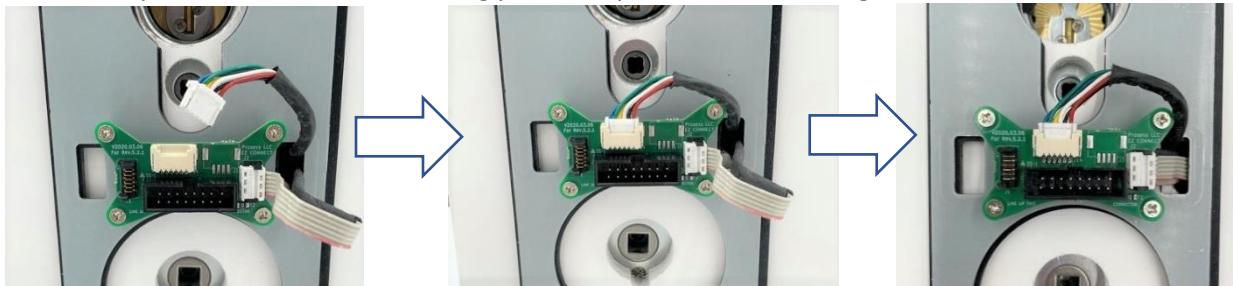
F.6 Install Interior Backplate

1. Push the ribbon cable and chassis cable thru the Interior Gasket and Interior Backplate.
2. Fasten the two round head screws, but do not tighten them.



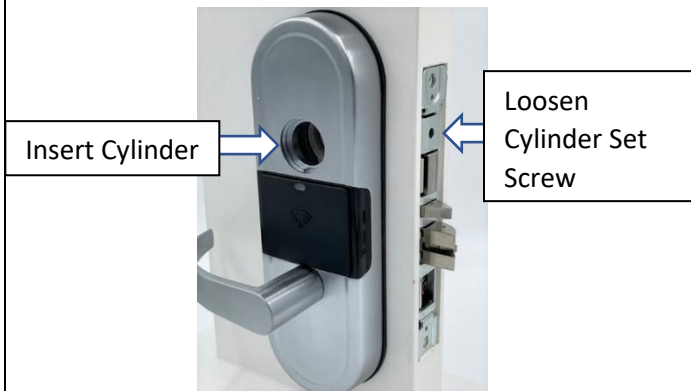
F.7 Connect Cables

1. Attach the ribbon cable to the plug on the nearest side of the EZConnect board
2. Attach the chassis cable to the plug on top of the EZConnect board
3. Tuck away loose cable to avoid it being pinched by the interior housing



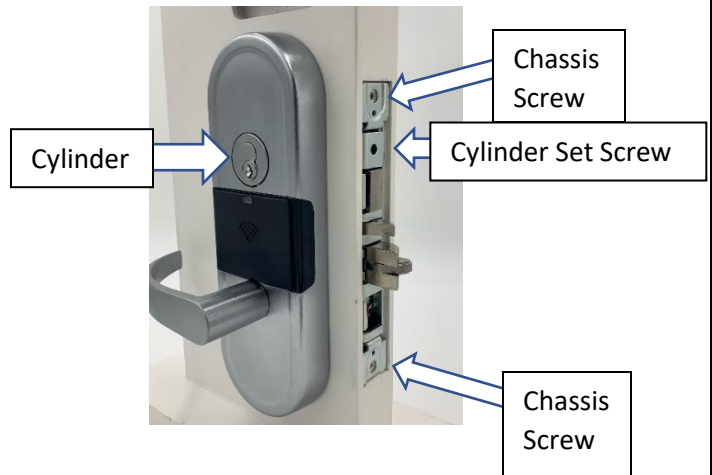
F.8 Install Cylinder

1. Loosen the cylinder set screw in the chassis.
2. Insert the cylinder into the exterior escutcheon and spin it to tighten it down. Ensure it sits flush with the front plate.

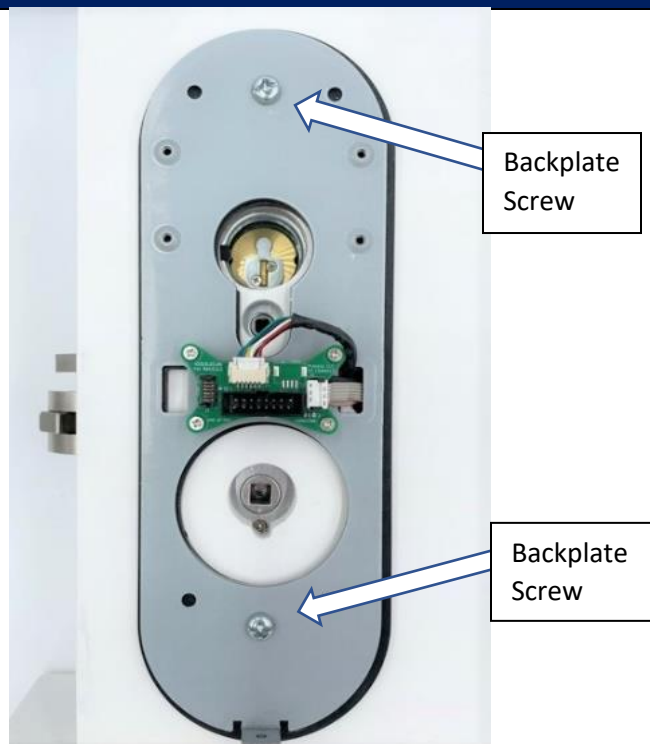


F.9 Tighten Cylinder and Screws

1. Tighten the cylinder set screw.
2. Tighten the interior backplate screws.
3. Tighten the chassis screws



Step F Completed



G. Interior Assembly Preparation

G.1 Remove Battery Cover

Use the 1.5mm Hex Wrench to loosen the long and short set screws.



Remove the battery cover.



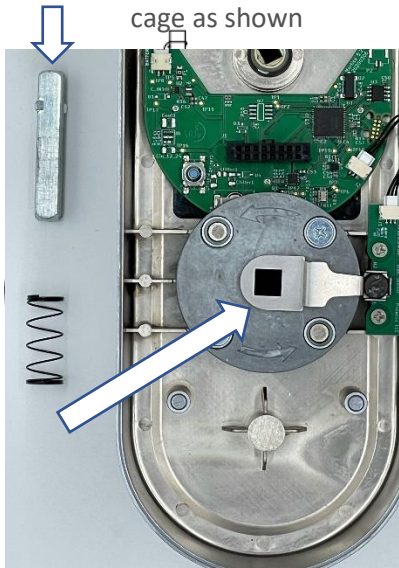
G.2 Inserting Hall Effect CAM

1. Insert the Hall Effect CAM on the spring cage as shown.
2. Then, move it to the right and align it with the spindle slot as shown.



G.3 Inserting Spindles

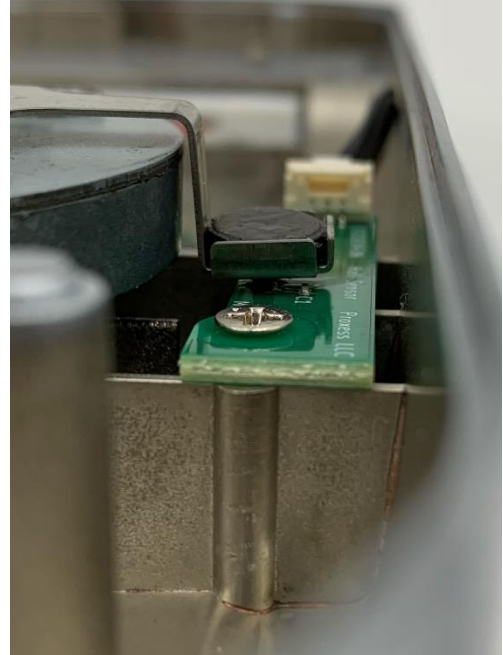
Insert the remaining spindle and spring into the spring cage as shown



Note: The spring is not attached to anything and can be easily misplaced. Use caution when installing the spring.

G.4 Engaging the Hall Effect Switch

Turn the lever to make sure the CAM arm is not touching Hall Effect Switch. Bend the CAM up slightly if it is.



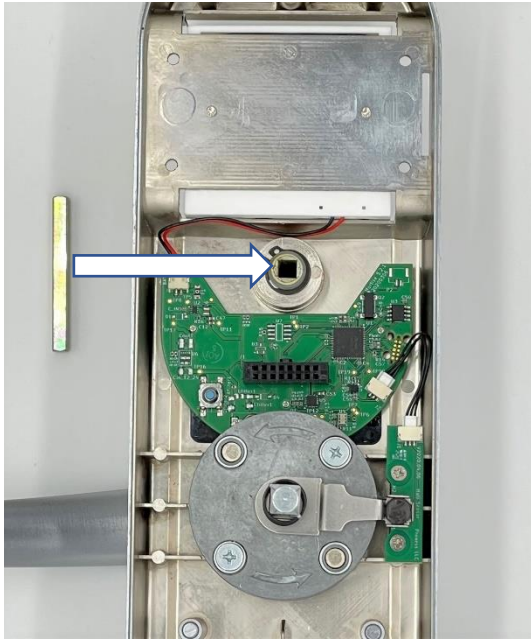
Step G Completed



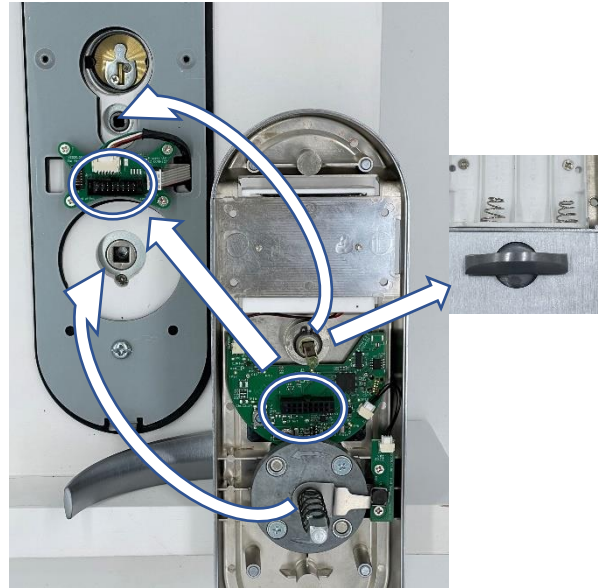
H. Interior Escutcheon Installation

H.1 Installing Thumb Turn Spindle

Insert Thumb Turn Spindle (For deadbolt model only)



H.2 Install Interior Escutcheon



Align the spindles and EZ connect with the chassis and place it onto the interior backplate.

Ensure that the thumbturn is horizontal when the deadbolt is in, and vertical when the deadbolt is out/thrown. (For deadbolt model only)

H.3 Validate

Turn the lever to ensure proper latch engagement. The latchbolt should retract.



H.5 Fasten Interior Trim

Insert the 4 battery compartment screws and bottom set screws to finish installing the interior trim



I. Operation Test

I.1 Install AA batteries (x4)



I.2 Power On Self-Test



The interior light will illuminate in colors, and you will hear a beep, indication that the power is on. Turn the lever and make sure the lever is free to rotate.

I.3 Testing the Lock

1. Take a construction-mode credential, place it in front of the reader panel and wait. The light will illuminate blue, then will flash green and you will hear a beep.
2. Turn the handle to actuate the latch and the door can be opened. After a few seconds, the door will automatically lock again.



I.6 Thumb turn lever function test (Deadbolt only).

Turn thumb turn lever, deadbolt latch will extend;
deadbolt latch will work with Cylinder Emergency Key.
(For this model only)

I.8 Install Battery Cover



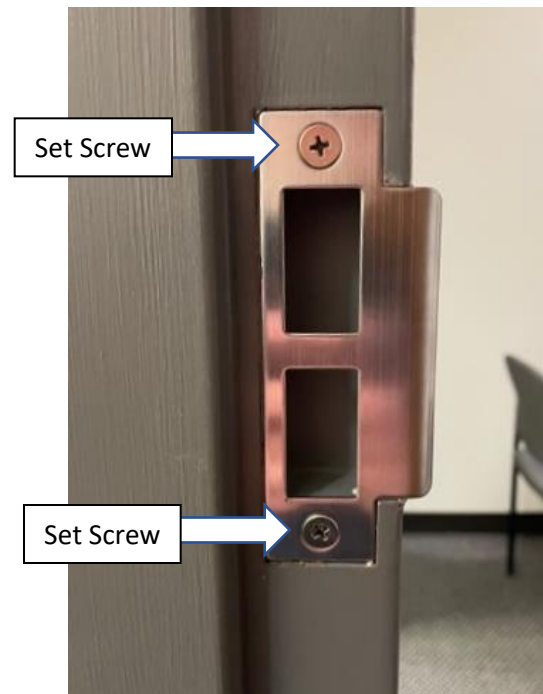
I.9 Tighten the Battery Cover into place.

J. Strike Plate Installation

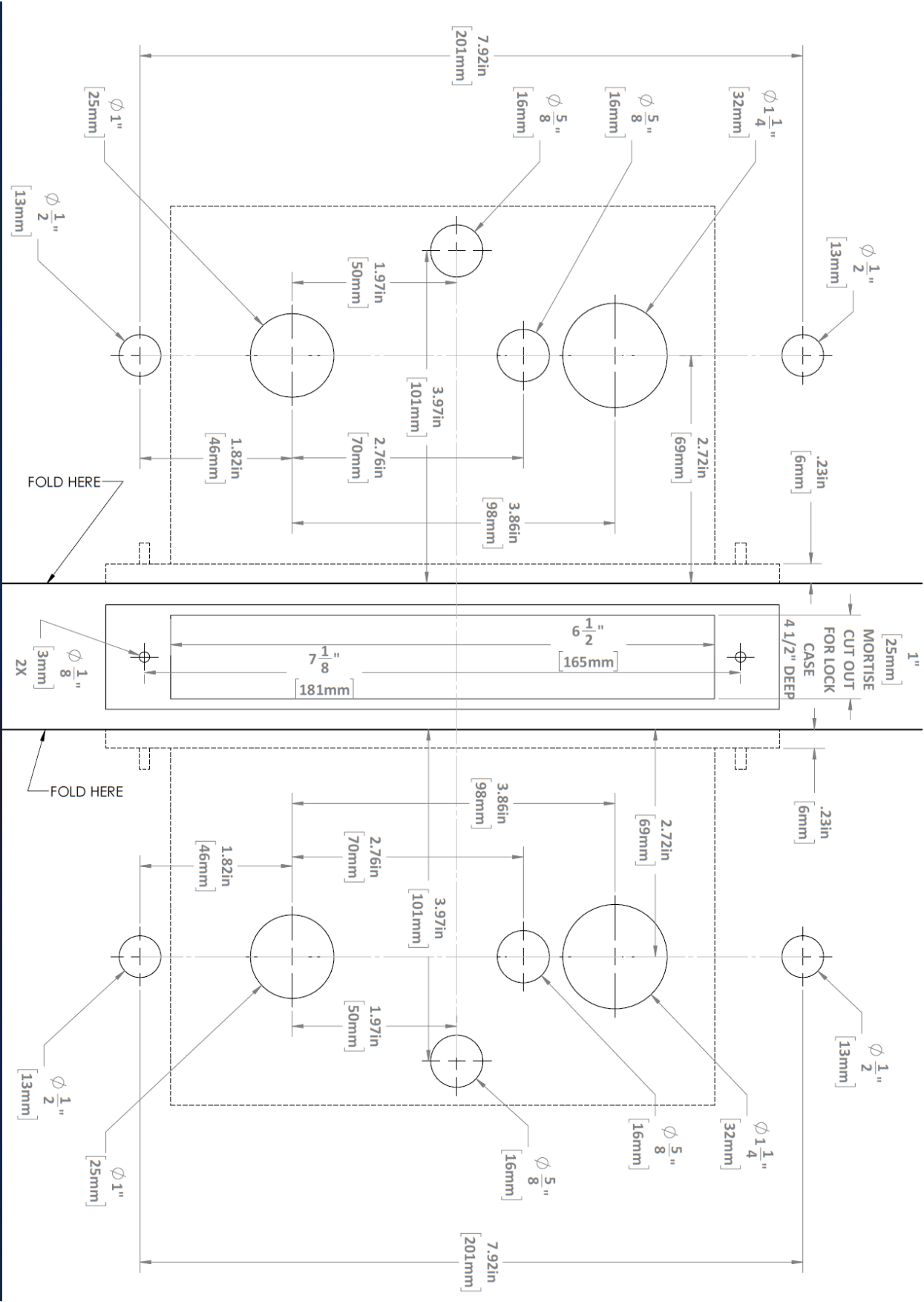
1. Use the template provided to create the strike plate mounting hole on the door frame.
2. Fasten the strike plate screws

I.7 Install Chassis Plate

Fasten the chassis plate on with the chassis plate screws after passing all function tests.

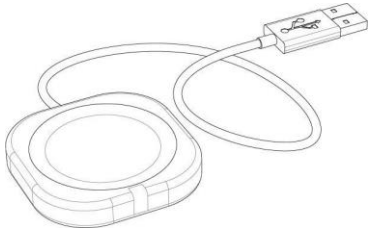


INSTALLATION TEMPLATE – FOR REFERENCE ONLY:
(NOT TO SCALE - USE THE DISCRETE TEMPLATE FOR TO-SCALE DIMENSIONS)



ADDITIONAL RESOURCES

SERVICE EQUIPMENT



ENR™

Enrollment Reader and Programmer

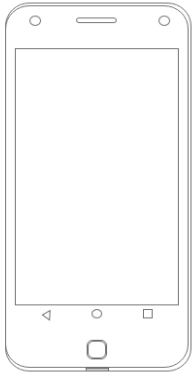
Proxess' ENR™ makes the credential enrollment process intuitive and simple. Just place a credential on the desktop reader and a pop-up window automatically appears. From here you can create a new user, assign this card to an existing user, or view the details of an existing cardholder. A detachable USB-C cable broadens device compatibility for all modern PCs and most modern Android Smart Phones.



NX™ Smart Credentials

Network on Card Smart Credentials

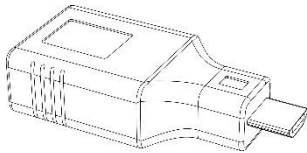
Proxess systems utilize the most advanced and flexible credential technology in the industry, DESFire EV1, 2, and 3, and add six layers of protection, encryption and mutual authentication, providing the most secure credentials in the industry.



MPD Mobile Programming Device

Android Mobile Phone with no SIM Card

The Mobile Programming Device is used with the Proxess LoxIQ™ and ProxessSync™ software to build door groups, access profiles, time schedules, synchronize locksets, and so much more. It can also be used to assign high security Network on Card credentials to personalized profiles with the Proxess Enrollment Reader. Proxess software is currently available on Android devices with the Google Play Store. iOS-compatible software is coming soon. Please check our website for the latest capabilities for Proxess products.



OTG On-the-Go Converter

The On-the-Go Converter is provided with some Mobile Programming Device and Enrollment Reader to assign credentials. Proxess offers OTG converters for Micro USB devices only.

For additional information about service equipment and Proxess products, please visit our website:

www.proxess.com

SOFTWARE SOLUTIONS FOR LOCKSET PROGRAMMING

LoxIQ™

LoxIQ™ is a software app created by Proxess, LLC. Instead of requiring all the expensive components of an access system (approx. \$3k/dr), LoxIQ™ requires only the locks, a phone, and a programmer. Although the system has the capability of unlimited doors and users, it is typically implemented in smaller systems of 100 doors/users or less...Expandable to full server system software.

For more information about LoxIQ™, please visit our website:

<http://www.proxess.com/Proxess/media/Proxess/Documents/loxIQ-datasheet-20190114.pdf?ext=.pdf>

ProxessIQ™

ProxessIQ™ is the enterprise access control software, supporting Proxess intelligent wireless locksets and door controllers. A ProxessIQ™ system can begin with a single wire-free lockset and incrementally expand to an unlimited number of locations, doors and users.

For more information about ProxessIQ™, please visit our website:

<http://www.proxess.com/Proxess/media/Proxess/Documents/ProxessIQ-Scalable-ACS.pdf?ext=.pdf>

Proxess Sync™

The Proxess Sync™ mobile phone App synchronizes changes from the ProxessIQ™ software to LoxIQ™ locksets across the country. It is the simplest to use configuration App, requiring just a click to perform the synchronizations. Strictly a performance App, it is secure and uncompromising. All of the configuration changes are securely made on the PC software and the App user simply clicks to have the changes executed.

For more information about Proxess Sync™, please visit our website:

[http://www.proxess.com/Proxess/media/Proxess/Images/Solutions/Proxess-Sync-DS-Pg-1-\(1\).pdf?ext=.pdf](http://www.proxess.com/Proxess/media/Proxess/Images/Solutions/Proxess-Sync-DS-Pg-1-(1).pdf?ext=.pdf)

FCC STATEMENT

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 communication. 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 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.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this 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.

User Manual Notice required by Section 8.4 of ISED RSS-Gen Issue 5

Industry Canada Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Industrie Canada l'énoncé

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC ID: 2AKUZPXH01

IC: 22335-PXH01

Product Marketing Name: MX-Series Mortise Lockset

Contains FCC ID: SH6MDBT50Q

Models (HVINS):

- PXH01-CX03-B (CX-Series Cylindrical Lockset)
- PXH01-CX03-DC (CX-Series Lockset)
- PXH01-MX02-B (MX-Series Mortise Lockset)
- PXH01-MX02-DC (MX-Series Mortise Lockset)

UL STATEMENT (Pending)

Outside lever is normally locked. Inside lever always allows egress.

Unit shall not interfere with the operation of Panic Hardware.

Wireless communications, Wi-Fi, Bluetooth, Door Position, and Request to Exit features are not part of UL Listed product.

Tested to compliance with UL 294 5th Edition Class I.