



Saffire LX and Saffire EVO LZ TM

Installation instructions

PK3704-DRAFT

EN

dormakaba 

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1 Introduction and disclaimers

Caution: Please read and follow all directions carefully. Wear safety glasses when making the holes.

Target Audience: These instructions are designed for use by maintenance professionals or lock installers who are familiar with common safety practices and competent to perform the steps described. dormakaba is not responsible for damage or malfunction due to incorrect installation however arising.

Important: Carefully inspect windows, doorframe, door, etc. to ensure that the recommended procedures will not cause damage. dormakaba standard warranty does not cover damages caused by installation.

Respect applicable building codes regarding handle height.

Definition of Terms: In these instructions, the term ASM refers to American Standard Mortise and ADB refers to Autodead-bolt Mortise.

MKO refers to Mechanical Key Override

Technical Assistance

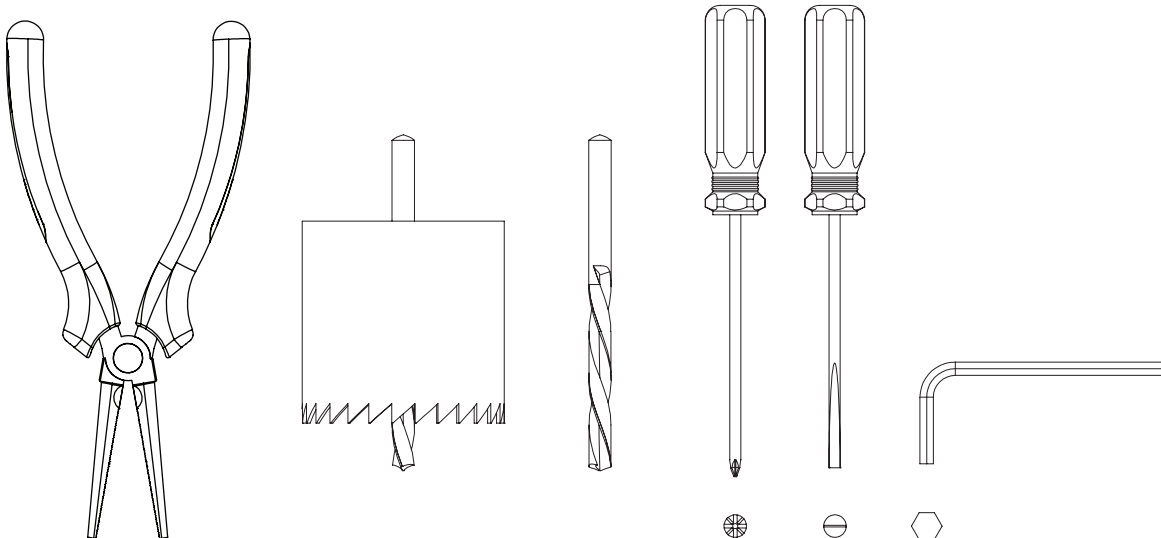
For technical assistance, call:

1.877.468.3555 / +1.514.735 5410

1.800.999.6213 / +1.248.837.3700

2 Recommended Tools (not included)

- Hole saw 2 1/8" for Cylindrical latch only
- Drill bits: ASM 1/8", 1/2", 7/8", 1 1/8"
Cylindrical Latch 3/32", 1/8", 1/2", 7/8", 1"
European lock case: 3mm, 10 mm, 12,5 mm, 22 mm, 25 mm
- Phillips screwdriver (#2, #3)
- Small flat screwdriver
- Hexagonal key 3mm (Allen key)
- Needle nose pliers



3 Components

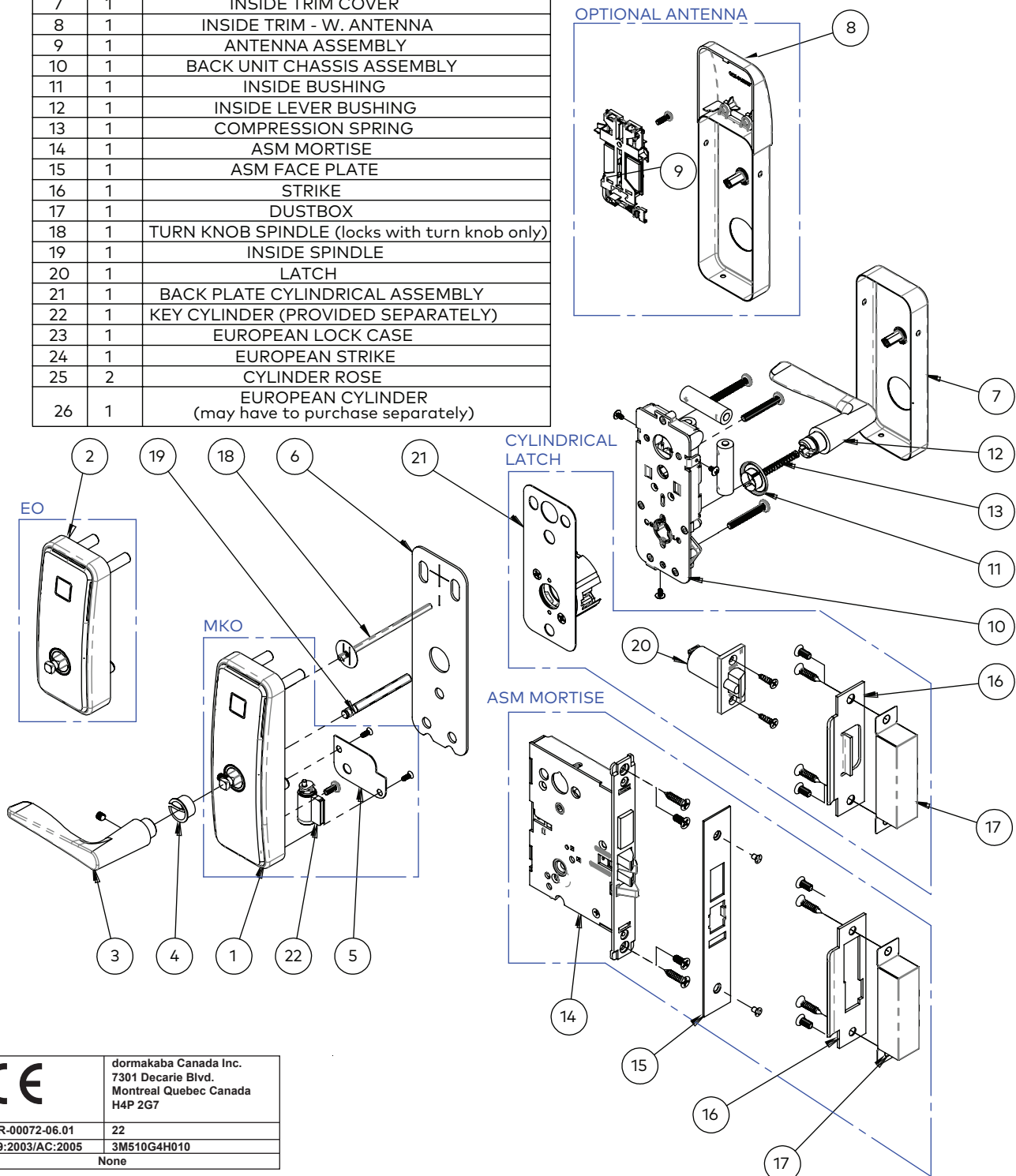
3.1 ASM Mortise and Cylindrical latch

Table 1

ITEM NO.	QTY	DESCRIPTION
1	1	FRONT LOCK HOUSING ASSEMBLY - MKO
2	1	FRONT LOCK HOUSING ASSEMBLY - EO
3	1	OUTSIDE LEVER
4	1	OUTSIDE BUSHING
5	1	ACCESS PLATE KEY CYLINDER
6	1	GASKET (outdoor models only)
7	1	INSIDE TRIM COVER
8	1	INSIDE TRIM - W. ANTENNA
9	1	ANTENNA ASSEMBLY
10	1	BACK UNIT CHASSIS ASSEMBLY
11	1	INSIDE BUSHING
12	1	INSIDE LEVER BUSHING
13	1	COMPRESSION SPRING
14	1	ASM MORTISE
15	1	ASM FACE PLATE
16	1	STRIKE
17	1	DUSTBOX
18	1	TURN KNOB SPINDLE (locks with turn knob only)
19	1	INSIDE SPINDLE
20	1	LATCH
21	1	BACK PLATE CYLINDRICAL ASSEMBLY
22	1	KEY CYLINDER (PROVIDED SEPARATELY)
23	1	EUROPEAN LOCK CASE
24	1	EUROPEAN STRIKE
25	2	CYLINDER ROSE
26	1	EUROPEAN CYLINDER (may have to purchase separately)

EO : Electronic Override
MKO : Mechanical Key Override

ALL OPTIONS SHOWN



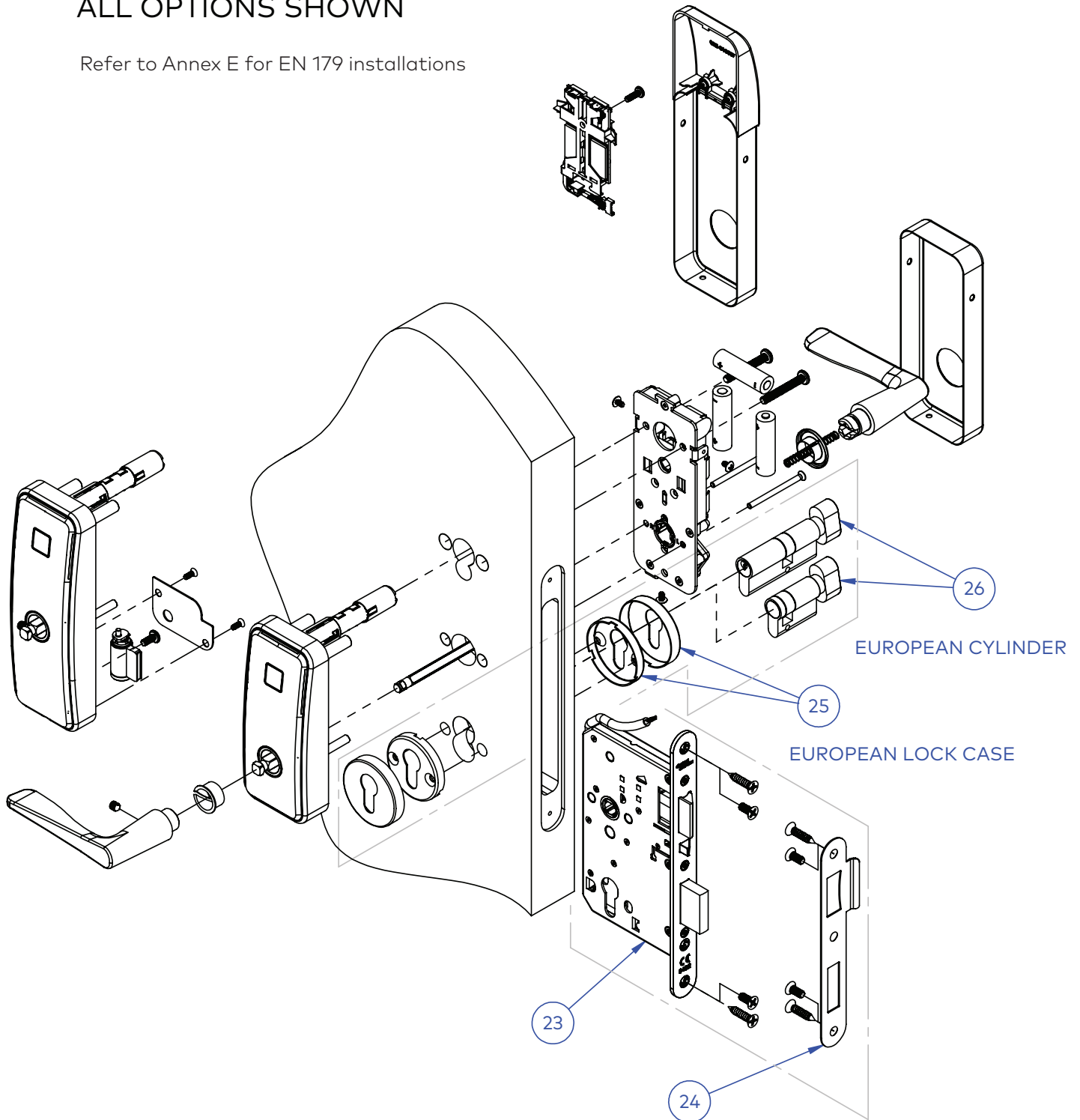
CE	dormakaba Canada Inc. 7301 Decarie Blvd. Montreal Quebec Canada H4P 2G7
0432-CPR-00072-06.01	22
EN 12209:2003/AC:2005	3M510G4H010
None	

3 Components

3.2 European lock case

ALL OPTIONS SHOWN

Refer to Annex E for EN 179 installations



	dormakaba Deutschland GmbH DORMA Platz 58256 Ennepetal Germany
	18
	3X810G6BC20
	None

3 Components

3.3 Part numbers

Table 2 (a)

EO			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	020-515480-1	INSIDE SPINDLE	1
2	020-515481	TURN KNOB SPINDLE	1
3	017-515483	OUTSIDE BUSHING	1
4	941-514793	SET SCREW	1
5	810-511257	SCREW 6-32 X 1/4 PHILLIPS NO.2	3
6	810-515998	SCREW 12-24 X 1-5/8 IF ASM MORTISE LOCKS OR CYLINDRICAL LATCH LOCKS	3
	810-515532-1	SCREW M4 X 30 MM IF EURO LOCK CASE LOCKS	2
	810-514739-5	SCREW M5 X 30 MM IF EURO LOCK CASE LOCKS	2
7	017-515489	INSIDE LEVER BUSHING	1
8	025-515498	SNAP-HOLDER FOR SPRING STOPPER	1

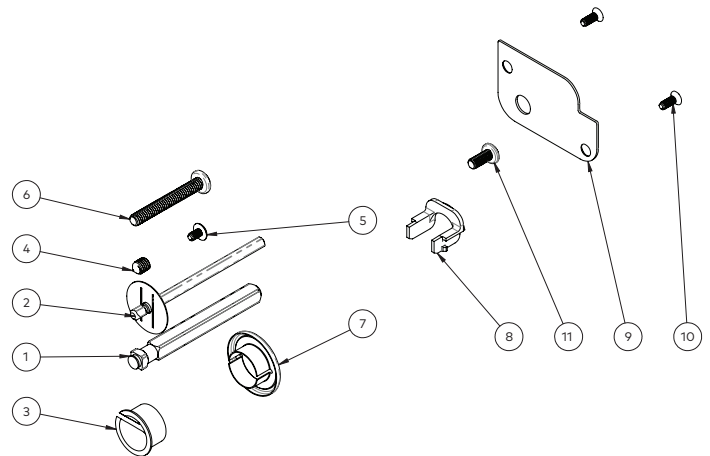


Table 2 (b)

MKO			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	020-515480-1	INSIDE SPINDLE	1
2	020-515481	TURN KNOB SPINDLE	1
3	017-515483	OUTSIDE BUSHING	1
4	941-514793	SET SCREW	1
5	810-511257	SCREW 6-32 X 1/4 PHILLIPS NO.2	3
6	810-515998	SCREW 12-24X1-5/8	3
7	017-515489	INSIDE LEVER BUSHING	1
8	025-515498	SNAP-HOLDER FOR SPRING STOPPER	1
9	041-515465	ACCESS PLATE KEY CYLINDER	1
10	810-509093	SCREW 6-32 X 5/16 FLAT HEAD PHILLIPS NO.2	2
11	810-516437	SCREW 10-32 X 7/16 PAN HEAD PHILLIPS NO.2	1

For doors more than 2 1/2" thick up to 3 3/4", order the appropriate hardware bag to receive the correct length of spindles and mounting screws. Part# 061-516505.

For outdoor installations, order gasket 033-515996-1 for EO lock and 033-515996-2 for MKO lock.

4 Installation Steps

IMPORTANT

For MKO lock, start with step 1

For EO lock, start with step 2

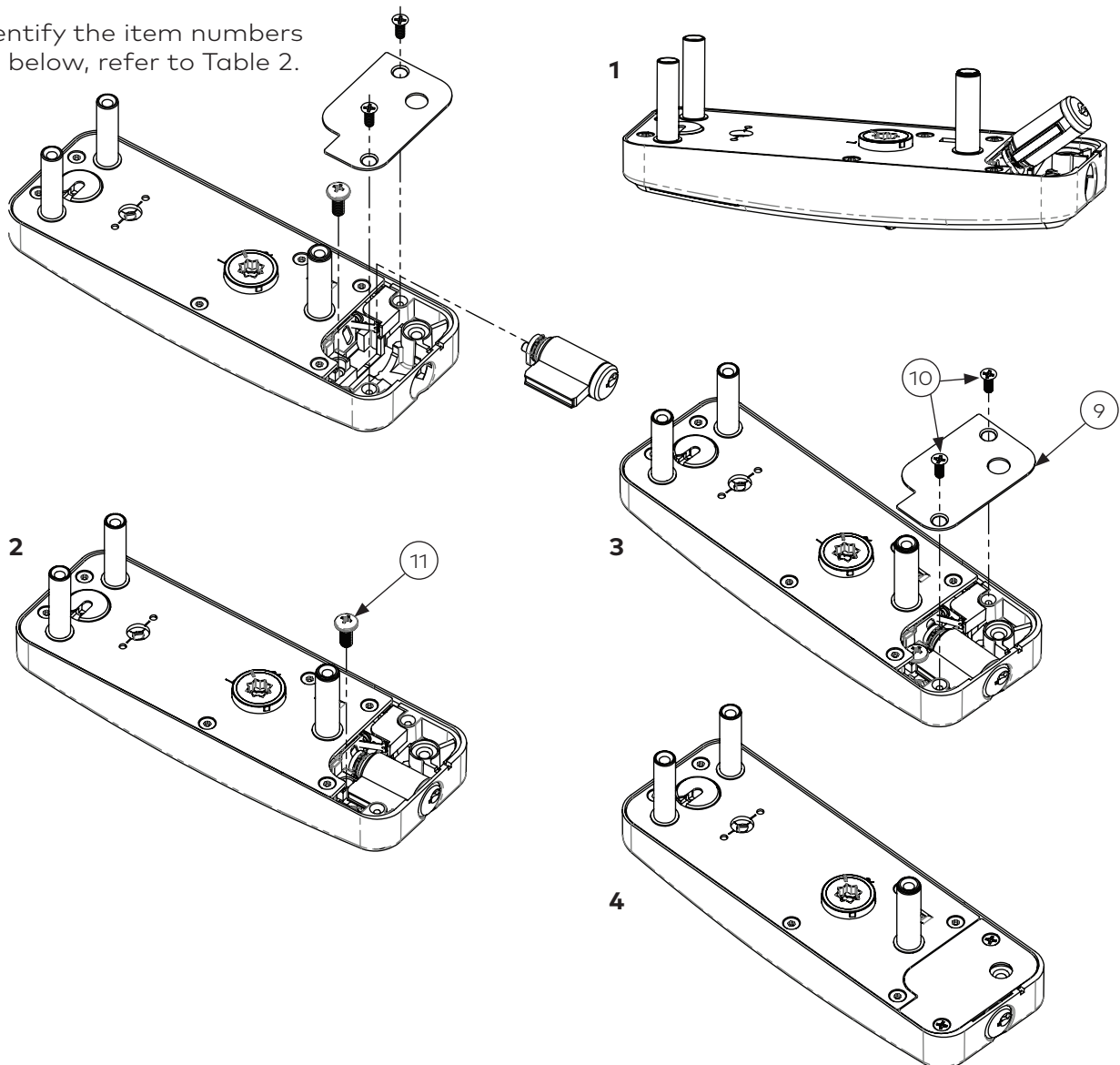
4.1. Step 1: Install key cylinder (for MKO only)

- Insert the cylinder core in the front lock housing assembly.
- Secure the cylinder core using screw item 11 (refer to table 2).
- Install the access plate key cylinder item 9 (refer to table 2) over the key override housing.
- Secure the access plate using two screws item 10 (refer to table 2)

⚠ WARNING

- Access plate must be installed for proper operation of the lock.

To identify the item numbers listed below, refer to Table 2.



4 Installation Steps

4.2. Step 2: Install turn knob spindle

- Verify that the index markers for the thumb turn hole are aligned. If the holes are misaligned, use a flat head screwdriver to correct the position.

WARNING

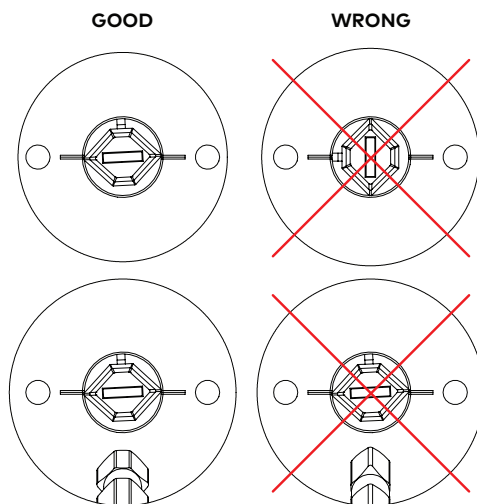
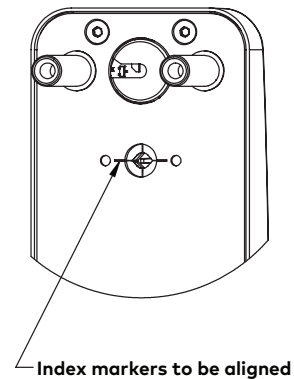
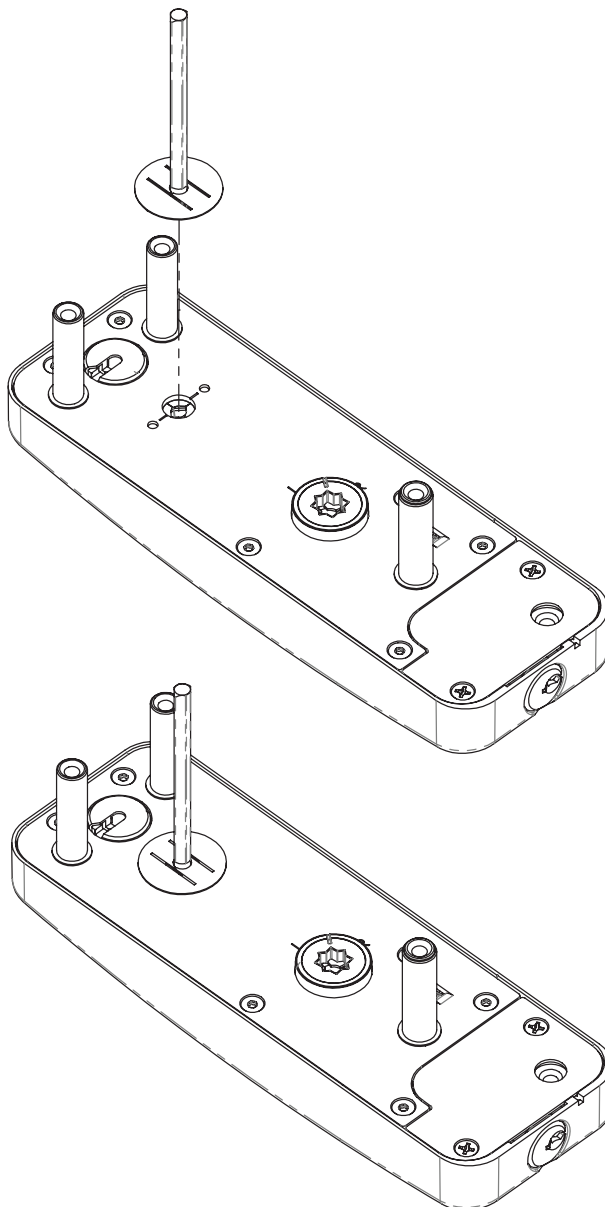
The flat head screw driver must have a smaller head diameter than 4.5mm (5/32")

- Insert the thumb turn spindle item 2 (refer to table 2) into the thumb turn hole. Press firmly to ensure the spindle clicks in place.

WARNING

Note the spindle orientation shown in the figure before inserting the spindle.

- Rotate the spindle to ensure that the part remains in place.



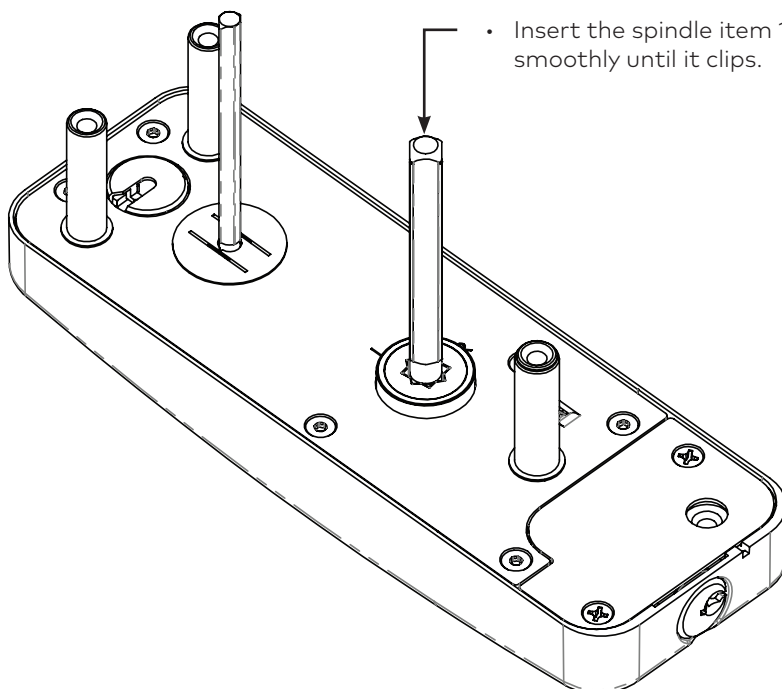
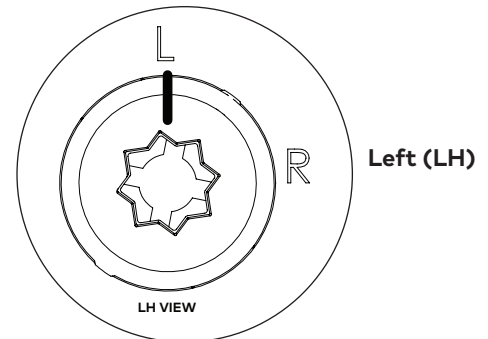
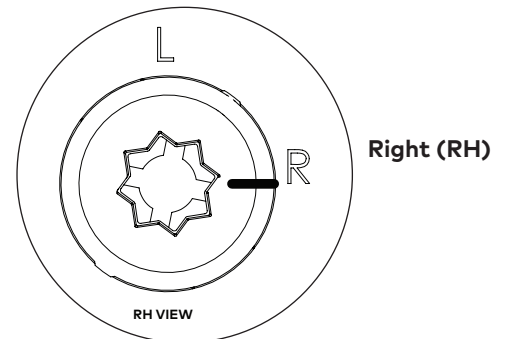
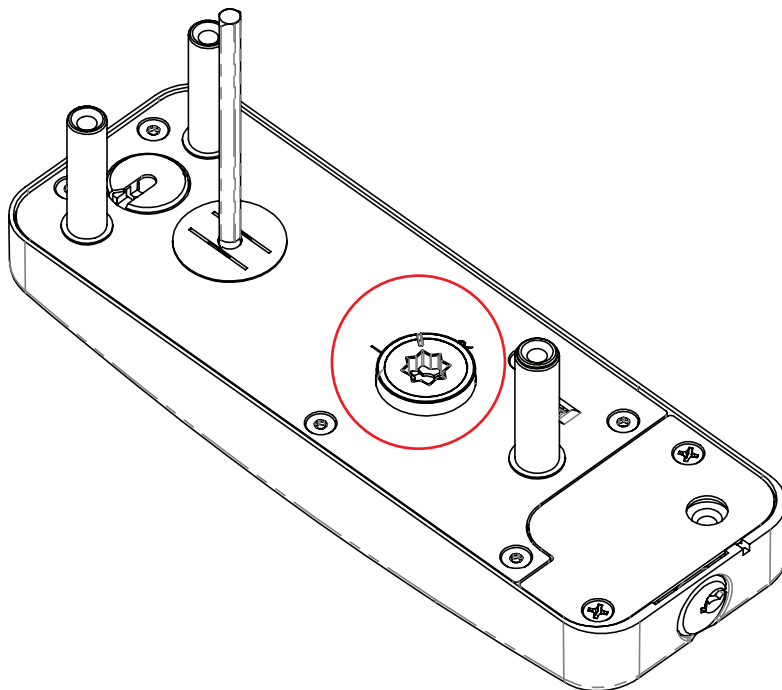
4 Installation Steps

4.3. Step 3: Install the lock spindle

The spindle must be installed and properly secured in the front lock housing assembly. The spindle is used to connect the handle to operate the opening and closing door mechanism.

Prior to installing the spindle, you must first adjust the required positioning of the hub receiving the spindle. There are 2 modes, Left Hand (LH) and Right Hand (RH) according to door handing.

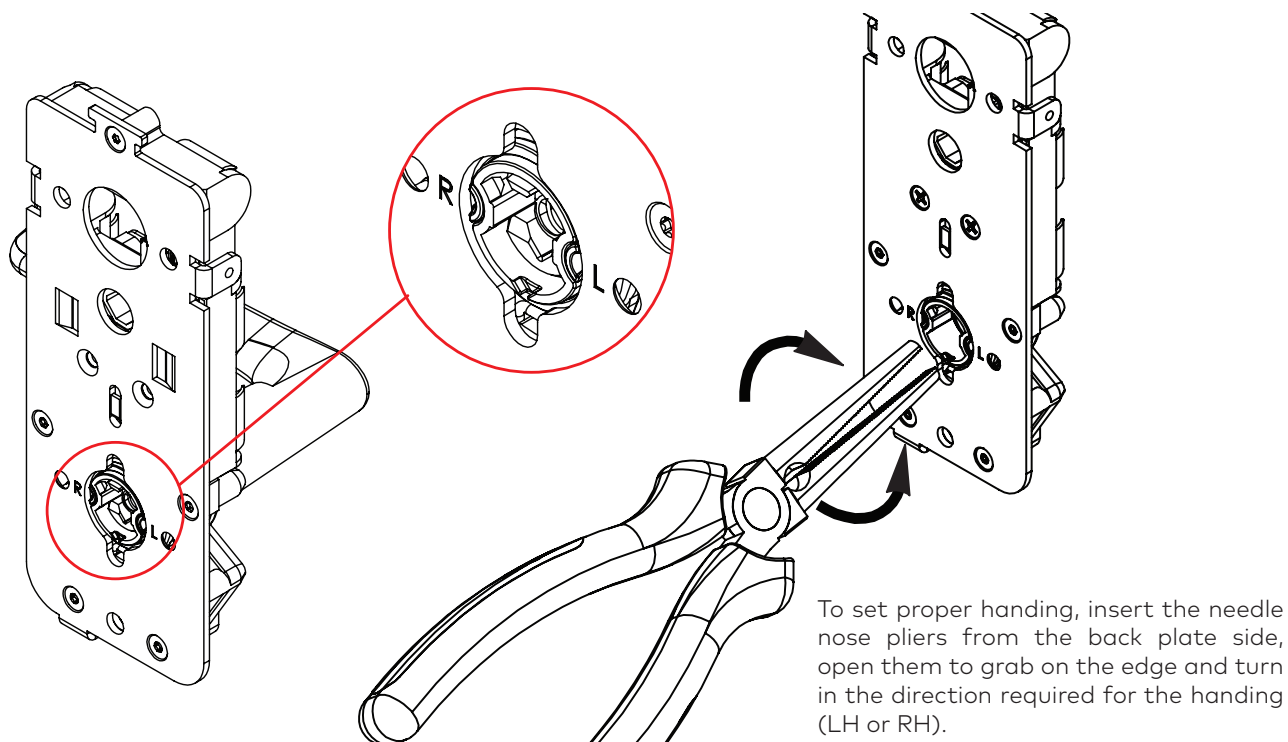
- Turn the hub for correct door handing by turning clockwise for right handed and counter clockwise for left handed door entries.



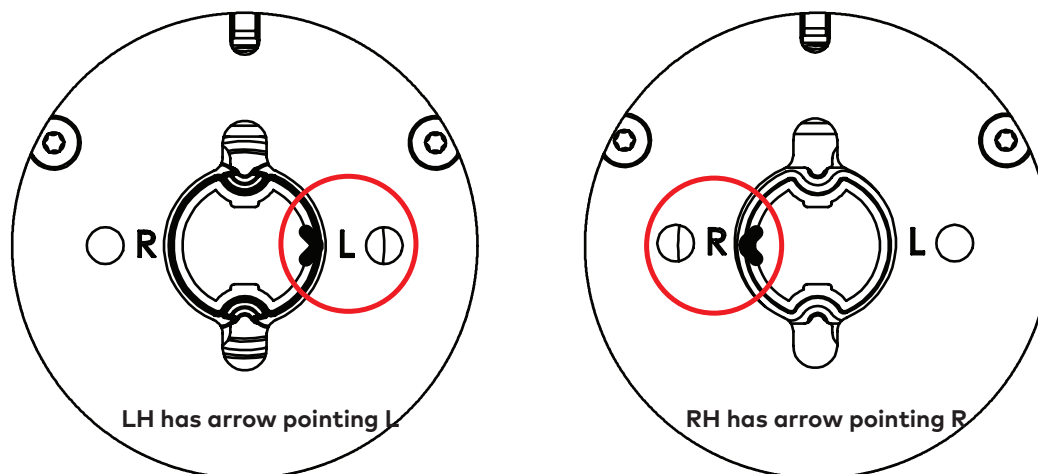
4 Installation Steps

4.4. Step 4: Set up the inside trim assembly

Decide if the lever handle is a RH or LH position based on the door handing. The inside lever handle must be installed as it does not come preinstalled.



RIGHT HAND OF LEFT HAND SELECTION



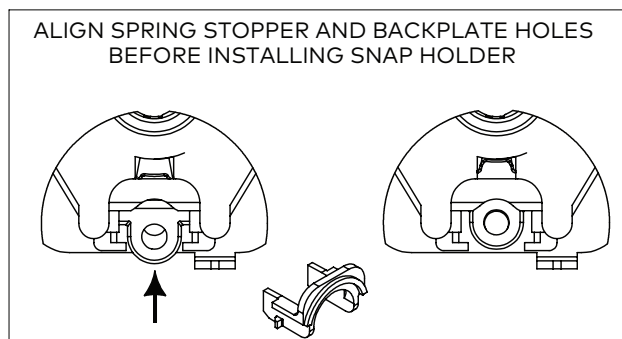
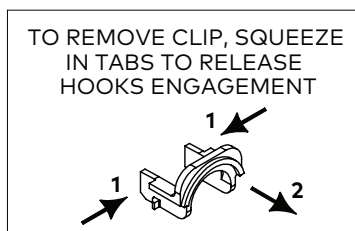
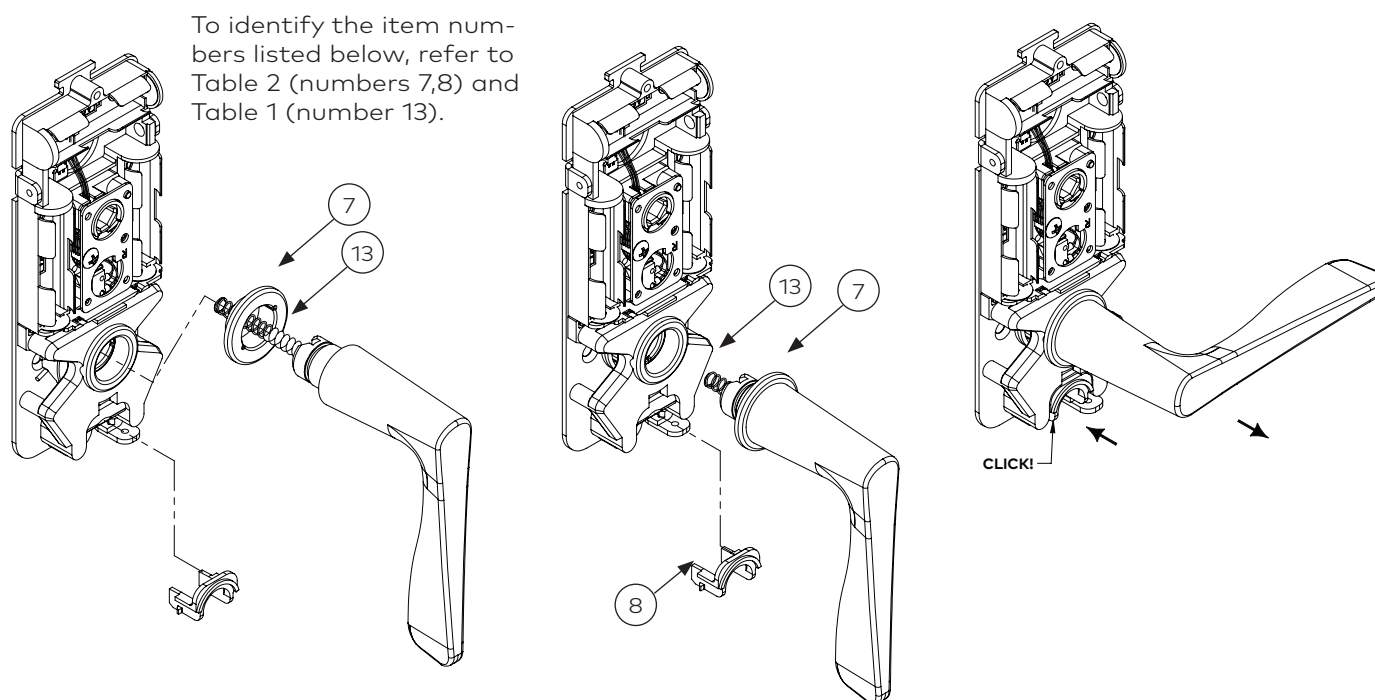
IMPORTANT

If the handing of the lock needs to be changed, please refer to annex C for changing the handing of the cassette if the lock has a handed cassette (locks with automatic dead bolt or with inside lever switch).

4 Installation Steps

4.4. Step 4: Set up the inside trim assembly (Continued)

- Install the inside lever bushing item 7 (refer to table 2)
- Install compression spring item 13 (refer to table 1) if not already inside the lever handle.
- Install the lever vertically as shown (pointing down), making sure it is snug.
- Rotate the lever handle to horizontal position corresponding to selected handing.
- Push up the spring holder to select the handing (LH or RH). The spring holder engages between the two lever spring legs.
- Install the snap-holder for spring stopper item 8 (refer to table 2) to lock and prevent lever from disengaging



4.5. Step 5: Install the locking mechanism on the door

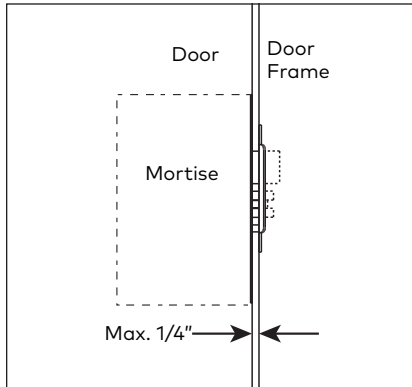
Before starting the installation of the lock on the door, please make sure the door has been prepared properly with proper holes for the lock. Refer to corresponding drilling template for your lock model. Drilling templates are available in the center-fold included in this installation manual and on the dormakaba support site (dormakabalodgingsupport.com).

4 Installation Steps

4.6. Install the mortise ASM (if lock equipped)

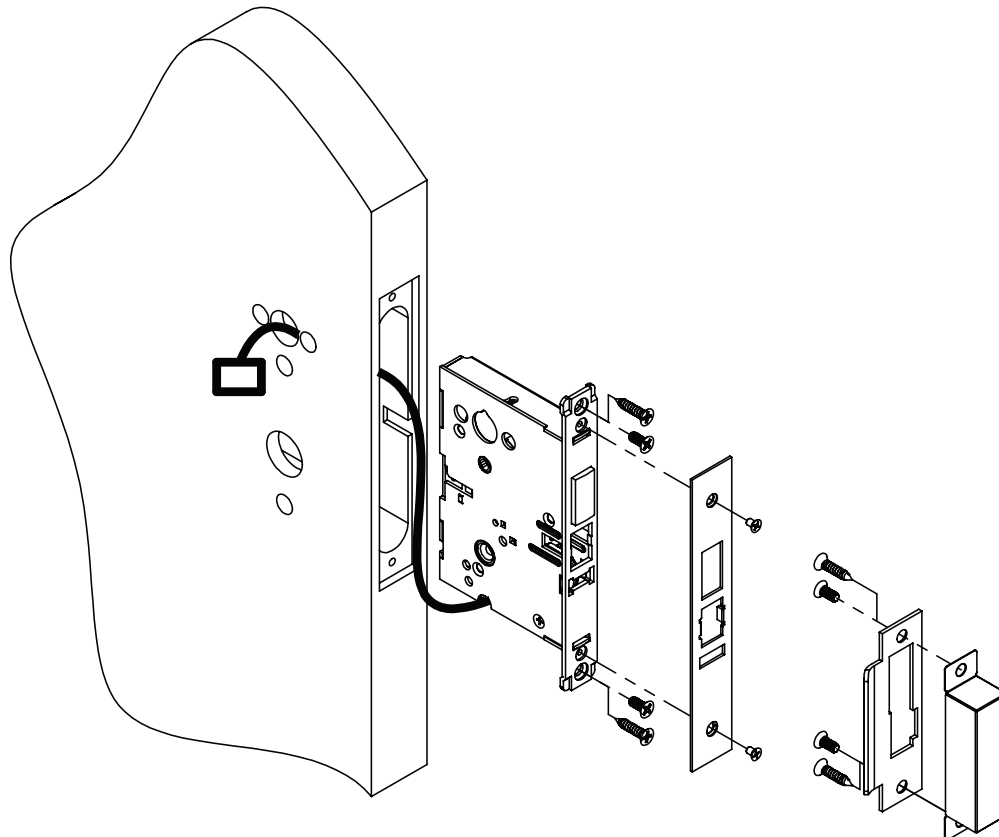
Before installing the mortise, verify gap between the door and the frame. The gap between the mortise face plate and the strike must not exceed $\frac{1}{4}$ " for the proper and secure operation of the mortise.

IMPORTANT



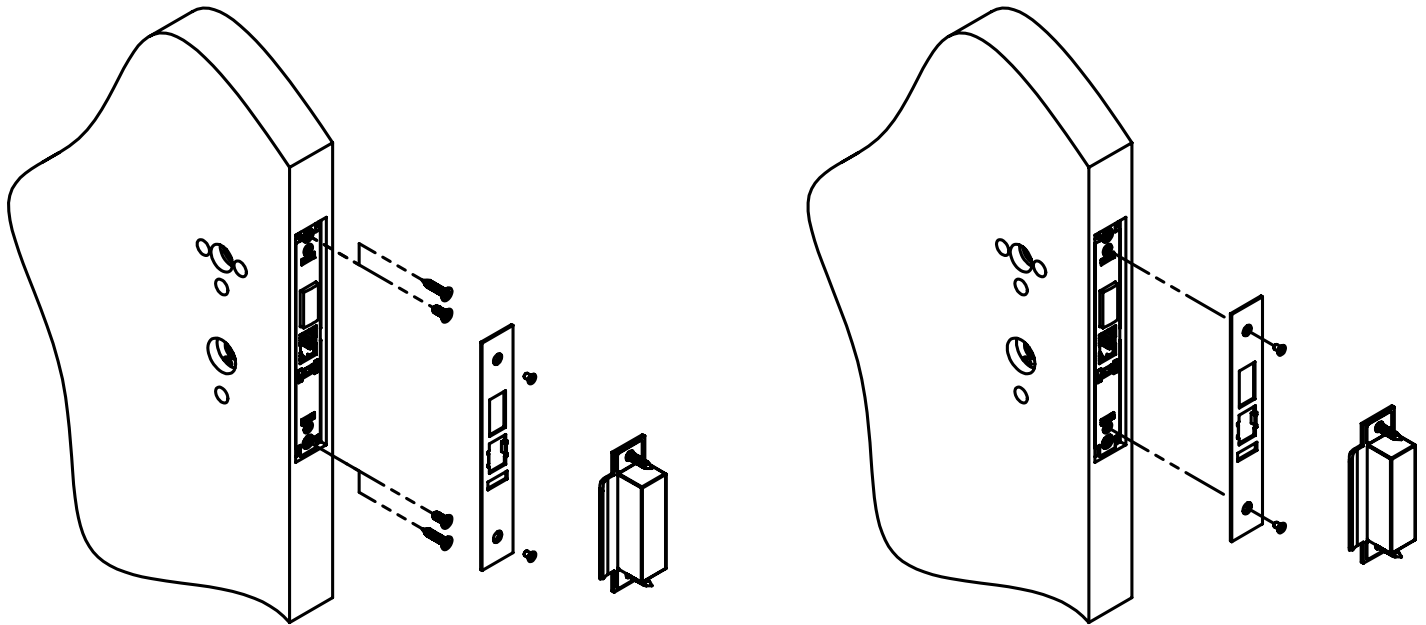
Note: If lock is equipped with door ajar cable, it will be neatly tucked into the mortise though hole for housing

- Verify the mortise handing for LH or RH. If the handing needs to be adjusted, refer to instructions in the annex A.
- Remove the faceplate by removing the two screws.
- Insert the mortise in the side of the door. If the mortise is equipped with a cable, route the cable so it comes out of top hole on the side of the inside trim assembly.



4 Installation Steps

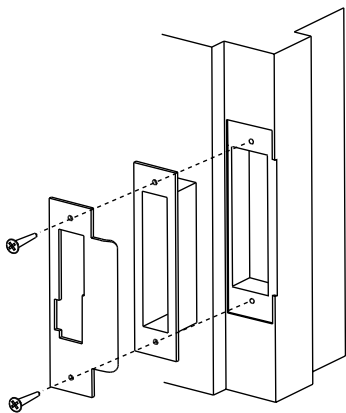
- Use metal or wood screws depending on door material to secure the mortise.



- Re-install the face plate with its two screws.
- Install the strike and the dust box on the door frame.

IMPORTANT

When strike is installed on wood frames under one inch (1") thick, wood screws supplied are not adequate. Use screws of appropriate length to engage the structural stud behind the frame. Use only the strike and dust box supplied. Use of non-approved parts may void the product warranty.

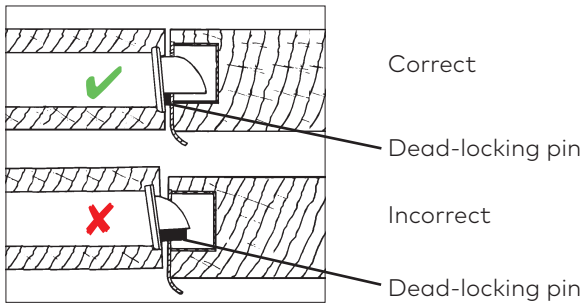


4 Installation Steps

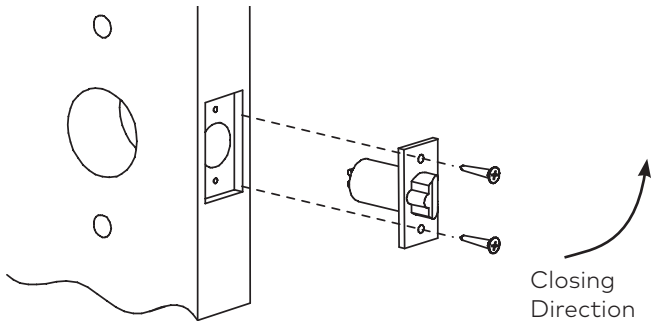
4.7. Install the cylindrical latch models (if applicable)

IMPORTANT

For cylindrical latch models, ensure the dead-locking pin stops against the strike when the door is closed (see figure below). An incorrect installation that permits the pin to slip inside the strike may result in a total lockout and will void the warranty of the complete lock mechanism.



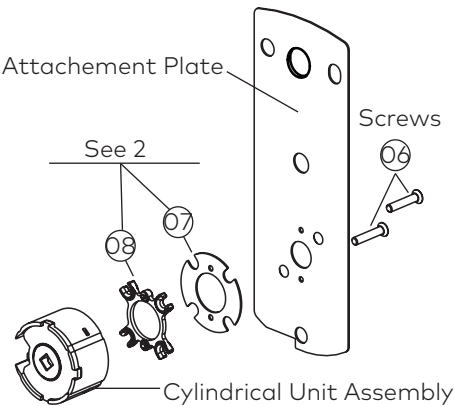
- Insert the latch in the hole in the edge of the door, orienting the latch bolt head as per closing direction
- Tighten the two screws.



- Verify the door thickness. The lock is assembled at the factory for door thickness of 1 3/4". If the door thickness is different, refer to table 3 below to adjust the spacers. Extra spacers and screws are provided in the hardware bag.

Door Thickness Table 3

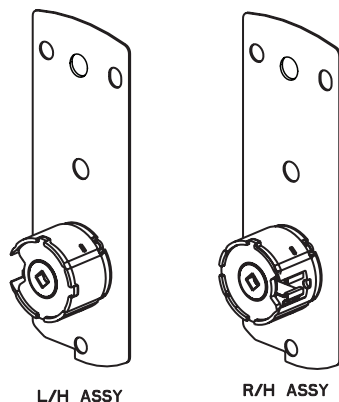
Door Thickness	Spacer 07	Spacer 08	Screw 06
1-3/8" (35mm) to 1-9/16" (40mm)	2	-	3/8 (10mm)
1-5/8" (41mm) to 1-11/16" (43mm)	1	1	1/2 (13mm)
1-3/4" (44mm) to 1-13/16" (46mm)	2	1	5/8 (16mm)
1-7/8" (48mm) to 1-15/16" (49mm)	-	2	5/8 (16mm)
2" (51mm) to 2-1/16" (52.5mm)	1	2	3/4 (19mm)
2-1/8" (54mm) to 2-3/16" (56mm)	2	2	3/4 (19mm)
2-1/4" (57mm) to 2-5/16" (59mm)	-	3	7/8 (22mm)
2-3/8" (60mm) to 2-1/2" (64mm)	1	3	7/8 (22mm)



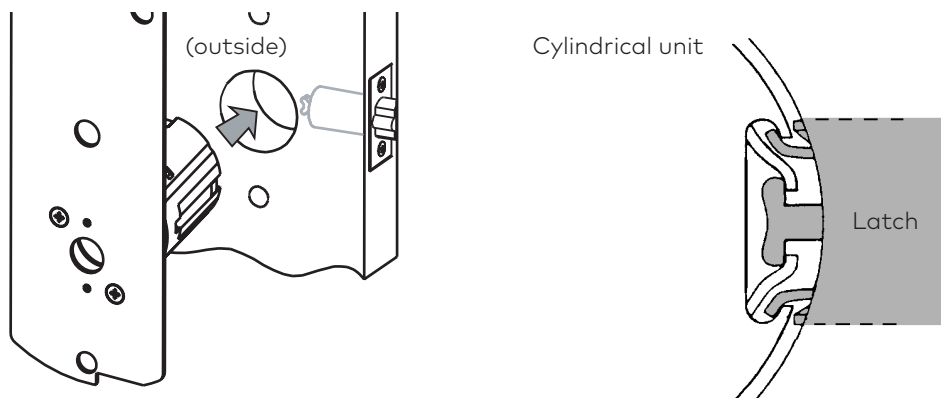
4 Installation Steps

4.7. Install the cylindrical latch models (if applicable) (Continued)

- Make sure the handing is correct. If not, reinstall the cylindrical unit for proper handing.



- Install the cylindrical unit from the outside of the door toward the inside, in order to engage the latch as illustrated below.

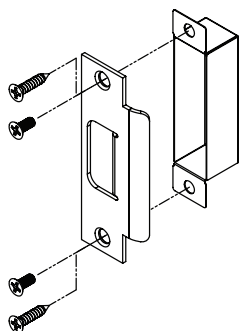


- Install the strike and the dust box on the door frame.

IMPORTANT

Use only the strike and strike box supplied. The use of non-approved parts will result in a functionality problem and may void the product warranty.

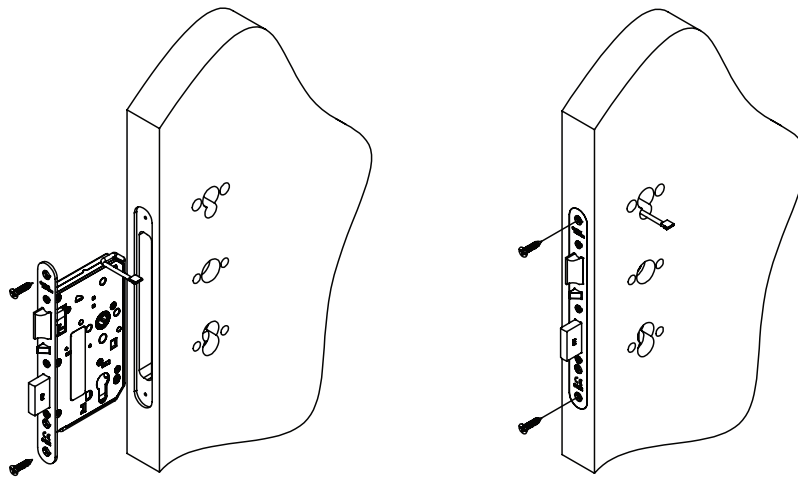
ASA Strike



4 Installation Steps

4.8 Install the European lock case

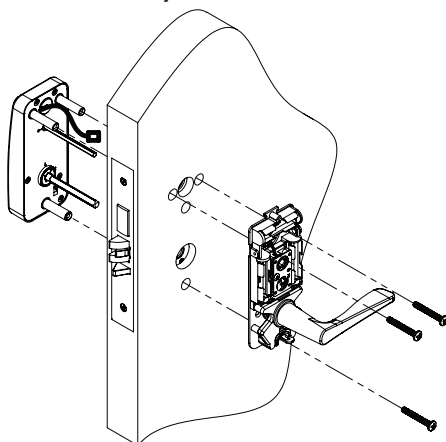
- Verify the lock case handing for LH or RH. If the handing needs to be adjusted, refer to instructions in the annex B.
- Insert the lock case in the side of the door. Route the cable so it comes out of the top hole on the side of the inside trim assembly.
- Secure the lock case using the screws provided.
- Install rose and key cylinder (if this option selected)
- Install the strike and the dust boxes on the frame of the door.



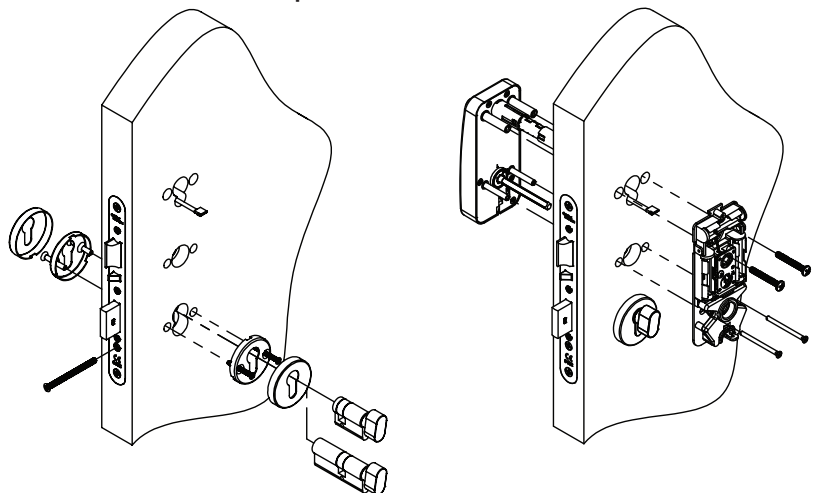
4.9. Step 6 Install the lock housing on the door

- Install the front lock housing, routing the wire cable(s) by the center hole at the top
- Install the inside housing
- Install the screws item 6 (refer to table 2) provided and tighten. Verify that the lever of the inside housing can retract the latch. If not, it means the lock handing is wrong; then fix the handing correctly and verify again.
- Verify the inside lever handle comes freely to horizontal rest position after being activated. If not, re-align lock on the door.

ASM and cylindrical latch

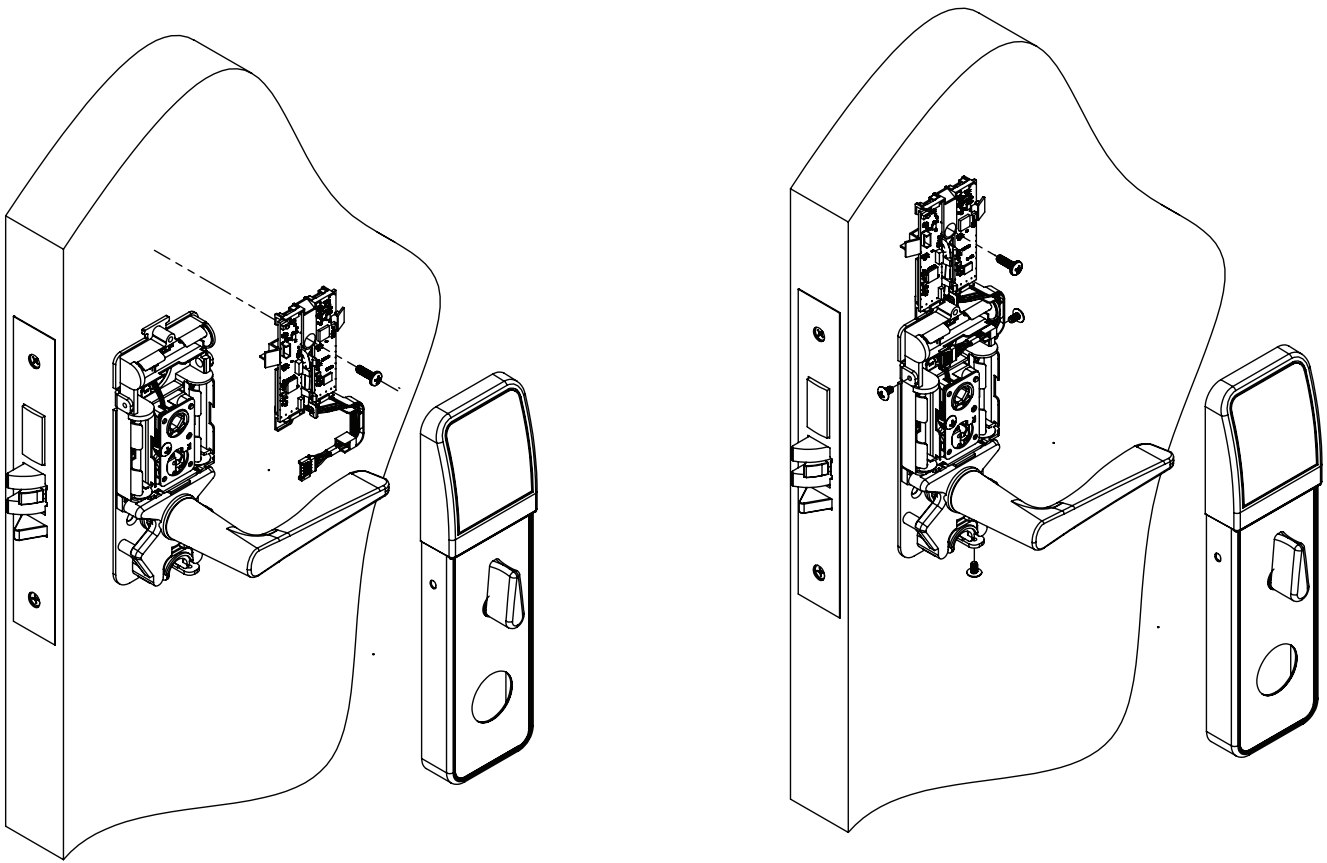


European lock case



4 Installation Steps

4.10. Step 7 Install the antenna module (if applicable)



- Position the bracket on the door, engaged with the "T" at the top of the chassis.
- Secure the bracket with screw provided with the bracket.

4 Installation Steps

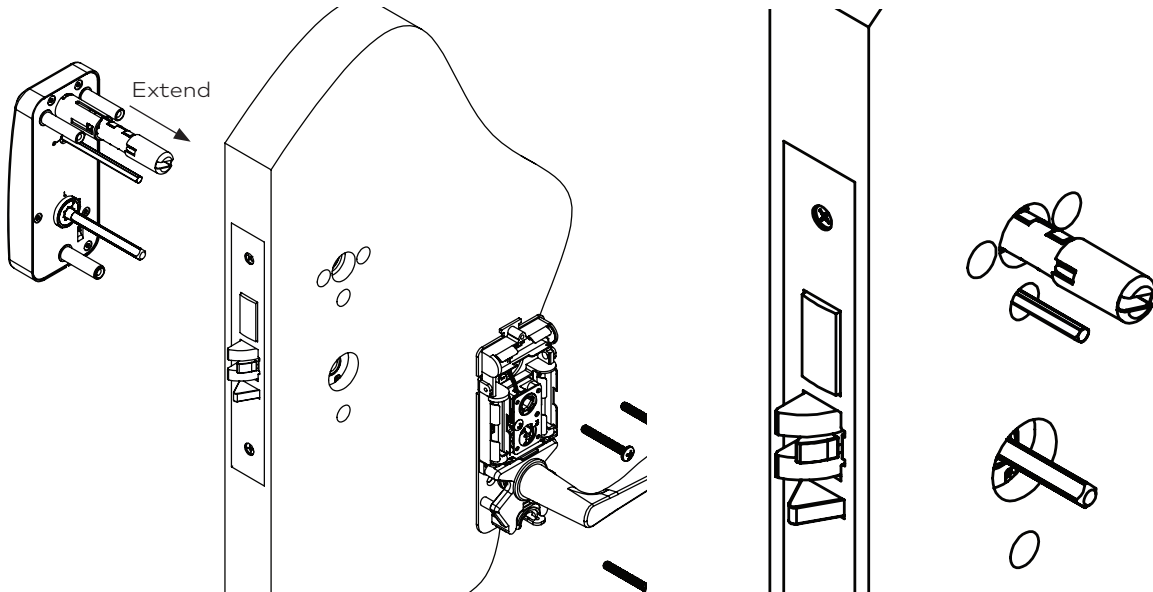
4.11. Step 8: Connect the cables

Locks without wire guide

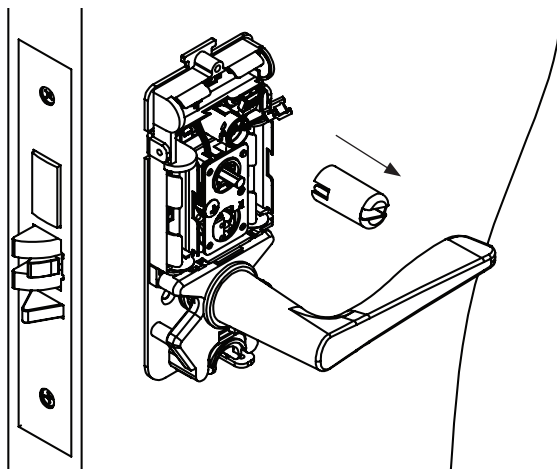
- Connect each cable with its matching connector and route the excess of cable back into the hole of the door.

Locks with wire guide

- Before installing the lock on the door, extend the wire guide outward, without removing the cover. Pull gently and rotate clockwise to lock.
- Secure the front lock housing with the inside trim chassis using the 3 screws item 6 (refer to table 2).



- Remove the cover on the wire cover. The cover will no longer be used.

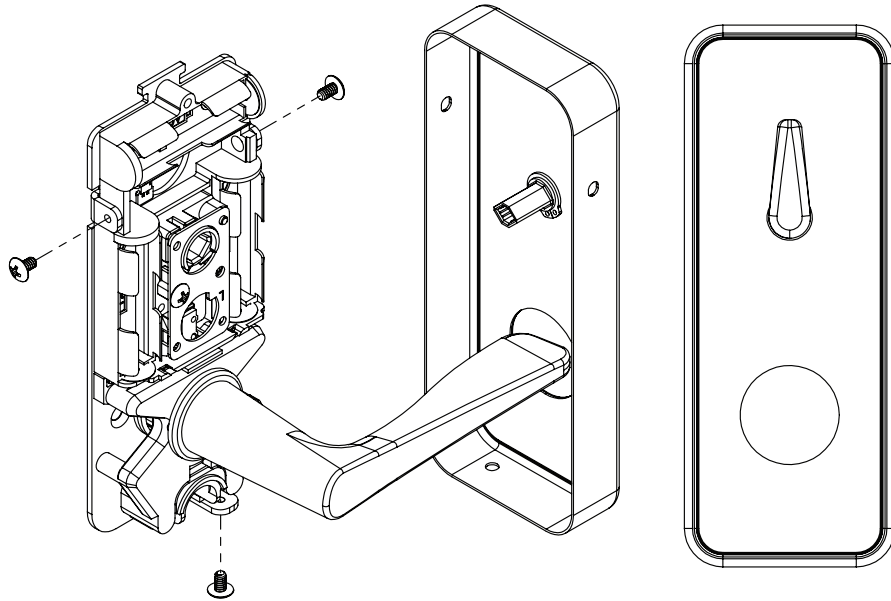


- Now that cables are exposed, connect each cable with its matching connector.
- Push back the wire guide in the door.

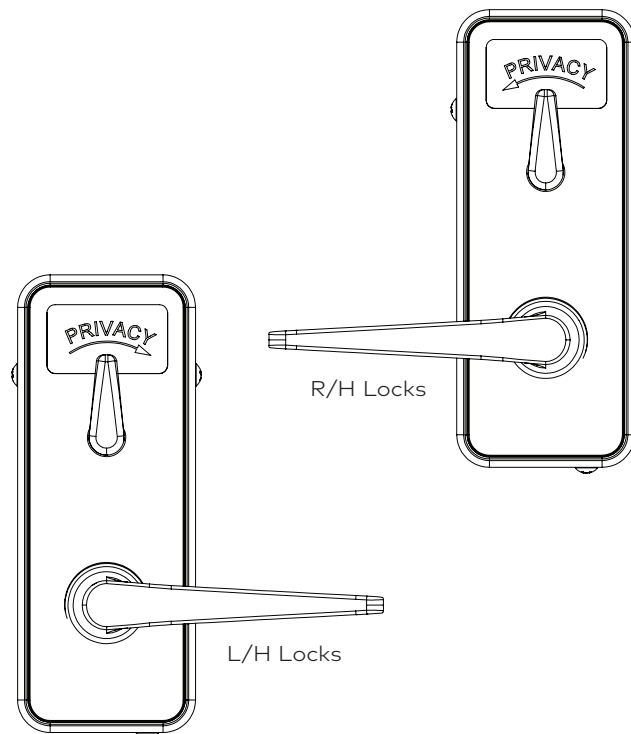
4 Installation Steps

4.12. Step 9: Install the inside cover

- Set the thumb turn on the inside cover to a vertical position, pointing up.
- Slide the inside cover onto the lever handle taking care not to scratch the lever handle.
- When the cover is fully in place, secure it using the 3 screws item 5 (refer to table 1).



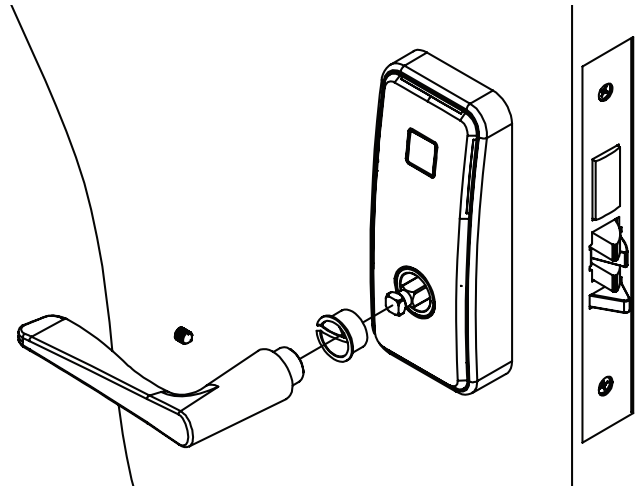
- For locks with an ADB mortise (automatic deadbolt mortise), apply the privacy thumbturn sticker.



4 Installation Steps

4.13. Step 10: Install the outside lever handle

- Install the outside bushing, making sure it is snug
- Install the outside lever handle according to the lock handing (LH/RH)
- Insert the set screw item 4 (refer to table 2) and tighten till snug



4.14. Step 11: Install the batteries

- Insert the batteries in the battery holder respecting the polarity indicated in the battery holder

WARNING

Use only Alkaline batteries

4.15. Step 12: Test lock functionality

Make sure the room door is open prior testing

- A - Present test keycard
- B - Check green & red lights flash
- C - Rotate outside lever to check bolt retraction
- D - Release outside lever, should move freely back to horizontal rest position.
- E - Rotate inside lever to check bolt retraction
- F - Release inside lever, should move freely back to horizontal rest position.
- G - Check bolt projection from thumbturn, should be smooth.

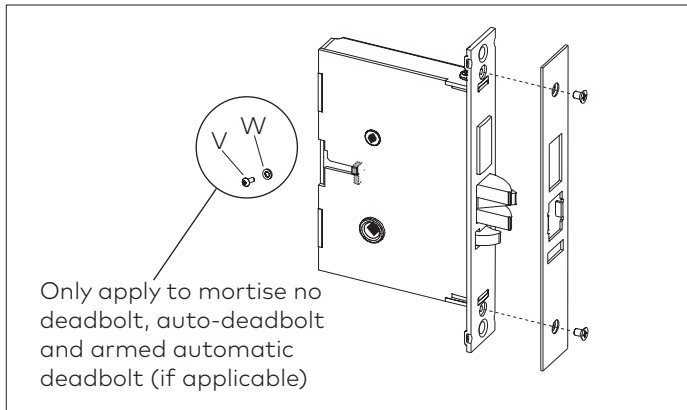
4.16. Step 13: Program the lock

Refer to dormakaba access management system user manual for lock programming.

Annex A Reversing the ASM Mortise handing

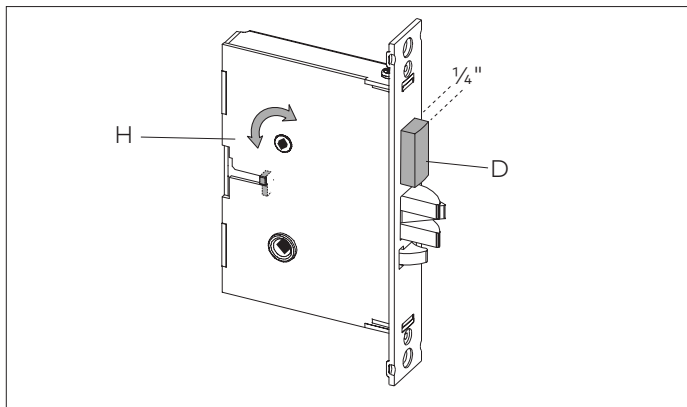
A.1 Reversing the Mortise Handing ASM

1. Remove the mortise faceplate. Remove screw (V) and lock washer (W) if applicable and **place the mortise on a flat surface for the following steps.**



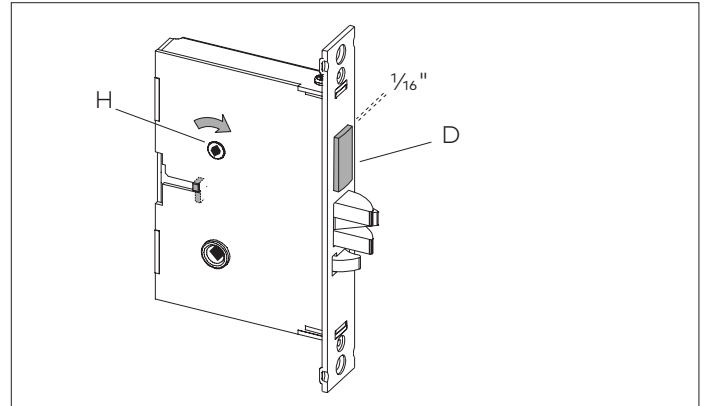
2. Partially extend the deadbolt:

For normal ASM, rotate hub (H) using a screwdriver, until the deadbolt (D) extends approximately 1/4".

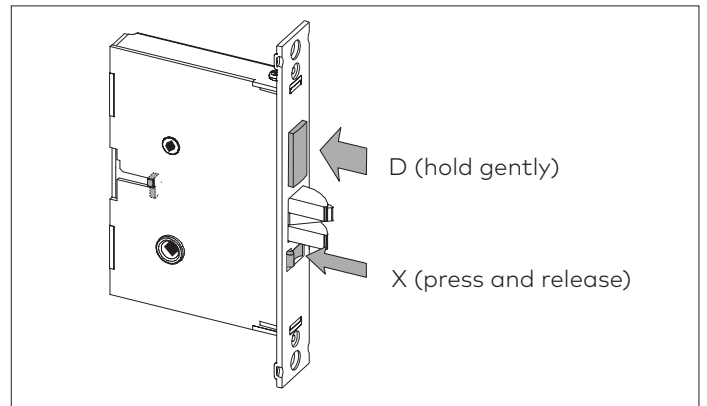


Proceed to step 3.

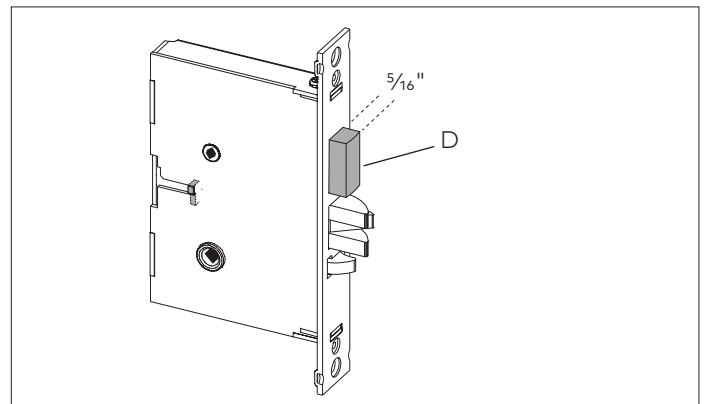
For Autodeadbolt ASM, rotate hub (H) until the deadbolt (D) is fully retracted. The deadbolt will extend approx. 1/16" from the mortise case.



Hold deadbolt (D) gently. Press and release the auxiliary latch (X). You should feel the deadbolt trigger and begin to extend under the force of the spring.



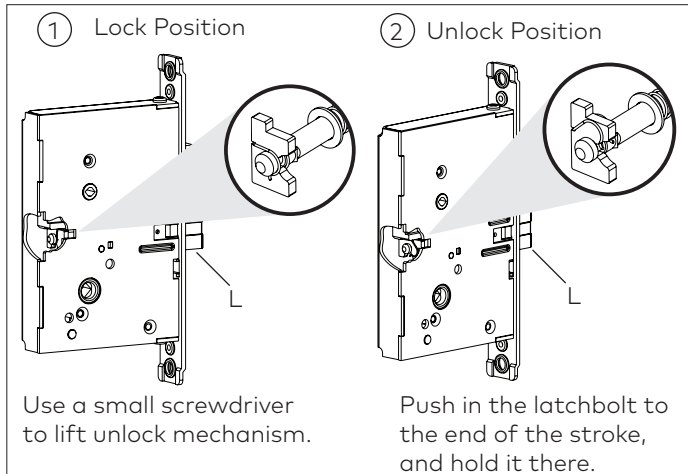
Release the deadbolt (D) gently. It should extend to 5/16" approx. and stop. If the deadbolt extends past this point, gently press it in until it locks at 5/16" throw, or start step 2 again.



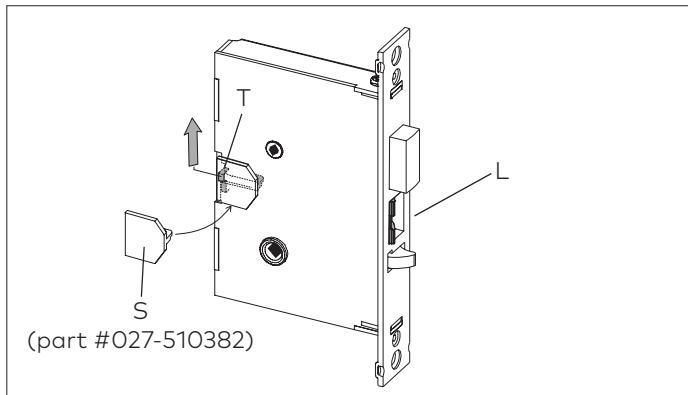
Annex A Reversing the ASM Mortise handing

A.1.1 Reversing the Mortise Handing ASM

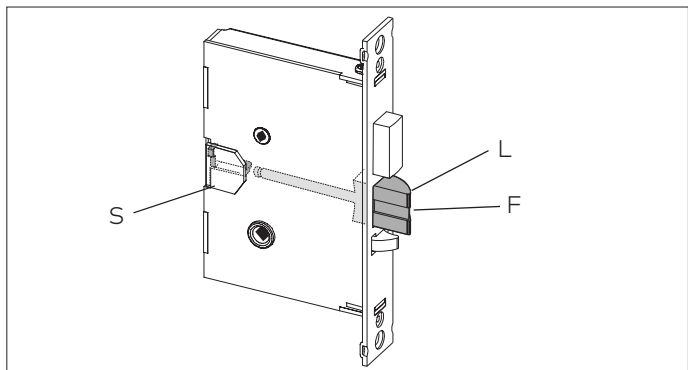
3. Push in the latch bolt (L) to the middle of its stroke, and hold it there. (Continue Step 1 and 2)



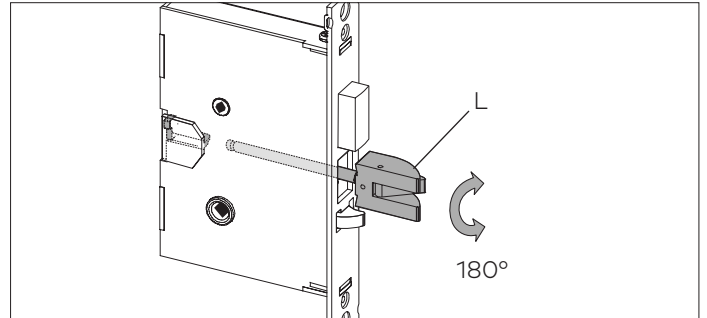
Hold the latch (L) inside the mortise, and insert the tailpiece retaining tool (S, part #027-510382 available separately) so that the tailpiece (T) will not drop inside the mortise case. Hold the tool and the latch with one hand, and slide up the tailpiece using a small screwdriver.



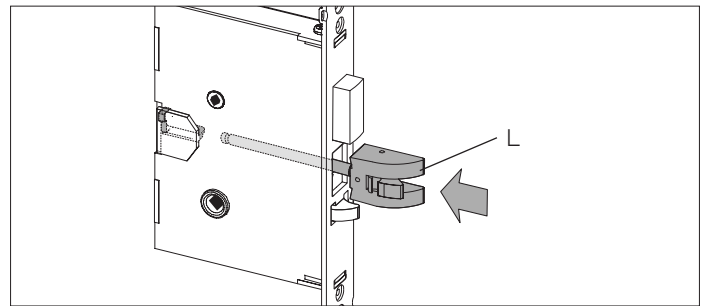
Continue to hold tool (S). Release the latch bolt (L) and keep the anti-friction latch (F) toward the flat side of the latch bolt so that the bolt extends fully.



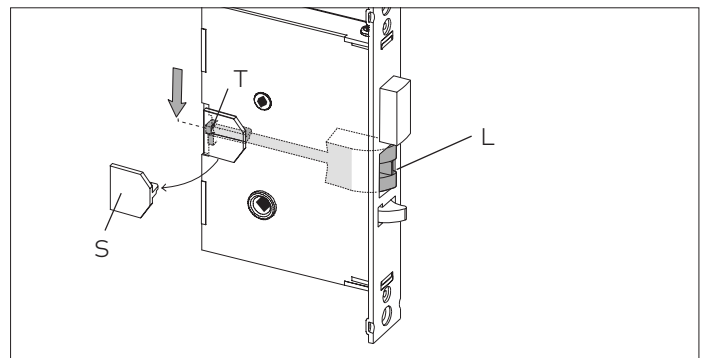
4. Pull out the latch bolt (L), until it just clears the front plate. (Note: If you remove the bolt completely, you must turn it 90° to re-insert it.)



Rotate the latch bolt (L) 180°. Re-insert it to the end of its stroke.



Holding tool (S) in place, re-engage tailpiece (T) with latch bolt (L) (slide tailpiece down). There may be some play required to align the parts. Remove the tool (S).



Release the latch to the middle of the stroke and hold it there. Use a small screwdriver to push the lock mechanism back on lock position (see step 1 and 2) .

IMPORTANT

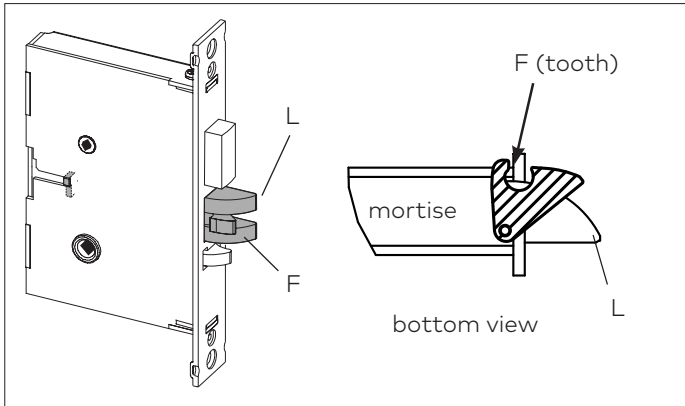
The lock mechanism has to be horizontal on lock position

Annex A Reversing the ASM Mortise handing

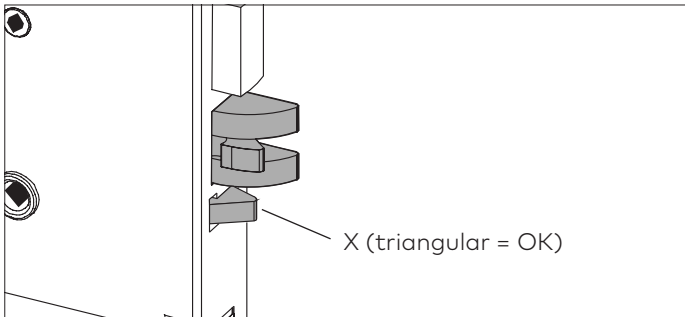
5. Release the latch bolt (L). Position the latch bolt so that the bottom tooth of the anti-friction latch (F) remains inside the mortise case as shown.

IMPORTANT

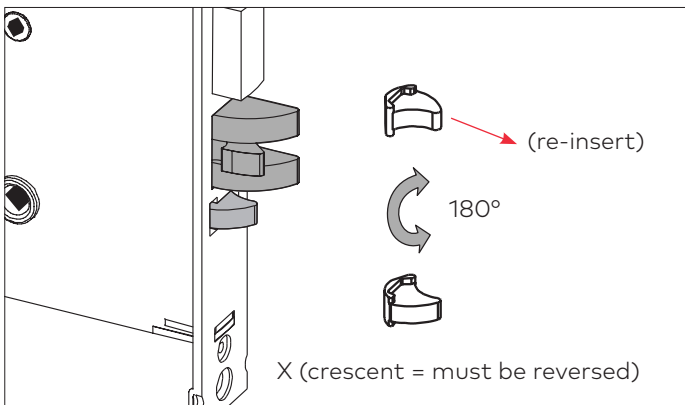
If the tooth of (F) is outside the mortise, you will not be able to re-assemble the faceplate on the mortise.



6. If the auxiliary latch (X) is shaped like a triangle, there is no need to change its handing.



If the auxiliary latch (X) is a crescent shape, remove it, turn it 180°, and replace it. The auxiliary latch slides easily in and out of the mortise.

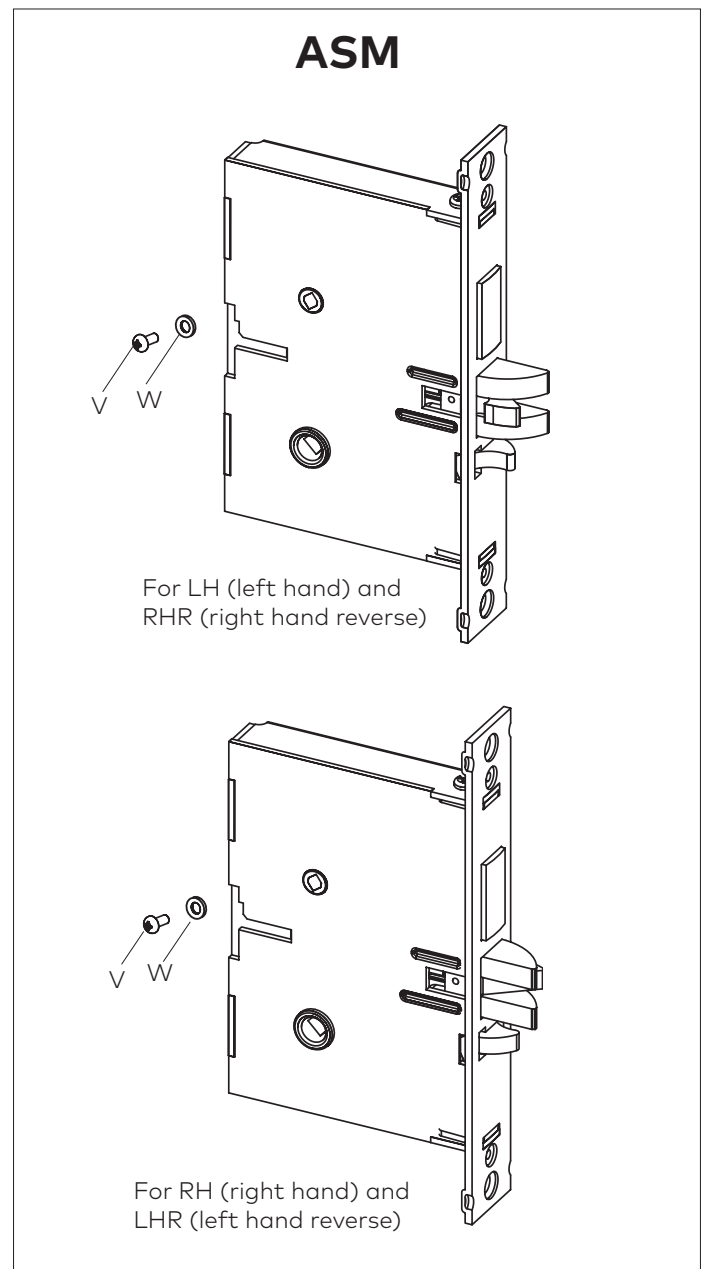


7. Assemble back screw (V) and lock washer (W) if applicable. The screw (V) must be tightened.

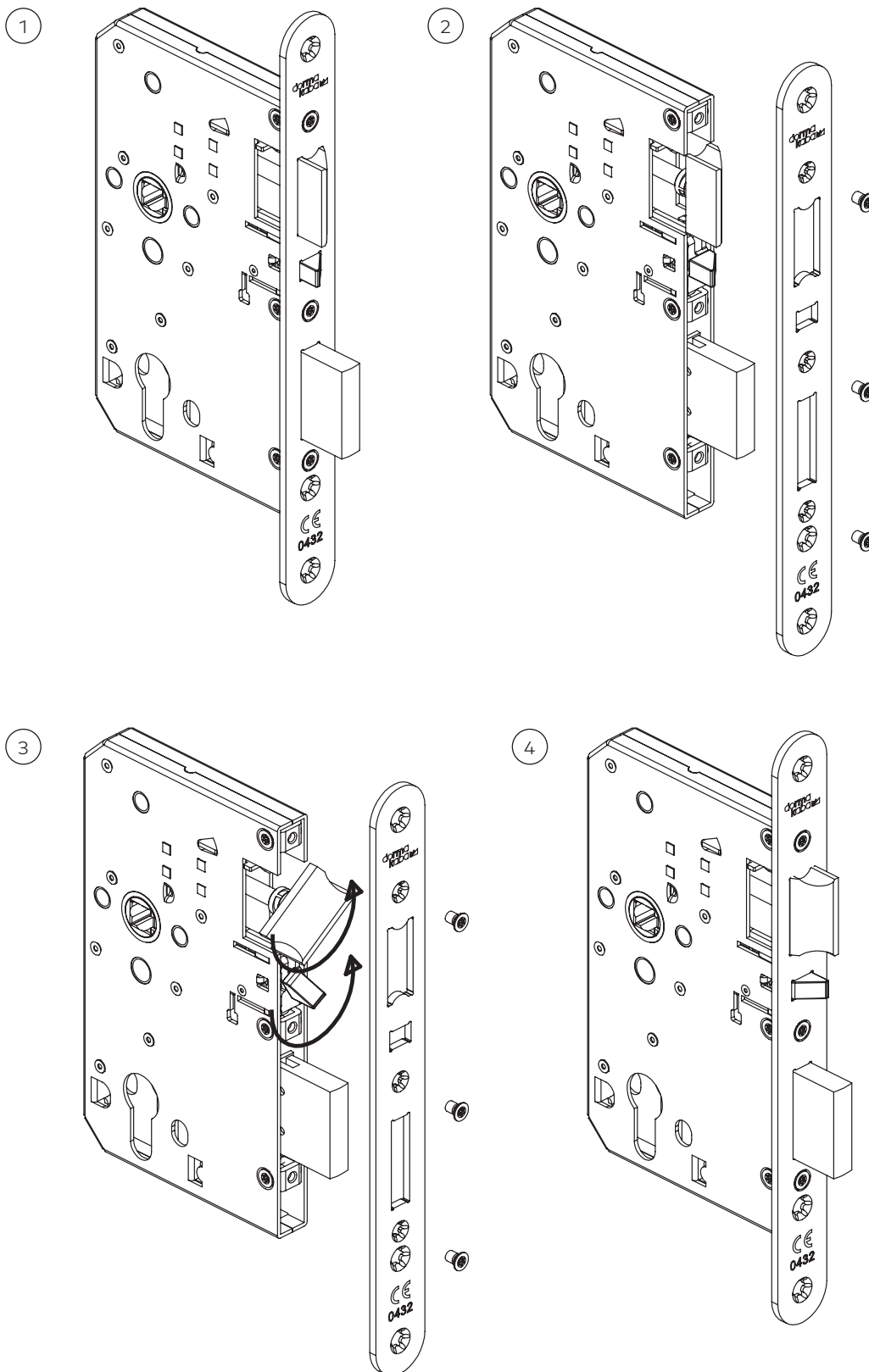
IMPORTANT

Screw (V) must not touch the back wall of mortise cut-out on the door

8. The mortise should look like the diagram below. (Check the orientation of the latch bolt and auxiliary latch.) Check the bevel of the mortise and change it if required as described in section 3.3, paragraph 6 page 10.



Annex B Reversing the European lock case handing

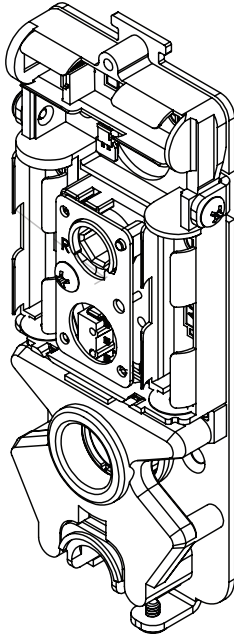


Annex C Changing the hand of the cassette

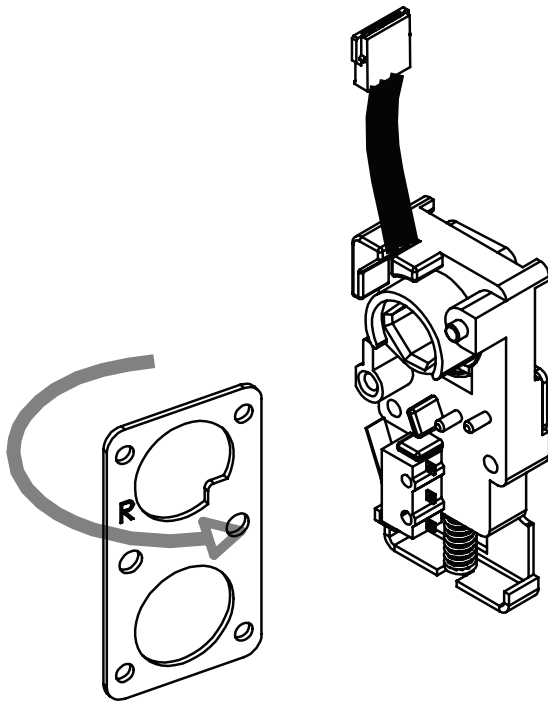
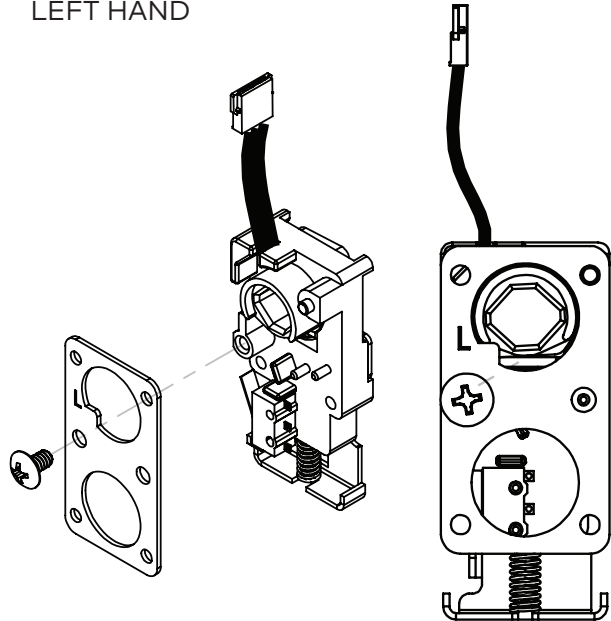
1. Flip the top plate and reinstall on the cassette. You should see now the other letter for the handing.
Secure the top plate with the screw.

Note: Changing the hand of the cassette can be done before or after the lock is installed on the door.

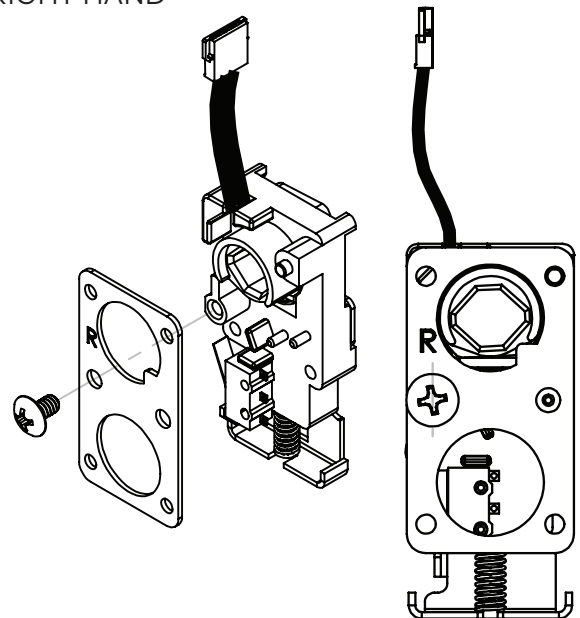
BACK UNIT CHASSIS ASSEMBLY



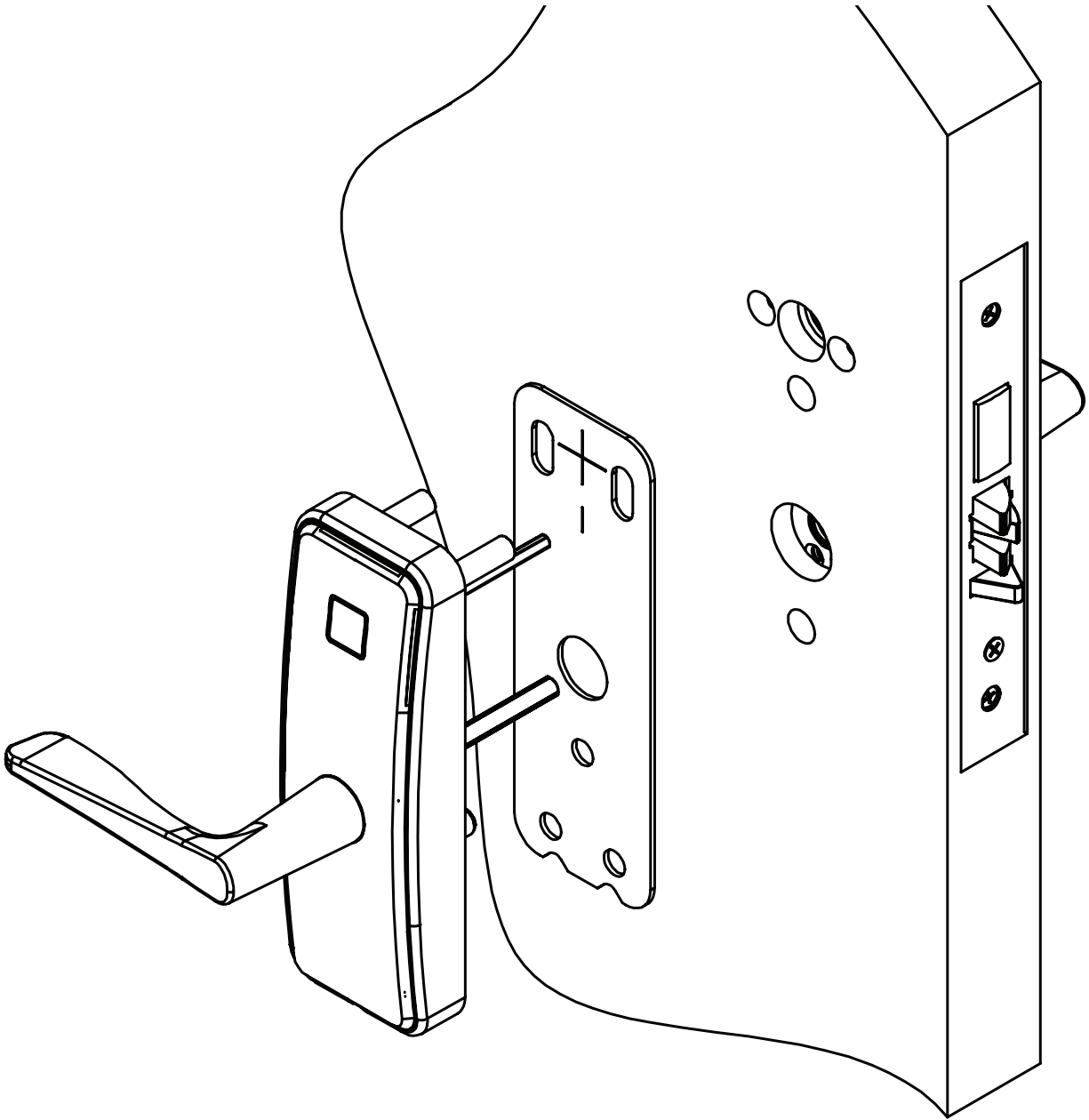
LEFT HAND



RIGHT HAND



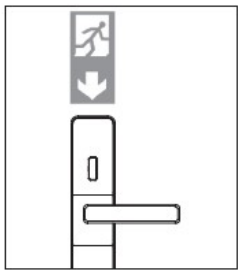
Annex D Installing Outside Housing with Gasket



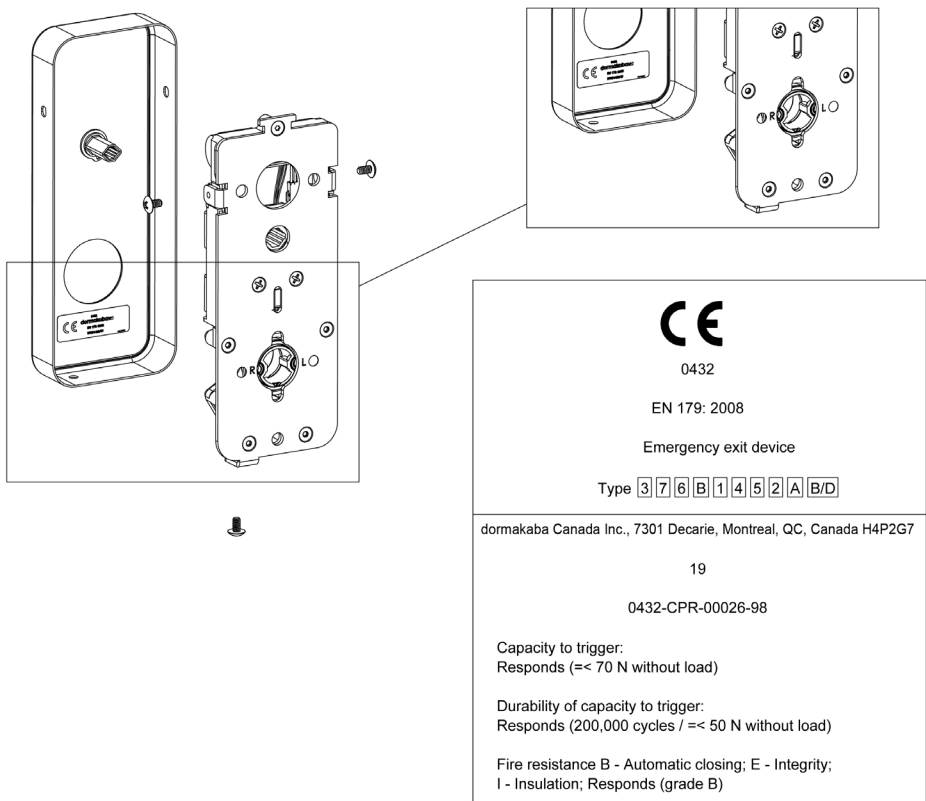
ANNEX E - EN 179 SAFFIRE LX

Emergency exit device

A pictogram for emergency exit device has to be installed on the inner-side door just above the lock as shown below.



The EN 179 identification label on the lock can be found in the location shown below, at the bottom of the inside trim cover



Model: Saffire LX & Saffire EVO LZ

Caution: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED non-interference disclaimer

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

Cet équipement est conforme avec ISED RSS-102 des limites d'exposition aux rayonnements définies pour un environnement non contrôlé. Cet émetteur doit être installé à au moins 20 cm de toute personne et ne doit pas être colocalisé ou fonctionner en association avec une autre antenne ou émetteur.

FCC Compliance 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 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.

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

RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. To avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

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