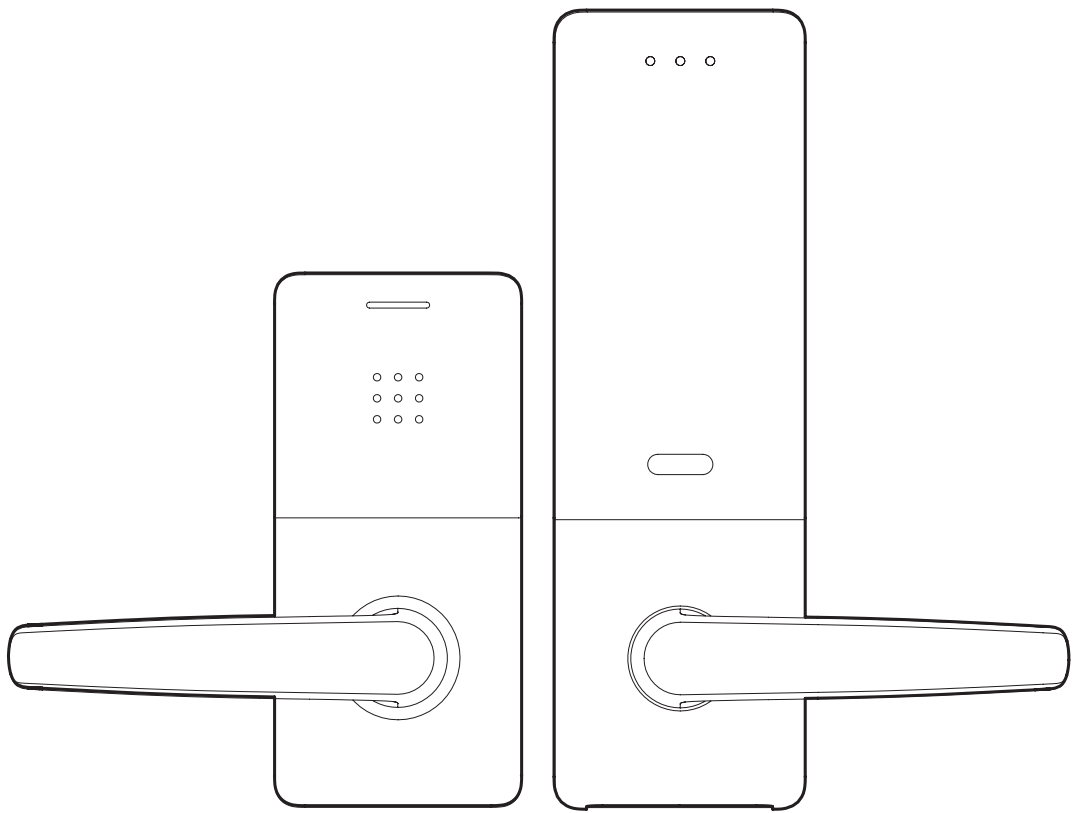




AL54-CY

Cylindrical Wireless Lock



Resources



Scan the QR code to access additional resources

- Installation Video
- Verkada Product Integration
- Troubleshooting Instructions

Technical Specifications

Dimensions (without Handle)	Exterior Assembly: 177.3 x 82.3 x 35.9 mm Interior Assembly: 266.0 x 83.6 x 35.5 mm
Dimensions (with Handle)	Exterior Assembly: 177.3 x 171.2 x 87.2 mm Interior Assembly: 266.0 x 171.2 x 92.4 mm
Weight	Total: 3158g
Supported Credential Technologies	Low Frequency (125 KHz) High Frequency (13.56 MHz) Mobile NFC (13.56MHz) Bluetooth Low Energy (2.4GHz)
Ratings	IP65, IK08
Wireless Communication Frequency	915 MHz
Wireless Communication Range	Range up to 150 ft with obstructions (normal building installation), up to 300 ft clear line of site
Wireless Communication RF Specifications	Minimum Signal Strength RSSI: -65 dBm Maximum ambient RF noise level RSSI: -75 dBm
Operating Temperature	-35° to 55°C (-31° to 131°F) 5-90% RH non-condensing
System Interface	Requires WH32 (for wireless communication) and AC12 access controller (connected via RS-485 to WH32)
Power Supply	Compatible only with 8 × AA lithium batteries (nominal voltage ≥ 1.5V). For optimal performance and battery life, use batteries of the same brand and type. Energizer L91 batteries are recommended.
Backup Power	Backup power can be provided via a USB-C cable connected to a 5V power bank to recover the device in the instance the batteries are drained [not evaluated per UL294]

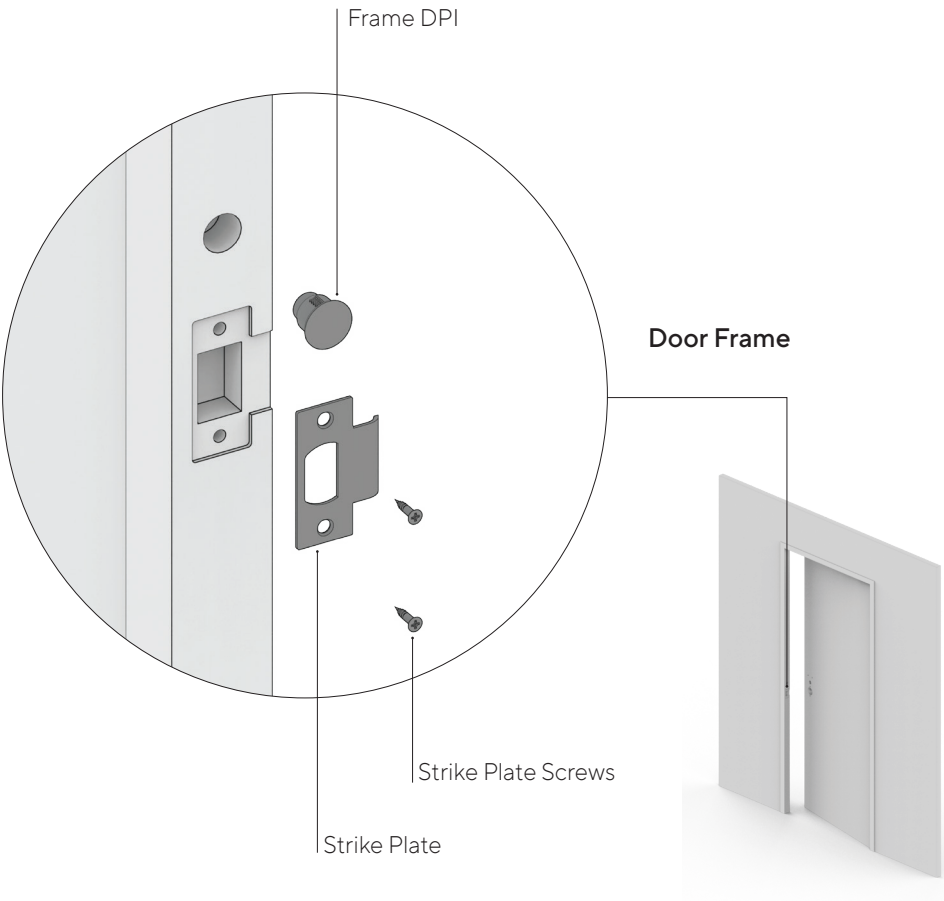
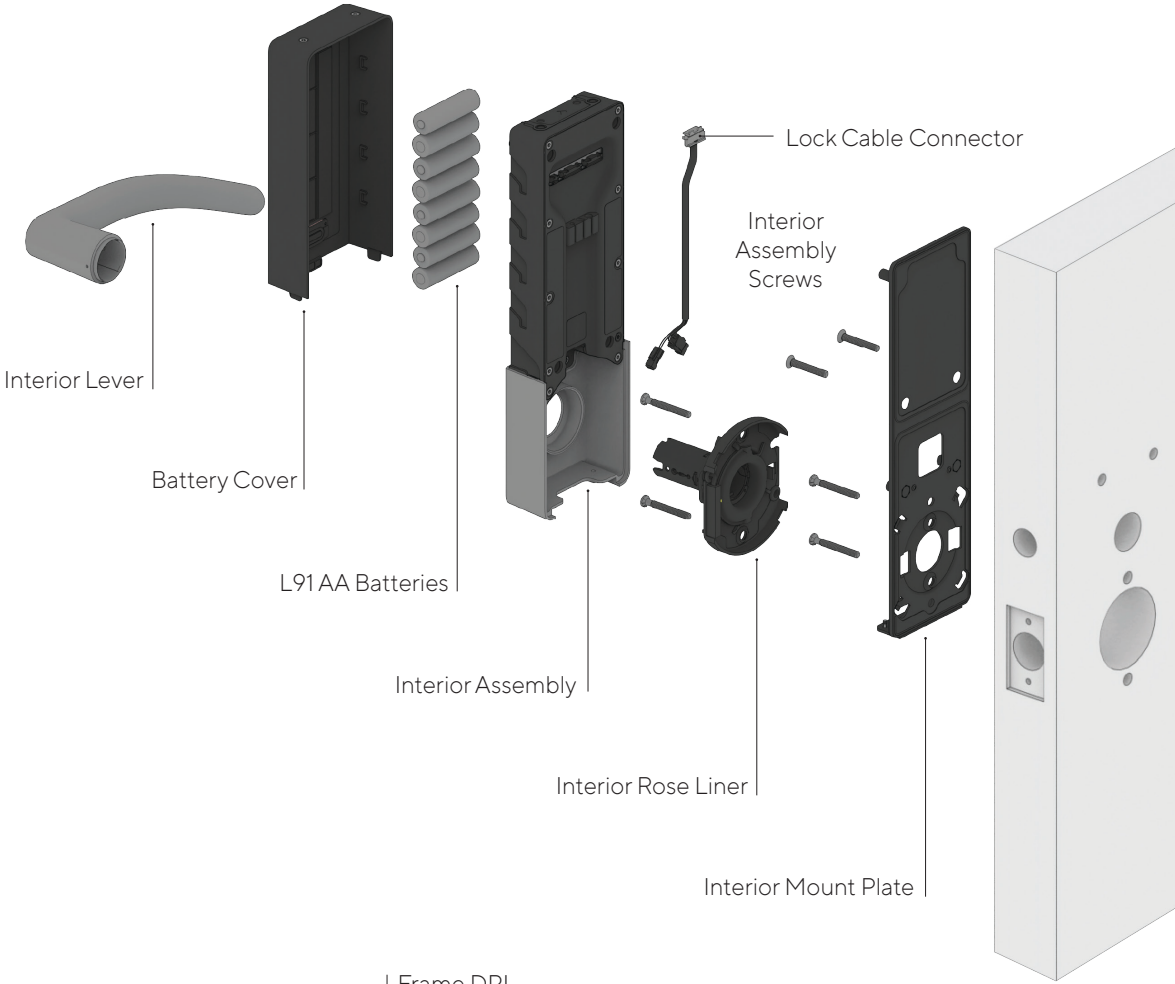
Version
V1.2 published 04/2026
Document ID: AL54-CY Install Guide

Product Models
This install guide pertains to model AL54-CY

- AL54-CY-NK-01-26-HW
- AL54-CY-CC-01-26-HW
- AL54-CY-FC-01-26-HW
- AL54-CY-SC-01-26-HW

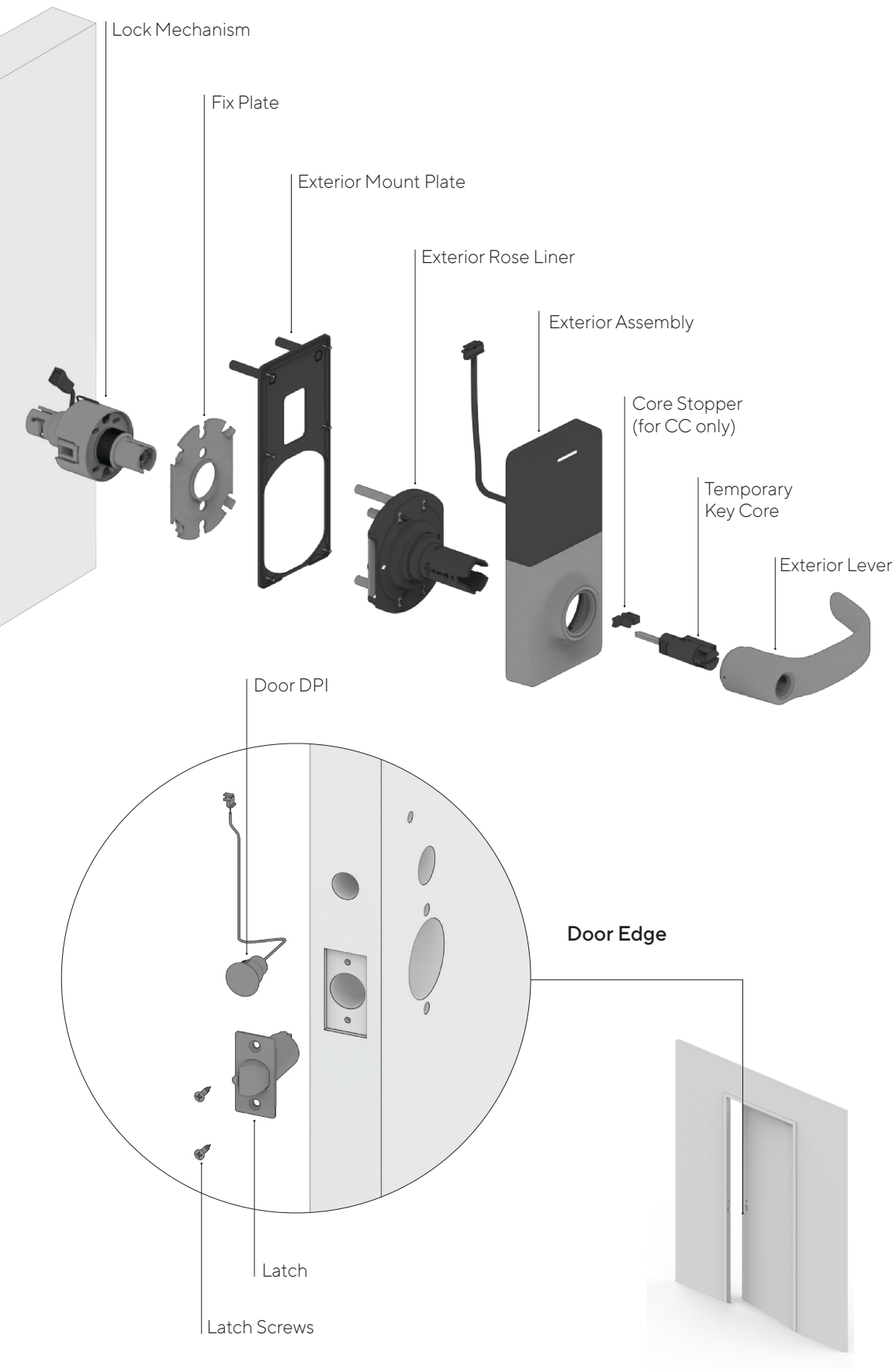
Overview

Interior Interior side of door

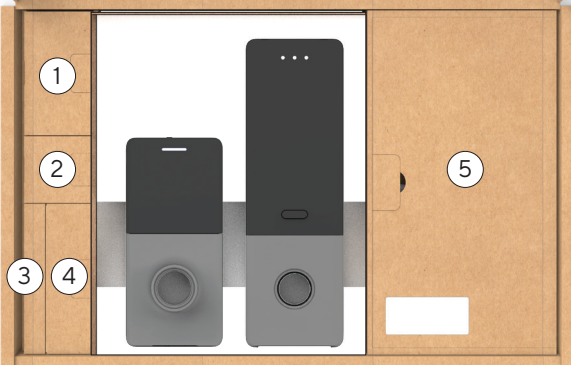


Exterior

Exterior side of door



What's in the box

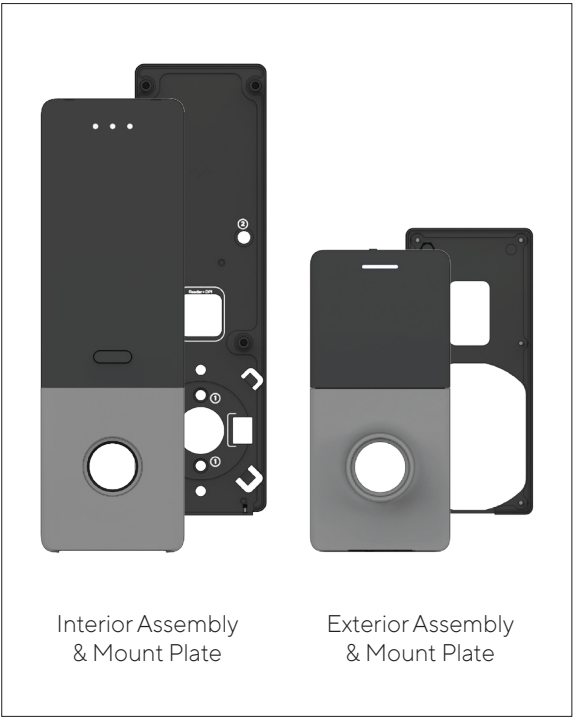


What you'll need (Not included)

General purpose tape
Phillips Head 2 Screwdriver
Electric Drill

Drill Bits

- 3/4" Forstner Drill Bit
- 5/16" Drill Bit
- 3/8" Drill Bit
- 1" Forstner Drill Bit or Hole Saw
- 2-1/8" Hole Saw



1

Lock Mechanism

Fix Plate

4

Lever Removal Tool

Screw Kit

L91 AA Batteries

DPI Door & Frame Cable

Lock Connector Cable

T10 Torx Security Screwdriver

5

Interior Rose Liner

Interior Lever

Exterior Rose Liner

Exterior Lever

Temporary Key Core

Core Stopper
(Only for Conventional Core)

2

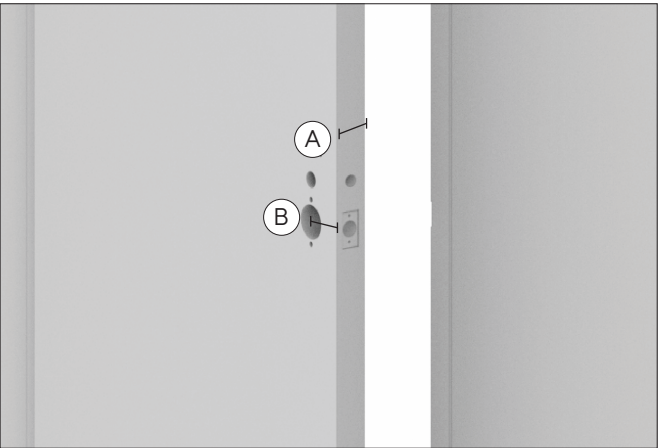
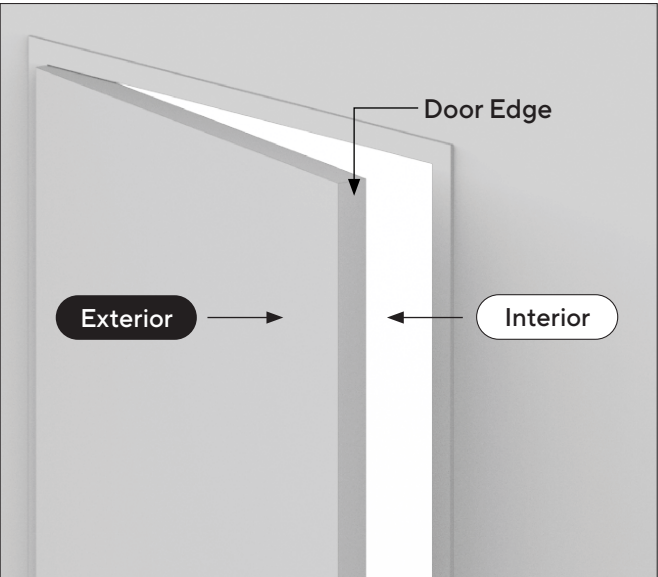
2 3/4" Latch

2 3/8" Latch

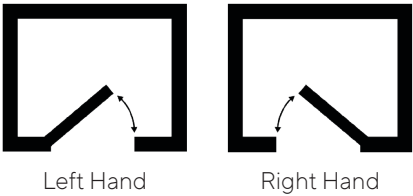
3

Strike Plates

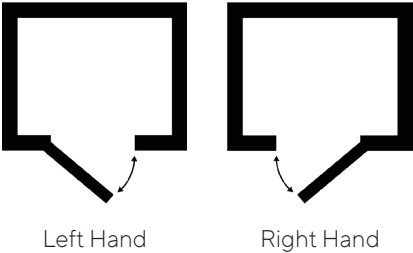
Door Compatibility



In-Swing Door



Out-Swing Door



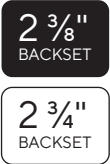
A Door Thickness

Measure the door thickness to help select the appropriate template.

Red	1 3/8"	35mm
Blue	1 3/4"	45mm
Green	2"	51mm

B Backset

Measure the distance from the edge of the door to the center of the large hole to help select the appropriate template.



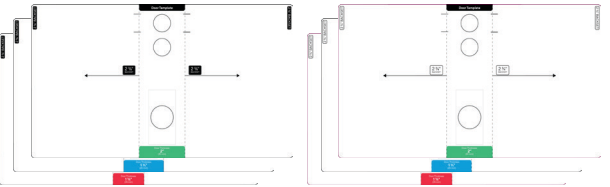
Door Templates

Door Frame Door Edge



Door Template

There is a total of six Door Templates, differentiated by door thickness and backset. Templates can separate to accommodate beveled doors.

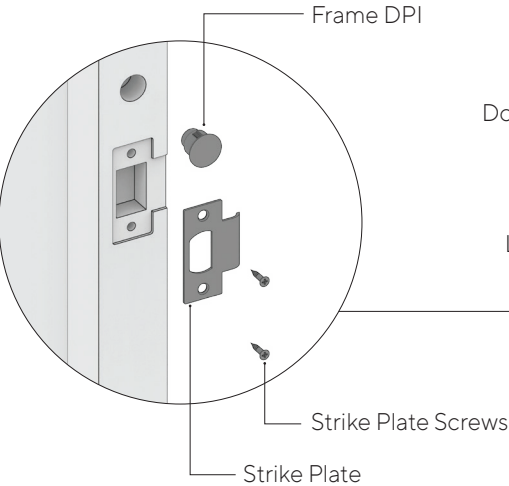


Door Frame Template

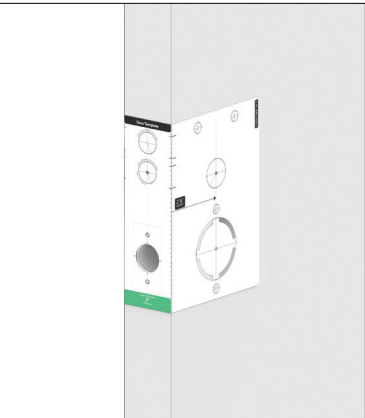
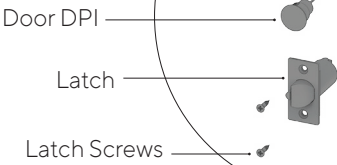
There is one Door Frame Template. Make sure it aligns with the Door Template.

Door Frame and Door Edge Installation

Door Frame



Door Edge



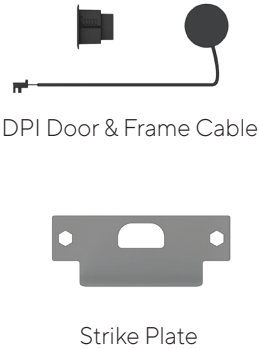
Select the correct template size and align the Template to the bore hole. Tape to the door. Template may need to be torn to ensure it fits on the door edge.



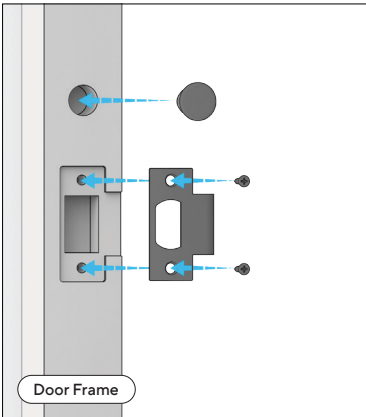
Attach the appropriate Door Frame Template if needed. Ensure the line on the Door Frame Template is aligned with the top of the Door Template.



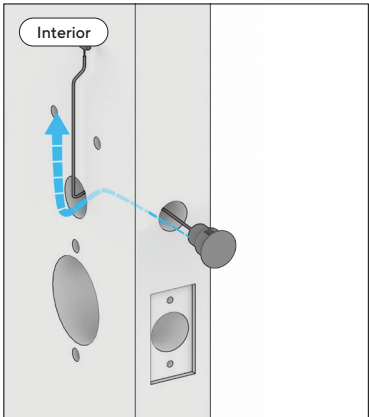
Mark holes for drilling. Remove the templates and drill all of the holes according to the drill bit sizing denoted on the templates.



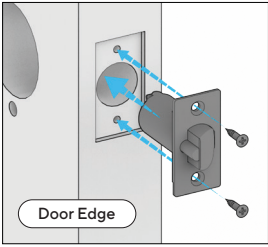
Retrieve the DPI Door and Frame Cable, and Strike Plate. Select the correct Strike Plate for the Door Frame.



Insert the Frame DPI and screw the strike plate into the frame.

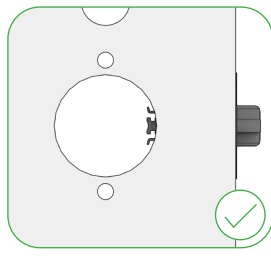
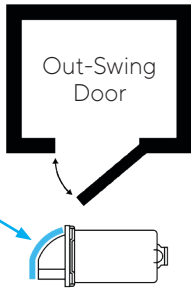
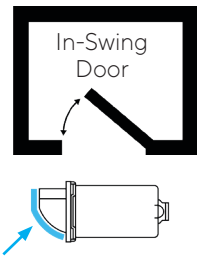


Route Door DPI cable through the reader hole and out of the interior side of the door.

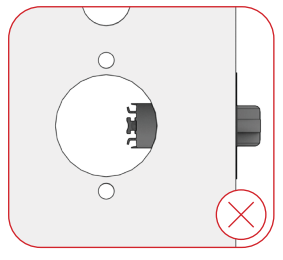


Select the appropriate Latch size, according to the backset distance.

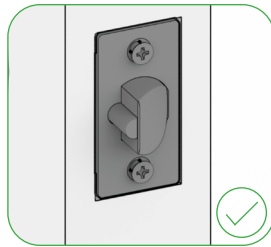
Only the tabs of the Latch should appear within the bore hole. Orient the Latch so that the flat edge is facing the door swing direction.



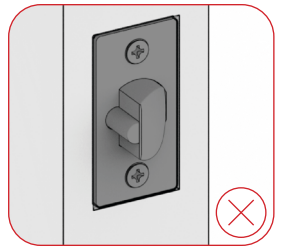
Appropriately sized Latch.



Oversized Latch.

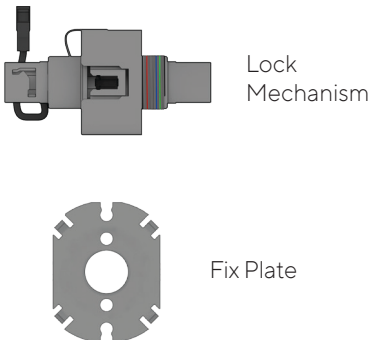
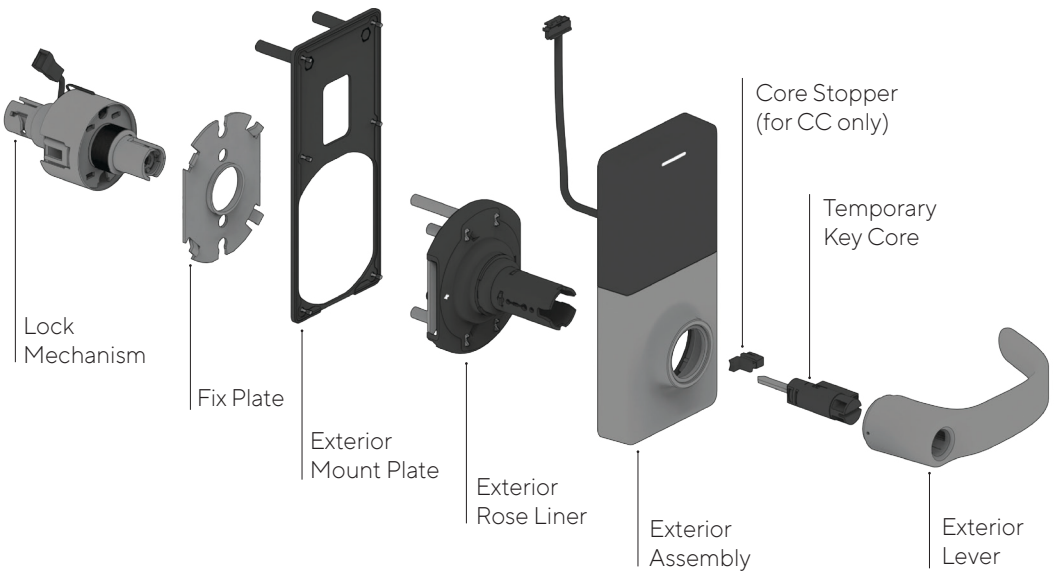


Keep screws loose.



Do not tighten screws.

Exterior Installation



Retrieve the Lock Mechanism and the Fix Plate from the packaging.

Critical Step Parts could be damaged!

There are two methods to installing the Lock Mechanism and Fix Plate. In the following pages, **select one method** and follow the instructions precisely to avoid damage to the parts.

(A)

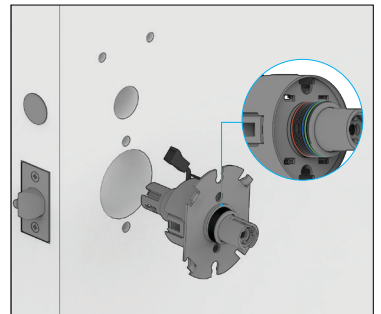
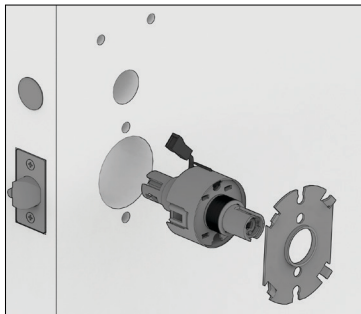
Door Stop Method

Using the door to position Fix Plate onto Lock Mechanism.

(B)

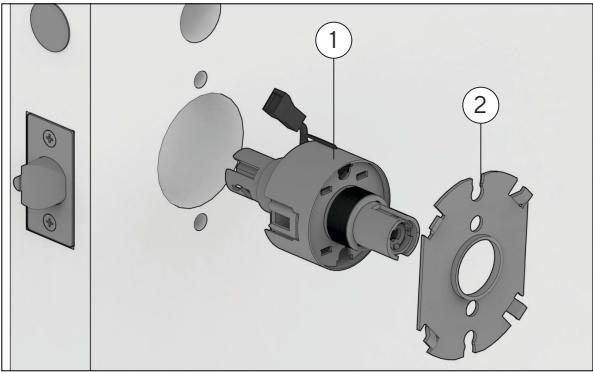
Thread Color Method

Using the lines to position Fix Plate onto Lock Mechanism.

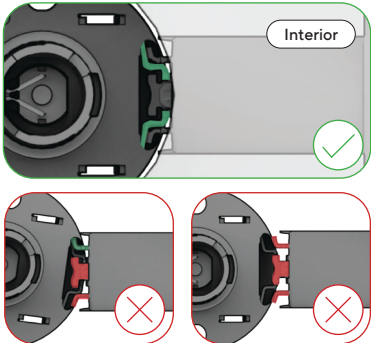
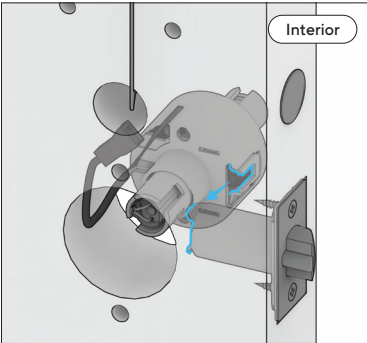
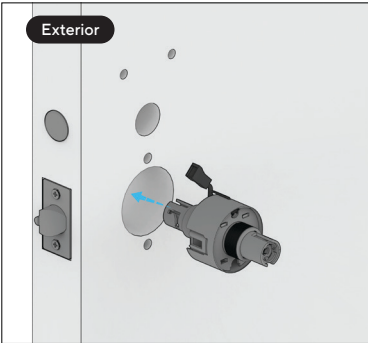


Exterior Installation cont.

Critical Step: Option A

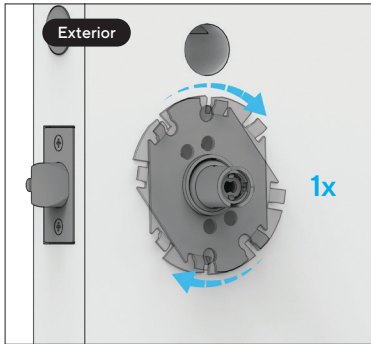
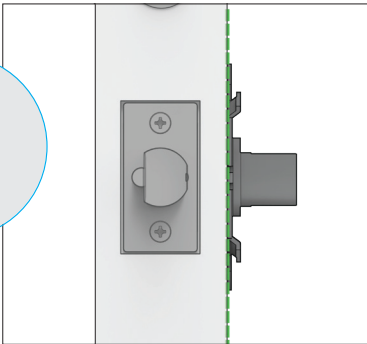
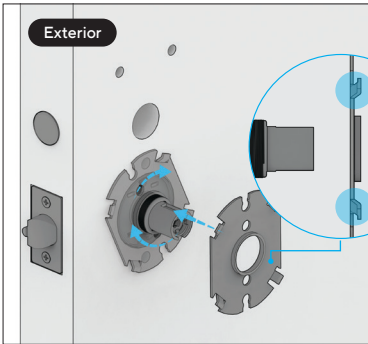


Option
A Door Stop Method
Recommended for wooden doors or doors with reenforcers.
Inserting Lock Mechanism before attaching Fix Plate. Using door to affix Fix Plate onto Lock Mechanism.



Insert the Lock Mechanism into the door ensuring that the cable is coming through the same hole.

Firmly push the Lock Mechanism into the bore hole ensuring that the Latch tabs are engaging with the Lock Mechanism. Visually inspect the engagement point to confirm a secure connection.



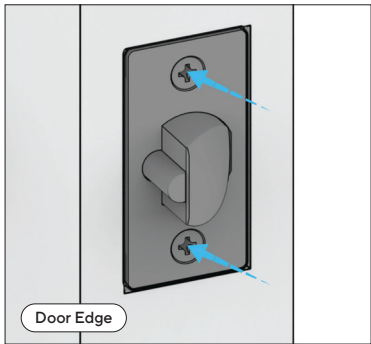
Rotate the Fix Plate onto the Lock Mechanism. The prongs on the Fix Plate should be facing outward.

Rotate the Fix Plate until it is flush against the door.

Only rotate one additional full rotation to center the latch within the retractor. Do not over-rotate.

Checkpoint

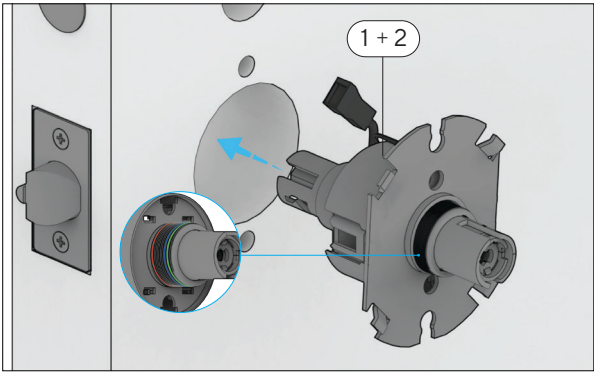
Visually check that the Latch tail is fully seated deep in the Lock Mechanism pocket.



Tighten the two Latch screws.

Exterior Installation cont.

Critical Step: Option **B**

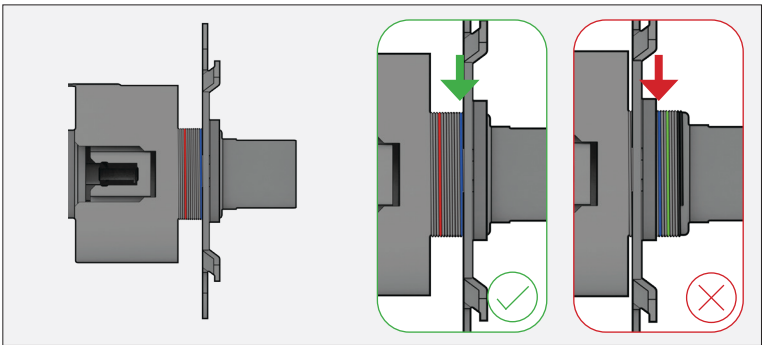
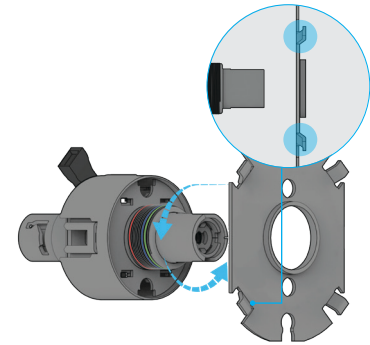


Option **B** Thread Color Method

Recommended for metal doors.

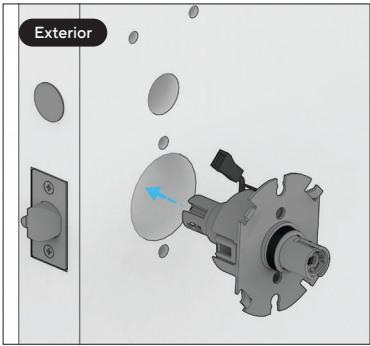
Inserting Lock Mechanism and Fix Plate as a unit. Use the correct color on the thread of the Lock Mechanism and rotate the Fix Plate onto it.

Red	1 3/8" (35mm)
Blue	1 3/4" (45mm)
Green	2" (51mm)

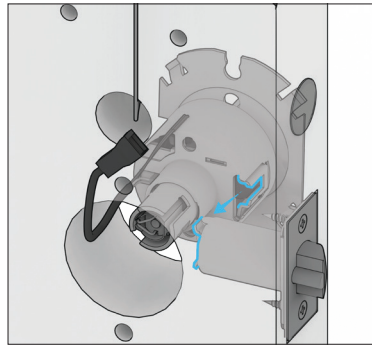


Identify the color corresponding to the Door Thickness. Ensure that the prongs on the Fix Plate are facing outward.

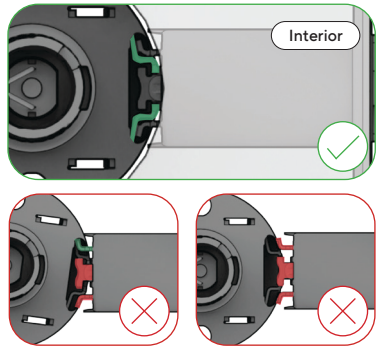
Rotate the Fix Plate onto the Lock Mechanism. Stop rotating once the back of the Fix Plate is in front of the desired colored line. The example above is of a 1 3/4" thick door.



Insert the Lock Mechanism into the door ensuring that the cable is coming through the same hole.

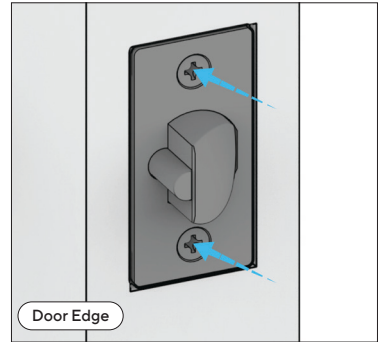
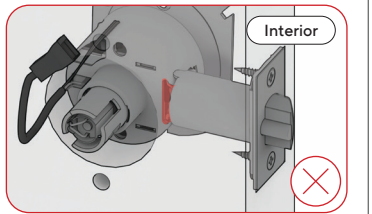
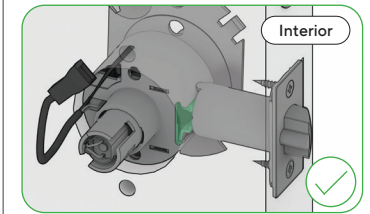


Firmly push the Lock Mechanism into the bore hole ensuring that the Latch tabs are engaging with the Lock Mechanism. Visually inspect the engagement point to confirm a secure connection.



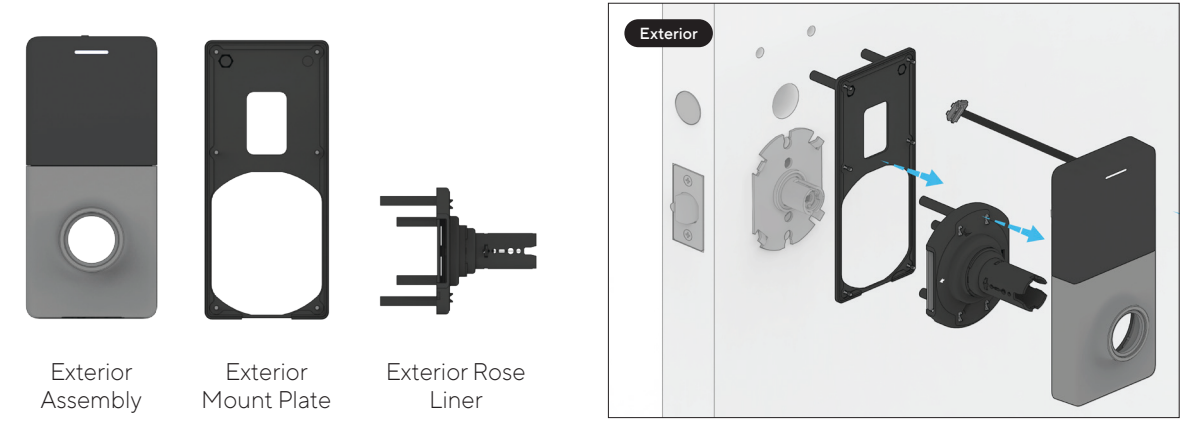
Checkpoint

Visually check that the Latch tail is fully seated deep in the Lock Mechanism pocket.

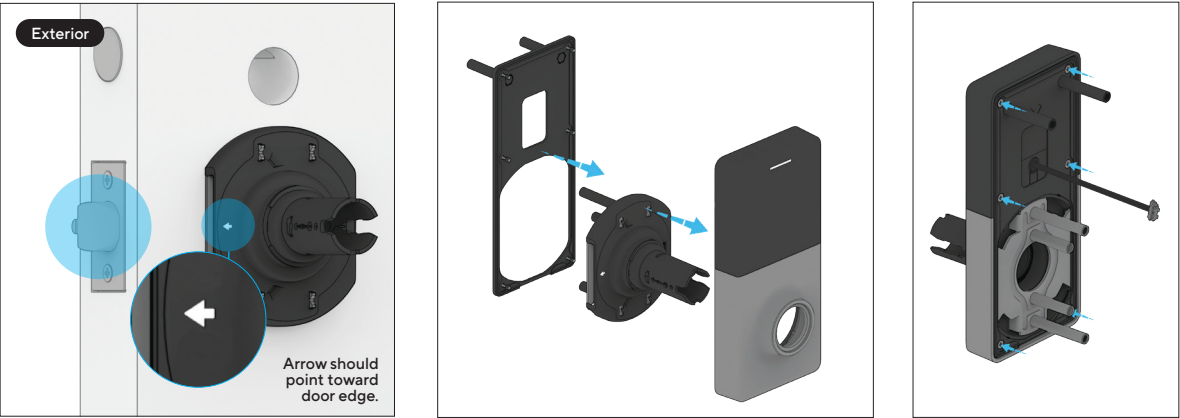


Tighten the two Latch screws.

Exterior Installation cont.



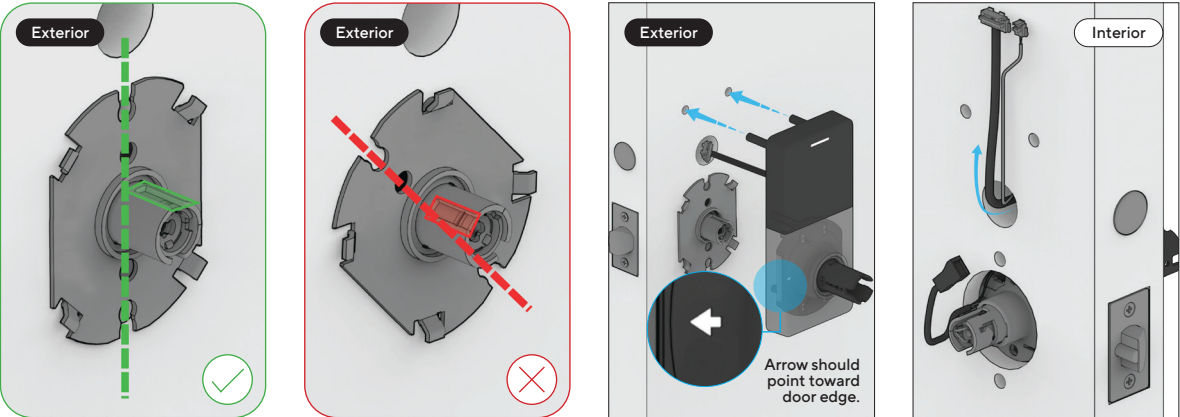
Retrieve the Exterior Mount Plate and the Exterior Assembly from the packaging.



Orient the Exterior Rose Liner so that the white arrow is pointing towards the Latch and the door edge.

Insert the Exterior Rose Liner into the Exterior Assembly, followed by the Exterior Mount Plate.

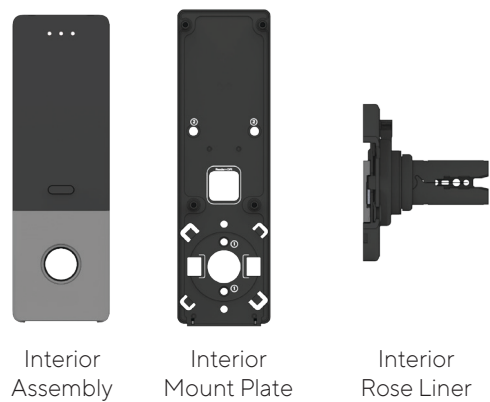
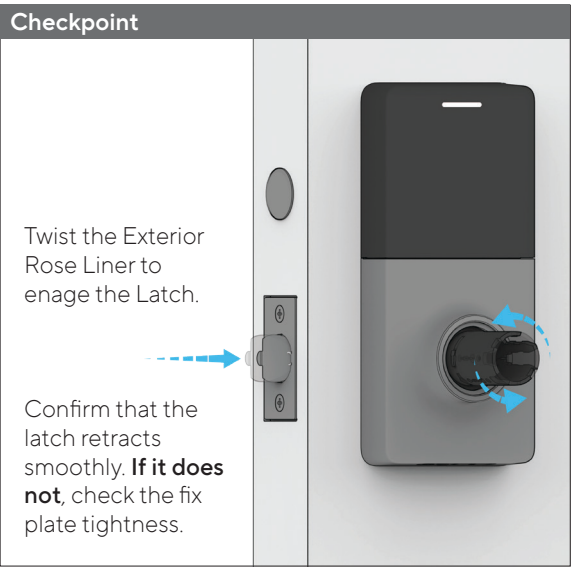
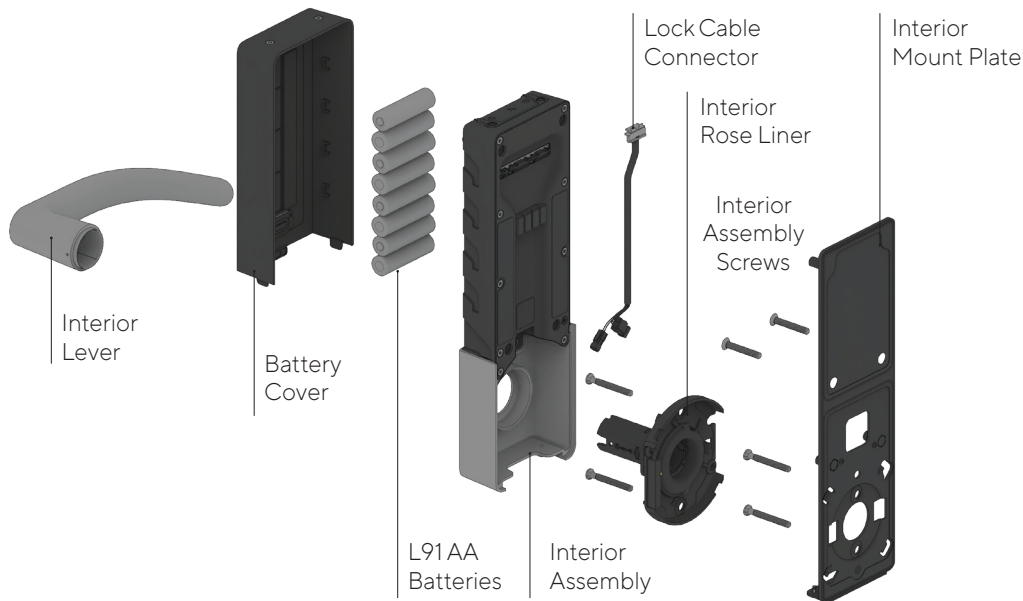
Fully tighten the six captive mount plate screws.



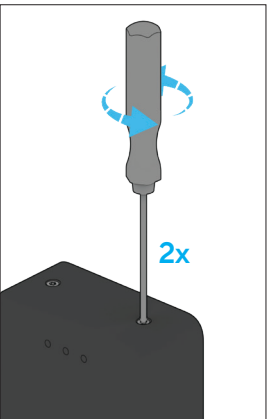
Check the position of the Lock Mechanism and Fix Plate to ensure that it is in the right orientation. Ensure that the slots on the Lock Mechanism and the screw holes on the Fix Plate are vertically aligned.

Push the Exterior Assembly onto the door, ensuring the stand-offs are aligned with the holes. Pass the reader cable through the hole as shown.

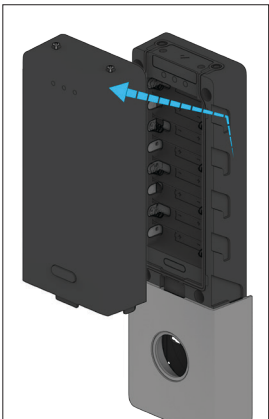
Interior Installation



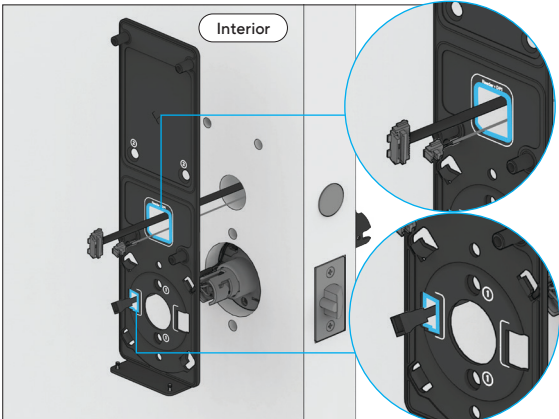
Retrieve the Interior Mount Plate, Interior Assembly and Interior Rose Liner from the packaging.



Using the T10 Torx Security Screwdriver, loosen the two captive screws on the top of the battery cover.

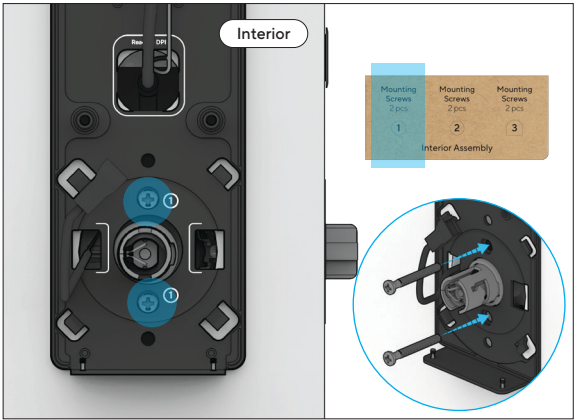


Remove the battery cover by lifting up and pulling out.



Position the Interior Mount Plate on the interior side of the door. Feed reader cable and DPI cable through the large rectangular opening. Route the Lock Mechanism cable goes through the closest of either small rectangular holes.

Interior Installation cont.



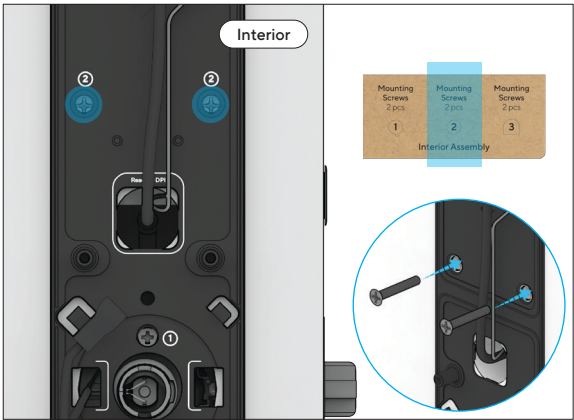
Retrieve the Screw Holder. Take out the two Assembly Mounting Screws, labeled ①, and screw them into the corresponding positions on the mount plate.

Checkpoint

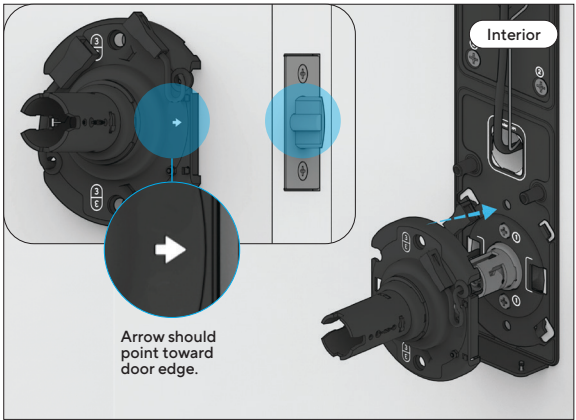
After screwing down Interior Assembly Mounting Screws ①, check the following:

Press on the Latch to check whether it is retracting smoothly.

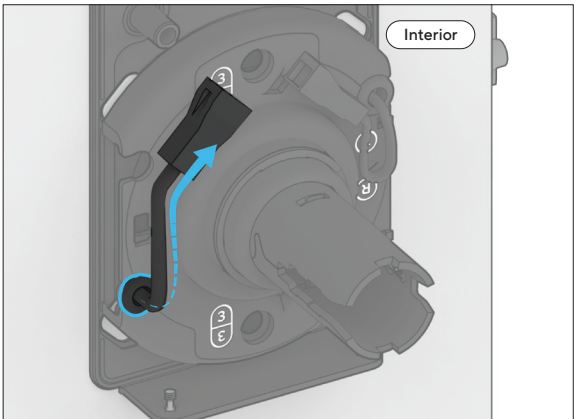
If Latch resistance is observed, slightly loosen the ① screws to help with this issue



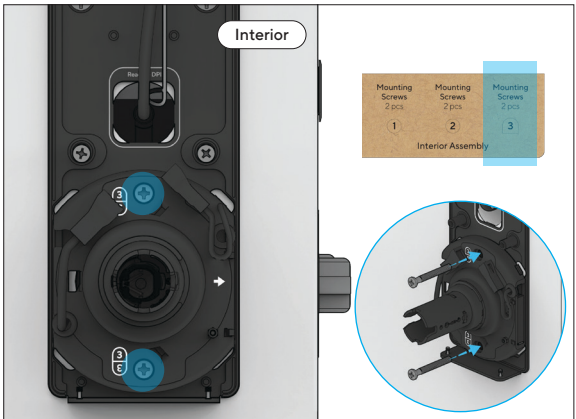
From the Screw Holder, remove the Interior Assembly Mounting Screws ②, and screw them into the corresponding position on the Mount Plate.



Take the Interior Rose Liner and position it on the Mount Plate ensuring the arrow points toward the Latch and the door edge. Slide the Interior Rose Liner into place.



Take the Lock Cable and place the rubber grommet into the closest slot on the Interior Rose Liner to secure it. **Make sure the rubber grommet is fully inserted.**



Retrieve the Interior Assembly Mounting Screws ③, and screw them into the corresponding holes on the Interior Rose Liner.

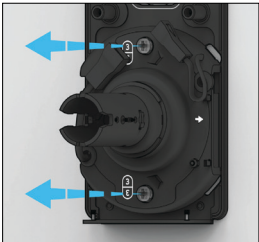
Interior Installation cont.

Checkpoint

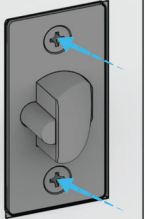


Twist the Interior Rose Liner to ensure that the Latch is retracting smoothly.

If the latch is not retracting smoothly:



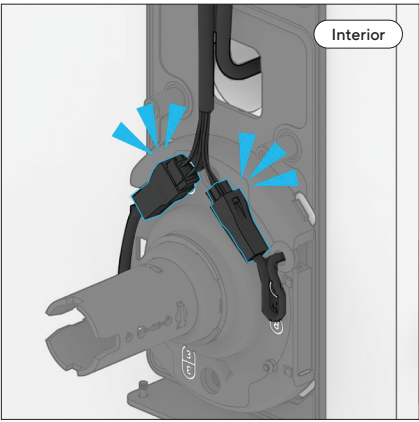
Loosen the #3 screws and check again.



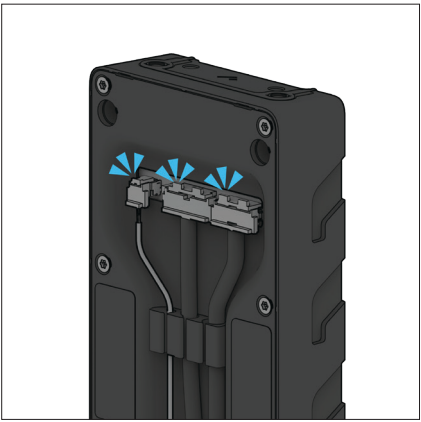
If still not retracting smoothly, loosen Latch Plate screws by a half turn.



Retrieve Lock Connector Cable from the Install Kit.



Plug the connectors to the Lock Mechanism and Interior Rose Liner cables.



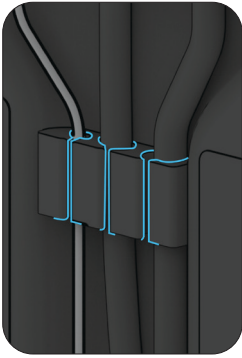
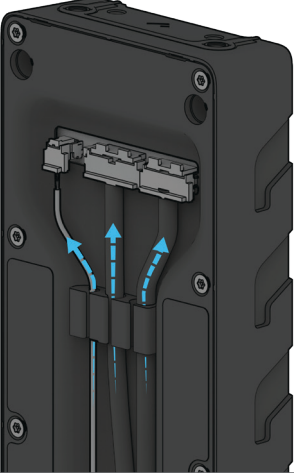
Plug the connectors into their respective ports on the rear of the Interior Assembly and push cables into the grommets.

Checkpoint

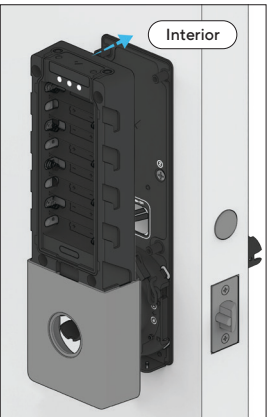
Cables should be routed through their respective grommets.

Ensure that the cables are tightly packed into the Interior Assembly.

Incorrect cable placement can disrupt the installation process.



Push cables into the grommets to ensure no movement.

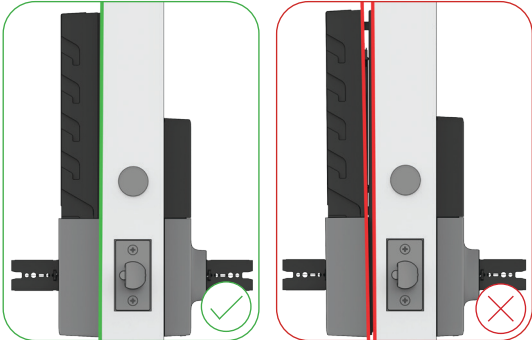


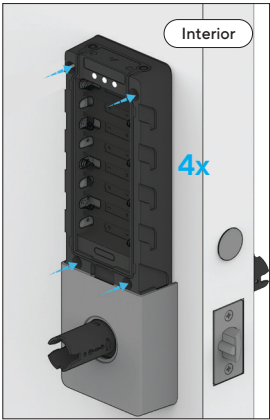
Align the assembly with the stand-offs on the mount plate and push it onto the door. Ensure the cables are not pinched when assembling.

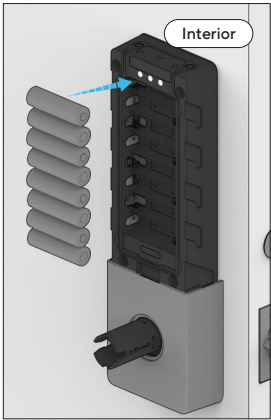
Interior Installation cont.

Checkpoint

Ensure that the Interior Assembly is sitting flush along the mount plate. There should be no gaps anywhere and no pinched cables.





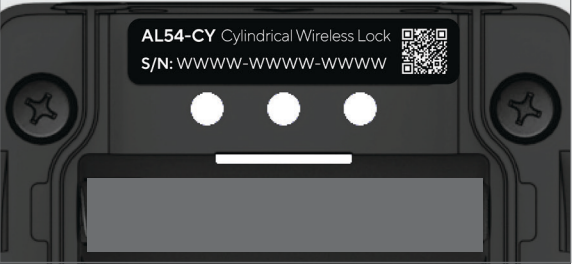


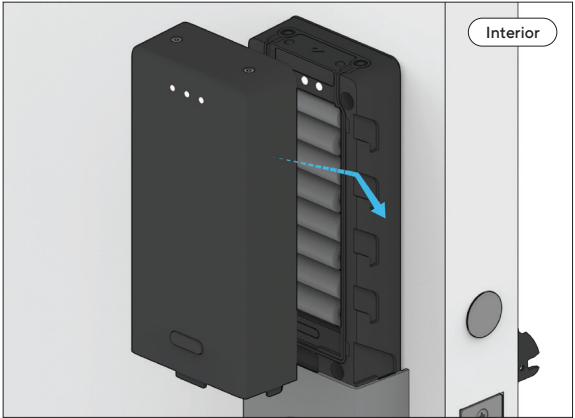
Tighten the four captive screws on the Interior Assembly with a Phillips head screwdriver. It is recommended to tighten them evenly.

Install the eight L91 AA batteries included in the Install Kit. The device LEDs should begin to cycle.

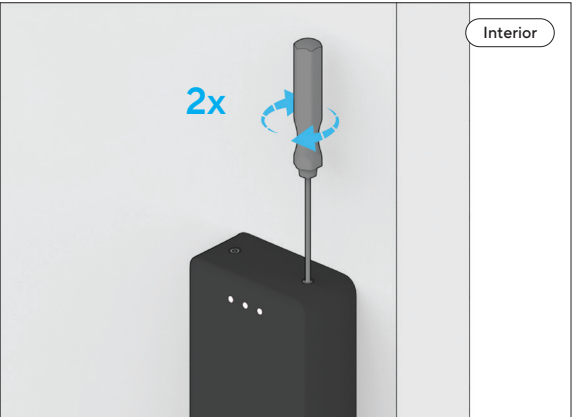
Checkpoint

To commission the device on Command, you will need the S/N on the label located above the batteries.

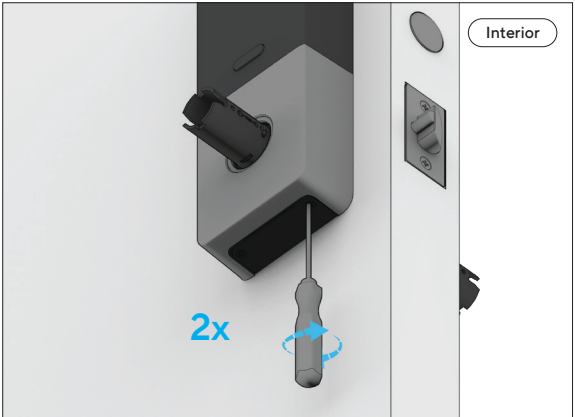




Attach the Battery Cover by following the grooves on the side of the Interior Assembly.



Tighten down the two captive screws located on the top of the Battery Cover with the T10 Torx Security Screwdriver.



Tighten down the two captive on the bottom of the Interior Mount Plate with the T10 Torx Security Screwdriver.

Interior Installation cont.

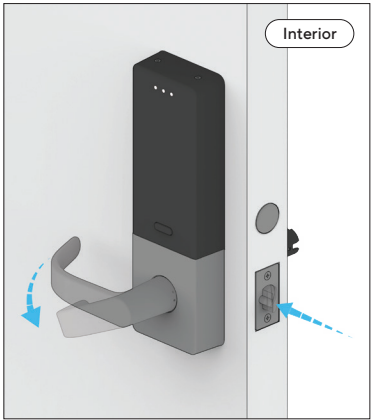


Interior Lever



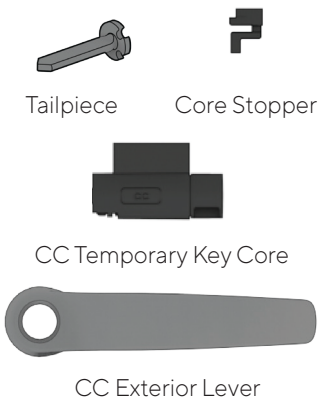
Retrieve the Interior Lever from the Lever Kit box.

Push the Interior Lever onto the exposed Interior Rose Liner until it clicks into position. Ensure the handle is securely attached and can rotate freely.



Make sure the Latch is engaged when turned.

Exterior Lever Installation Conventional Core (CC)



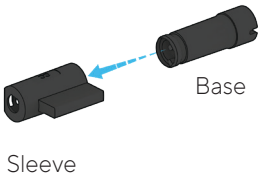
Tailpiece

Core Stopper

CC Temporary Key Core

CC Exterior Lever

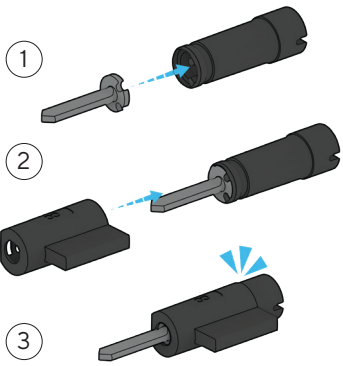
Retrieve these pieces from the Lever Kit.



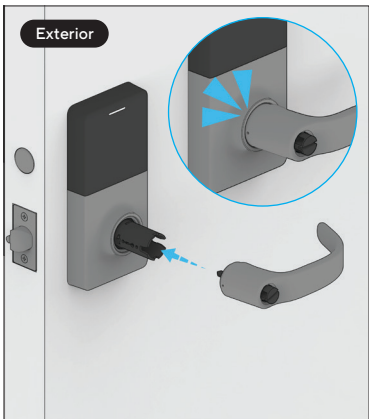
Base

Sleeve

Separate the Base from the Sleeve of the CC Temporary Key Core.



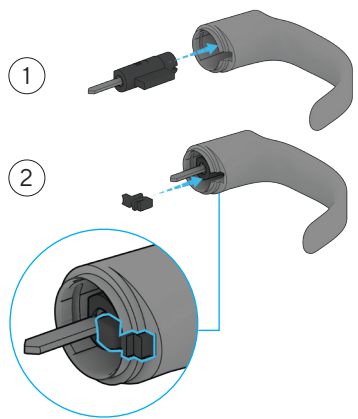
Insert the tailpiece into the Base with the notches aligned. Slide the Sleeve onto the Base.



Push the Exterior Lever onto the exposed Exterior Rose Liner until it clicks into position.



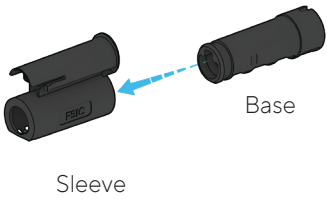
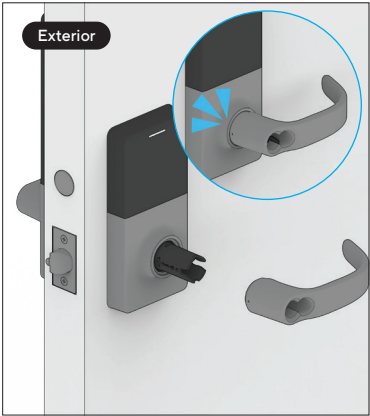
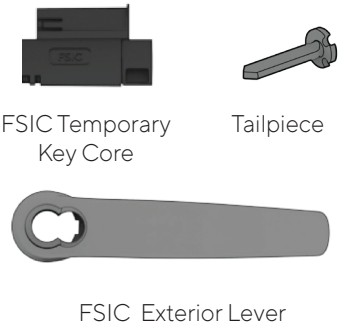
Ensure that the Lever is securely attached and can be turned. Make sure that the CC Key Core is able to engage the Latch.



Insert the CC Temporary Key Core into the Exterior Lever. Slot the Key Core Stopper into the Lever.

Exterior Lever Installation

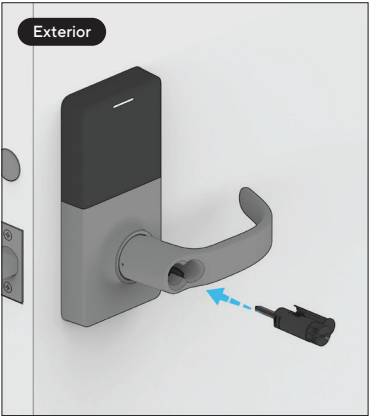
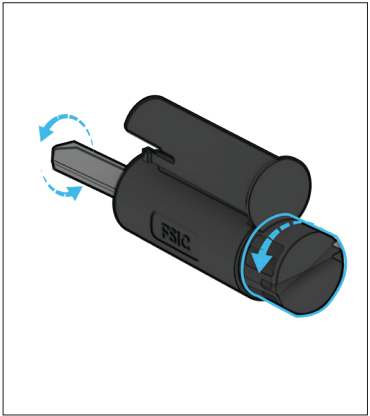
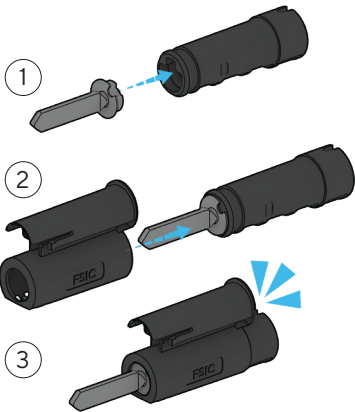
Full Size Interchangeable Core (FSIC)



Retrieve the following pieces from the Lever Kit.

Push the Exterior Lever onto the exposed Exterior Rose Liner until it clicks into position.

Take apart the FSIC Temporary Key Core. May need to use force to separate.



Assemble the FSIC Temporary Key Core by taking apart the plastic parts and inserting the Tailpiece into the core.

Rotate the Tailpiece of the FSIC Temporary Key Core by spinning the cap to 45°.

Insert the FSIC Temporary Key Core into the opening on the Exterior Lever.



Ensure that the Lever is securely attached and can be turned. Make sure that the FSIC Key Core is able to engage the Latch.

Exterior Lever Installation

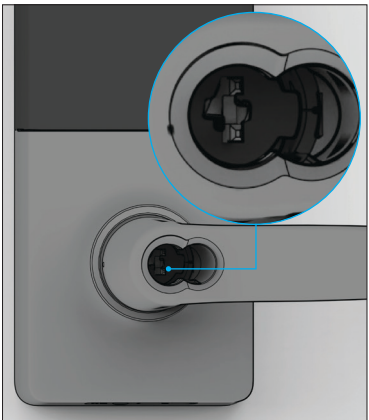
Small Format Interchangeable Core (SFIC)



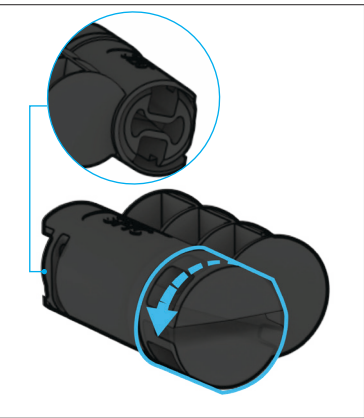
Retrieve the following pieces from the Lever Kit.



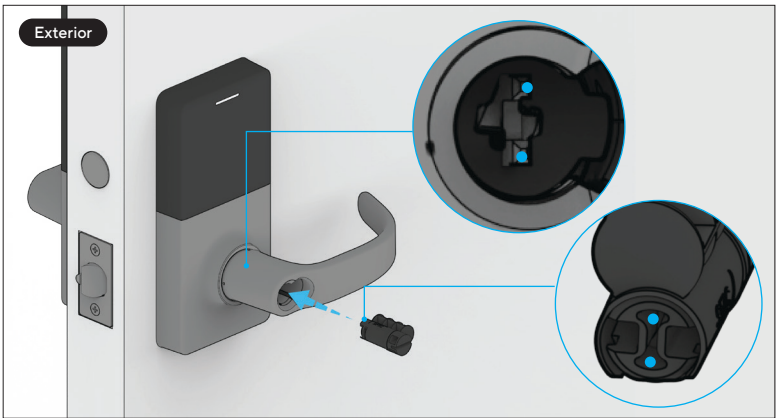
Push the Exterior Lever onto the exposed Exterior Rose Liner until it clicks into position.



Note that the Tailpiece is inside the Exterior Rose Liner in the form of prongs.



Rotate the cap of the SFIC Temporary Key Core by spinning the cap to 45°.



Insert the SFIC Temporary Key Core into the opening on the Exterior Lever. Align the SFIC Temporary Key Core to the Tailpiece on the Exterior Rose Liner.



Ensure that the Lever is securely attached and can be turned. Make sure that the SFIC Key Core is able to engage the Latch.

Third Party Key Core Installation

If using third party key cores, please see its respective instructions on how to install into Verkada's devices.



For further instructions on additional Key Core installation, scan here.

Next Steps

Register and continue with installation process with Verkada Command.

AL54-CY Compliance

FCC Statement	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. 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 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 transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Radiation Exposure Statement: The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.
IC Statement	This device complies with ISED's licence-exempt RSSs. 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. Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable. Radiation Exposure Statement: The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available. Déclaration d'exposition aux radiations: Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé. Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.
UL 294	Attack Level/Grade: Level I Endurance Level/Grade: Level IV Line Security Level/Grade: Level I Standby Power Level/Grade: Level I
CAN-ULC 60839-11-1	Environmental Level: Outdoor Grade Assignment: Grade 1 Evaluated per firmware version v0.1.8-45bb92b0
UL 1034	Static Strength: 1500 pounds-force Dynamic Strength: 70 foot-pounds-force Endurance: 250,000 cycles
UL10C	3 hour fire rated , tested with FL-8820072 conventional key core AL54-CY series is only compatible with UL 10C 3hr rated key cores. AL54-CY is compatible with the following key cores: Schlage Conventional Core: 6 Pin Schlage FSIC: 6 Pin SFIC: 6 Pin, 7 Pin

Installation Checklist

Hardware Install Verification

- ☐ Verify that both upward and downward rotation of the Interior Lever retracts the Latch.
- ☐ When locked, verify that rotating the Exterior Lever does not retract the Latch.
- ☐ Verify that the key can retract the Latch in both directions
- ☐ Close the door to verify that the Latch fully extends into the Strike Plate pocket.
- ☐ Verify that the Deadlatch Plunger is engaged when door is closed

Verkada Command Verification

- ☐ Use a credential to unlock the door (i.e. card, FOB, Bluetooth) to verify that the Exterior Lever can retract the Latch.
- ☐ Check DPI by opening and closing the door and referring to the Door Status on the Door page on Command.

Support

Thank you for purchasing this Verkada product.
If for any reason you're experiencing issues
or need assistance, please contact our 24/7
Technical Support Team immediately.

Sincerely,
The Verkada Team
verkada.com/support

