dormakaba

# E-Plex 7900

## Electronic Lock for Partner Integrations

### Mortise, Cylindrical, and Exit Trim

# E-Plex

Installation Instructions

KD10124-E - 03/2025
Original document

**EN**

# Table of Contents

# 1 Introduction and disclaimers

**IMPORTANT**

Please read and follow all directions carefully.

**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.

**Definition of Terms**

In these instructions, the term ASM refers to American Standard Mortise, and ADB refers to Autodeadbolt Mortise.

**Technical Assistance**

For technical assistance, call:

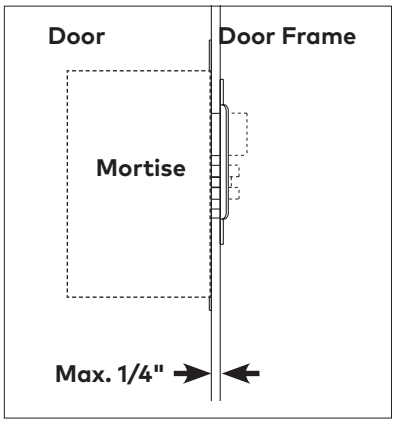
T: 1-800-849-8324 (ext. 2)

**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.

For all mortise models the gap between the mortise front plate and the strike must not exceed 1/4 "

**IMPORTANT**




**⚠ CAUTION**

Wear safety glasses when making the holes.

# 2 Checklist and Exploded Views

### 2.1 Parts and Tools List

Each lockset includes:
(A) Outside lever handle
(or)
Parts for mechanical override model only:
(A1) Outside lever handle
(A2) Cylinder plug
(A3) Cylinder (locks with key cylinder)
(A4) Cylinder cap (locks with key cylinder)
(B) Outside housing

(C2) Torx-head screw (E900) (see hardware bag)

(D) Mortise (ASM only shipped assembled with faceplate and 2 x 8-32 x 1/4" screws)
(or)
Parts for cylindrical models (see illustrations in section 4-B):
cylindrical latch (see 4-B.2 page 17)
cylindrical unit assembled with one pair of screws & 3 spacers
four (4) other pairs of screws & 3 spacers in hardware bag
additional extension spring
storeroom function locking screw and nut
(E3) Inside trim E-7900(N)

Parts inside hardware bag:
(F) Spindle E7900
(G) Square spindle
(C2) Torx-head screw (E7900)
(I) 3 x mounting screws (10-24, 1/8 Hex Head) or (12-24, 1/8" Hex Head for recent models only)
(J) 2 Machined screws (12-24X 1/2" Philips) & 2 wood screws (#12 X 1" Philips)
(K) Strike kit (screws, strike and ASM or Cylindrical dustbox)
(L) 1 extension spring
(M) Parts required to control thumbturn motion (ASM and ASM Office) See sections 4-A.2 & 4-A.3

(Q1) 4 pairs of Flat Head Screws 10-24 (for cylindrical only)
(R1) 3 Spacers (for cylindrical only)
(S) 3 spacers (see page 16) for recent Models only(V) 2 x battery cover screws (4-40, 1/2 Torx Head)(W) 1 Torx key (T10)

Tools Required:

- Safety glasses
- 1/2" (13mm) chisel
- 1/8" (3mm) drill bit
- 1/2" (13mm) drill bit
- 3/4" (19mm) drill bit
- 1" drill bit or hole saw
- 3/32" drill bit (Cylindrical only)
- 1/8" Hexagonal key (Allen key)
- Drill
- Awl or center punch
- 2 1/8" (54mm) hole saw (Cylindrical Only)
- Hammer Rubber mallet
- Small flat screwdriver
- Torx screwdriver (T-15)
- Phillips screwdriver (#2)
- Fine steel file
- Mortising machine
- Router
- Mortise faceplate router template
- Adjustable square
- Tape measure
- Pencil
- Tape
- Cleaning supplies (drop cloth, vacuum)

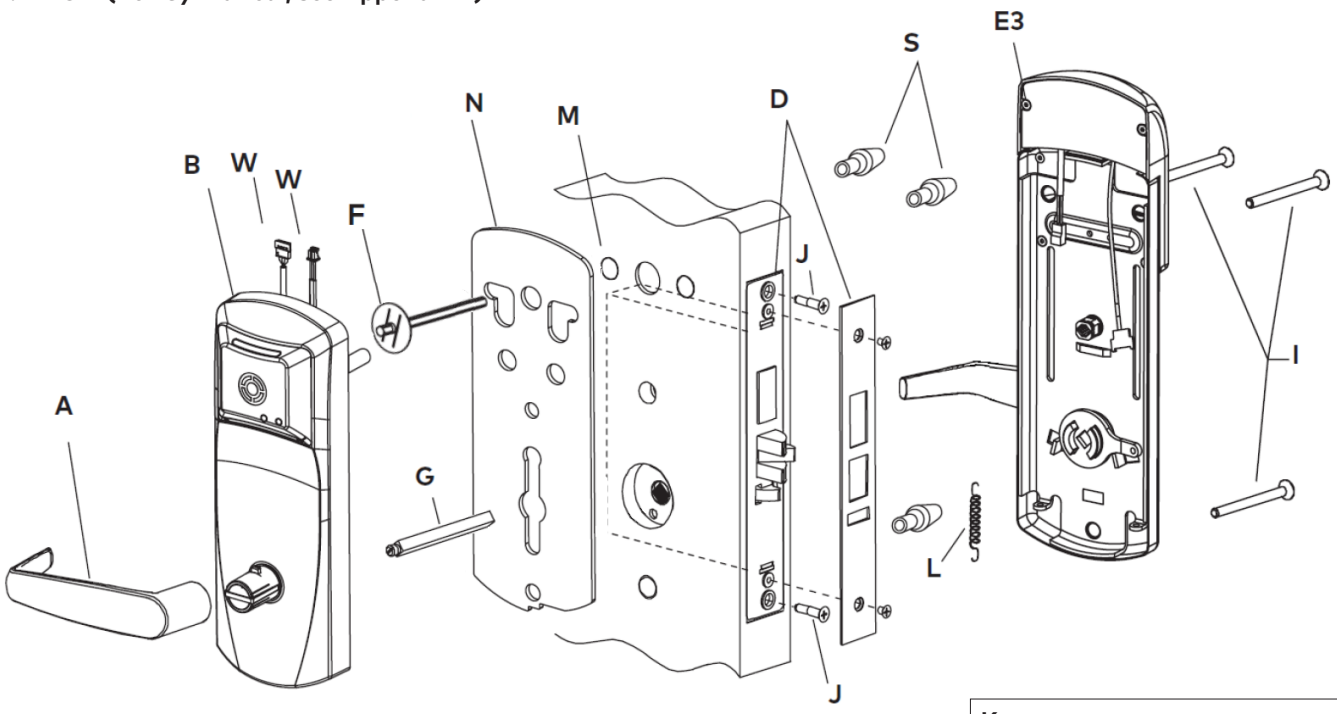
**IMPORTANT**

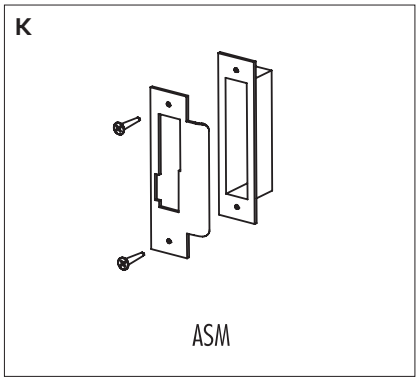
For doors more than 2 1/2" thick upto 3 3/4", order the ap-propriate hardware bag to receive the correct length of spindles and mounting screws. Part# 062-510189-XXX; (XXX = choice of finish).

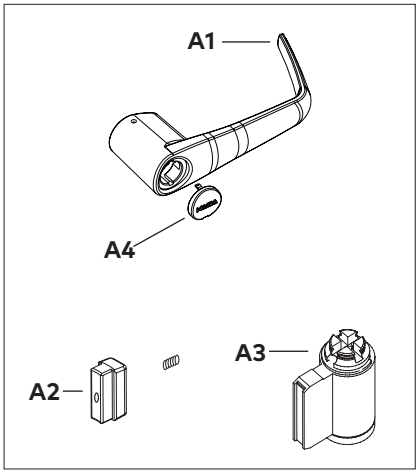
For E7900 series, Gasket 033-512017-1 comes standard for outdoor installations.

# 2 Checklist and Exploded Views

**2.2 ASM (For Cylindrical, see Appendix B)**




**Note: D - American Standard Mortise illustrated.**

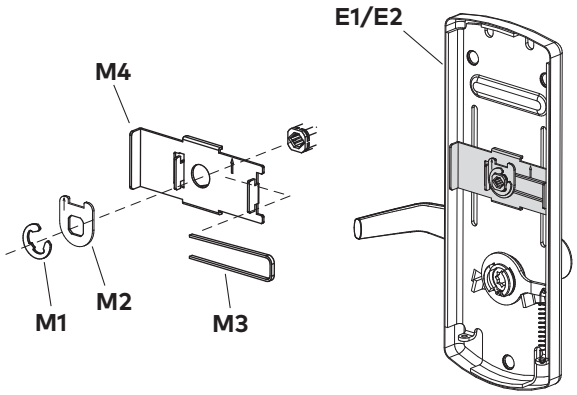
# 2 Checklist and Exploded Views

### 2.3 Autodeadbolt ASM Inside Trim Assembly

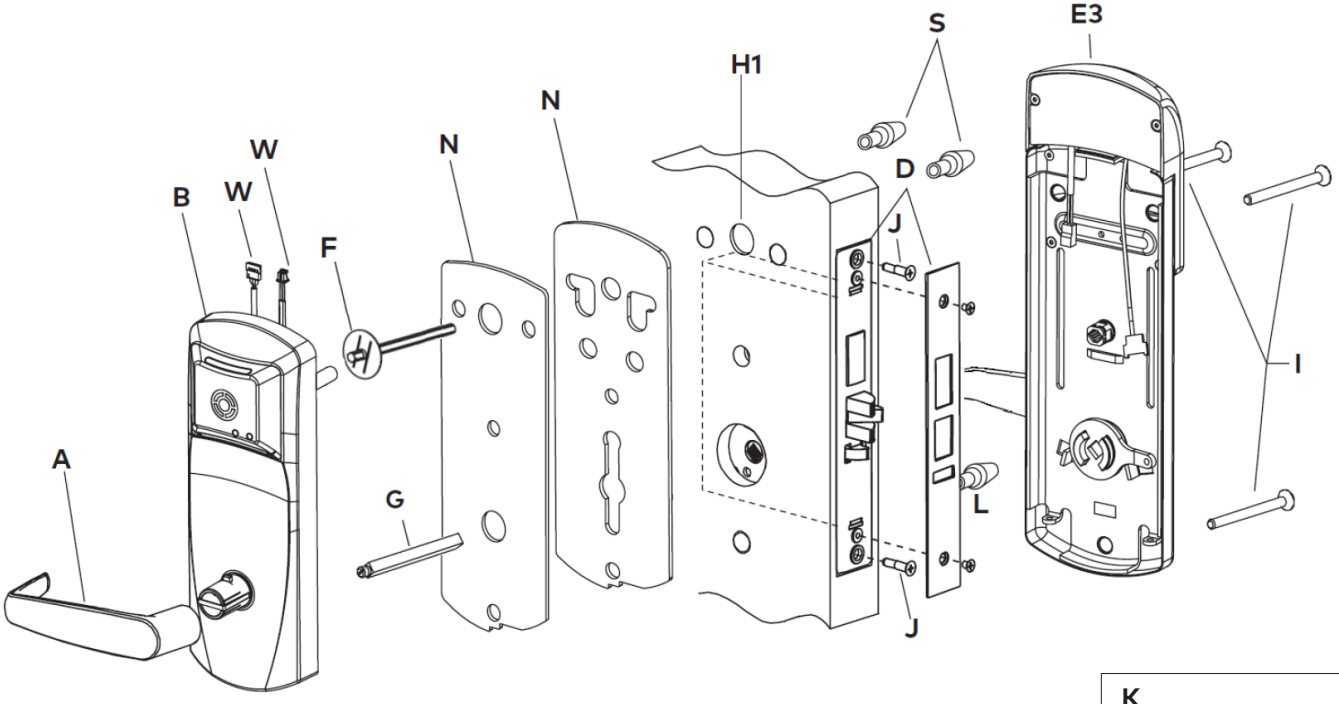
**NOTE:** The inside trim assembly (E1), (E2) and (E3) for autodeadbolt models includes the parts (M1 TO M4) shown, assembled at the factory.

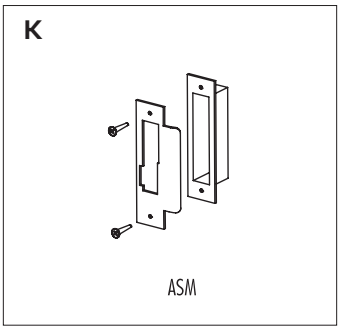
**For ASM Office and ASM Store-room models, only some of the parts (M) are used. See instructions in Appendix A.2 and A.3.**

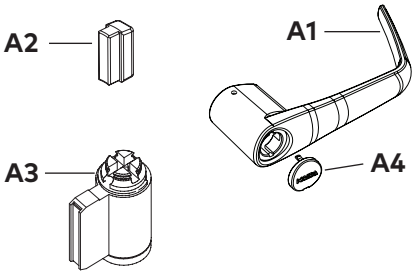
Parts (M) also available separately (kit #062-510484) to convert the standard lock to Autodeadbolt ASM, ASM Office or ASM Storeroom functions.




Fully assembled view



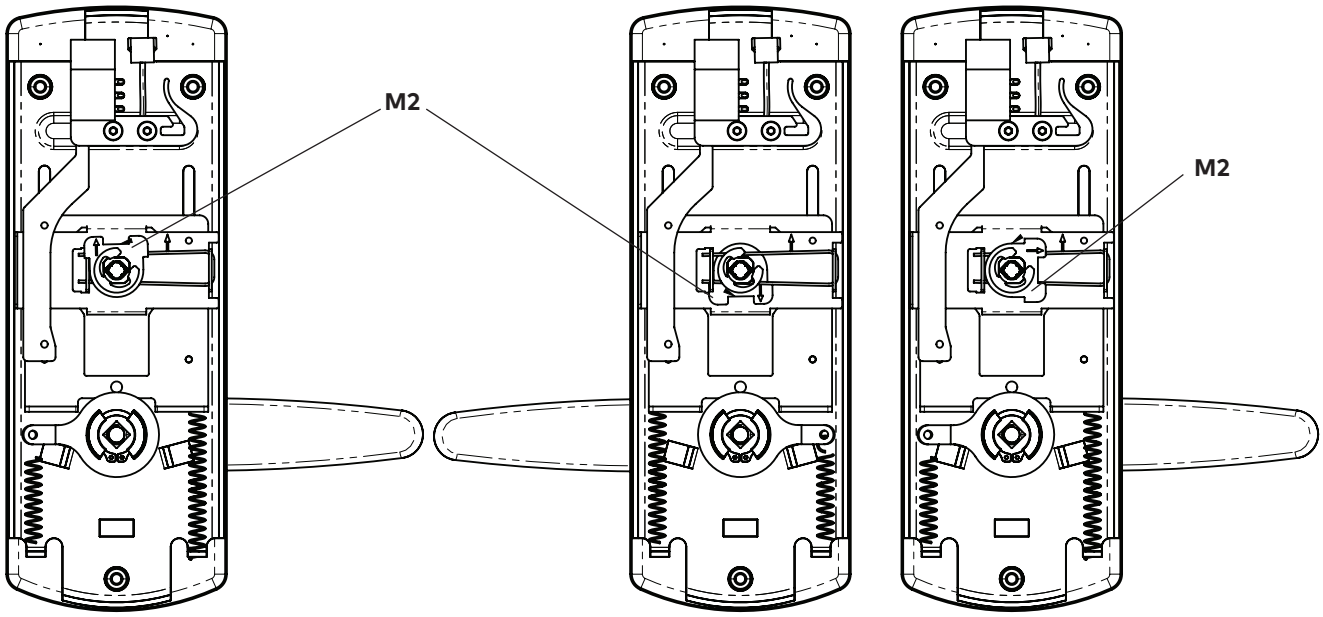




**Note: D - American Standard Mortise illustrated.**

# 2 Checklist and Exploded Views

### 2.4 Autodeadbolt - ASM Inside Trim Assembly for 79T (Toggle Mode)

(for 79M standard mode with Autodeadbolt; ASM Office and ASM Storeroom models, use parts (M) as shown in sections 4-A.2. and 4-A.3)




Autodeadbolt Right Hand | Autodeadbolt Left Hand | ASM Right & Left Hand

### 2.5 Cylindrical Unit and Inside Trim Assembly for 79M Standard Mode (see section 4-B)

# 3 Installation of Standard ASM Models

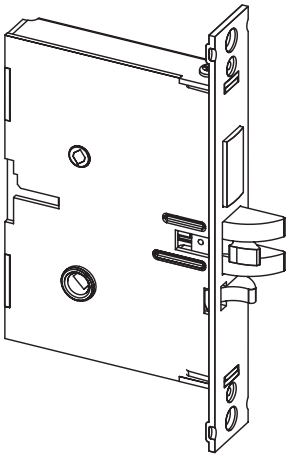
### 3.1 Check the Mortise Handing

Compare the mortise with the diagram below. If the mortise is the correct handing for the door, continue with step 3.2.

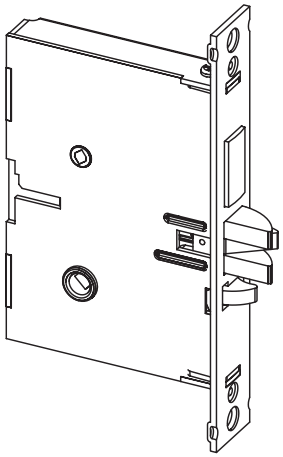
**IMPORTANT**

Refer to section 4-A.1 to change the handing of a field-reversible mortise.

**ASM**

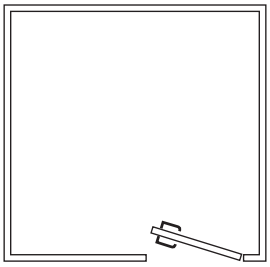


For LH (left hand) and RHR (right hand reverse)

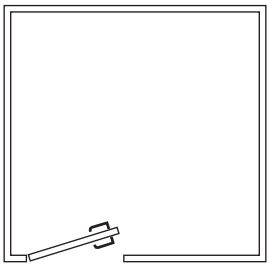


For RH (right hand) and LHR (left hand reverse)

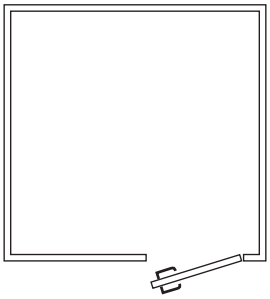
**Door Handing (Top View)**



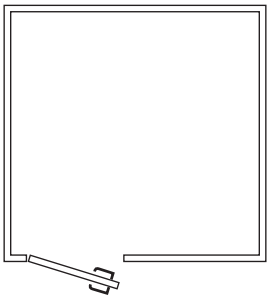
Right Hand (RH)



Left Hand (LH)



Right Hand Reverse (RHR)



Left Hand Reverse (LHR)

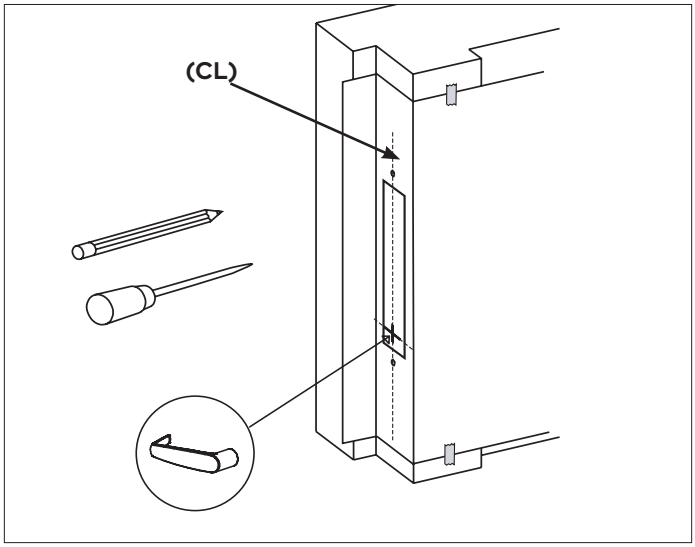
# 3 Installation of Standard ASM Models

### 3.2 Install the Strike

1. Align the paper template on the door frame at the desired handle height ( ), and along the vertical center line of the mortise (CL), which is also the center line of the door edge, allowing for any bumpers on the door frame.

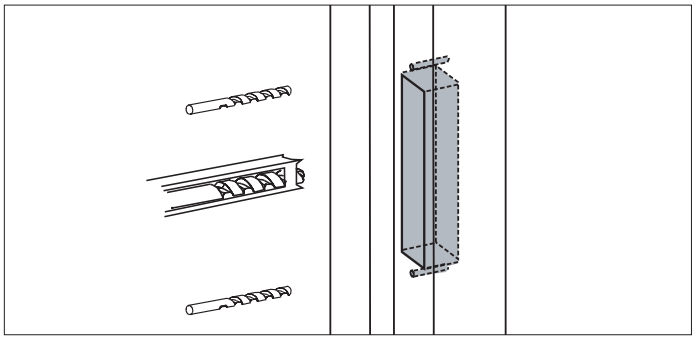
**IMPORTANT**

Respect applicable building codes regarding handle height.

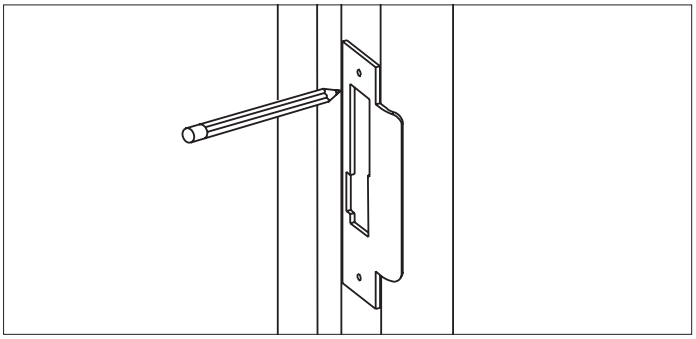



2. Mark the locations of the dust box cutout and mounting screws for the strike.

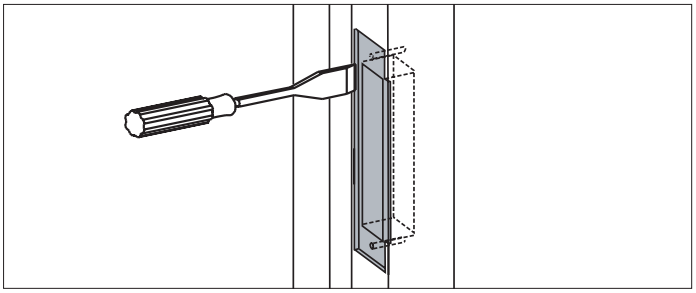
3. Mortise the door frame to receive the dust box, and drill the pilot holes for the mounting screws (dimensions and depths marked on template).



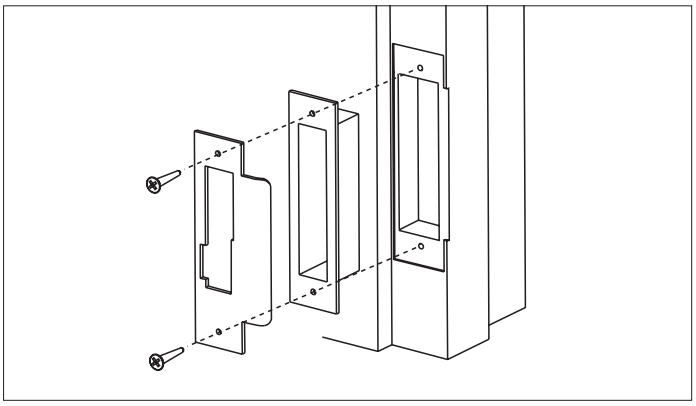
4. Position the strike against the doorframe and align it with the mounting screw holes. Trace the outline of the strike.



5. Remove material from within the strike outline so that the strike will be flush with the doorframe.



6. For ASM, install the dust box (optional for wood door frames, required for metal door frames), and check the strike handing on the template. Install the strike using the screws provided. Use wood screws for wood frame and machined screws for steel frames.



**IMPORTANT**

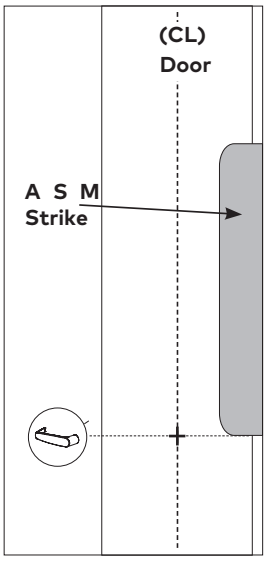
When strike is installed on wood frames under one inch thick, wood screws supplied are not adequate. use screws of efficient length to engage the structural stud behind the frame. Use only the strike and dust box supplied. Use of non-approved parts may void the warranty.

# 3 Installation of Standard ASM Models

### 3.3 Install the Mortise

**IMPORTANT**

If using the installation jig to prepare the door, refer to the instructions provided with the jig, then proceed with step 6 below.

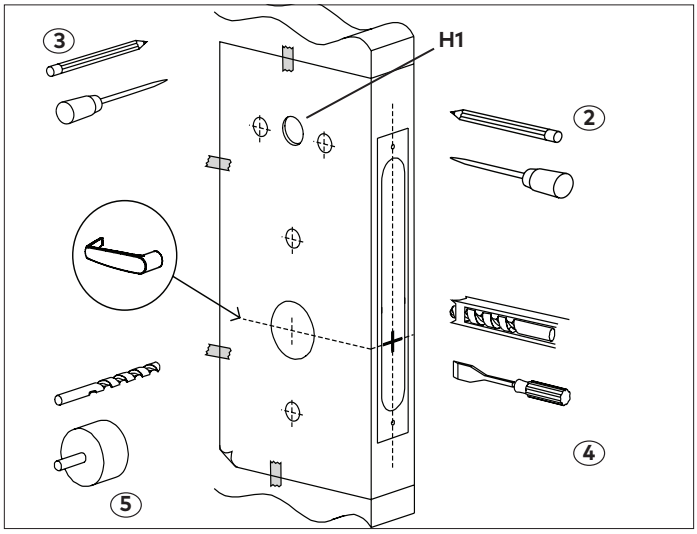



1. Mark the handle ( ) height on the edge of the door, as determined directly from the strike.

For ASM, the axis of rotation of the handle is level with the bottom lip of the strike.

For cylindrical models, see 4-B.2 in section B

2. Align the template along the vertical center line of the mortise (CL) at the desired handle height, and tape it to the door. Mark all holes and cutouts for the mortise in the edge of the door and remove the template.



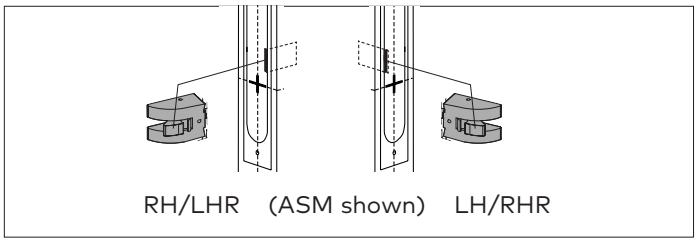

3. Locate the two sets of vertical fold lines on the template allowing you to adjust the positioning of the template depending on the bevel of the door.

If the door has no bevel, fold the template along the solid lines. Align the fold with the edge of the door and mark the holes for the lock. Repeat on the other side of the door.

If the door has a 3° bevel, fold and align the dashed line marked "H" on the template with the higher-beveled edge of the door and mark the lock holes on that side of the door. Repeat on the side with the lower-beveled edge using the dashed line marked "L". Remove the template.

4. Prepare the cut-outs for the mortise in the edge of the door using a mortising machine, router and chisel (for dimensions, refer to template).

Ensure clearance is provided for moving latch parts as indicated on the template.




5. Drill the holes in the sides of the door (for dimensions, refer to template).

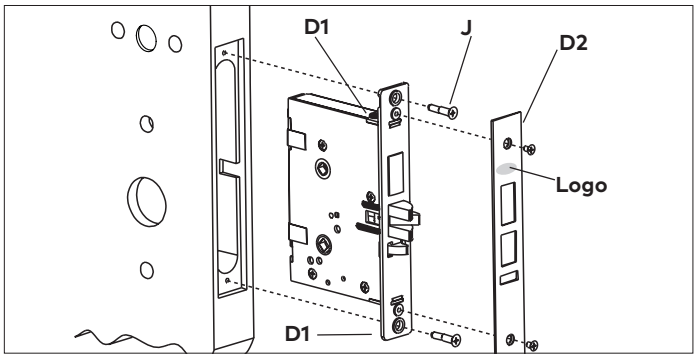
**IMPORTANT**

Drill from both sides of the door to prevent unsightly damage

6. For ASM only, check the bevel of the mortise. If adjustment is required, loosen bevel screws (D1) and adjust mortise front plate angle to match the bevel of the door. Re-tighten screws.

Install the mortise with 2 screws (J). Use wood screws for wood doors and machined screws for steel doors.

Install mortise faceplate (D2) with the two 8-32 x 1/4" screws provided.

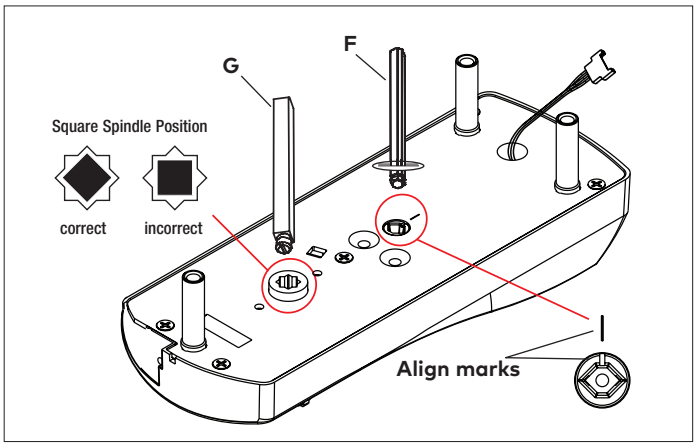


# 3 Installation of Standard ASM Models

### 3.4 Install the Outside Housing and Inside Trim Assembly Without Key Override

**A- For Mortise**

1. Insert the slotted end of the square spindle (G) into the outside lever hub at an angle of 45 degrees, until it locks. Then insert the thumbturn spindle (F) in the upper hub of the outside housing and align the marks as shown in the diagram. (The spindle G can be removed by pulling on it if orientated incorrectly).

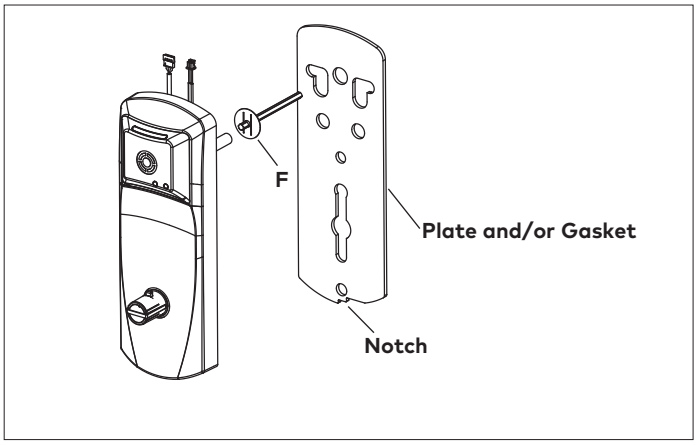



For Spindle F, insert as indicated above. Washer is to be positioned against the back of the outside housing (B)

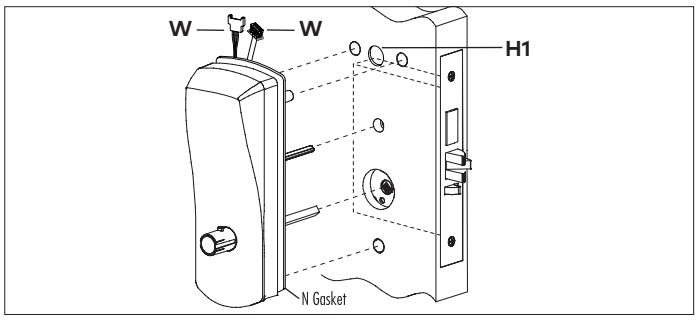
2. Install the gasket (N) (if required) on the outside housing prior to assembly, aligning the notch in the gasket with the battery compartment. See page 3 for gasket information.

If installing the lock with mortise outdoors, order the proper Gasket (See page 3).

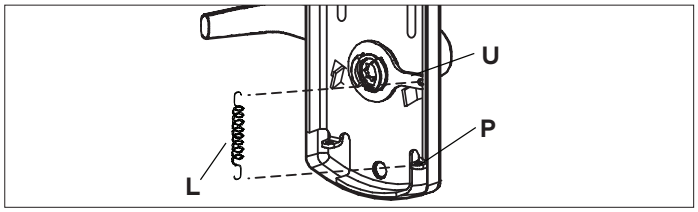
For doors more than 2 1/2" thick, order the appropriate hardware bag to receive the correct length of spindles and mounting screws. (See page 3)




3. Place the outside housing on the door so that the spindles engage the hubs on the mortise. For all locks with cables, insert cables W when applicable in Hole (H1) on the door.




4. On the inside trim assembly turn the lever to the correct horizontal rest position for the handing of the door. Install the tension spring (L) between the handle (H) and the post (P).



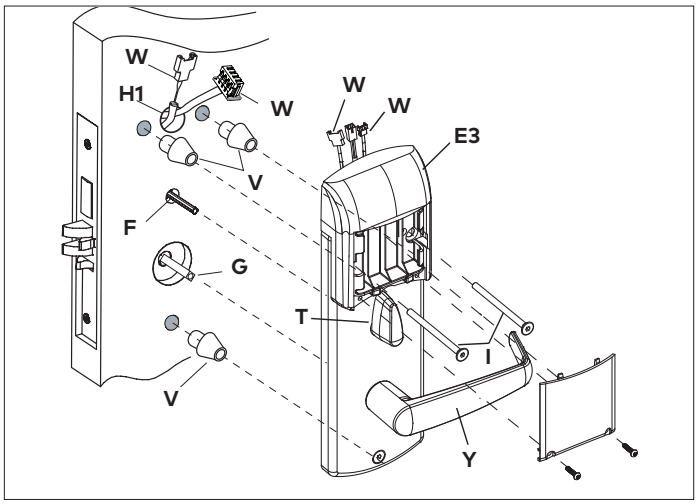

**IMPORTANT**

For ASM Office and ASM Store-room models, refer to sections 4-A.2 and 4-A.3 at this point.

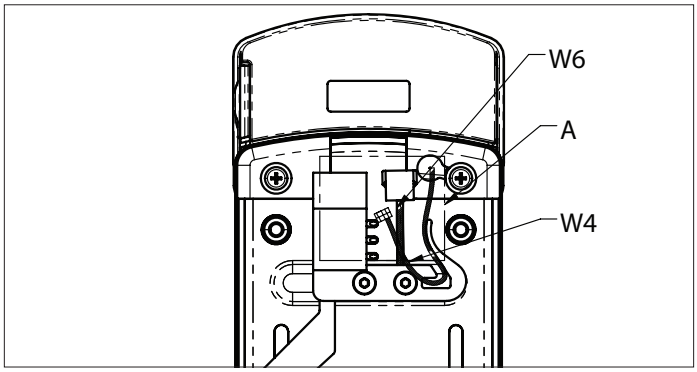
5. Put the thumbturn (T) in a vertical position. Place 3 spacers (S) on the door (for recent models only) and place the inside trim assembly on the door so that the upper and lower spindles (F1/F2) and (G) engage the thumbturn and the inside lever. Fasten to the outside housing using the three 1/8" hex drive mounting screws (I ). Install the screws without tightening. Verify the inside lever and thumbturn operates smoothly. If not move the inside and outside housings slightly. Then tighten the screws.

# 3 Installation of Standard ASM Models

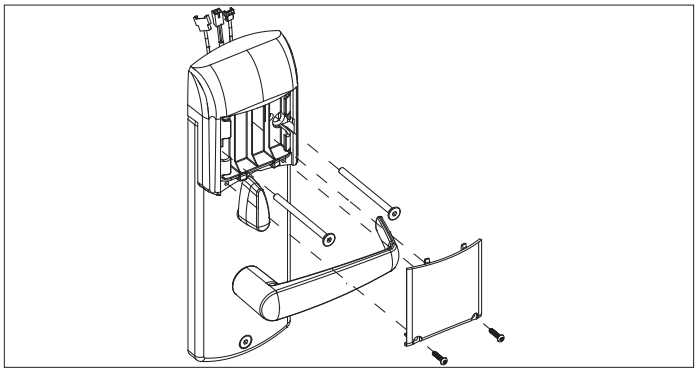
For all models, connect outside housing cables with corresponding inside trim cables when applicable. Put excess cables in hole (H1) when installing the inside trim.



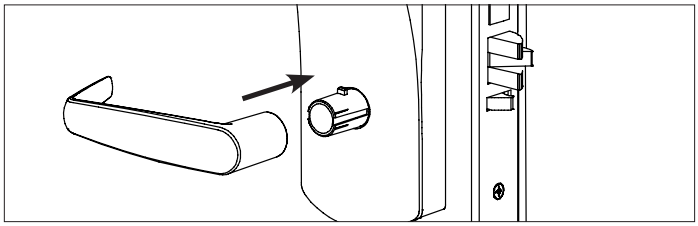

For 79T with ble or E, connect cables with corresponding connectors together (route the w6 in the switch holder as shown in the next figure) and put the excess cables in the area a when installing the inside trim.



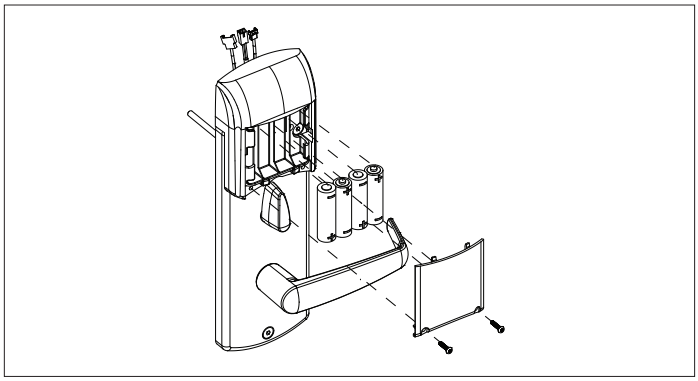

For E7900 series, the battery enclosure cover must be removed to install the mounting screws.



6. Assemble the lever on the outside housing, in the horizontal rest position appropriate to the handing of the door. Simply push the lever onto the tube until it clicks in place. If more force is required, use a rubber mallet. Test the attachment of the handle by pulling smartly on it.



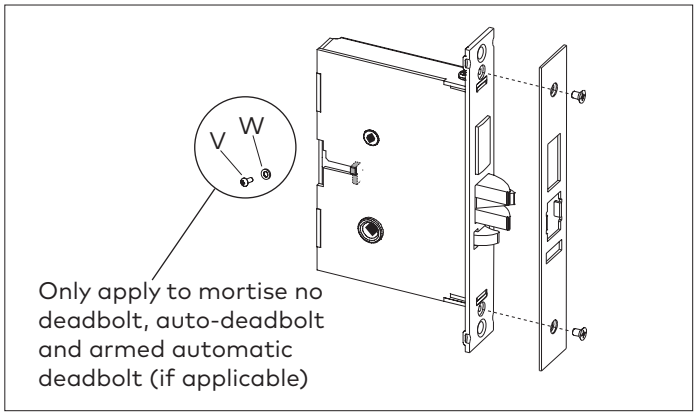
7. For E7900, after the mounting screws have been installed, insert batteries and refasten the battery enclosure cover into place.



# 4-A Mortise Models

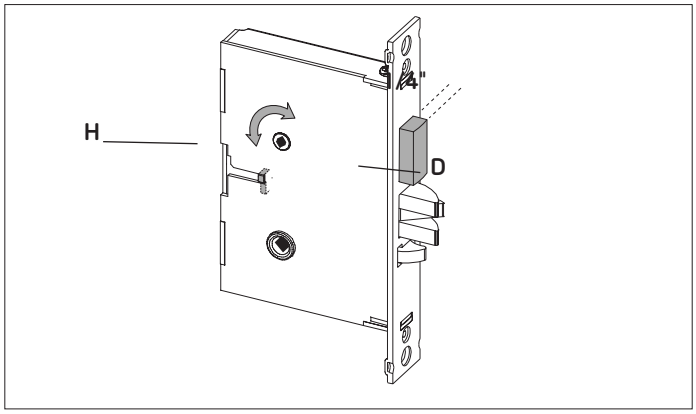
### 4-A.1 Reversing the Mortise Handing ASM

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**.



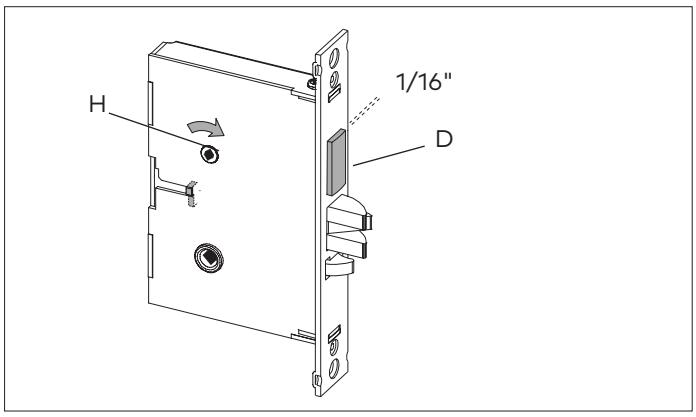

2. Partially extend the deadbolt:

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

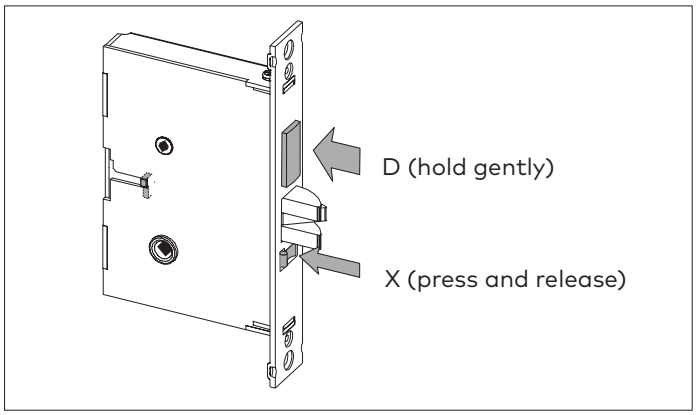



**Proceed to step 3.**

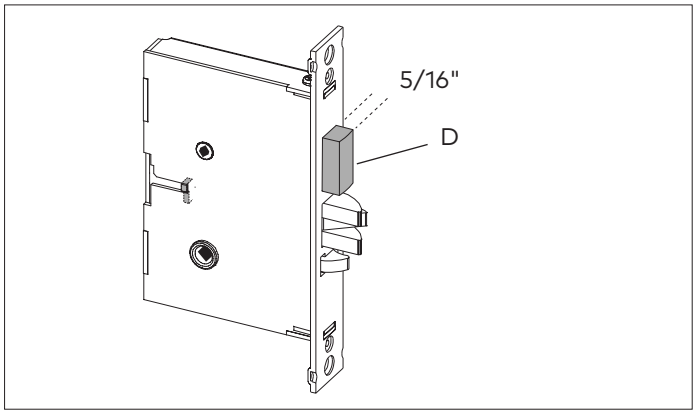
**For Autodeadbolt ASM**, rotate hub (H) until the deadbolt (D) is fully retracted. The deadbolt will extend approx. 1/16" from the mortise case.




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.



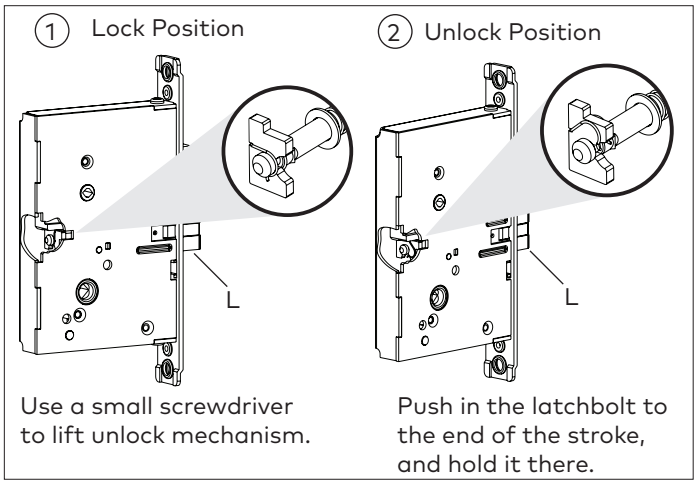

Release the deadbolt (D) gently. It should extend to 5/16" approx. and stop. If the deadbolt extends past this point, gently press it in until it locks at 5/16" throw, or start step 2 again.



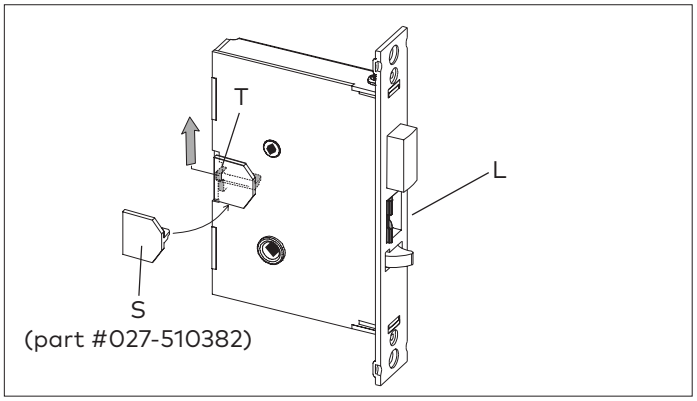
# 4-A Mortise Models

### 4-A.1.1 Reversing the Mortise Handing ASM

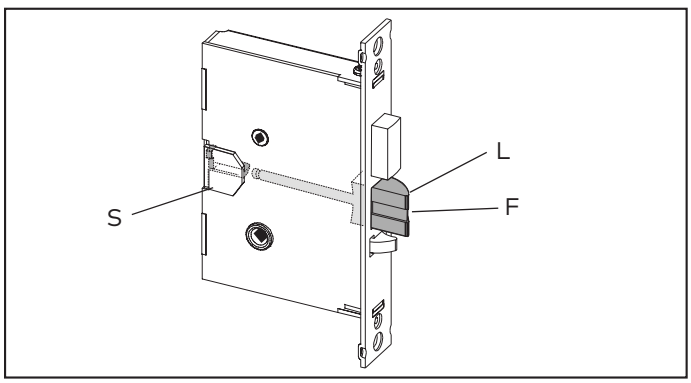
3. Push in the latch bolt (L) to the middle of its stroke, and hold it there. ( Continue Step 1 and 2)



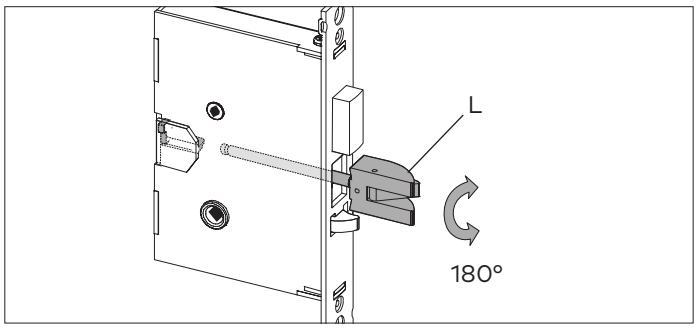

Hold the latch (L) inside the mortise, and insert the tailpiece retaining tool (S, part #027-510382 available separately) so that the tailpiece (T) will not drop inside the mortise case. Hold the tool and the latch with one hand, and slide up the tailpiece using a small screwdriver.



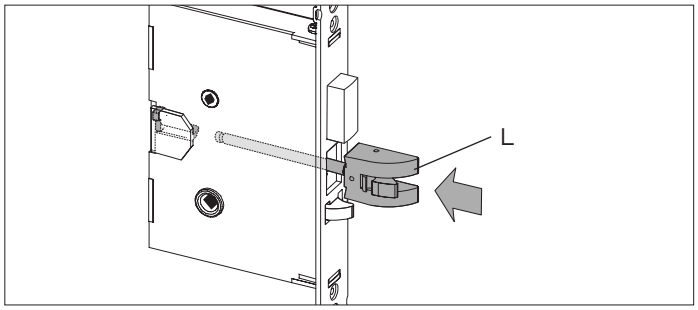

Continue to hold tool (S). Release the latch bolt (L) and keep the anti-friction latch (F) toward the flat side of the latch bolt so that the bolt extends fully.



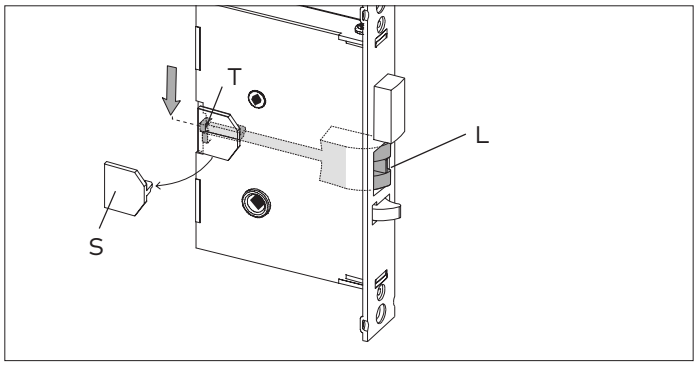

4. Pull out the latch bolt (L), until it just clears the front plate. (Note: If you remove the bolt completely, you must turn it 90° to re-insert it.)




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**

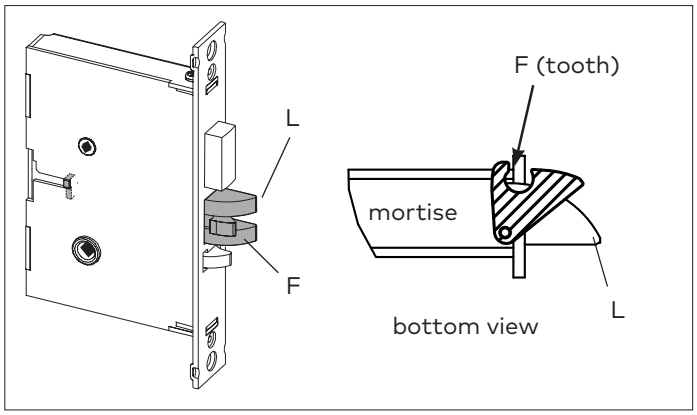
The lock mechanism has to be horizontal on lock position

# 4-A Mortise Models

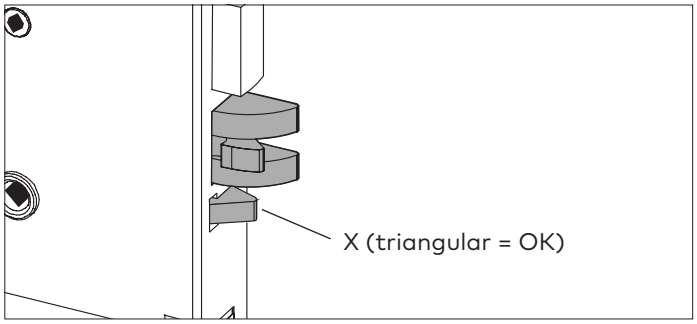
5. Release the latch bolt (L). Position the latch bolt so that the bottom tooth of the anti-friction latch (F) remains inside the mortise case as shown.

**IMPORTANT**

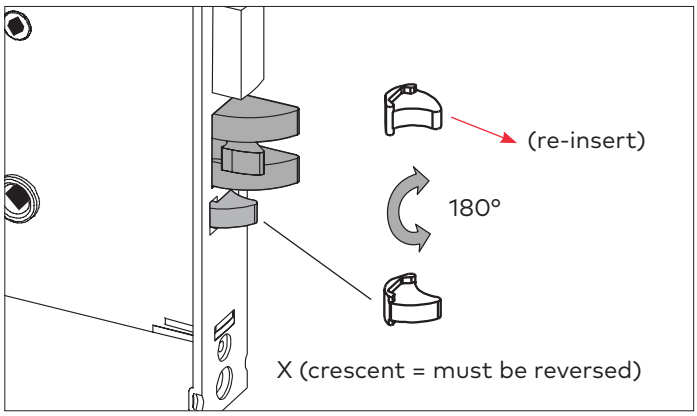
If the tooth of (F) is outside the mortise, you will not be able to re-assemble the faceplate on the mortise.




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.

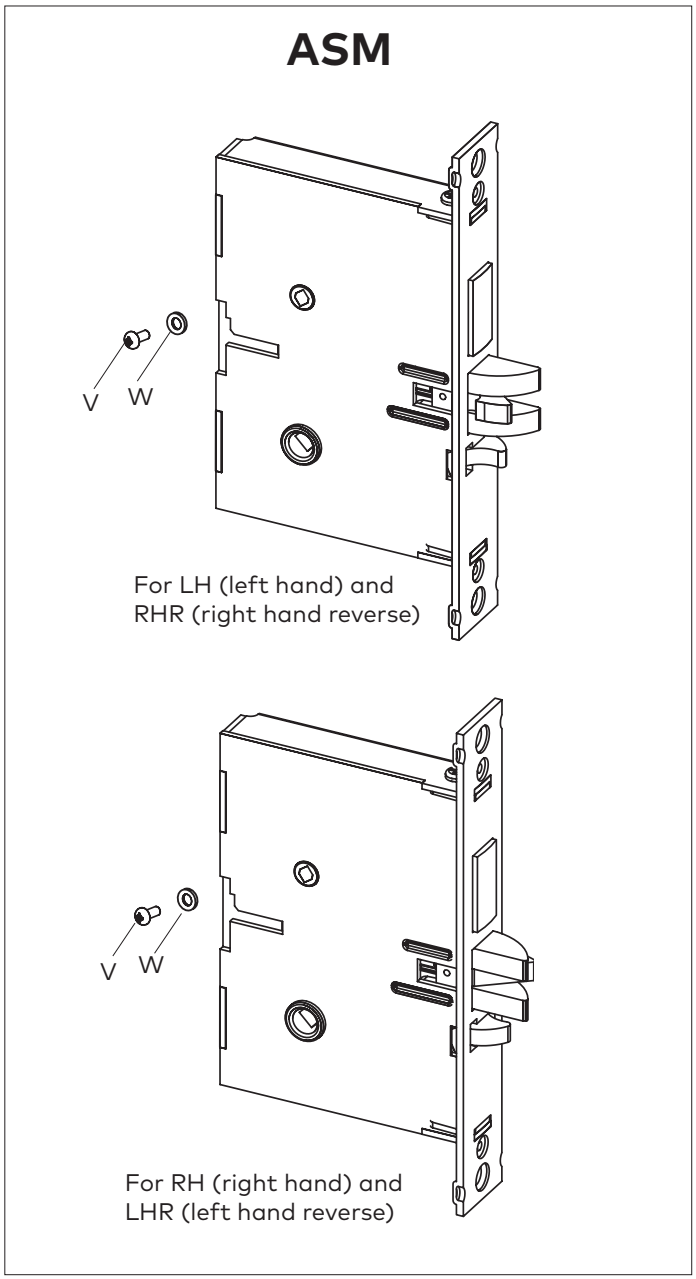



7. Assemble back screw (V) and lock washer (W) if applicable. The screw (V) must be tightened.

**IMPORTANT**

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

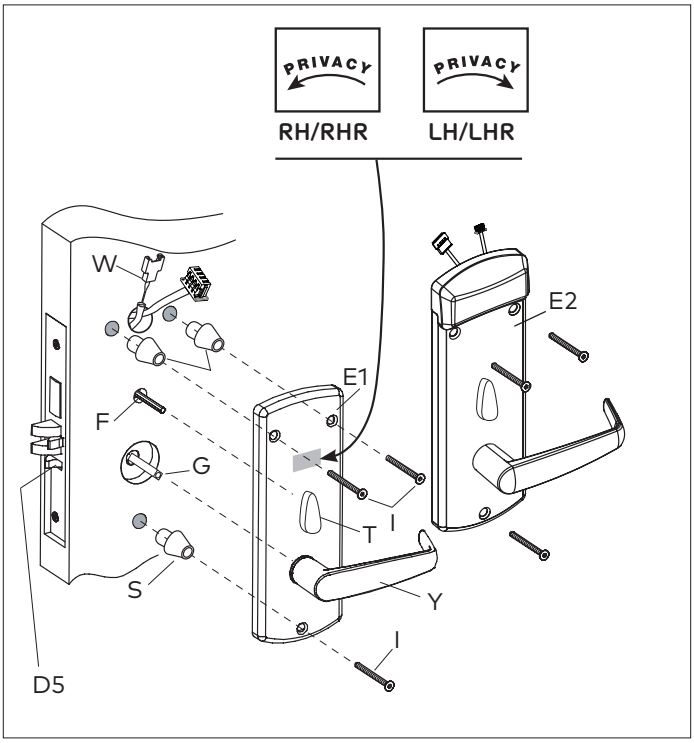
8. The mortise should look like the diagram below. (Check the orientation of the latch bolt and auxiliary latch.) Check the bevel of the mortise and change it if required as described in section 3.3, page 10.



# 4-A Mortise Models

Place 3 spacers (S) on the door (for recent models only). For concerned lock models, connect all cables (W) to corresponding connectors of the inside trim assembly (E1) when applicable. Place the inside trim assembly on the door so that the upper and lower spindles (F) and (G) engage the thumbturn and the inside lever. Fasten to the outside housing using the three 1/8" hex head mounting screws (I).

Apply the privacy thumbturn sticker as shown. If in doubt as to the direction of the arrow, press the auxiliary latch (D5) to extend the deadbolt, and verify in which direction to rotate the thumbturn to reach the horizontal (privacy) position.

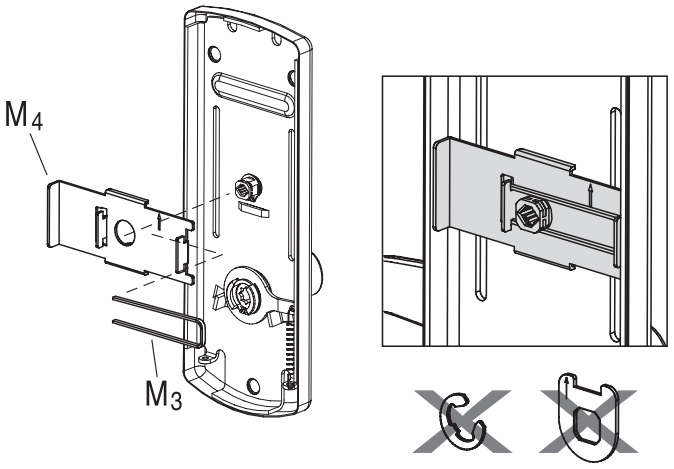



### 4-A.2 Additional steps for ASM Office

**Do the following BEFORE placing the inside trim assembly on the door (page 11, step 5):**

Install only parts (M3 and M4) as shown, on the inside trim assembly.

Install M3 onto M4, then slide both parts onto the thumbturn.



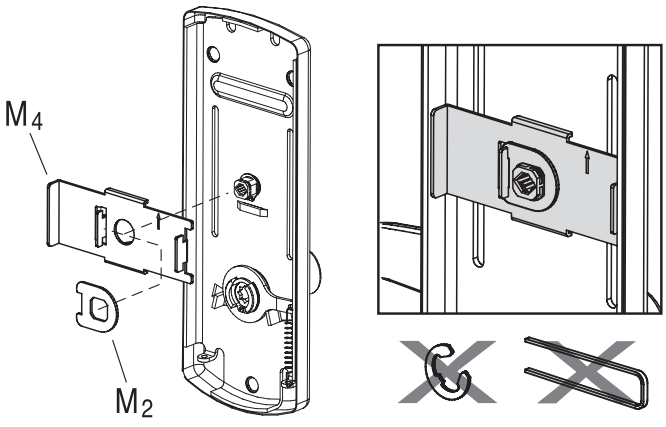

### 4-A.3. Additional steps for ASM Store room

**Do the following BEFORE placing the inside trim assembly on the door (page 11, step 5):**

**Put the thumbturn in the vertical position** and install only parts (M2 and M4) as shown, on the inside trim assembly. The notch on the stopper cam (M2) must engage the tab on the plate (M4), so that the thumbturn is locked in the vertical position.

Install M2 onto M4, then slide both parts onto the thumbturn.

The thumbturn should be locked in the vertical position



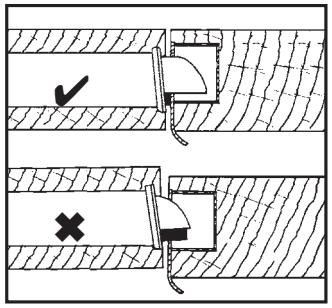
# 4-B Installing Cylindrical Models 2-3/8" & 2-3/4" Backset

### 4-B.1 Install the Strike

Follow the same steps as for a mortise model strike (see page 9, all steps in section 3.2). Note that the handle height is aligned with the center of the strike.

**IMPORTANT**

For cylindrical latch models, ensure the dead-locking pin will stop against the strike when the door is closed (see figure). 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.




### B.2 Install the Latch

Follow the instructions on page 10, steps 1 to 3.

Note that for cylindrical models, the axis of rotation of the handle is level with the center of the strike. Mark this height on the edge of the door in step 1 on page 10.

**IMPORTANT**

Respect applicable building codes regarding handle height.

4. Drill the holes for the cylindrical unit, thumbturn spindle, and lock mounting screws. Refer to template for dimensions and depths.

**IMPORTANT**

Drill from both sides of the door to prevent unsightly damage.

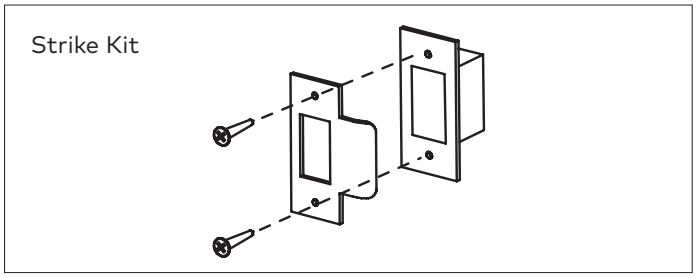
5. Drill the hole for the latch, and chisel out clearance for the latch plate.

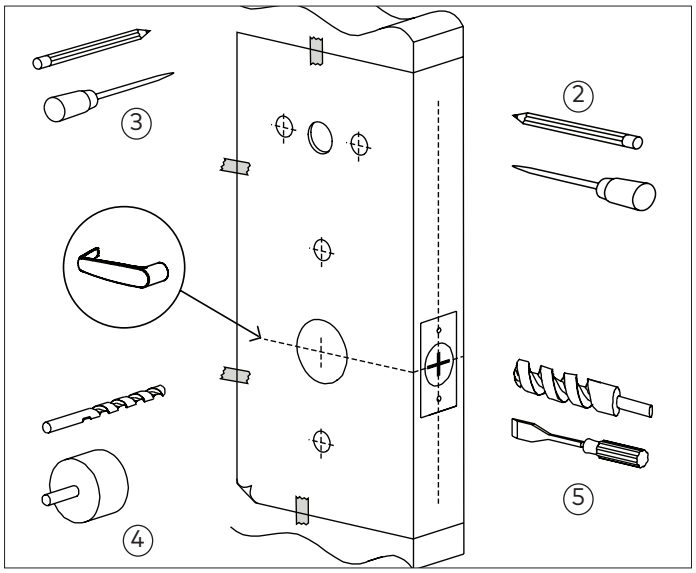
6. Install the latch using 1" Phillips mounting screws. Position the deadlocking pin (D) opposite to the closing direction as shown.

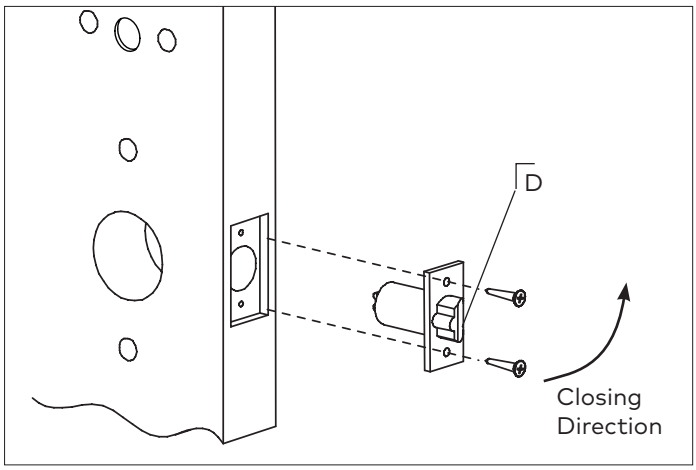
7. Install Strike and strike box.

**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 warranty.



# 4-B Installing Cylindrical Models 2-3/8"& 2-3/4" Backset

### 4-B.3 Install the Cylindrical Unit

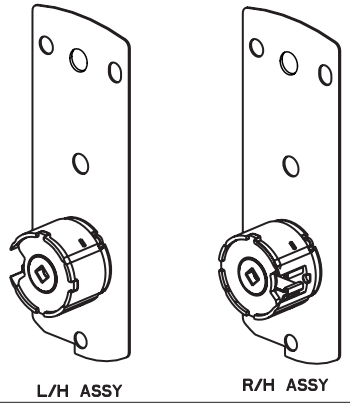
Depending on the kind of Spacers shipped with the lock assembled in the factory for 1 3/4" door thickness, choose door thickness Table 1 or door thickness Table 2 to prepare the attachment plate and cylindrical drive unit for the door thickness other than 1 3/4"

**IMPORTANT**

It is very important to assemble the spacers in position shown.

Fig.1

HANDING

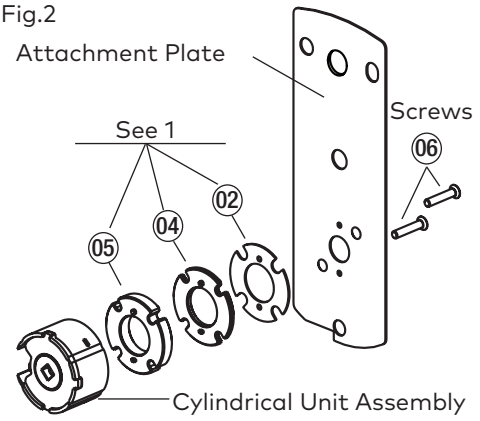



1. Lock with **3 DIFFERENT SPACERS** (see fig.2)
   The cylindrical Unit and Attachment Plate assembly is shipped assembled in the factory for 1 3/4" door thickness (44mm) with 2 spacers "04", 1 spacer "02" and 2 flat head screws "06" 5/8" LG (see fig.4).

Door Thickness Table 1

| Door Thickness | Spacer 02 | Spacer 04 | Spacer 05 | Screw 06 |
|---|---|---|---|---|
| 1-3/8" (35mm) up to 1-9/16" (40mm) | - | 1 | - | 3/8 (10mm) |
| Over 1-9/16" (40mm) to less than 1-11/16" (43mm) | - | 2 | - | 1/2 (13mm) |
| 1-3/4" (44mm)<br>1-11/16" (43mm) to less than 1-7/8" (48mm) | 1 | 2 | - | 5/8 (16mm) |
| 1-7/8" (48mm) to 1-15/16" (49mm) | 1 | - | 1 | 5/8 (16mm) |
| Over 1-15/16" (49mm) to less than 2-1/8" (54mm) | 2 | - | 1 | 3/4 (19mm) |
| 2-1/8" (54mm) to 2-3/16" (56mm) | - | 1 | 1 | 3/4 (19mm) |
| Over 2-3/16" (56mm) to 2-3/8" (60mm) | 2 | 1 | 1 | 7/8 (22mm) |
| Over 2-3/8" (60mm) to 2-1/2" (64mm) | - | - | 2 | 7/8 (22mm) |

Fig.2




2. Lock with **2 DIFFERENT SPACERS** (see fig.3)
   The cylindrical Unit and Attachment Plate assembly is shipped assembled in the factory for 1 3/4" door thickness (44mm) with 2 spacers "07", 1 spacer "08" and 2 flat head screws "06" 5/8" LG (see fig.4).

Door Thickness Table 2

| 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) |

Fig.3

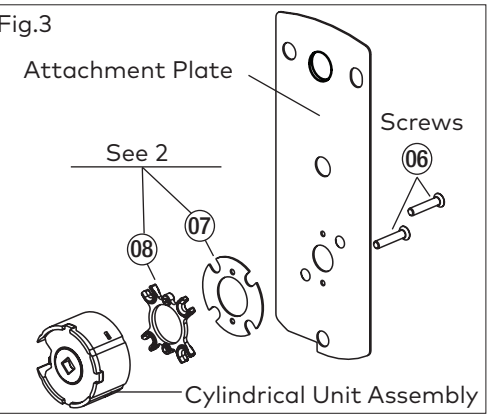
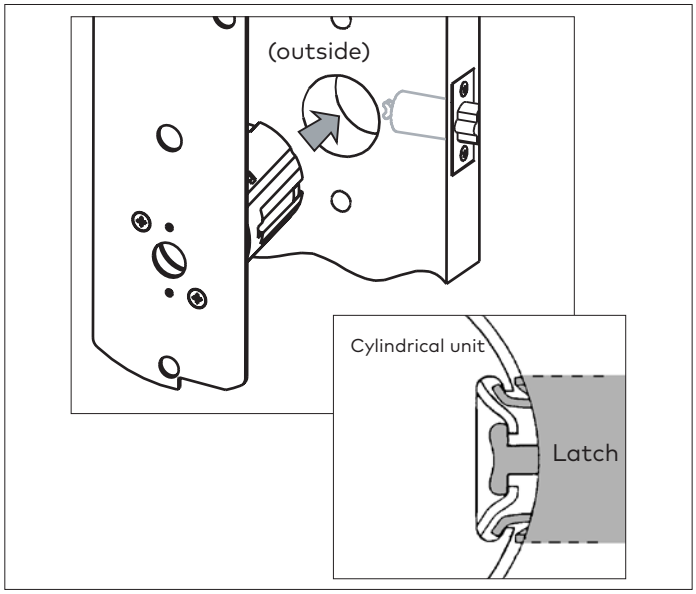



Fig. 4 Screw Length (Full Scale)

# 4-B Installing Cylindrical Models 2-3/8"& 2-3/4" Backset

### 4-B.3 Install the Cylindrical Unit (con't)

3. Insert the cylindrical unit from the outside of the door toward the inside, so that it engages the latch as shown. This operation is to be done at 4-B.5 step 4.

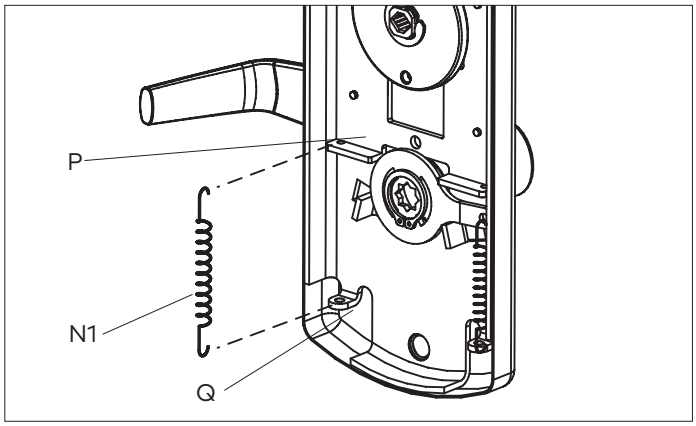



### 4-B.4 Inside Trim Assembly for Cylindrical

The inside trim assembly for cylindrical includes parts assembled at the factory to control the motion of the thumbturn, and an additional spring. The locking screw (V) is added for storeroom applications (no privacy)

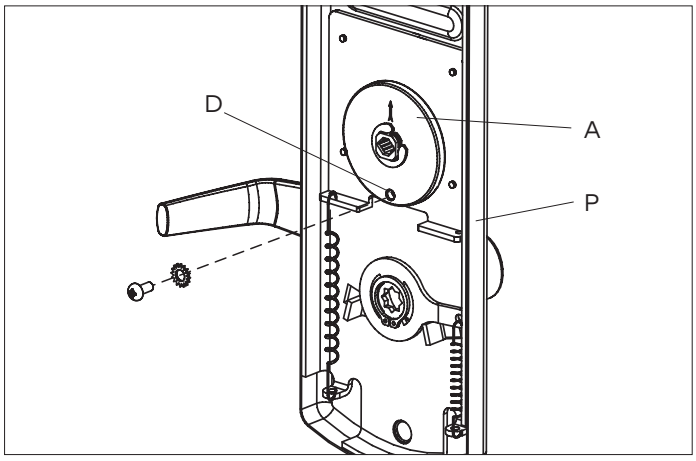
**Do the following BEFORE** placing the inside trim assembly on the door (page 20 step 5):

Install the additional tension spring (N) between the plate (P) and the post (Q), on the side opposite the lever handle spring installed in the last step.



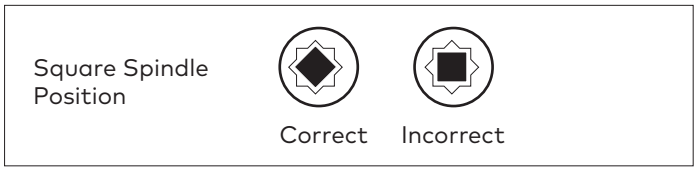

**Put the thumbturn in the vertical position** so that the arrow (A) on the disc points UP.

If installing as a Storeroom function lock, lift the plate (P) until the hole in the plate is aligned with the hole in the disc (D), and fasten the disc and the plate securely together with the screw (V) and lock nut (W) provided. The screw head MUST touch the surface of the disc for correct assembly.




### 4-B.5 Install Outside Housing and Trim Assembly for Cylindrical

1. Insert the slotted end of the square spindle (G) into the outside lever hub until it locks, at an angle of 45°. (The spindle can be removed by pulling on it, if oriented incorrectly.)

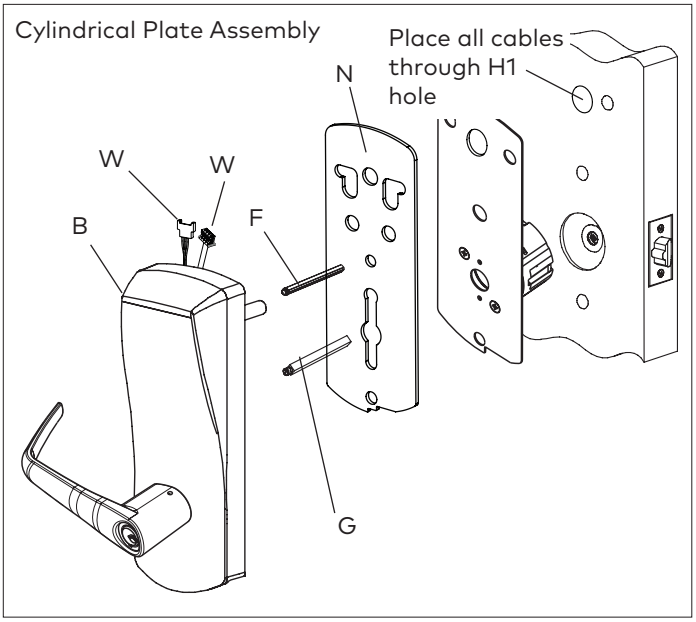



2. Insert the thumbturn spindle (F) in the upper hub of the outside housing. (It will clip in place.)

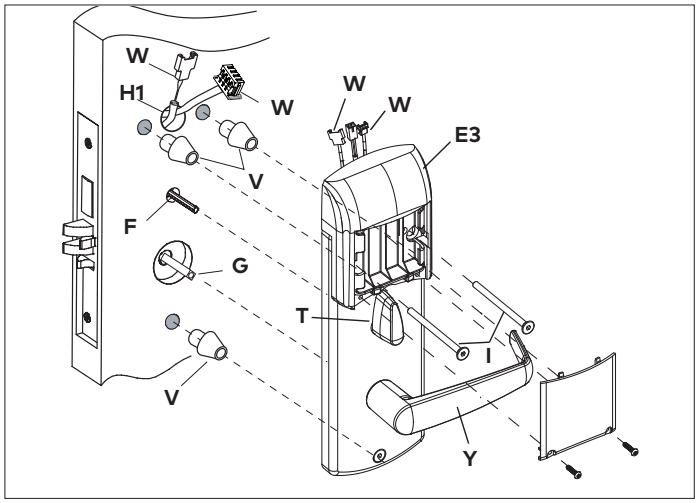
3. Assemble gasket onto the outside housing. Assemble cylindrical plate assembly onto the outside housing.

4. Place the outside housing on the door so that spindle (F) engages thumbturn hole and spindle(G) engage hub of cylindrical unit. The cylindrical unit will engage the latch as shown in step 2 of 4-B.3 (page 18). For 660i/790/RT/79M insert cables W1/W3/W5 when applicable in gasket &cylindrical plate assembly and in hole (H1) on the door.

# 4-B Installing Cylindrical Models 2-3/8"& 2-3/4" Backset




5. Put the thumbturn (T) in a vertical position. Assemble 3 spacers (S) on the door (for recent models only). Place the inside trim assembly on the door so that the upper and lower spindles (F) and (G) engage the thumbturn and the inside lever. Fasten to the outside housing using the three 1/8" hex drive mounting screws (I). Install the screws without tightening. Verify the inside lever and thumb-turn operates smoothly. If not move the inside and outside housings slightly. Then tighten the screws. Connect cables to corresponding connectors where applicable and put excess cables in hole (H) in the door when installing the inside trim assembly (E) on the door.

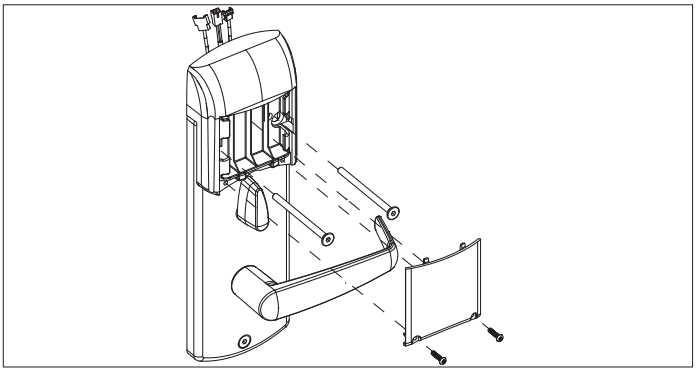



6. Insert the battery holder into the outside housing and secure it using the 6-32 x 5/16" (7.9mm) Torx drive screw (C2) for E-760/770/79/RT Series or 6-32 spanner drive screws for the 660 Series.

**IMPORTANT**

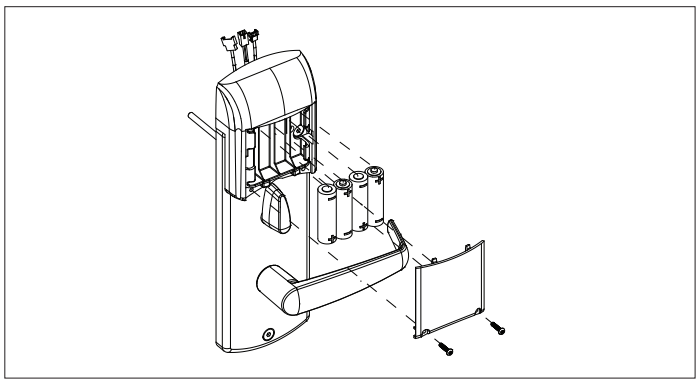
The battery holder shall be installed after connecting all wires to their corresponding connectors, otherwise there is a risk for battery drain.

For the E7900 lock series, follow indications stated in step 5 using the illustration below.



# 4-B Installing Cylindrical Models 2-3/8"& 2-3/4" Backset

For E7900, insert the 4 AA batteries supplied with the lock. afterwards insert battery cover and secure into place with supplied screws.



7. Testing the cylindrical lock: Follow all steps of page 22 and 23 but extension and retraction will be for latch only.

**IMPORTANT**

If the lock makes a continuous buzzing noise or the red LED lights continuously, reset the electronics by removing the battery holder for ten seconds, then reinsert it.

# 5 Lock Testing

for mechanical override, see Step 8 Page 28

**⚠ CAUTION**

Perform the following procedures in order, with the door OPEN unless otherwise indicated.

**Inside Lever:**

Turn the inside lever downward. The latch bolt retracts fully.

If the lever or the thumbturn feels tight (hard to turn or does not return easily to its horizontal position), check the alignment of the lock assemblies. Loosen the mounting screws and shift the inside trim assembly slightly until the friction is eliminated. If the problem persists check the position of the holes on the door (compared to the mortise).

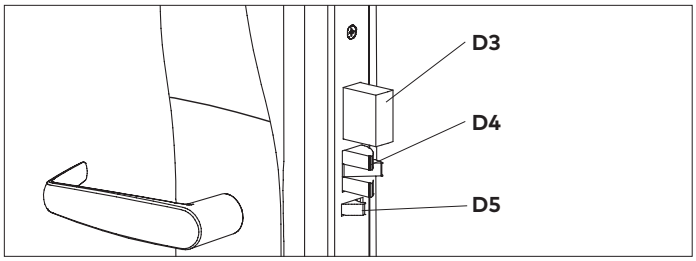
**Standard Deadbolt:**

Turn the thumbturn back and forth. The deadbolt extends and retracts fully and without undue friction.

Turn the thumbturn to extend the deadbolt again then turn the inside lever. The deadbolt and the latch bolt retract simultaneously and fully without undue friction.

**Optional Autodeadbolt:**

Press and hold the auxiliary bolt (D5). The deadbolt (D3) will extend. Keep the auxiliary bolt depressed, and turn the inside lever all the way down and hold it there. The latch (D4) and deadbolt retract together.




Release the auxiliary bolt (D5), then let the inside lever return to a horizontal position. The deadbolt will remain retracted while the latch will extend.

**Outside Lever:**

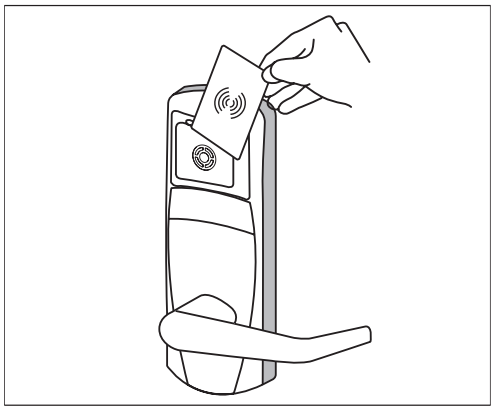
Turn the outside lever downward. The latch bolt does not retract.

If the latch bolt retracts, verify that the batteries are properly installed.

If the lever feels tight (hard to turn, or does not return easily to its horizontal position), ensure the square spindle is not too long.

Electronics and Card Reader:

Test the lock's response to keycards: a Test keycard, a Grand Master keycard, and an Emergency keycard by presenting them to the reader as shown below.



**A. Test the Lock Before Programming**

Normal Entry: Verify that the deadbolt is retracted. Use the Test keycard in the reader. The red and green LEDs each flash once and then the green LED flashes for four seconds. Present card to reader.

Turn the outside lever downward while the green LED is flashing. The latch retracts fully. Release the lever then turn it again after the LED stops flashing. The latch must not retract after the LED stops flashing without first inserting the keycard.

Privacy Switch: Turn the thumbturn to the horizontal position. (On autodeadbolt models, first extend the deadbolt by pressing the auxiliary latch (D5). On storeroom locks, skip this test.) Use the Test keycard in the reader but do not turn the lever. Instead of the normal sequence of indicator lights you should see the following: the red and green LEDs each flash once and then the green LED flashes once, followed by the red LED flashing continuously for four seconds. If you see the flashing green LED there is a problem with the privacy switch.

**B. Lock Programming**

Verify that the deadbolt is retracted, and use the Grand Master keycard with the reader. The green LED flashes for 4 seconds. Turn the outside lever downward while the green LED is flashing. The latch retracts fully. Release the lever then turn it again after the LED stops flashing. The latch must not retract after the LED stops flashing without first inserting the keycard.

# 5 Lock Testing

for mechanical override, see Step 8 Page 28

### C. Privacy Function: Lockout of Keycards

Turn the thumbturn to the horizontal position for privacy. (On autodeadbolt models press and hold the auxiliary latch (D5) to extend the deadbolt, then turn the thumbturn for privacy. On storeroom locks, skip this test.)

Use the Grand Master Keycard (not applicable on E7900). The red LED flashes once. Then turn the outside lever downward. The latch does not retract.

Important: For multihousing 79T, verify that you hear the motor while turning the thumbturn. If you don't, the lock is not programmed as 79T and must be re-programmed as 79T.

For multihousing 79M, verify that you don't hear the motor while activating the thumbturn. If you hear the motor the lock is programmed as 79T and must be re-programmed as 79M.

### D. Emergency Keycard Access: Deadbolt Override

Use the Emergency keycard with the reader. The red LED flashes for 4 seconds. Turn the outside lever downward while the red LED is flashing. The deadbolt and latch bolt retract simultaneously and fully.

While standing outside the room close the door and ensure that it is properly latched. Open the door using the Grand Master keycard using the same procedure.

### Deadbolt Deactivation:

### A. Deadbolt Deactivation by Thumbturn

While standing inside the room, close the door, and then turn the thumbturn to extend the deadbolt. (If the lock has an autodeadbolt mortise go to step B below).

Turn the thumbturn to retract the deadbolt. Repeat.

### B. Deadbolt Deactivation by Lever

While standing inside the room, close the door and turn the thumbturn to the horizontal position to extend the deadbolt (or to select privacy on autodeadbolt models). Open the door by turning the lever. The deadbolt and the latch bolt retract simultaneously and fully. Take note of any excess friction which might necessitate filing the strike (deadbolt area only). Repeat

# 6 Operating the Override

**IMPORTANT**

If the lock will not respond to any keycard (including the Emergency keycard), there are four options that should be attempted to open the door. In order, they are:

1. Check voltage of batteries, and replace them if they are providing less than 4 Volts. Use the Emergency keycard.

2. Use mechanical key override if locking system has one (see section 7, step 8).

3. Contact Technical Support for instructions on using the drill point.

# 7 Installation of Mechanical Override Models

**Parts and Tools List**

**NOTE:** For the purposes of Section 7 use the naming convention listed below in Parts and Tools List and Diagram of lock.

Tools Required:

Cylinder (J, provided with lock) or equivalent ( T ) Small flat screwdriver (less that 1/8")

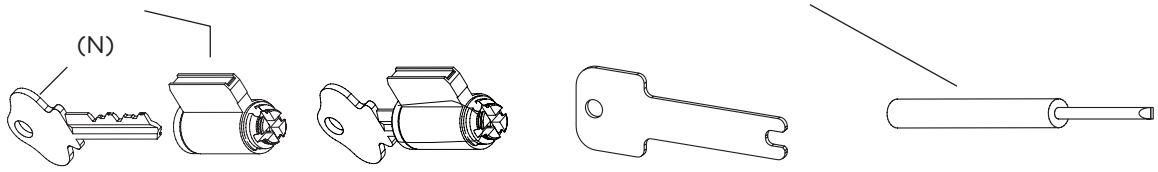
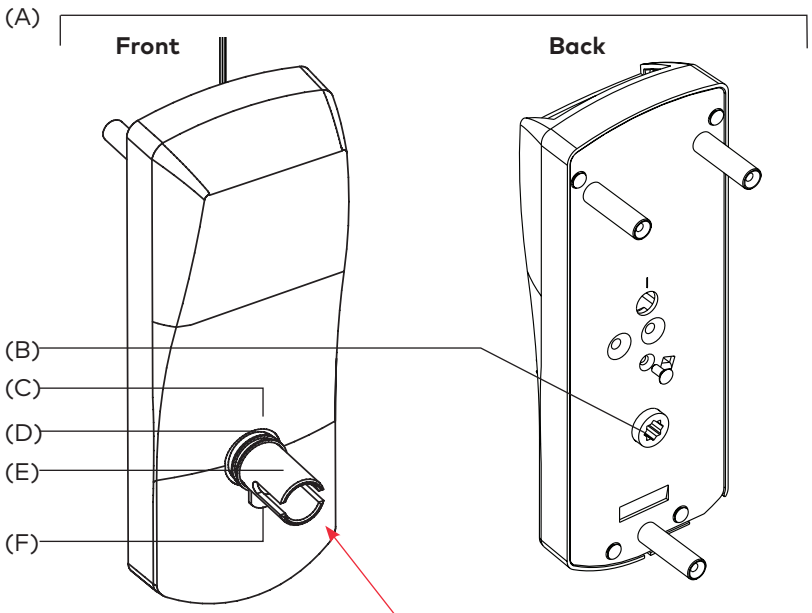
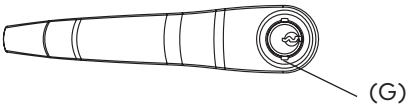
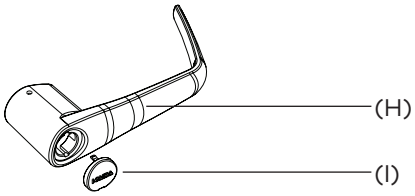



**Diagram of lock:**

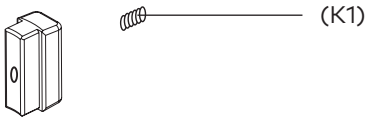
(A) Lock housing
(B) Inside drive hub
(C) Nylon washer
(D) Spring washer (not for lever feel)
(E) Drive tube
(F) Lever catch
(G) Countersink
(H) Lever handle
(I) Cap
(J) Cylinder
(K) Cylinder plug
(K1) Set Screw
(M) Allen Key
(O1) Adapter
(O2) Adapter & Screw
(L) Override shaft

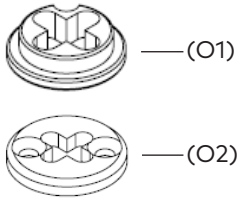


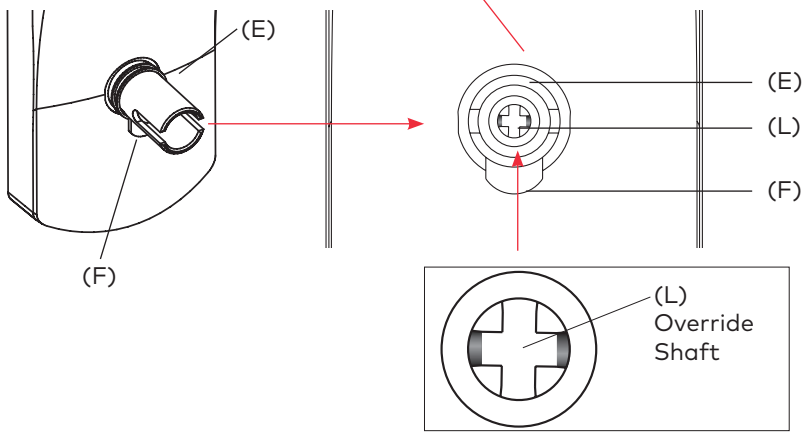






**Facing view of drive tube: (E)**



# 7 Installation of Mechanical Override Models

**1. Upon unpacking, the lock housing with mechanical override should look like the diagram below with:**

(M) The small indents on the cross of the override shaft in line Horizontally

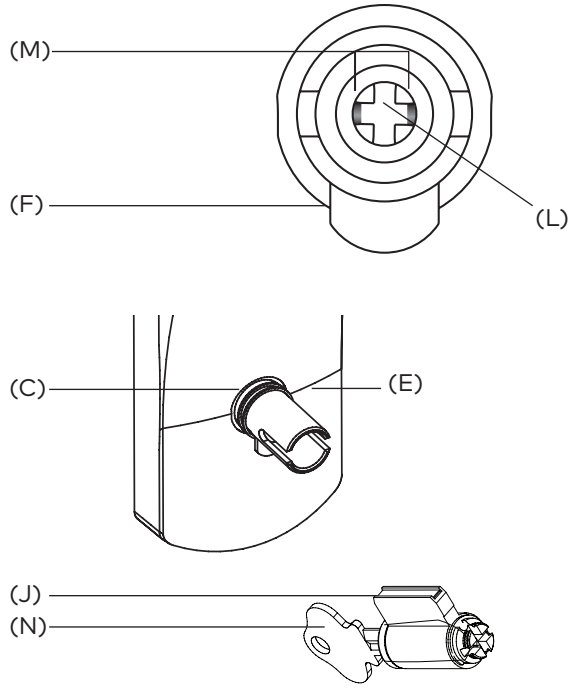
(C) The nylon washer and the spring washer (not for lever feel) on the drive tube

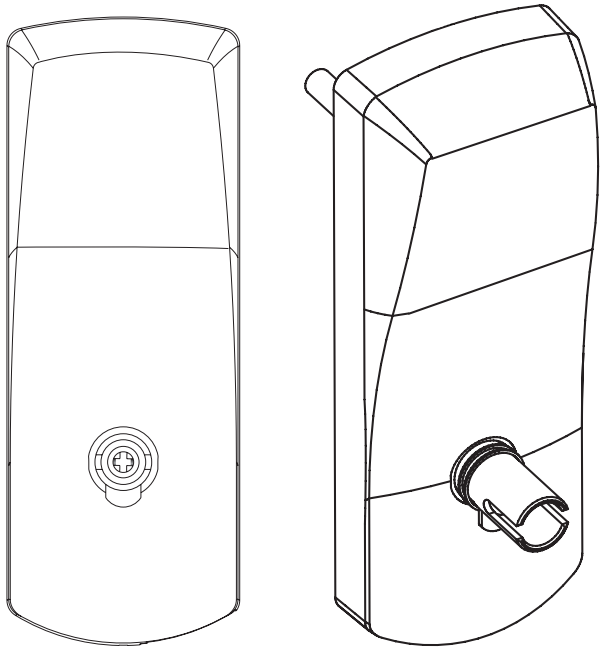
(F) The lever catch in the out position

(J) Cylinder and 2 keys for 660 K/C included in the hardware bag

**IMPORTANT**

Assemble the lever, cylinder and lock components before affixing the entire unit to the door.



**2. Preparing the outside housing for the installation of the lever handle**

1. Insert the cylinder (J) to be used as a tool or equivalent tool to rotate the override shaft (L) and turn it clockwise until it stops so that the two small indents (M) on the cross are now vertically in line. (Fig.1)

2. Push in the lever catch (F) firmly. (see Fig. 2) to be flush with drive tube diameter

Fig. 1

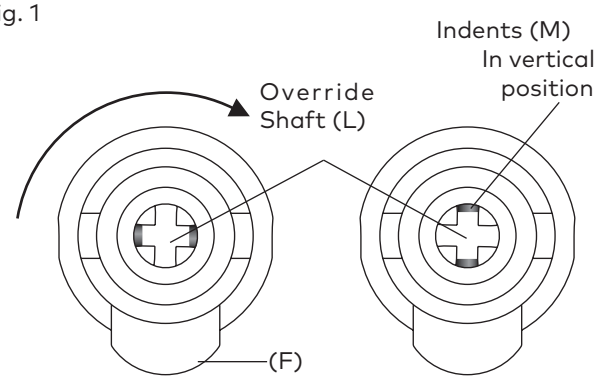
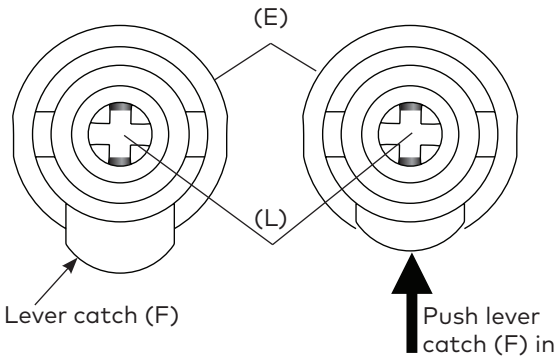



Fig. 2

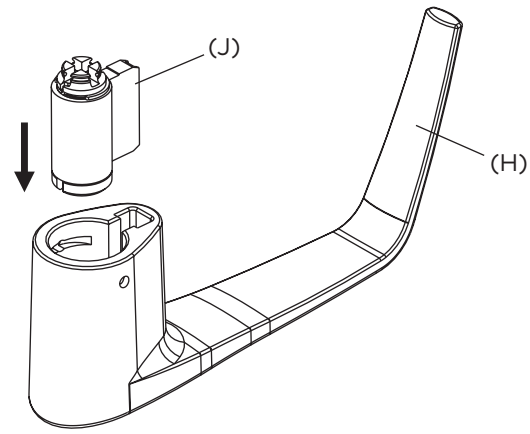


# 7 Installation of Mechanical Override Models

**3. Preparing the lever handle and cylinder for installation**

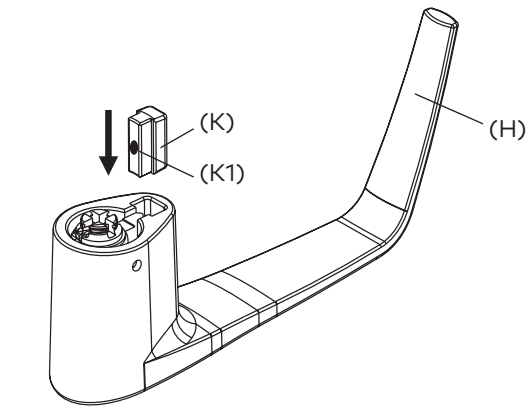
3. Insert the cylinder (J) without key (N) into the lever handle (H) (see Fig.3)

Fig. 3



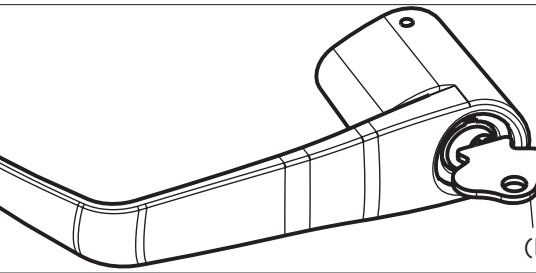

4. Insert plug (A) including Set Screw (K) into lever handle (H) (See fig.4)

Fig.4




5. Insert key (N) into cylinder (J). Hold plug (K) in position. (See Fig. 5).

Fig. 5




**⚠ CAUTION**

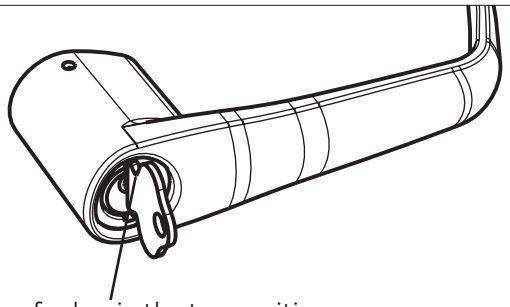
If the Lever is Not Assembled with the key in the position shown in Fig. 6 & Fig. 7, the inside mechanism of the lock could be damaged if the lever is rotated and forced.

**4. Steps to attach the lever handle to the lock housing**

**NOTE:** the position of the key is very important

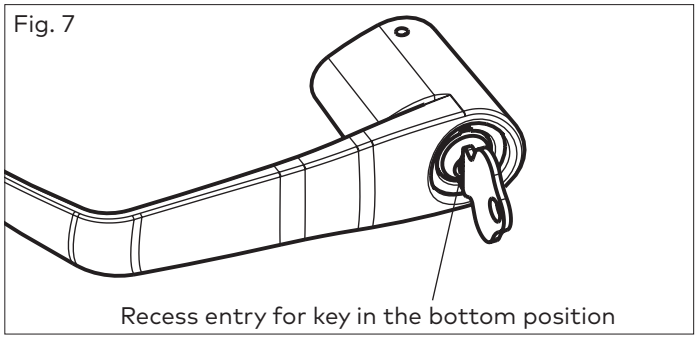
6. Right-handed Lever handle: Turn the key (N) approximately to 100° clockwise so that it is in the vertical position and the recess entry for key is in the top position. (See Fig. 6)

Fig. 6




Left-handed lever handle: Turn the key (N) approximately to 100° clockwise so that it is in the vertical position and the recess entry for key is in the bottom position. (See Fig. 7)

Fig. 7




**IMPORTANT**

The key (N) and the recess entry for key must be in the positions shown in Figs 6 & 7 before placing the lever handle on the housing or the lever and the override mechanism will not work.

**Troubleshooting:**

If you have assembled the lever and housing with the key (N) in the wrong position, the key (N) will get stuck. To remove the key (N), turn it so that it is in the vertical position and insert a small flat screwdriver (T) (see page 25) into the hole under the lever handle to push Lever Catch(F) in (see page 17 Fig.2). Remove lever, remove key. If it is still stuck, turn the key 90° clockwise to the horizontal position and push the Lever Catch (F) in again with the small screwdriver (T). Remove key (N).

# 7 Installation of Mechanical Override Models

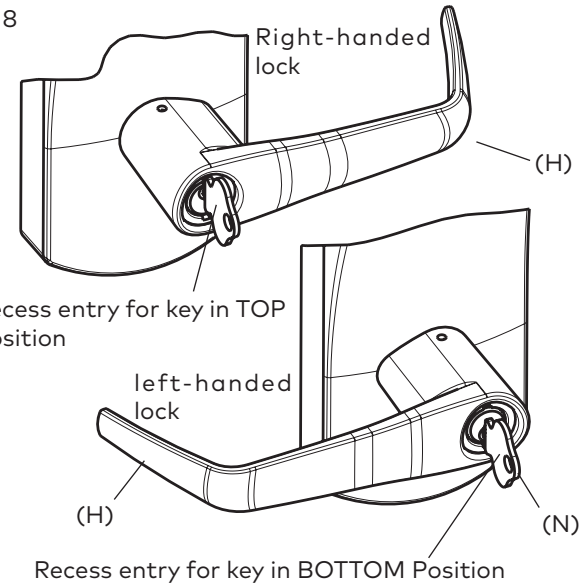
**5. Attaching the Lever Handle to the Lock (with the key as shown in Fig. 6 & Fig. 7)**

7. Fit the lever handle (H) onto the drive tube (E) see page 26. It should rest approximately 1/16" from the body of the housing. If not, wiggle and jiggle key (N) to align cylinder (J) with override shaft (L)(See Fig. 8)

If it can't be pushed that close to the housing, the lever catch (F) is probably not pushed in. Push it in. (see fig 2 page 26)

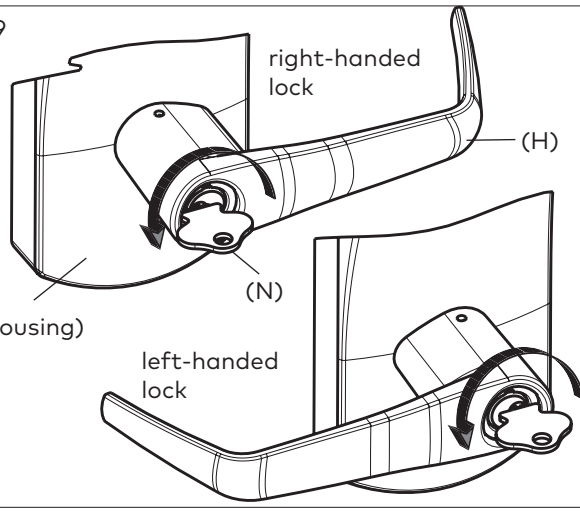
If the lever catch (F) is stuck, the override shaft (L) is in the wrong position. (see fig 2 page 26) The two small indents (M) on the cross of the override shaft (L) must be vertically aligned as in fig 2 page 26

Fig. 8




8. Press the lever (H) firmly against the housing while turning the key (N) counterclockwise **(this applies to both right-handed and left-handed locks)** until it is in the horizontal position. (Fig. 9)

Fig. 9



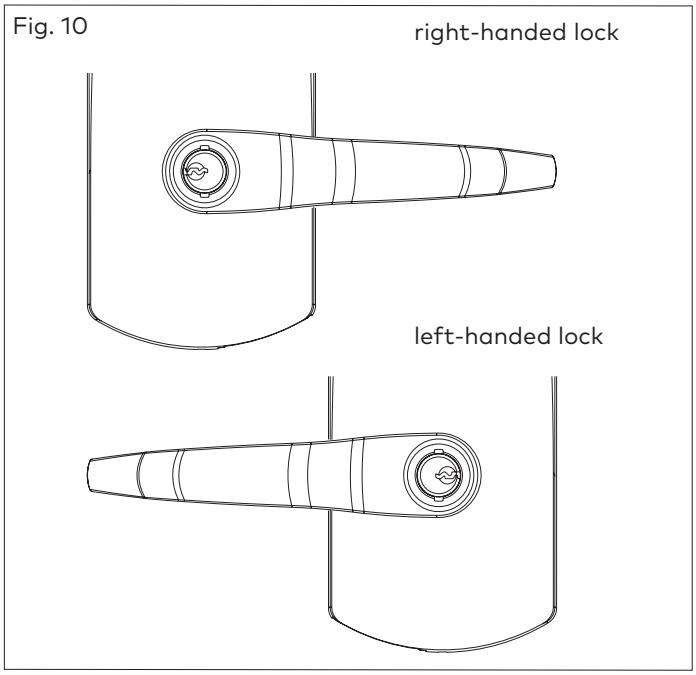

**IMPORTANT**

If it is not possible to turn the key (N) counter-clockwise to complete this step, the spring washer (D, see page 25) may be too tense: (Not for lever feel)

Hit the lever carefully with a rubber mallet to loosen the spring washer (D). (you may want to cover the lever handle (H) with a cloth or other material to protect the finish of the metal)

9. Remove the key (N). The lock will look as shown in Fig.10.

Fig. 10




**Gently** check the rotation of the lever handle (H). It should easily rotate approximately 45°.

**Troubleshooting:**

Right-handed Lock: Turn the lever handle (H) clockwise without forcing it. If it stops at approximately 15°,it was not assembled correctly as shown in step 4(Fig. 6 & 7). **Do not try to force it to turn.** Release the lever handle (H). Insert the small screwdriver (T, page 25) into the small hole on the underside of the lever handle (H) and push in the lever catch (F) see page 26 Re-do steps 2, 3, 4 & 5.

Left-handed Lock: Turn the lever handle (H) counter-clockwise without forcing. The drive hub (B) (Fig.12 page 29) should not rotate when the lever handle (H) is turned. If it does, it was not assembled correctly as shown in step 4 (Fig. 6 & 7). Release the lever handle (H). Insert the small screwdriver (T, page 25) into the small hole on the underside of the lever handle (H) and push in the lever catch (F). Re-do steps 2, 3, 4 & 5.

# 7 Installation of Mechanical Override Models

**6. Verify the attachment of the lever handle**

**IMPORTANT**

To verify that the lever handle has been correctly attached to the housing:

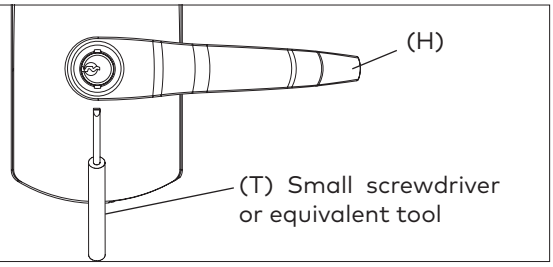
10. Remove key (N)

11. Insert a small flat screwdriver (tool T, page 25) into the hole on the underside of the lever handle (H) and push in the lever catch (F) see fig 10A.

12. Pull on the lever handle (H).

You should not be able to remove the lever handle (H). If it comes off of the housing, you did not assemble the lock correctly. Return to steps 2, 3, 4 & 5 and make sure that the lever (H) looks like Fig. 10 and repeat this verification process. (Step 6)

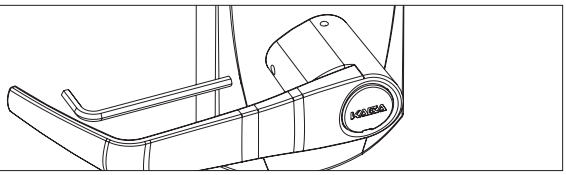
Fig. 10A




**6a. Adjust the lever feel**

If applicable, to reduce the lever play, using the 5/64 Allen key (P1), tighten the set screw (O1) while pushing the lever against the front housing. Make sure the lever rotates properly after tightening the set screw (O1) See fig 10B.

Fig. 10B

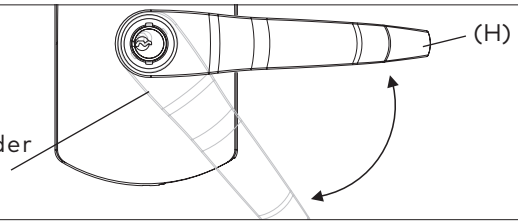


**7. Test the movement of the lever handle (remove the key (N) in cylinder (J))**

13. Turn the handle (H) clockwise (for a right-handed lock) or counter-clockwise (for a left-handed lock)

14. Release the handle (H) slowly. It should return freely to its horizontal position. (Fig.11)

Fig. 11



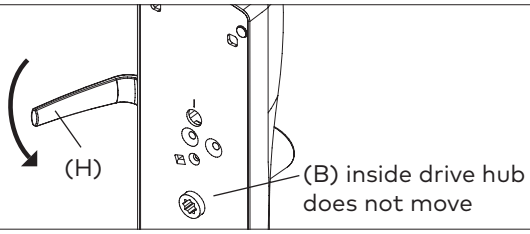

**8. Test the mechanical override function (Complete all tests in Section 5, pages 22 & 23 after lock is assembled on the door)**

**IMPORTANT**

This test can only be performed when the lock is not affixed to the door.

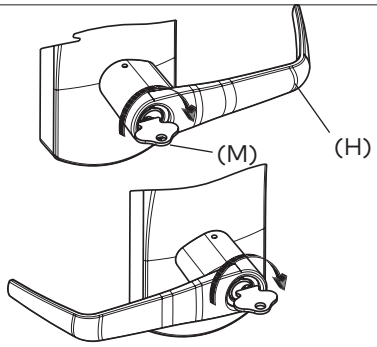
15. Without using the key (N), turn the lever handle (H) clockwise (for Right-handed locks) or counter-clockwise (for Left-handed locks). The inside drive hub (B) should not rotate when the handle (H) turns. (Fig. 12)

Fig. 12



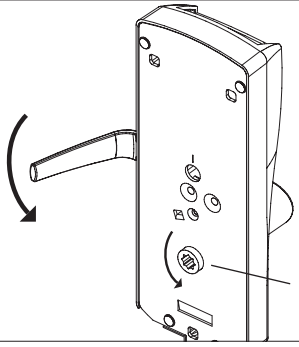

16. With the lever handle (H) in the horizontal position, insert the key (N) into the cylinder (J) and turn it clockwise **until it stops.** (This applies to both Right and Left-handed locks, see Fig.13)

Fig. 13




17. Let go of the key (N), and again turn the lever handle (H) clockwise (for Right-handed locks) or counter-clockwise (for Left-handed locks). Now the inside drive hub (B) should rotate in the same direction as the lever handle (H) when it is turned. (Fig. 14)

Fig. 14



# 7 Installation of Mechanical Override Models

**Test the Mechanical Override Function (continued)**

**IMPORTANT**

Verify the functionality of the override after the lock is installed on the door: (Door must be opened)

18. With the door open, insert key (N) in cylinder (J) and turn it clockwise **until it stops.**

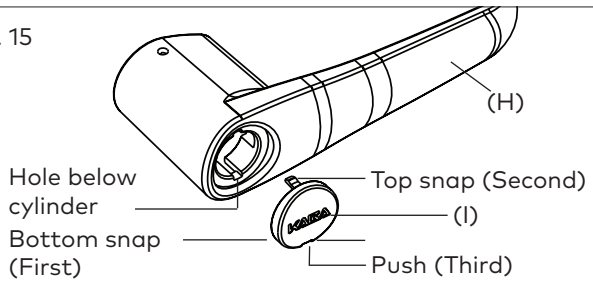
19. Let go of the key (N) and turn the lever handle (H) (clockwise for right-handed and counter-clockwise for left-handed locks). **The latch must retract.**

20. Extend deadbolt and repeat the above operation (turn key (N) clockwise until it stops), latch and deadbolt must retract completely.

**9. cover the keyhole & cylinder with the cap**

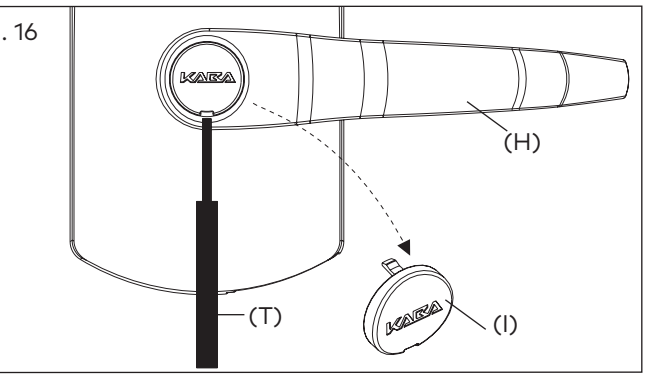
21. The cap (I) has a small groove on one edge (to allow ease of removal) this should be facing down. Insert bottom snap of cap (I), (see page 25) in handle hole below the cylinder (J). With a small screwdriver, push top snap of cap down while pushing the cap (I) into place to cover the keyhole (Fig. 15)

Fig. 15




22. To remove the cap (I), insert a small flat screwdriver into the groove and gently pry the cap off, being careful not to damage it. (You may want to cover the bottom of the lever to protect the finish from being scratched through the process of removing the cap). (Fig.16)

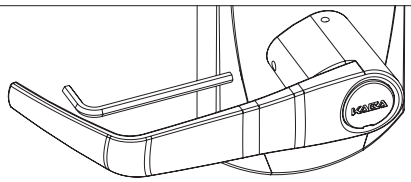
Fig. 16




**10. How to change lock cylinders**

22a. Loosen the set screw (01) to free the lever using Allen Key (P1) (Approx. 1/4 turn).

Fig. 16A



23. Remove the cap (I) from the lever handle (H) (see step 23, Fig. 16).

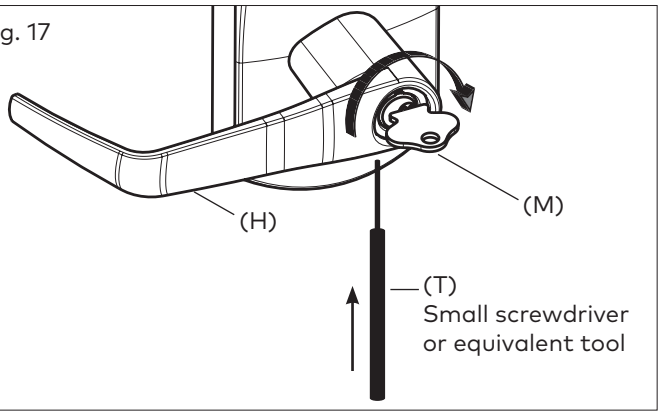
24. Insert key (N).

25. Turn the key (N) clockwise until it stops.

26. Release key (N).

27. Use a small flat screwdriver to push in the lever catch (F) through the small hole underneath the lever handle (H) (Fig. 17).

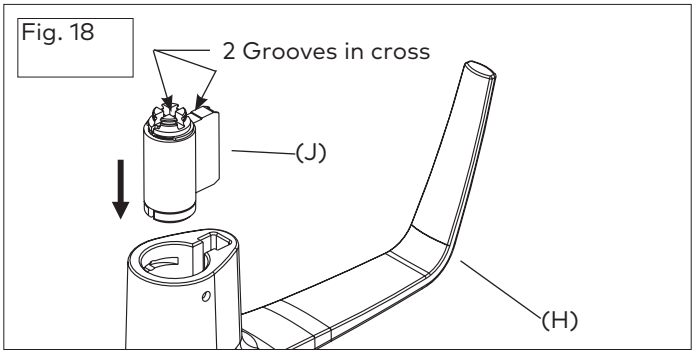
Fig. 17




28. Pull the lever handle (H) off of the lock housing (be careful not to lose the cylinder plug (K) see page 25).

29. Replace the old cylinder with the new one in the lever handle (H). Only same kind of cylinder with 2 grooves in cross, in the end of the cylinder plug could be used on the locks. (Fig. 18)

Fig. 18

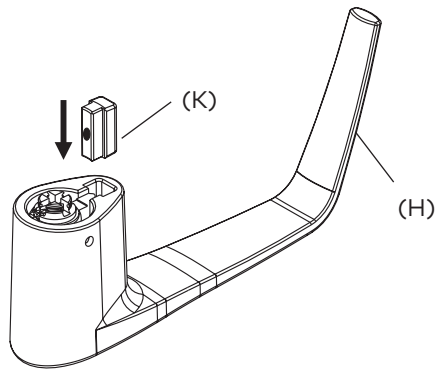


# 7 Installation of Mechanical Override Models

**How to change lock cylinders (continued)**

30. Re-insert the cylinder plug (K) (Fig. 19)

Fig. 19

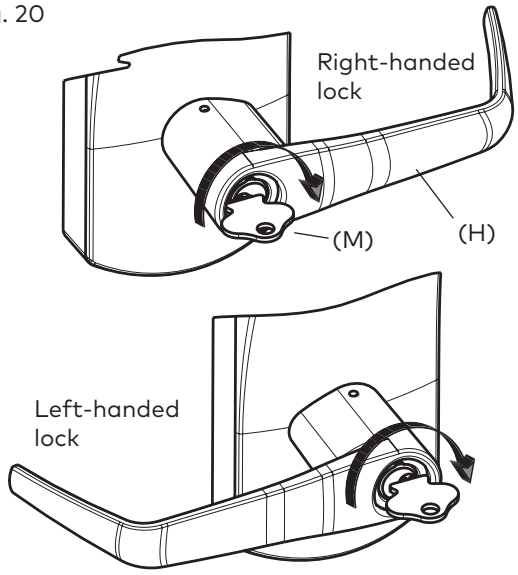



31. While holding the cylinder (J) and plug (K) in place, insert the key (M)

32. Turn the key (M) approximately 100° clockwise

33. Repeat the steps 1 to 9 to attach the lever handle (H) to the lock housing. (see Fig. 20)

Fig. 20




Resetting the E7900 locks with MKO - Refer to command card kit or appropriate software user guide.

Two additional adapters are provided for use with other key in lever style cylinders.

**IMPORTANT**

The Key Override itself does not retract the latch or deadbolt. Do not use too much force when turning the key as this may damage the unit. To retract the latch, turn the key clockwise until it stops, release the key and turn the lever handle (H).

**Note:** The lever handle must stay in the horizontal position when turning the key (do not try to turn the key while turning the handle) or the override mechanism will not work.

**IMPORTANT**

Always keep the door open while installing and verifying the functionality of the lock with the keycard or key override. Do not close the door until you are certain that you have installed the unit correctly.

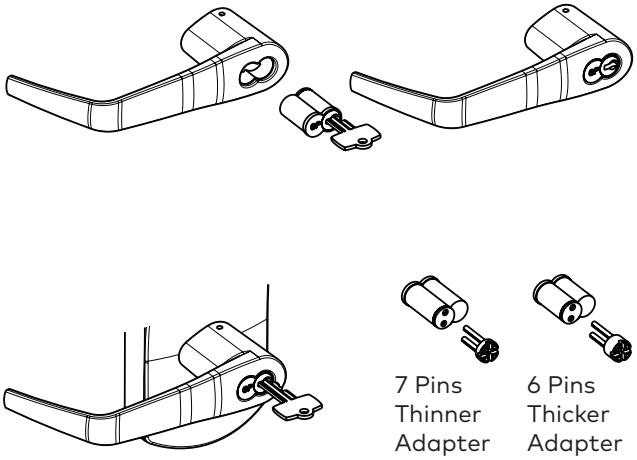
**Preparing the lever handle for Best Removable Core**

**F-5** Insert 6-pin Best adapter (thicker) into 6-pin interchangeable core or insert 7-pin Best adapter (thinner) into 7-pin interchangeable core. Insert the adapter until it makes contact with the removable core.

**F-6** Using the control key, assemble the removable core with its adapter into the lever. Remove control key.

**F-7** Insert the change key into the removable core.

Follow the rest of instructions from step 3 to 5 of page 27



# 7 Installation of Mechanical Override Models

**11. The Recodable Cylinder with 3 different keys (for E-760/770/79/RT Series with override only)**

**IMPORTANT**

Read the following instructions before using any of the 3 keys supplied

The E-760/770/79 Series/RT with a recodable cylinder can be operated with three different keys. The keys are numbered 1, 2 & 3, and each key is labeled and supplied in a separate plastic bag. It is very important to use them in order.

**Always read the label instructions on the label before using a key.**

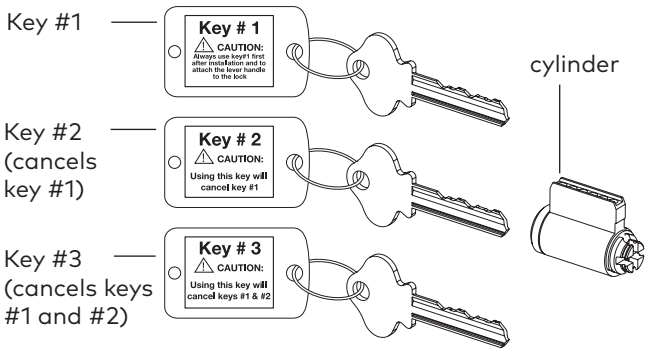
**⚠ CAUTION**

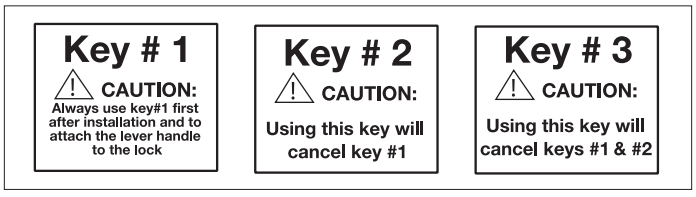
The use of key #2 automatically cancels the function of key #1, and the use of key #3 automatically cancels both keys #1 and #2.

If key #3 is used first, it will immediately make keys #1 and #2 unusable.

**Once a key is cancelled, it can't be reactivated unless the cylinder itself is re-pinned.**

Fig. 21



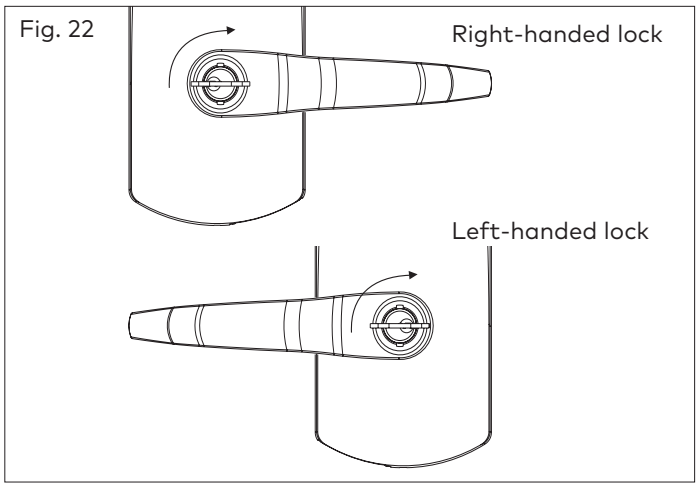




How to change lock combination from key #1 to key #2:

34. Insert key #2 into cylinder.

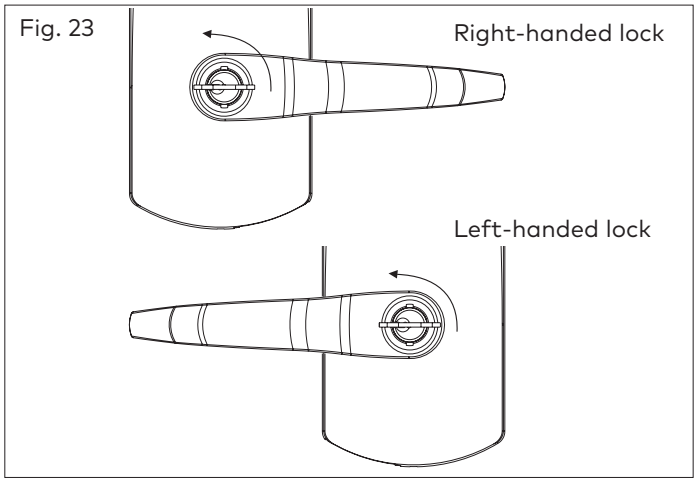
35. Turn the key clockwise until it stops (see Fig. 22) for both left-handed and right-handed locks.

Fig. 22




36. Turn the key back counter-clockwise until it is in the horizontal position.

Fig. 23




37. Remove the key.

Now the lock should work with key #2, and key #1 has been cancelled.

**TEST:** Try to use key #1 in the lock. It should no longer work.

How to change lock combination from key #2 to key #3

38. Insert key #3 into cylinder.

39. Turn the key clockwise until it stops.

40. Turn the key back counter-clockwise until it is in the horizontal position.

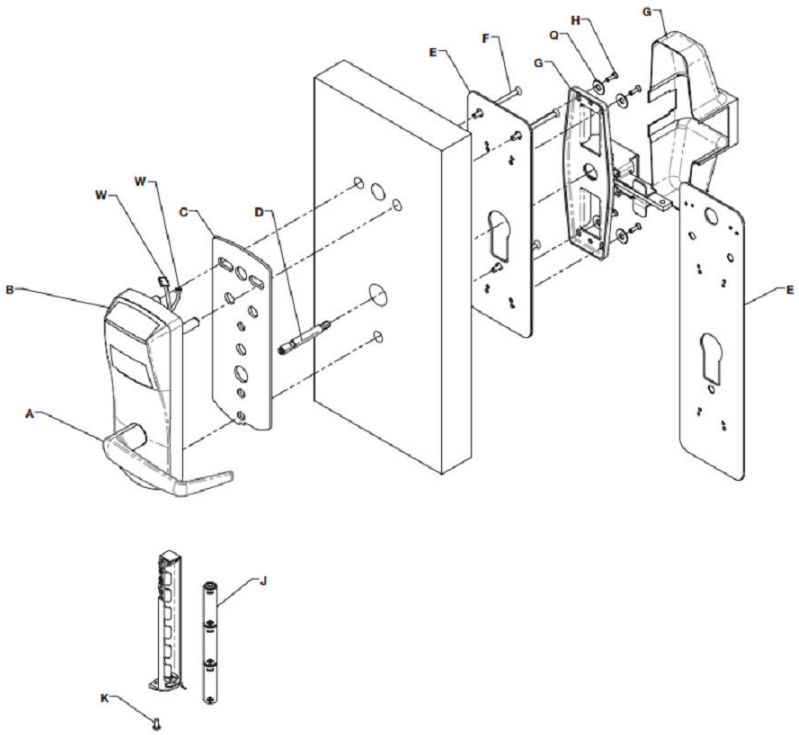
41. Remove the key.

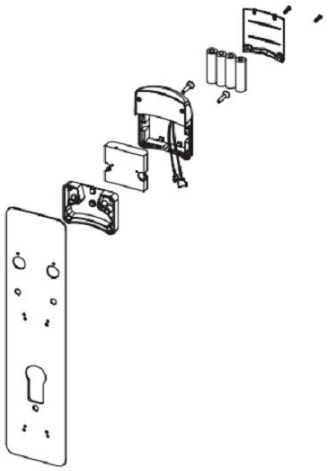
Now the lock should work with key #3, and key #2 has been cancelled.

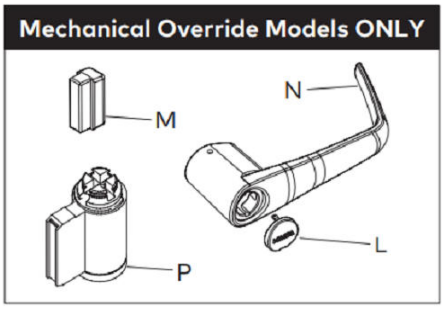
**TEST:** Try to use key #2 in the lock. It should no longer work.

# 8 Exit Device Operators (E7900)

## 8.1 Checklist






** Dorma 9100/9300/9400/9500 Series are Panic Hardware only (not fire rated)
Dorma F9100/F9300/F9400/F9500 Series are Fire Rated Hardware

### Each lockset for E7900 includes:

(A) Outside lever handle
(B) Outside housing
(C) Gasket (when required)
(G) Exit Device (Included if ordered with lock operator)
(J) Battery holder with 3 AA batteries

### Parts inside hardware bag:

(D) 1 x Spindle except for the following Exit Device which have 3: Detex F10, Dorma F9300 and Precision21/22/ FL21/FL22
(E) 1 x Inside Adaptor Plate
(F) 3 x Mounting Screw 12-24 1/8" Hex
(H) 2 x Pan Head Screws 1/4" 28 X 3/4" for Yale
2 or 4 Pan Head Screws 10-24 X 3/4" for Detex, Dorma, Von Duprin or 4 Flat Head screw 10-24 X 5/8" for Precision, Arrow
(K) 1 x Spanner-head Screw
(Q) 2 or 4 Flat Washer ½ OD for Detex Exit Device Only

### Mechanical Override Models ONLY:

(L) Cylinder Cap
(M) Cylinder Plug
(N) Outside Lever Handle
(O1) Adapter
(O2) Adapter & Screw
(P) Cylinder (for 630 series lock with cylinders keyed different ONLY)

### E7900 Messeger includes:

(S) Battery/Antenna enclosure with spacer.
(T1) 2x Flat Head Screws 8-32 X ¾''
(T2) 2x Flat Head Screws 8-32 X 1 1/8''
(P) Cylinder (for 630 series lock with cylinders keyed different ONLY)

### Tools Required:

Safety glasses
5/16" (7.9mm) drill bit
½" (13mm) drill bit
1" (25mm) drill bit
Drill
Awl or center punch
Hammer
Rubber mallet
Small flat screwdriver
Philips #2 screwdriver
Spanner screwdriver (No 6)
1/8" Allen key
Adjustable square
Tape measure
Pencil
Tape
Cleaning supplies
(drop cloth, vacuum)

# 8.2 Introduction and disclaimers

**IMPORTANT**

Please read and follow all directions carefully. 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, that may arise.

**⚠ WARNING**

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.

**⚠ CAUTION**

Wear safety glasses when making the holes.

# 8.3 Prepare the door for the appropriate exit device

1) Choose from the DT kit the drilling template of the lock for the exit device to be assembled on the door.
2) Mark the desired handle height on the edge of the door. (see Fig.1)
3) Mark the backset vertical line on each side of the door. Consult the exit device manufacturer's instructions for the correct backset. The backset shown on the paper template is for reference only. use exit device backset.

**IMPORTANT**

Respect all applicable building codes regarding the handle height of the lock and positioning of the bar.

4) Position the drilling template (attached in this booklet) on the inside of the door aligning the door handle height mark and backset vertical line mark with the lines on the template. Mark the door for the holes position.
5) Drill holes to diameters specified on the drilling templates.

**Drill the holes in the door required for the exit device according to the manufacturer's instructions.**

**IMPORTANT**

Drill from both sides of the door to prevent unsightly damage. Refer to template for drill size and depths

**Fig. 1**

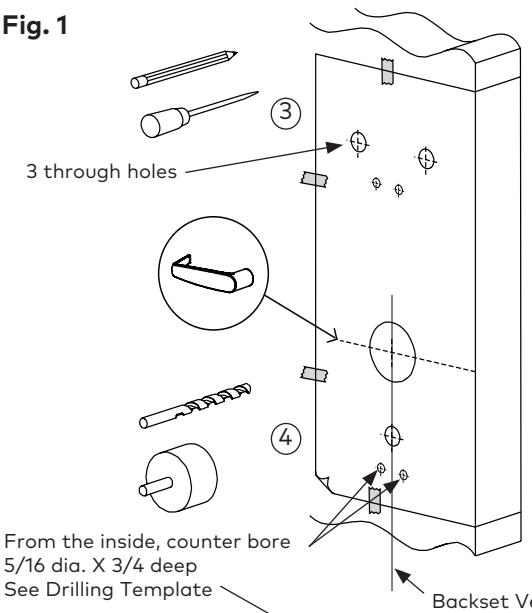
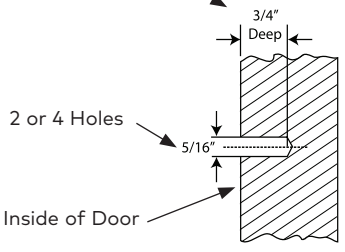



**Fig. 2**

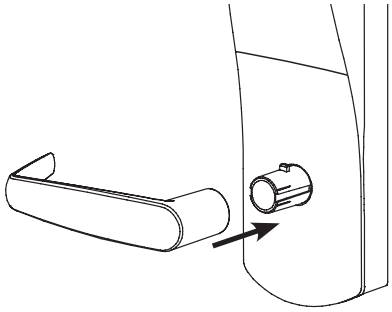


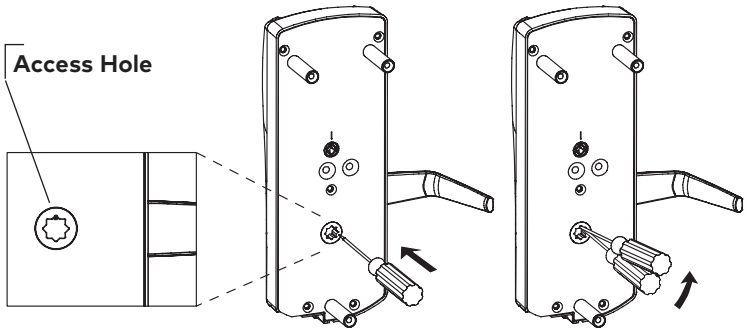
# 8.4 Install the lock and the exit device

## 1 Install the Mortise (if applicable)

**For mortise exit devices, install the mortise according to the manufacturer's instructions.**

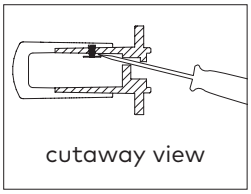
## 2 Install the Outside Lever






**A** Assemble the lever on the outside housing, in the horizontal rest position appropriate to the handing of the door as shown. Simply push the lever onto the tube **until it clicks in place.** If more force is required to engage the handle, use a rubber mallet. Test the attachment of the handle by pulling smartly on it.

**B** The lever is field reversible. If the handing is incorrect, insert a small pick or flat screwdriver in the hole in the hub as shown. Gently pry back the spring clip inside the hub, and remove the handle.




*** For Mechanical Override Models refer to page** 41**.**

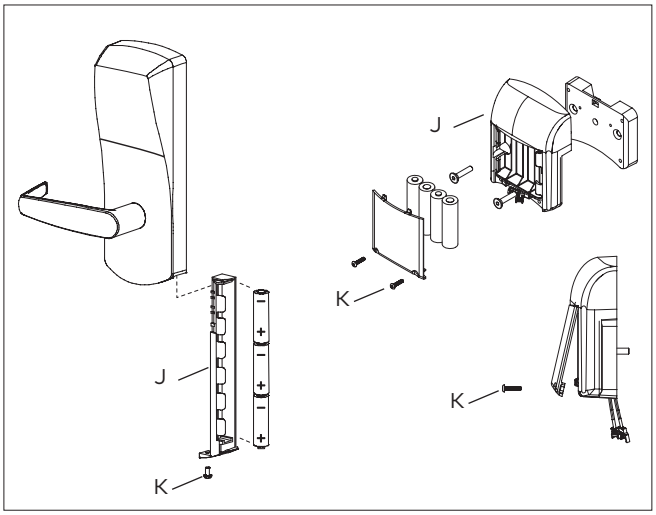
## 3 Install the Batteries

Three AA batteries should already be installed in the battery holder (J). Insert the battery holder into the outside housing and secure it using the 6-32 X 3/8" spanner drive screw (K).

For de E7900 series lock, insert the 4 AA batteries into the battery holder (J). Insert the battery holder into the enclosure and secure it using the supplied screw (K).

**IMPORTANT**

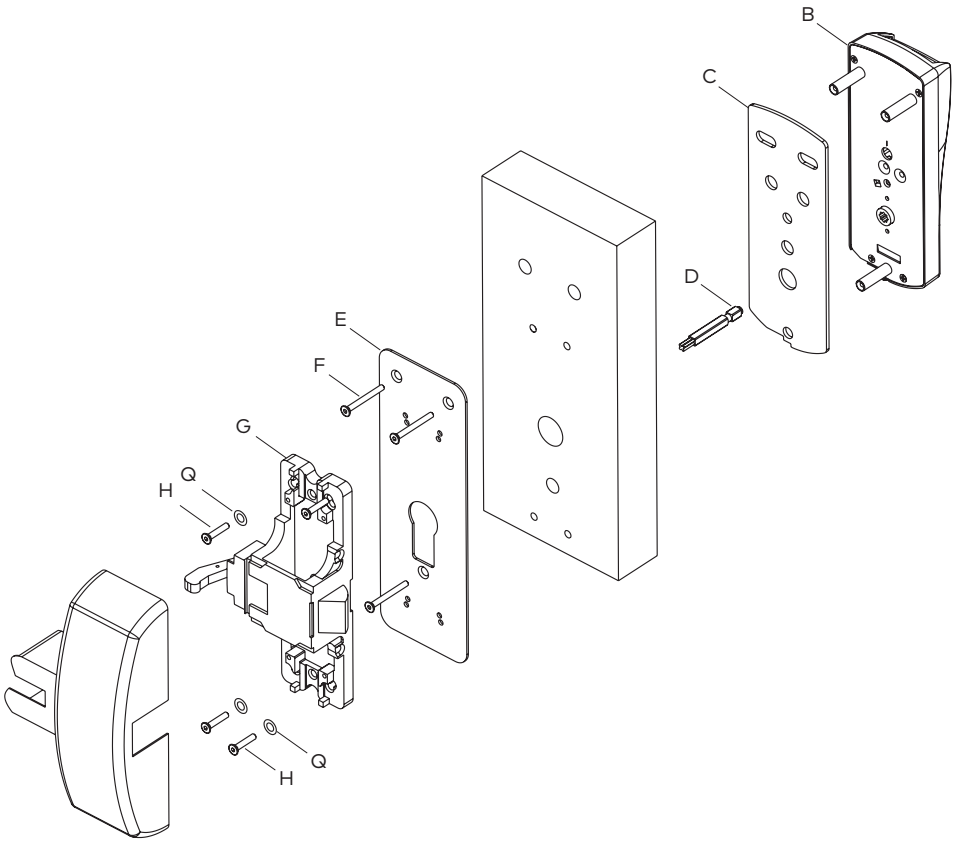
If the lock makes a continuous buzzing noise or the red LED lights continuously, reset the electronics by removing the battery holder for ten seconds, then reinsert it.



# 8.4 **Install the lock and the exit device** (Continued)

## **4** Install Lock & Exit Device on the door

**Fig. 3**




4.1 Insert the **slotted** end of the spindle (D) into the outside housing until it locks, at the correct position for the exit device (see the document named '' spindle position''). The spindle can be removed by pulling on it, and re-inserted if oriented incorrectly. Choose a spindle that engages by 1/8" minimum in the exit device chassis and that it is not too long to bottom-out against the exit device mechanism to jam the lock assembly, once it is tightened down.

4.2 Place the outside housing (B) on the door. (with gasket (C) if required)

4.3 Attach Adaptor Plate (E) to the lock (B) using 3 Flat Head screw (F)(12-24nc).

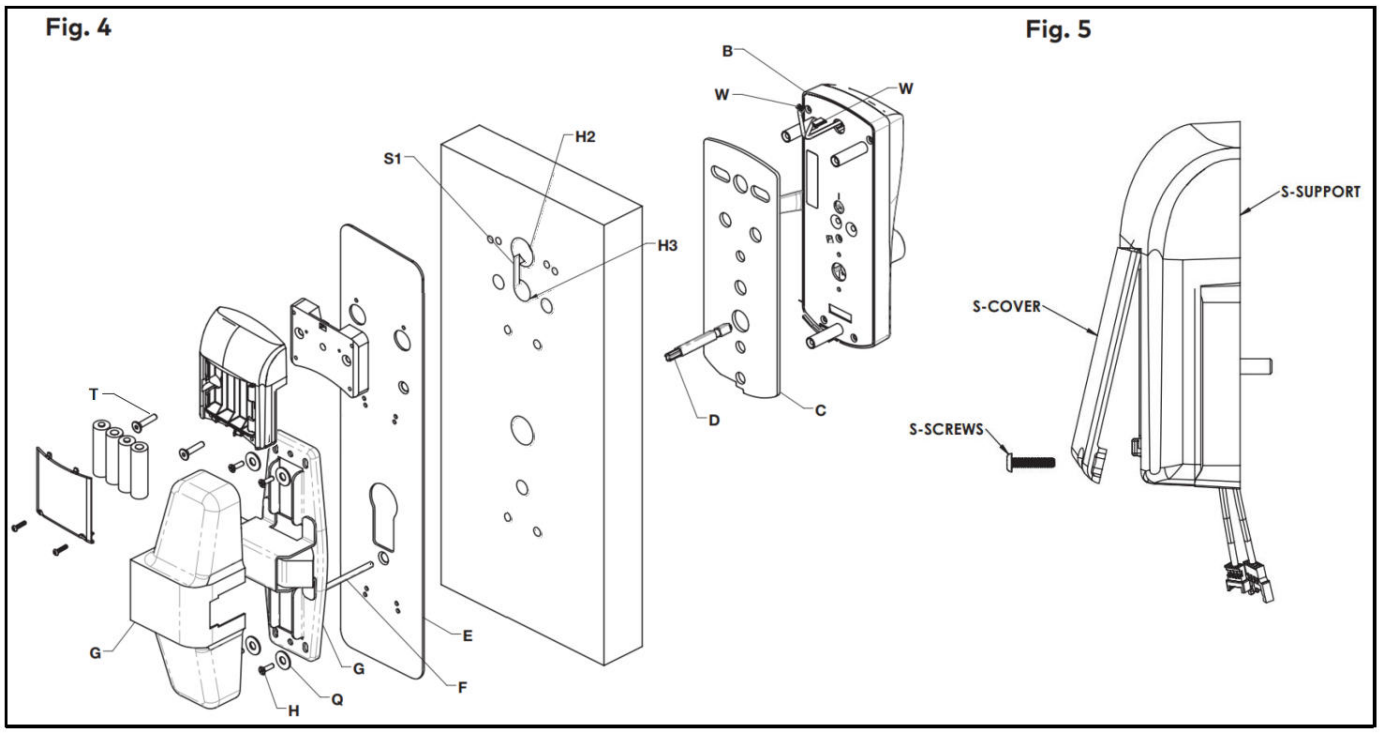
4.4 Attach the Exit Device chassis (G) to the Adaptor Plate (E) using 2 screws or 4 screws (H) depending on the Exit Device. For **Detex only**, use 2 or 4 Flat washers (Q).

4.5 Make sure the lock and the Exit Device are well aligned and then tighten screws.

4.6 Follow the manufacturer's instructions to complete the installation of the exit device and the appropriate strike.

# 8.4 Install the lock and the exit device (Continued)

## 5 Install Lock & Exit Device with E7900 on the door




5.1 Insert the **slotted** end of the spindle (D) into the outside housing until it locks, at the correct position for the exit device (see the document named '' spindle position''). The spindle can be removed by pulling on it, and re-inserted if oriented incorrectly. Choose a spindle that engages by ⅛" minimum in the exit device chassis and that it is not too long to bottom-out against the exit device mechanism to jam the lock assembly, once it is tightened down.

5.2 Pass wires (W) through the gasket (C) and the hole (H3). For the hollow doors, the wires shall pass inside the door to come out from the hole (H2).

5.3 Place the outside housing (B) on the door. (with gasket (C) if required)

5.4 Attach adaptor plate (E) to the lock (B) using 3 flat head screw (F) (12-24unc) (for solid doors, make sure that the wires are in the slot (S1)).

5.5 Attach the Exit Device chassis (G) to the Adaptor Plate (E) using 2 screws or 4 screws (H) depending on the Exit Device. For **Detex only**, use 2 or 4 Flat washers (Q)

5.6 Make sure the lock and the Exit Device are well aligned and then tighten screws.

5.7 Connect wires (W) to corresponding connectors and put the excess cables and connectors in the hole (H2) on the door.

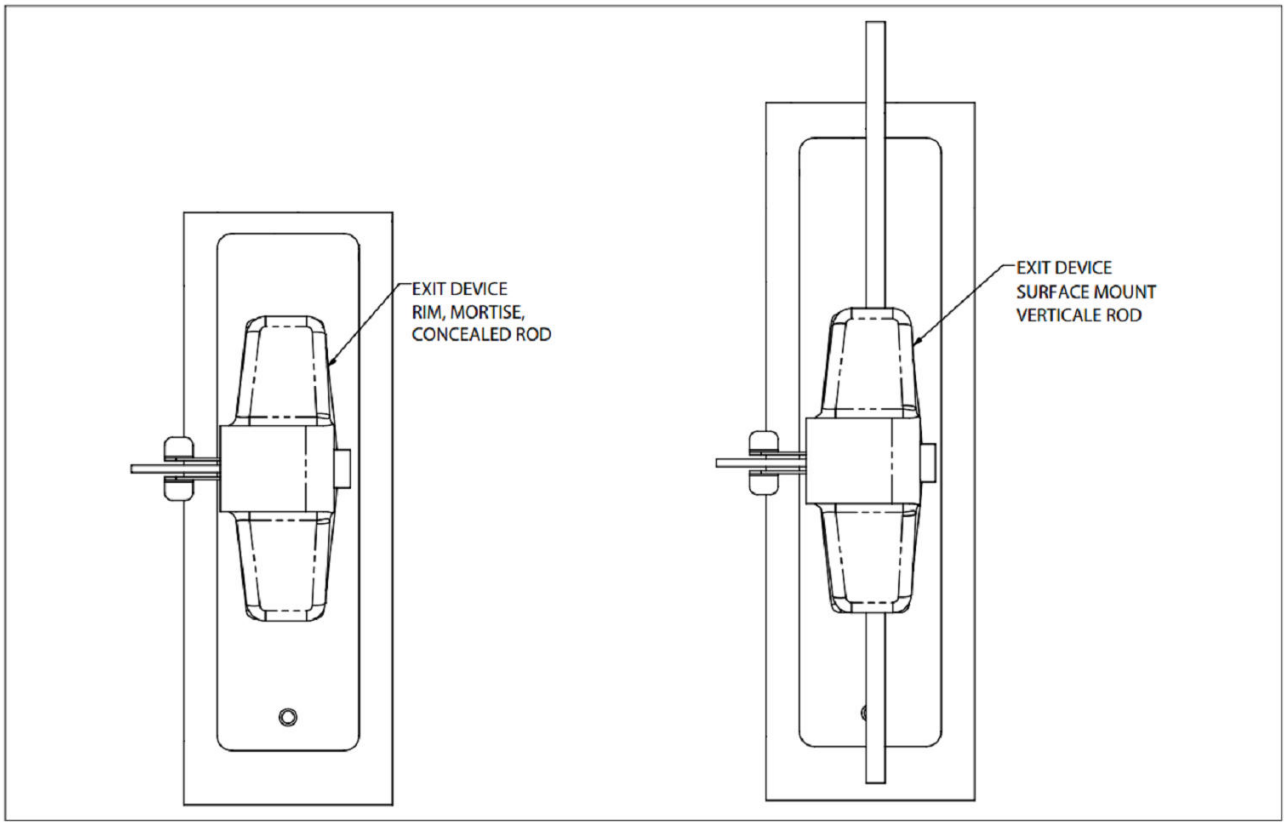
5.8 Install S-support with screws T in the adaptor plate

5.9 Put the cover s-cover as shown on fig.5, and put the screw s-screw.

5.10 Follow the manufacturer's instructions to complete the installation of the exit device and the appropriate strike.

# 8.4 Install the lock and the exit device (Continued)

**5** Install Lock & Exit Device with Messenger/Bluetooth on the door (continued)



# 8.5 Test the operation of the lock

**⚠ CAUTION**

Perform the following procedures in order, with the door OPEN unless otherwise indicated.

## 1 Panic Bar

Activate the panic bar. The latch bolt or rod retracts fully.

## 2 Outside Lever

Turn the outside lever downward. The latch bolt or rod does not retract.

**If the latch bolt or rod retracts**, verify that the batteries are properly installed.

**If the lever feels tight** (hard to turn, or does not return easily to its horizontal rest position), check the spindle length vs. the door thickness (the spindle may be too long). Check that the slotted end of the spindle is inserted in the lock housing hub, not the exit device.

## 3 Electronics and Card Reader

Test the lock's response to keycards: a Test keycard, a Grand Master keycard, and an Emergency keycard.

### A Test the Lock Before Programming

**Normal Entry:** Use the Test keycard with the reader. The red and green LEDs each flash once and then the green LED flashes for four seconds.

Turn the outside lever downward while the green LED is flashing. The latch or rod retracts fully. Release the lever, then turn it again. **The latch or rod must not retract after the LED stops flashing without first inserting the keycard.**

### B Lock Programming

Program the lock with its Common Area number (exit devices are usually programmed as common areas, see Reference Manual).

Use the Grand Master keycard with the reader. The green LED flashes. Turn the outside lever downward while the green LED is flashing. The latch or rod retracts fully and the LED stops flashing after 4 seconds. Release the lever, then turn it again. **The latch or rod must not retract again without first inserting the keycard.**

### C Emergency Keycard Access

Use the Emergency keycard with the reader. The green LED flashes for 4 seconds. Then, turn the outside lever downward. **The latch or rod retracts fully.**

While standing outside the room, close the door and ensure that it is properly latched. Open the door using the Grand Master keycard using the same procedure.

# 8.6 Program the E7900 lock

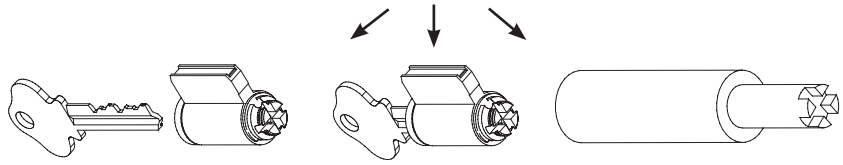
Programming: program the lock using the access control platform chosen for the facility or site. Please see information from the Access Control Software on the steps to program locks.

# 8.7 Installation of the mechanical override

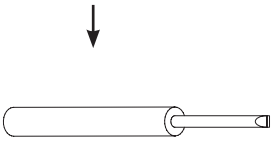
### Parts and Tools List

**Tools Required:**

(U) Cylinder (provided with lock) or equivalent

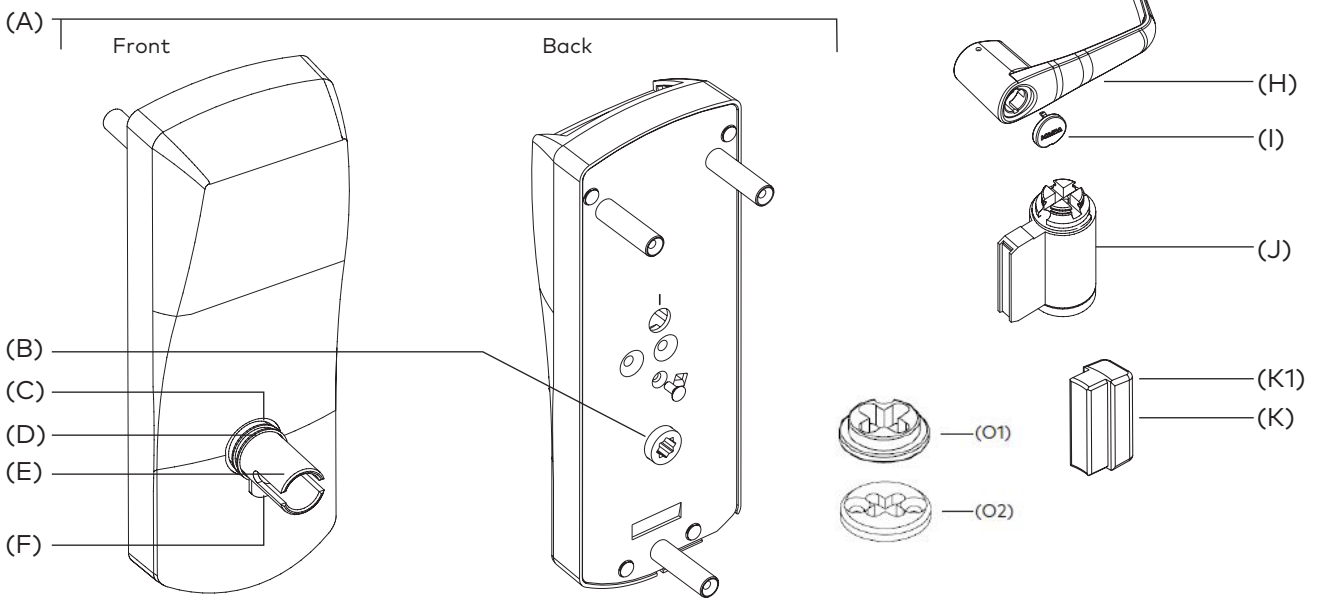


(T) Small flat scewdriver (less that 1/8")

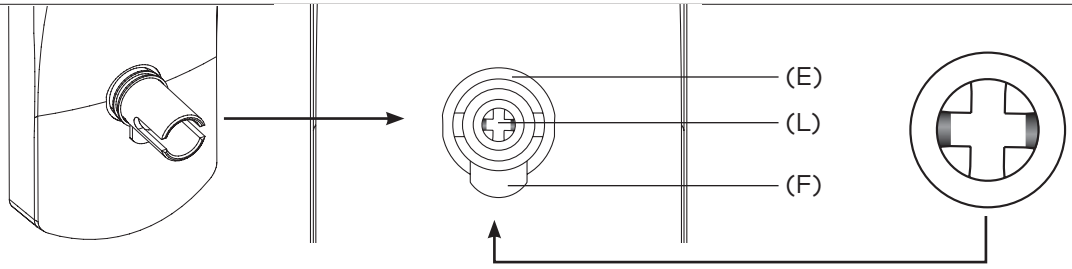


### Diagram of lock:

(A) Lock housing
(B) Inside drive hub
(C) Nylon washer
(D) Spring washer (Not for lever feel)
(E) Drive tube
(F) Lever catch
(G) Countersink
(H) Lever handle
(I) Cap
(J) Cylinder
(K) Cylinder plug
(L) Override shaft
(K1) Set Screw




### Facing view of drive tube: (E)



# 8.7 Installation of the mechanical override (Continued)

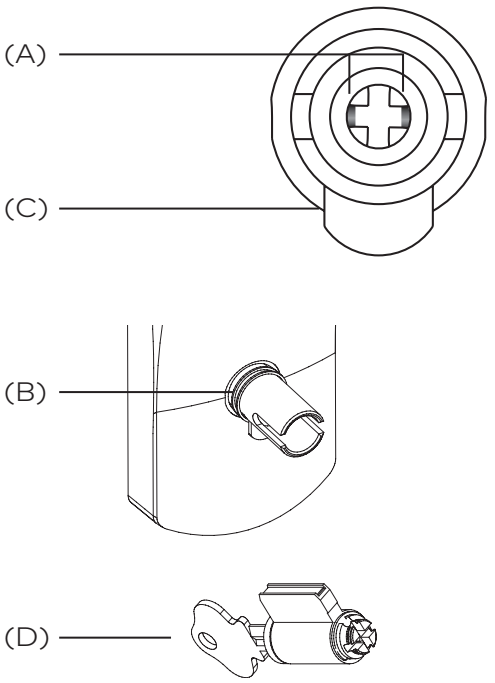
**1** Upon unpacking, the lock housing with mechanical override should look like the diagram below with:

(A) The small indents on the cross of the override shaft in line horizontally

(B) The nylon washer and the spring washer (not for lever feel) on the drive tube

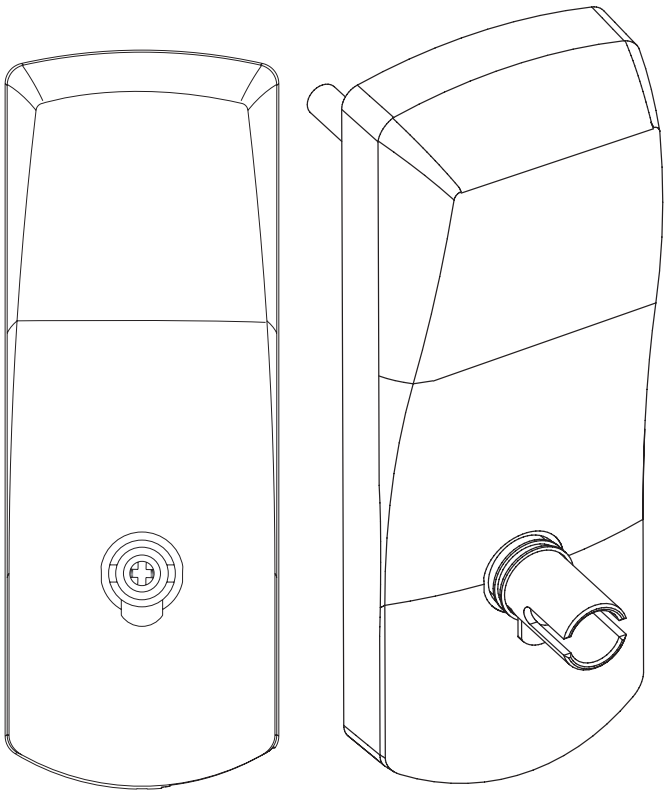
(C) The lever catch in the out position

(D) Cylinder and 2 keys for 630 K/C included in the hardware bag




**⚠ CAUTION**

Assemble the lever, cylinder and lock components before affixing the entire unit to the door.



## 2 Preparing the outside housing for the installation of the lever handle

1. Insert the cylinder (D) or equivalent tool into the override shaft and turn it 90° clockwise so that the two small indents on the cross are now vertically in line. (Fig.1)

2. Push in the lever catch firmly. (see Fig. 2)

Fig. 1

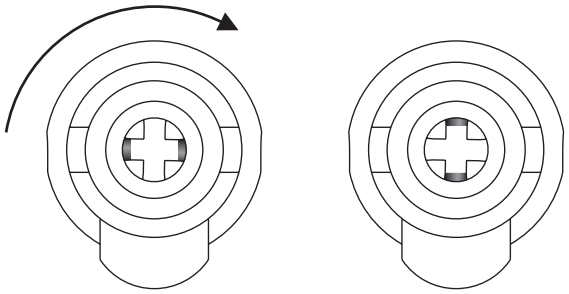
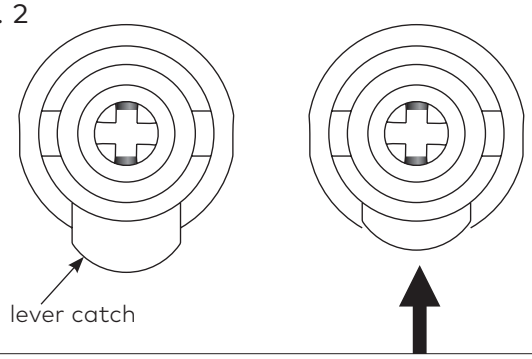


Fig. 2

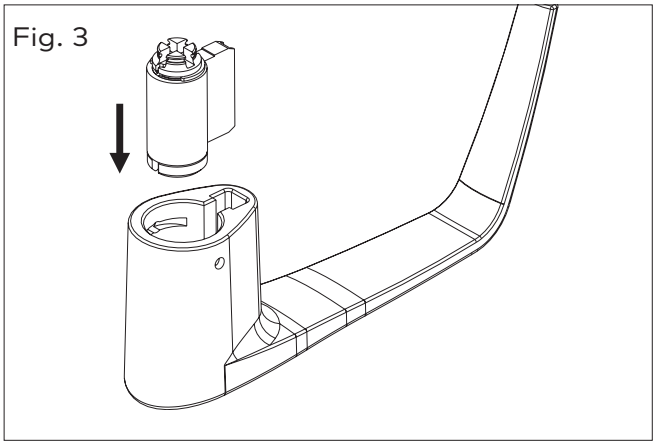


# 8.7 Installation of the mechanical override (Continued)

## 3 Preparing the Lever Handle and Cylinder for Installation

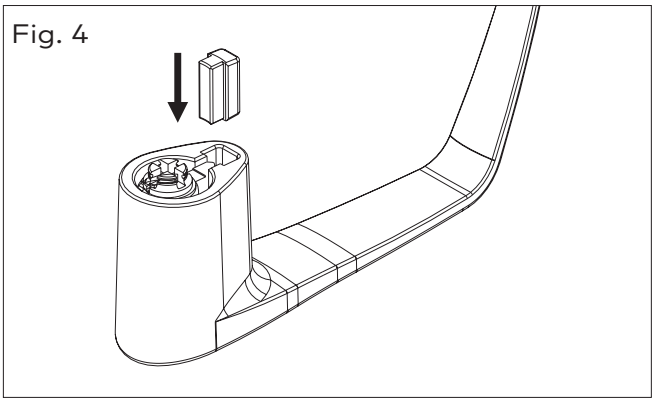
3. Insert the cylinder into the lever handle (see Fig.3)

Fig. 3



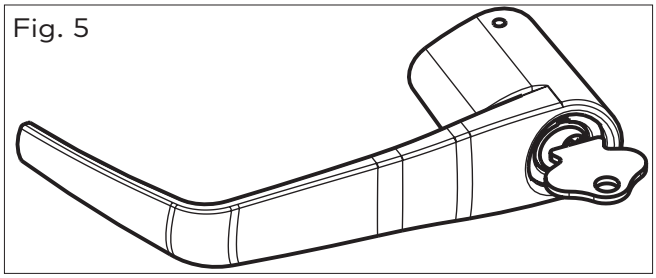
4. Put the cylinder plug into the lever (see Fig.4)

Fig. 4



5. Making sure that the cylinder plug does not fall out, insert the key into the cylinder. The key will be horizontal. (See Fig. 5).

Fig. 5



**⚠ CAUTION**

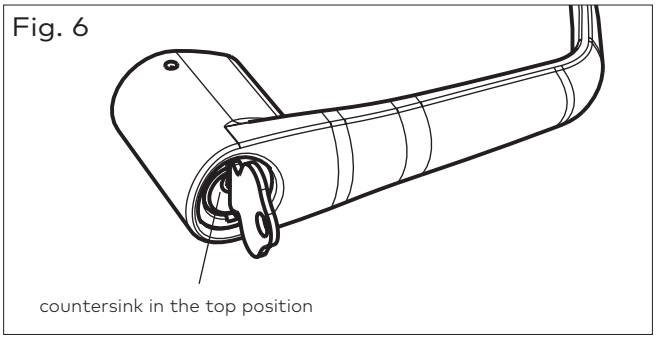
If the Lever is Not Assembled with the key in the position shown in Fig. 6 & Fig. 7, the inside mechanism of the lock could be damaged if the lever is rotated and forced.

## 4 Steps to attach the lever handle to the lock housing

***NOTE: THE POSITION OF THE KEY IS VERY IMPORTANT**

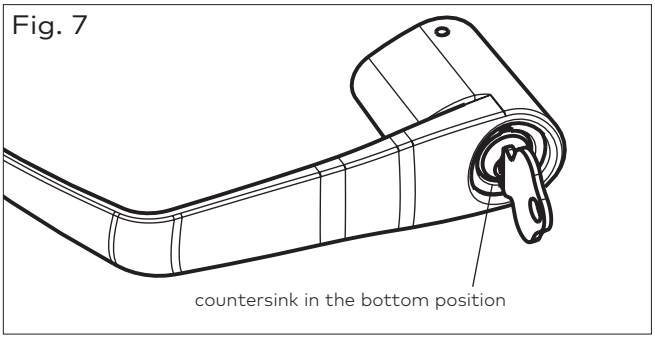
6. **Right-handed Lever handle:** Turn the key aprroximately 90° to 100° clockwise so that it is in the vertical position and the countersink is in the top position. (See Fig. 6)

Fig. 6




**Left-handed lever handle:** Turn the key approximately 90° to 100° clockwise so that it is in the vertical position and the countersink is in the bottom position. (See Fig. 7)

Fig. 7




**IMPORTANT**

The key and the countersink must be in the positions shown in Figs 6 & 7 before placing the lever handle on the housing or the lever and the override mechanism will not work.

**Troubleshooting:**

If you have assembled the lever and housing with the key in the wrong position, the key will get stuck. To remove the key, turn it so that it is in the vertical position and insert a small flat screwdriver (see page 46 Fig.17) into the hole under the lever handle to push Lever Catch in (see page 42 Fig.2). Remove key. If it is still stuck, turn the key 90° clockwise to the horizontal position and push the Lever Catch in again with the small screwdriver. Remove key.

# 8.7 Installation of the mechanical override (Continued)

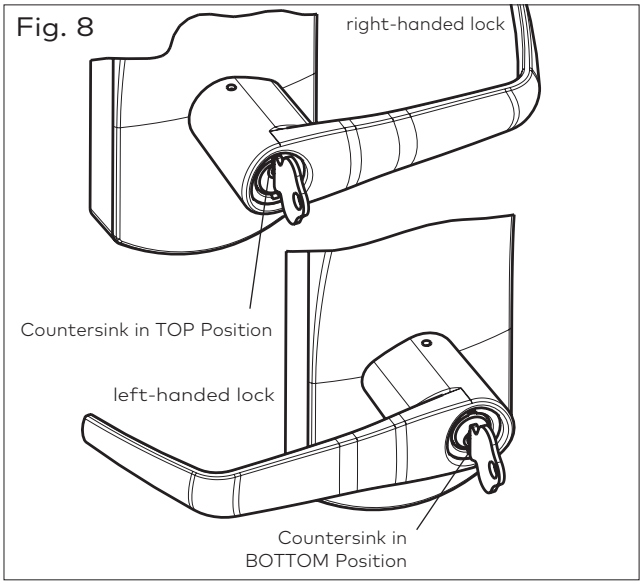
## 5 Attaching the Lever Handle to the Lock **(with the key as shown in Fig. 6 & Fig. 7)**

7. Fit the lever handle onto the drive tube. It should rest approximately 1/16" from the body of the housing. (See Fig. 8)

If it can't be pushed that close to the housing, the lever catch is probably not pushed in. Push it in.

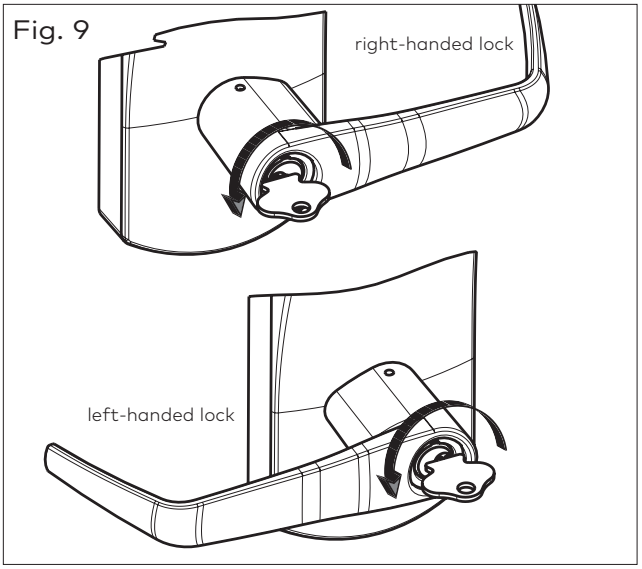
If the lever catch is stuck, the override shaft is in the wrong position. The two small indents on the cross of the override shaft must be vertically aligned as in fig. 2

Fig. 8




8. Press the lever firmly against the housing while turning the key counterclockwise **(this applies to both right-handed and left-handed locks)** until it is in the horizontal position. (Fig. 9)

Fig. 9



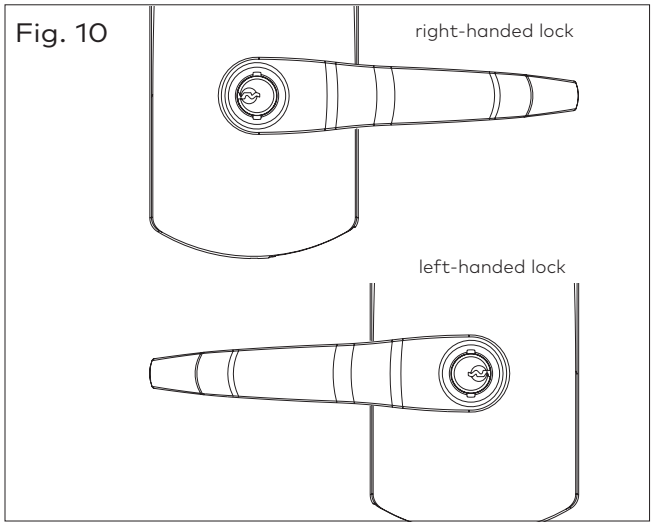

**⚠ CAUTION**

If it is not possible to turn the key counter-clockwise to complete this step, the spring washer (D, see page 41) may be too tense: (not for lever feel)

Hit the lever carefully with a rubber mallet to loosen the spring washer. (you may want to cover the lever handle with a cloth or other material to protect the finish of the metal)

9. Remove the key. The lock will look as shown in Fig.10.

Fig. 10




**Gently** check the rotation of the lever handle. It should easily rotate approximately 45°.

**Troubleshooting:**

**Right-handed Lock:** Turn the lever handle clockwise without forcing it. If it stops at approximately 15°, it was not assembled correctly as shown in step 4 (Fig. 6 & 7). **Do not try to force it to turn.** Release the lever handle. Insert the small screwdriver (T, page 41) into the small hole on the underside of the lever handle and push in the lever catch. Re-do steps 2, 3, 4 & 5.

**Left-handed Lock:** Turn the lever handle counter-clockwise without forcing. The drive hub (Fig.14 page14) should not rotate when the lever handle is turned. If it does, it was not assembled correctly as shown in step 4 (Fig. 6 & 7). Release the lever handle. Insert the small screwdriver (T, page 41) into the small hole on the underside of the lever handle and push in the lever catch. Re-do steps 2, 3, 4 & 5.

# 8.7 Installation of the mechanical override (Continued)

## 6 Verify the Attachment of the Lever Handle

**IMPORTANT**

To verify that the lever handle has been correctly attached to the housing:

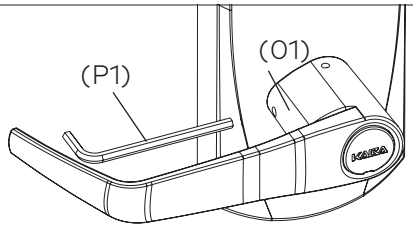
10. Remove key
11. Insert a small flat screwdriver (tool T, page 41 into the hole on the underside of the lever handle and push inthe lever catch.
12. Pull on the lever handle.

You should not be able to remove the lever handle. If it comes off of the housing, you did not assemble the lock correctly. Return to steps 2, 3, 4 & 5 and make sure that the lever looks like Fig. 10 and repeat this verification process. (Step 6)

## 6a Adjust the Lever feel

If applicable, to reduce the lever play, using the 5/64 allen key (P1), tighten the set screw (O1) while pushing the lever against the front housing. Make sure the lever rotates properly after tighting the set screw (O1).

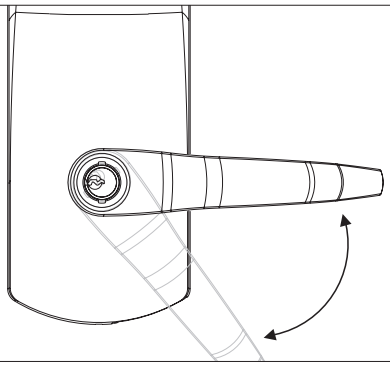
Fig. 10A




## 7 Test the Movement of the Lever Handle (without the key cylinder)

13. Turn the handle clockwise (for a right-handed lock) or counter-clockwise (for a left-handed lock)
14. Release the handle slowly. It should return freely to its horizontal position. (Fig.11)

Fig. 11



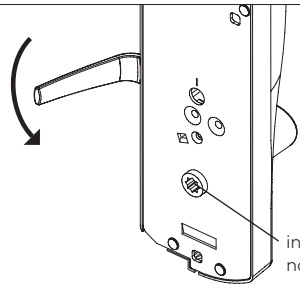
## 8 Test the Mechanical Override Function

**IMPORTANT**

This test can only be performed when the lock is not affixed to the door.

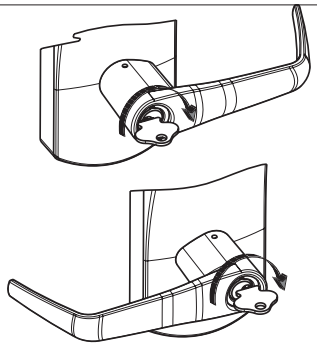
16. Without using the key, turn the lever handle clockwise (for Right-handed locks) or counter-clockwise (for Left-handed locks). The inside drive hub should not rotate when the handle turns. (Fig. 12)

Fig. 12



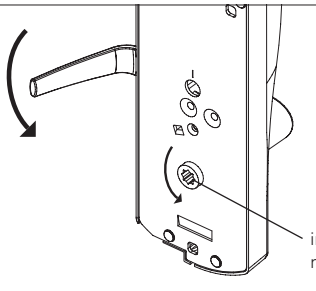

17. With the lever handle in the horizontal position, insert the key into the cylinder and turn it clockwise until it stops. (This applies to both Right and Left-handed locks, see Fig.13)

Fig. 13



18. Let go of the key, and again turn the lever handle clockwise (for Right-handed locks) or counter-clockwise (for Left-handed locks). Now the inside drive hub should rotate in the same direction as the lever handle when it is turned. (Fig. 14)

Fig. 14



# 8.7 Installation of the mechanical override (Continued)

## 8 Test the Mechanical Override Function (Continued)

**IMPORTANT**

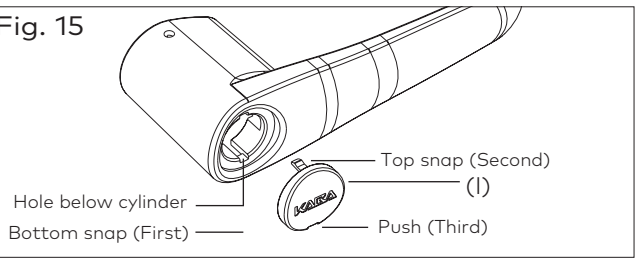
Verify the functionality of the override after the lock is installed on the door:

19. With the door open, insert key in cylinder and turn it clockwise **until it stops**.
20. Let go of the key and turn the lever handle (clockwise for right-handed and counter-clockwise for left-handed locks). **The latch must retract.**
21. Extend deadbolt and repeat the above operation (turn key clockwise until it stops), latch and deadbolt must retract completely.

## 9 Cover the key Hole & Cylinder with the Cap

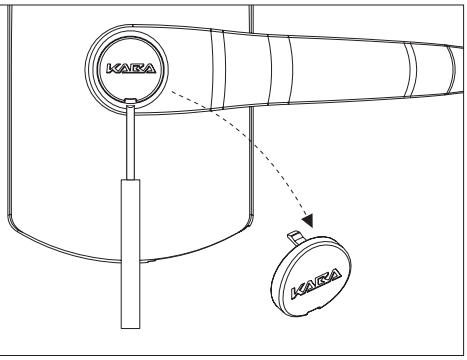
22. The cap has a small groove on one edge (to allow ease of removal) this should be facing down. Insert bottom snap of cap in handle hole below the cylinder. With a small screwdriver, push top snap of cap down while pushing the cap into place to cover the keyhole (Fig. 15)

Fig. 15




23. To remove the cap, insert a small flat screwdriver into this groove and gently pry the cap off, being careful not to damage it. (You may want to cover the bottom of the lever to protect the finish from being scratched through the process of removing the cap). (Fig.16)

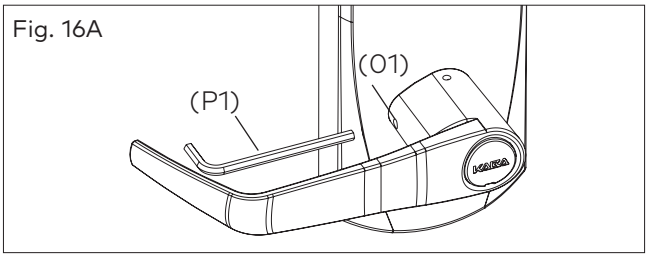
Fig. 16



## 10 How to Change Lock Cylinders

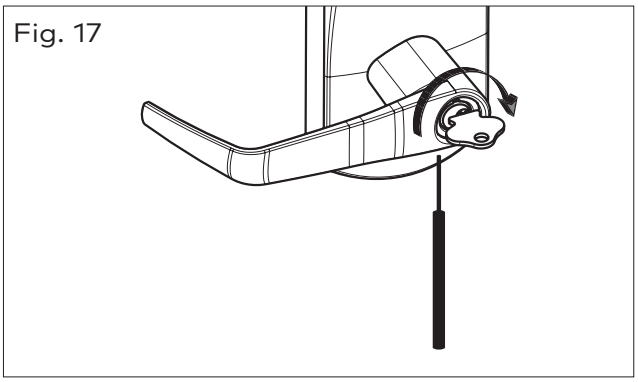
23a. Loosen the set screw (01) to free the lever using Allen Key (P1) (Approx. 1/4 turn).

Fig. 16A



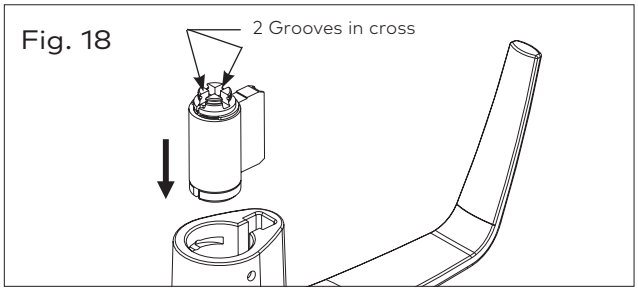

24. Remove the cap from the lever handle (see step 23, Fig. 16).
25. Insert key.
26. Turn the key clockwise until it stops.
27. Release key.
28. Use a small flat screwdriver to push in the lever catch through the small hole underneath the lever handle (Fig. 17).

Fig. 17



29. Pull the lever handle off of the lock housing (be careful not to lose the cylinder plug).
30. Replace the old cylinder with the new one in the lever handle. Only same kind and same length of cylinder with 2 grooves in cross, in the end of the cylinder plug could be used on the E-730/630 Series locks. (Fig. 18)

Fig. 18

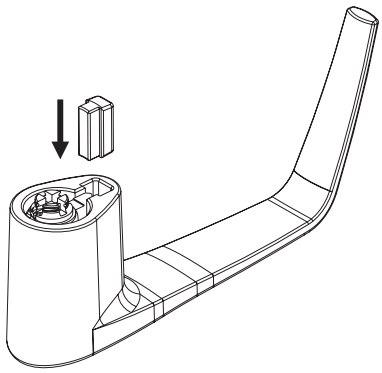


# 8.7 Installation of the mechanical override (Continued)

## 10 How to Change Lock Cylinders (continued)

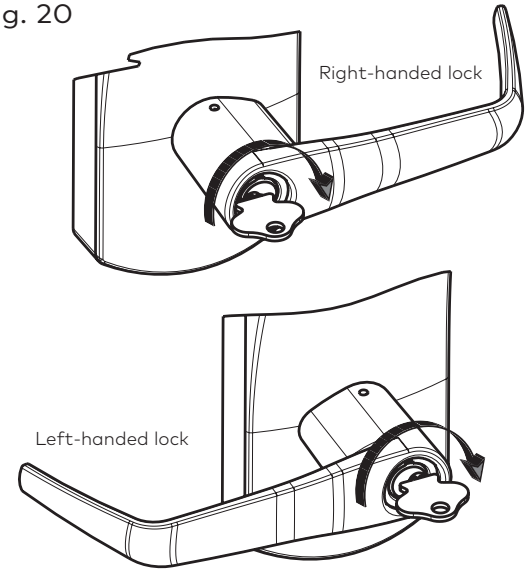
31. Re-insert the cylinder plug (Fig. 19)

Fig. 19



32. While holding the cylinder and plug in place, insert the key
33. Turn the key approximately 100° clockwise
34. Repeat the steps 1 to 9 to attach the lever handle to the lock housing. (see Fig. 20)

Fig. 20




**IMPORTANT**

The Key Override itself does not retract the latch or deadbolt. Do not use too much force when turning the key as this may damage the unit. To retract the latch, turn the key clockwise until it stops, release the key and turn the lever handle (H). See page 43

The lever handle must stay in the horizontal position when turning the key (do not try to turn the key while turning the handle) or the override mechanism will not work.

Always keep the door open while installing and verifying the functionality of the E-730/630/750/79E/RT Series lock with the keycard or key override. Do not close the door until you are certain that you have installed the unit correctly.

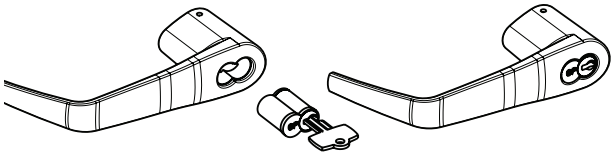
**Preparing the lever handle for Best Removable Core**

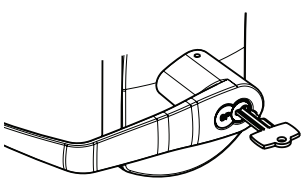
**F-5** Insert 6-pin Best adapter (thicker) into 6-pin interchangeable core or insert 7-pin Best adapter (thinner) into 7-pin interchangeable core. Insert the adapter until it makes contact with the removable core.

**F-6** Using the control key, assemble the removable core with its adapter into the lever. Remove control key.

**F-7** Insert the change key into the removable core.

Follow the rest of instructions from step 5 of page 43





7 Pins Thinner Adapter

6 Pins Thicker Adapter

**Note for Contactless 79/RT/E7900 Series customers:**

Statement according to FCC part 15.105

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.
- Consult the dealer or an experienced radio/ TV technician for help.

Statement according to FCC part 15.21

Modifications not expressly approved by dormakaba could void the user's authority to operate the equipment.

Statement according to FCC part 15.19

This device complies with part 15 of the FCC rules and Industry Canada ICES-003. 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'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.

Lever handle and card reader for fire exit hardware

Clasified by Underwriters Laboratories Inc.®

Intended for installation on mortise, rim or vertical rod type devices.

# 9 Programming and Software Setup - Overview

The following chapter is intended to be a basic guide for the setup of your E-Plex lock system. For further details, please refer to the following sources:

- E-Plex 7900 Command Card User Guide (KD10090-E)
- M-Unit User Guide (KD10093-E)

The E7900 is designed to work with a variety of access control software platforms. The steps required to set up the E7900 may have differences depending on which software platform you are using. Please refer to the instructions from your access control software provider or integrator as it relates to any details related to software. This guide is intended to focus on "hardware / lock" installation and setup.

### 9.1. Overview

In this guide, describes the wireless setup of the E-Plex 7900 lock.

### 9.2. Wireless Lock Setup

A site consisting of locks that exist as part of a networked lock system, wherein locks are connected wirelessly to a computer with monitoring software via Gateways. The M-Unit is used to determine the optimal placement of locks and gateways, and also provides a variety of network diagnostic tools, and can be used to perform lock firmware updates. Locks can be setup and configured wirelessly and the transactions can be recorded at the computer and monitored in real-time.

**Lock Management Software Setup:**

Consult your software provider for instructions on how to perform the following tasks as they pertain to E-Plex lock setup and management:

- Access Control Software Installation
- E-Plex Lock Software Setup
  - Adding Users
  - Assigning Credentials to Users
  - Adding Locks
  - Creating and Assigning Schedules to Doors
- Adding and Configuring a Gateway
- Adding repeaters
- Joining an E-Plex Gateway as a Router
- managing E-Plex Server Certificates
- Assigning E-Plex Locks to a Gateway
- Joining a Lock to a Gateway

**M-Unit topics for Wireless Lock Setup:**

- About the M-Unit
- Transferring the Program File to the M-Unit
- Programming E-Plex Locks
- Transferring the Program File to the Lock
- M-Unit Audits
  - Auditing an E-Plex 7900 Lock

***NOTICE***

**IMPORTANT:** Site Survey is required when setting up wireless E-Plex Locks to determine the best setup. Prior to installing a lock, the signal strength of a ZigBee network must be identified to best measure where to place a Gateway. Please review section 9.4.1. Site Survey first before beginning your wireless lock setup.

# 9 Programming and Software Setup - Overview

## 9.3. The **M-Unit**

### 9.3.1 About The M-Unit

The M-Unit is a handheld diagnostic and configuration file transfer tool with firmware update and site survey capabilities, designed to be used with E-Plex locks.

## 9.4. M-Unit Tools for Wireless Locks

### 9.4.1 Site Survey

Site Survey is required when setting up wireless E-Plex Locks to determine the best setup. Prior to installing a lock, the signal strength of a ZigBee network must be identified to best measure where to place a Gateway.

### 9.4.2. Site Survey Guidelines

Observe the following guidelines prior to performing a Site Survey:

- Floor plans need to be prepared. This step requires the planner to:
  - Identify all online lock locations
  - Decide on redundancy options: no redundancy or path redundancy
  - Validate power source availability for Gateways and Routers (adapter or PoE)
  - Decide on Gateway communication: USB (direct) or Ethernet (TCP/IP Network)
  - Determine the physical server location; this is only required if the Gateway is to be connected to the server via USB. If the Gateway is using a USB connection, the server location must be within 15 feet of the Gateway.
- For new construction properties, perform the Site Survey when the building is as close to finished as possible to help avoid inaccurate results
- No Gateway or Router should exceed 25 locks within its RF range
- When performing a Site Survey, position the Test Gateway in the orientation that the final Gateway or Router will be installed (e.g. horizontally in a drop ceiling, vertically mounted to a wall, etc.). To maximize the range of the Gateway/Router, position it horizontally (label facing upwards)
- Humid climate conditions, waterfalls/fountains can block and/or weaken ZigBee communication
- Do not place the Gateway near elevators, stairwells, steel doors, or other large metal structures
- When testing signal strength at the door, first check signal strength on both sides of the door to determine antenna choice (inside or outside mount), Second, check the signal strength with the door open and closed
- Do not place a Gateway in a closet or any other area where there is ductwork, electrical panels, other large metallic equipment, steel doors, etc.
- The ZigBee signal does not bend around corners constructed of concrete and/or metal framing. You may need to place a Gateway on each side of a corner
- If the Gateway is to be installed inside a room, then perform the Site Survey with the room's entry door closed
- If you are placing the Gateway inside of an existing access panel, ensure that the panel is closed, and the Gateway is in the correct position before testing
- If the property has or will be installing Wi-Fi access points, ask for a markup of the locations. When placing the Gateway for survey, keep Gateway and Wi-Fi access points a minimum of 6 feet apart

### 9.4.3. Gateway Configuration for Site Survey - Join On Mode

Before performing a Site Survey, the E-Plex Gateway must first be put into Manual Join On Mode. To put an E-Plex Gateway into Manual Join On Mode, do the following:

1. If your Gateway/Router is not factory defaulted, press and hold the reset button on the Gateway as you plug the Gateway into the USB port of the computer. Release the reset button once a USB connection is made. The Gateway will flash its green and red LEDs repeatedly.
2. When the Gateway flashes only green, press the reset button on the side of the Gateway 3 times within 3 seconds. After several seconds, the green and red LEDs will blink on and off together, indicating Join On Mode.

**NOTE:** Manual Join On Mode lasts 10 minutes

### 9.4.4. Scan Network

The M-Unit can scan the surrounding area to determine available ZigBee network(s). Follow these steps to scan for ZigBee network(s):

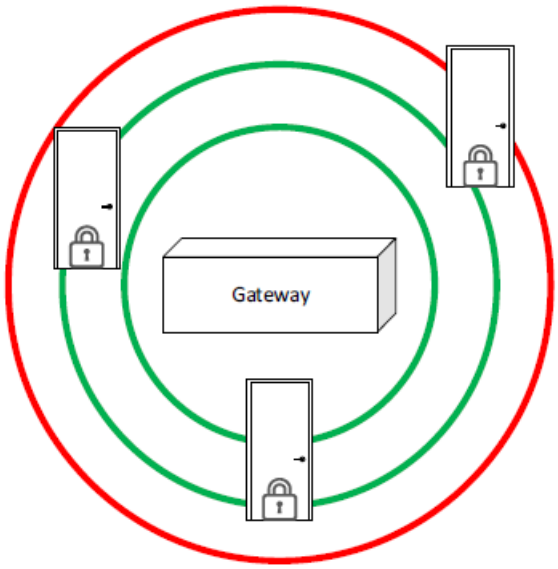
1. From the main screen, select Wireless by pressing the middle arrow button below the screen.
2. Choose Scan Network by either selecting the corresponding number on the number pad or by scrolling through the options with the up and down arrow buttons and selecting with the ENTER button.
3. Select Scan by pressing the middle arrow button below the screen. After a few seconds, the M-Unit will display all available ZigBee network(s).
4. Scroll through the different networks by selecting either Prev or Next with the leftmost and middle arrow buttons below the screen. Any network displayed with a Allowing Join value of 1 will be used to ping a network. **Note:** Scanning ZigBee network(s) only provides static information and cannot be altered from this screen.
5. Select Done by pressing the right-most arrow button below the screen. Return to the main menu by pressing the Home button twice on the bottom-right of the number pad.

# 9 Programming and Software Setup - Overview

### 9.4.5. Ping Network

To determine correct lock placement in comparison to Gateway location, the M-Unit can ping a ZigBee network to determine signal strength from the Gateway. Follow these steps to ping a ZigBee network:

1. From the main screen, select Wireless by pressing the middle arrow button below the screen.
2. Choose Ping Network by either selecting the corresponding number on the number pad or by scrolling through the options with the up and down arrow buttons and selecting with the ENTER button.
3. Select Ping by pressing the left-most arrow button below the screen. After a few seconds, the M-Unit will identify the closest ZigBee network. If the M-Unit fails to find a ZigBee network, try the test again by pressing the left-most arrow button below the screen to select Ping. If multiple attempts fail, troubleshoot the Gateway hosting the ZigBee service.
4. A bar will illuminate on screen identifying the ZigBee signal strength as either Very Good, Good or Unacceptable. View the illustration below for varying signal strength indicators. It is recommended to stay within the Green range to limit service interruptions to the lock. If the range is within the Red area, either move the Gateway closer to the lock, or add an additional Gateway to extend the range. Once an acceptable range is decided, install the E-Plex lock at the desired location.




Very Good = Lower than -65db

Good = Between -65 and -75db

*Weak (Unacceptable) = Higher than -75db

*an additional Gateway may be required to increase signal strength

### 9.4.6. Diagnosing an E-Plex 7900 Lock

1. From the main screen, select Door by pressing the left-most arrow button below the screen.
2. Choose Diagnostic by either selecting the corresponding number on the number pad or by scrolling through the options with the up and down arrows and selecting with the ENTER button.
3. Choose 79xx Series by either selecting the corresponding number on the number pad or by scrolling through the options with the up and down arrows and selecting with the ENTER button.
4. The screen will display Put Lock into Communications Mode
5. Attach the Programming Unit Adaptor onto the lock and attach the other end into the serial port of the M-Unit.
6. Select OK by pressing the right-most arrow button below the screen. Initializing Comms is displayed on screen while the M-Unit diagnoses the lock.
7. Upon completion, the following information is displayed:
    a. Lock Model – Displays the E-Plex lock model
    b. Firmware Version – Shows the current firmware version of the lock
    c. Battery Voltage – Displays the lock's battery voltage
    d. HW Voltage – Shows the lock's hardware voltage
    e. Lock Function – Displays the lock function between Entry, Residence and Privacy
    f. BLE Version – Shows if the lock is BLE-enabled
    g. Lock Date – Displays the current date and time of the lock pulled from the MUnit when the door is programmed
8. Select OK by pressing the right-most arrow button below the screen and return to the main menu.

# APPENDIX A E7900 Product Specifications

| | |
|---|---|
| **Max # of schedules supported** | 16 schedules |
| **Max # of holidays supported** | 32 holidays |
| **Max # of audits** | 30,000 audits |
| **Max # of users** | 10,000 users |
| **Unlock time range**<br>(the amount of time that the door remains unlocked) | 2 – 20 seconds |
| **Manual passage range**<br>(the amount of time a door can remain unlocked using a manual override) | 0 – 24 hours |
| **Door held open range**<br>(the time interval that the door may remain open before the system reports a door held open violation) | 10 – 65,535 seconds |
| **Tamper Lockout (Shunt Timer) time range**<br>(the amount of time the lock will sit idle, after the tamper count meets the preset threshold of failed credential reads) | 0 - 90 seconds |
| **Tamper Count**<br>(dictates how many failed credential reads will trigger a tamper lockout) | 3 - 9 |
| **Zigbee Channel range**<br>(allowable channel numbers to utilize) | 11 - 25 |
| **PIN length** | 4 - 8 |
| **Master PIN Length** | 8 (fixed) |
| **Function Types** | Entry Lock, Residence Lock, Privacy Lock |

# APPENDIX B E7900 Visual Feedback - LED Behavior

| Condition | Parameters | | | |
|---|---|---|---|---|
| | Green LED | Red LED | Time Duration | Rate |
| Timeout expired | OFF | ON | 1 second | Once |
| Access granted | ON/OFF (Alternate) | OFF | 1/2 second | 1 second |
| Access granted (battery low condition) | ON | ON | 1/10th second | 1 second |
| Access denied | OFF | ON | 1 second | Once |
| Tamper shutdown beginning | OFF | ON | 2 seconds | Once |
| Tamper shutdown state | OFF | ON | 1 second | 10 seconds |
| Tamper shutdown ending | ON | OFF | 2 seconds | Once |
| Deadbolt/Thumbturn Privacy Activated | OFF | ON | 1 second | Once |
| Deadbolt/Thumbturn Privacy De-Activated | ON | OFF | 1 second | Once |
| Hard reset sequence | ON/OFF (Alternate) | OFF | 1/10th second | Continuously (for up to 10 seconds) |
| Hard reset sequence ended successfully | ON | OFF | 2 seconds | Once |
| Hard reset sequence failed | OFF | ON | 2 seconds | Once |
| Invalid ZAC Entry | OFF | ON | 1 second | Once |
| ZAC sequence in process | ON | ON | ½ second | 1 second |
| ZAC sequence successful | ON | OFF | 1 second | Once |
| ZAC sequence failed | OFF | ON | 1 second | Once |

**Note for Contactless customers:**

Statement according to FCC part 15.105

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.

• Consult the dealer or an experienced radio/TV technician for help.

Statement according to FCC part 15.21

Modifications not expressly approved by Kaba Ilco could void the user's authority to operate the equipment.

Statement according to FCC part 15.19

This device complies with part 15 of the FCC rules and Industry Canada ICES-003. 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'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.

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