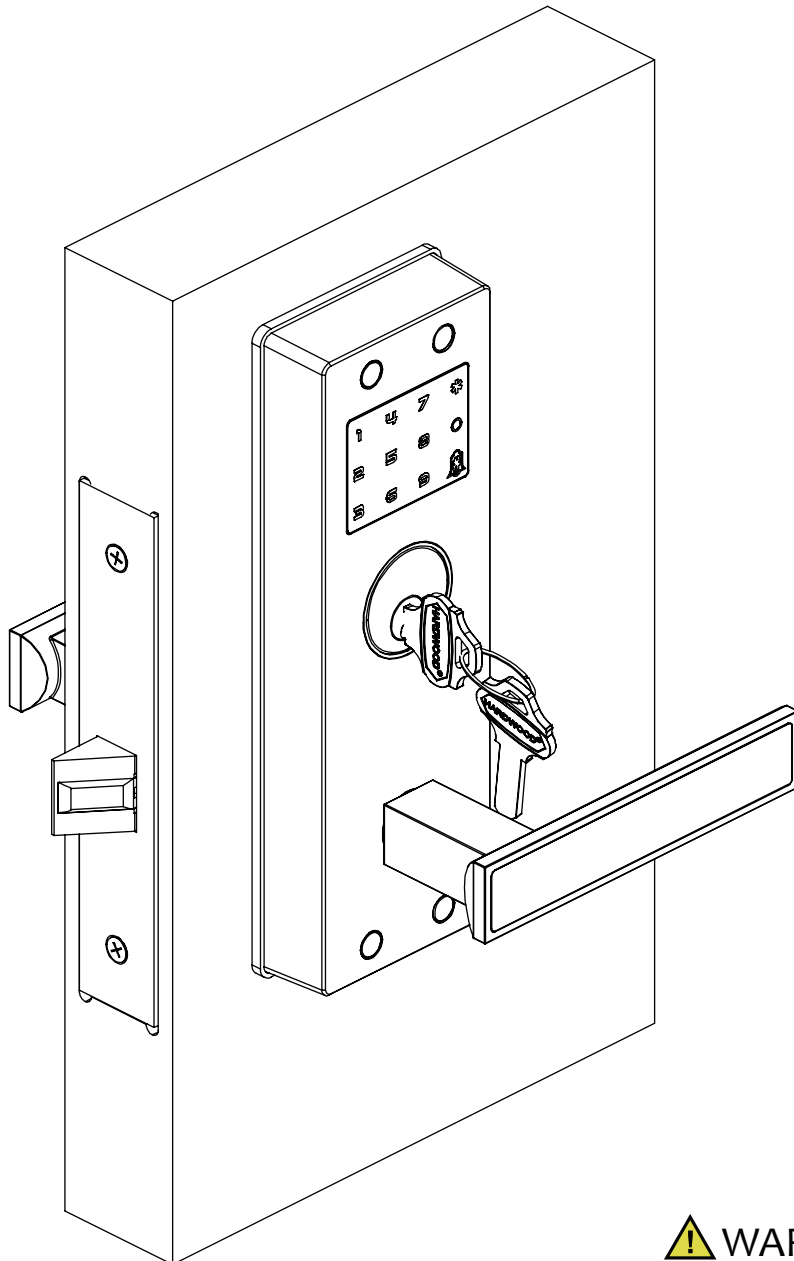


M50 Series

Electronic Mortise Lock



WARNING

Installers should be aware that improper installation may cause product damage and void the factory warranty.

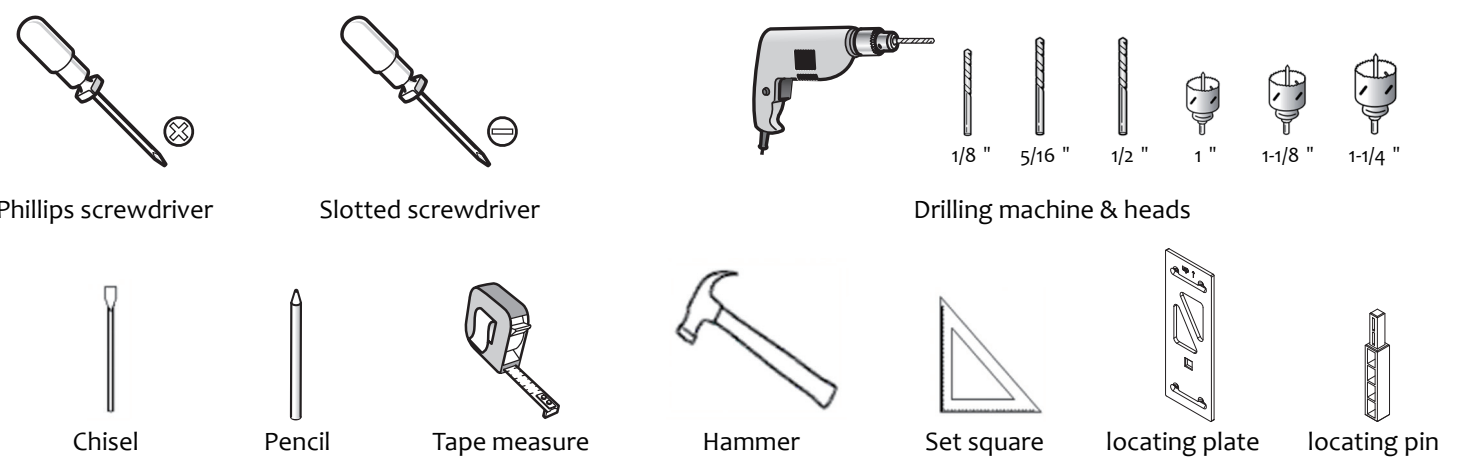
Installation Instructions

HARDWOOD®

Electronic Mortise Lock

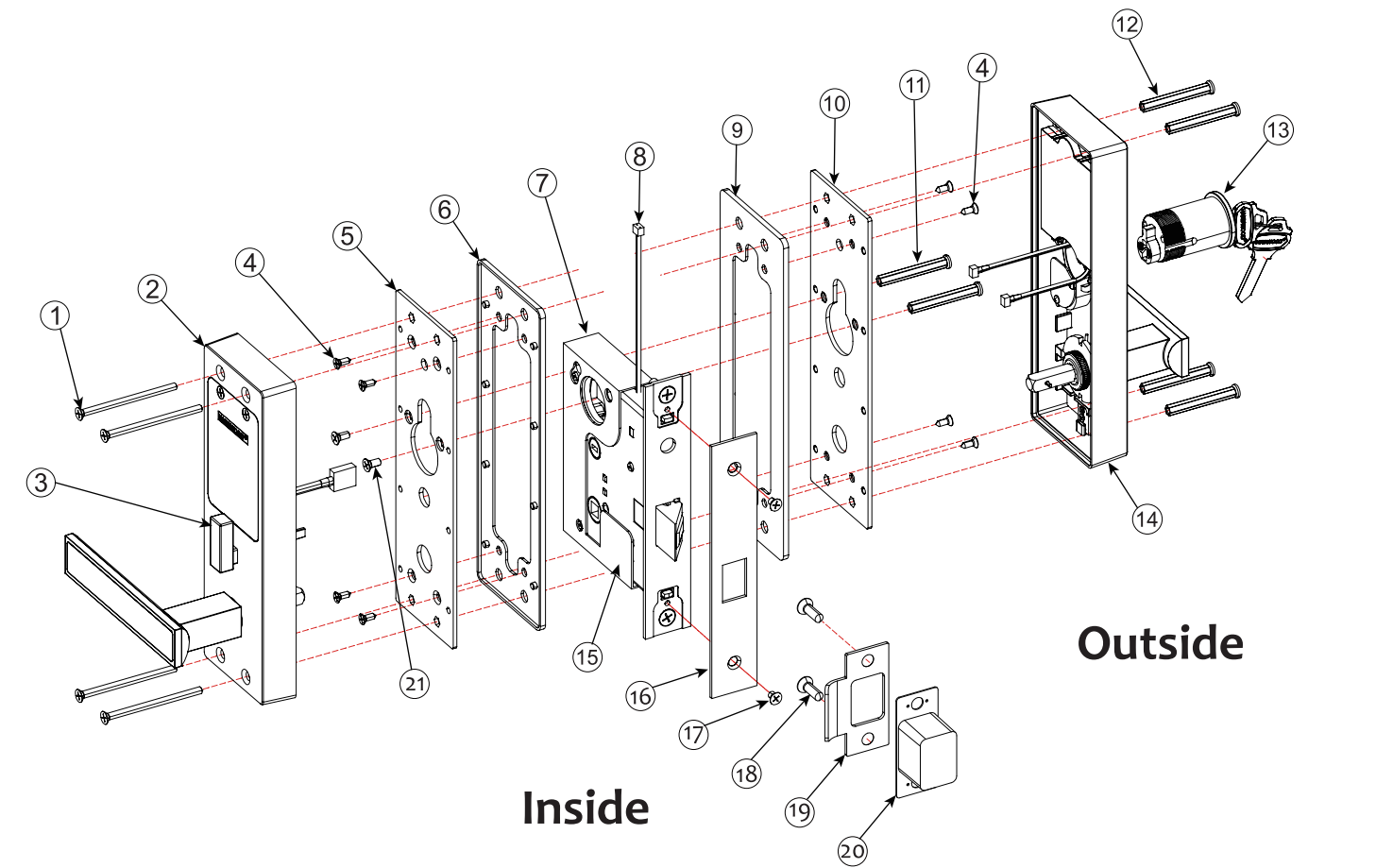
1

Tools Required



2

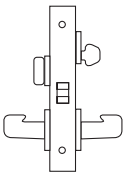
Product Components



NO.	Description	NO.	Description
1.	Screw-trim	12.	Guide pin-trim
2.	Inside trim	13.	Cylinder
3.	Thumb turn	14.	Outside trim
4.	Screw-base plate & gasket	15.	Lock body
5.	Inside base plate	16.	Face plate
6.	Inside gasket	17.	PH #8-32UNC×1/4" screw
7.	Cable guard	18.	PH #12-24×3/4"+#12 screw
8.	Motor cable	19.	Strike
9.	Outside gasket	20.	Strike box
10.	Outside base plate	21.	Screw-base plate
11.	Guide pin-base plate		

3

Function & Configuration

PICTURE	ANSI NO.	FUNCTION	DESCRIPTION	LEVER	CYLINDER	THUMB TURN	EMERG TURN
	Fo4 Variant	Intruder Security Latch	Latch bolt operated by lever from either side, except outside lever is mechanically disabled. Key retracts latch from outside. Inside turn disabling both inside lever and outside key.	✓	✓	✓	

4

Handing

a

 Verify hand and bevel of door. Illustrations shown are as viewed from the outside or secure side of opening.

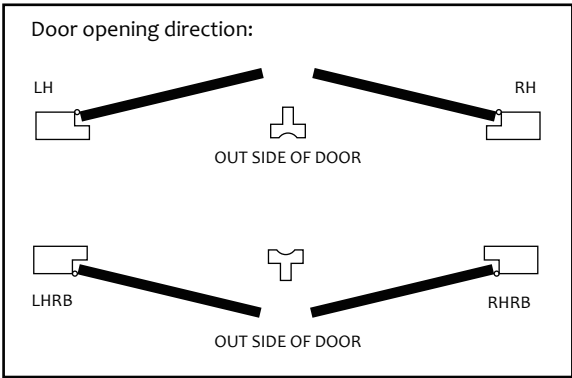
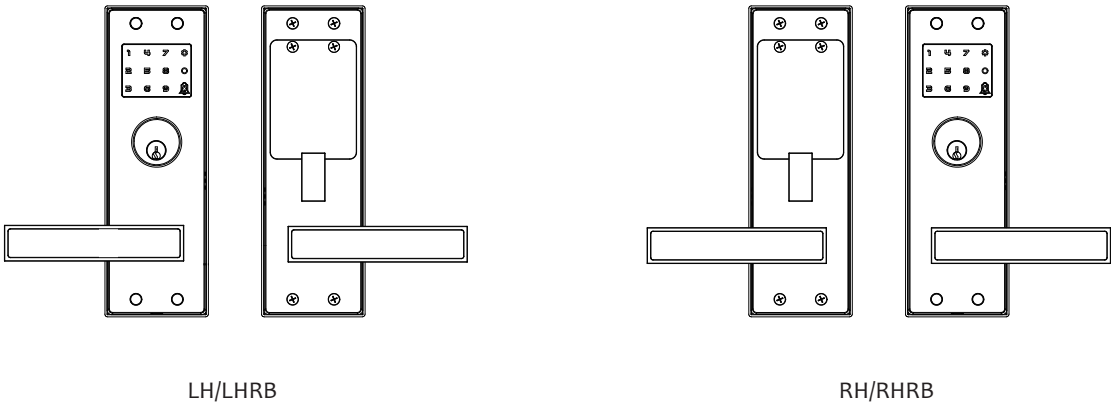


Figure 1

b

Inside/outside electronic trim change. (if needed)



Electronic Mortise Lock

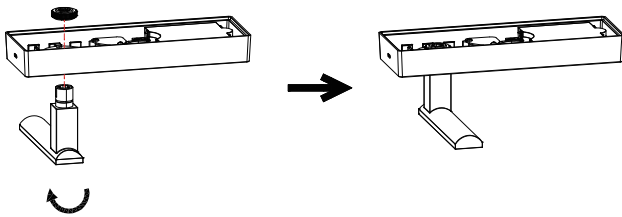
4

Handing(cont.)

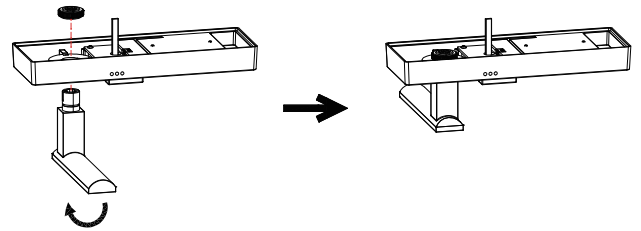
c

Lever reverse. (if needed)

- Loosen and remove the nut shown in the figure, remove the lever, rotate the lever 180°, then reassemble and secure it.
- Repeat the same procedure for both inside and outside levers.



Outside

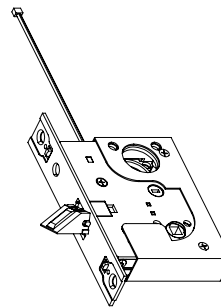
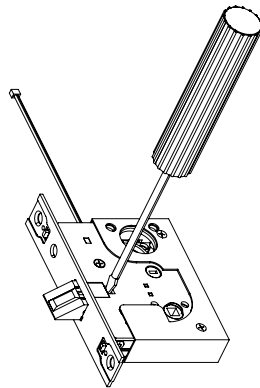


Inside

d

Latch bolt reverse. (if needed)

- Remove the face plate with a Phillips screwdriver
- Pull out the latch bolt with a flathead screwdriver
- Rotate it 180° to the desired orientation



5

Door Preparation

a

Mark centerlines (Figure 2)

- Door thickness shall not be less than 1-3/4" (44 mm) and shall not exceed 2-1/4" (57 mm).
- Mark door thickness center line.
- Mark the lock body centerline at the required height.
- Mark center line and confirm the position for cylinder, lever and turn.

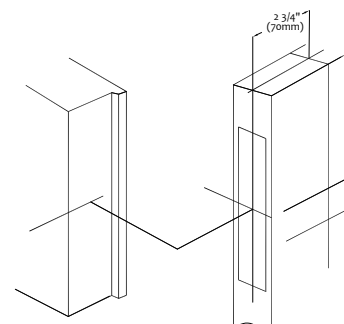


Figure 2

Electronic Mortise Lock

5 Door Preparation (cont.)

b Mark the drill holes with template (Figure 3)

***Important:** Before drilling, mark the through holes and blind holes according to the template.

- Fold and apply template to the door, ensure the vertical baseline is aligned with the center of the door thickness; refer to the upper and lower scale markings as needed.
- Verify that the horizontal baseline aligns with the marked lock center line.
- Mark all required hole positions for the lock body, cylinder, lever, and thumb turn, etc.

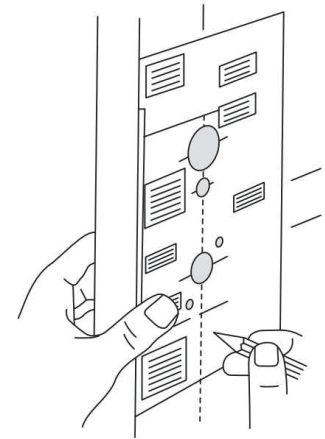


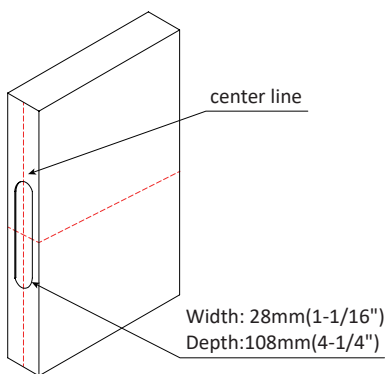
Figure 3

c Mortising and drilling holes (Figure 4~7)

- Mortise and drill holes according to the marked options and listed sizes

Mortise door pocket

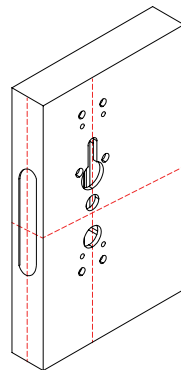
138×28×108mm
(5-7/16"×1-7/64"×4-1/4")



(Figure 4)

Drill outside holes

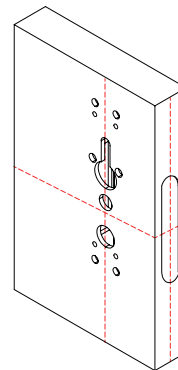
Check thru hole or blind hole before drilling.



(Figure 5)

Drill inside holes

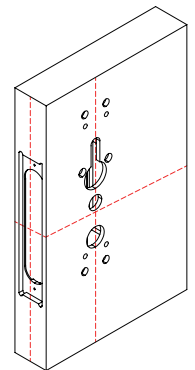
Check thru hole or blind hole before drilling.



(Figure 6)

Chisel cutout for strike

32.8×172.5×5.5mm
(1-5/16"×6-51/64"×3/16")

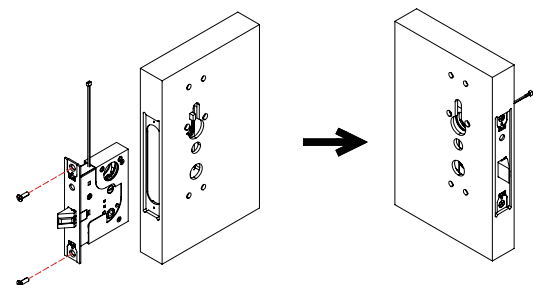


(Figure 7)

6 Installation

a Install lock body (Figure 8)

- Remove face plate.
- Slide the lock body into the door pocket.
- Route the motor cable to the outside of door.
- Ensure the lock body is parallel to the door edge, then tight with the correct screws.



(Figure 8)

Electronic Mortise Lock

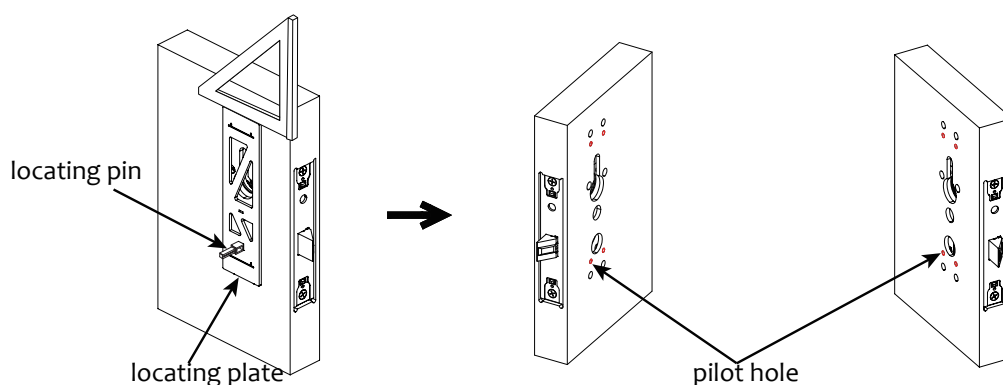
6

Installation

b

Mark holes for base plate and gasket (Figure 9)

- Insert the locating pin into the thumb turn hole, then pass the square hole of the locating template over the pin and mount it on the door.
- Use a try square to level the locating template.
- Mark and drill the pilot holes on the door, metal door requires tapping #6-32UNC-2B.

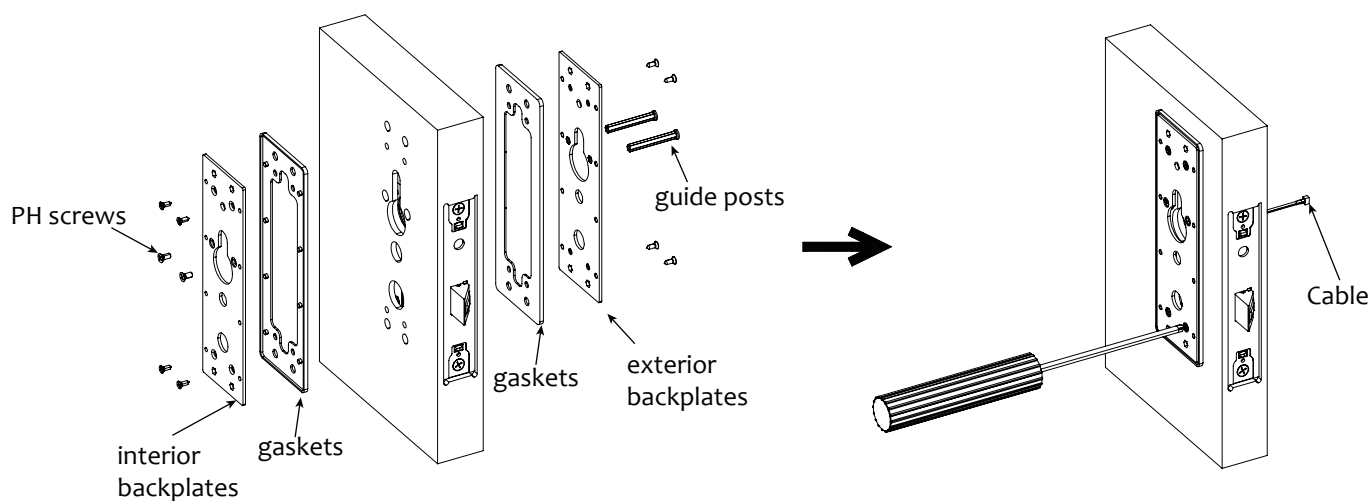


(Figure 9)

c

Install base plate and gasket (Figure 10)

- Pay attention to the inside/outside base plate, and top/bottom orientation
- Position the outside base plate and gasket against flush to door, insert the guide pin through the outside base plate and the lock body.
- Position the inside base plate and gasket flush to door, and secure the base plate both sides with 2 screws.
- Fasten the base plates and gaskets with 8 screws.



(Figure 10)

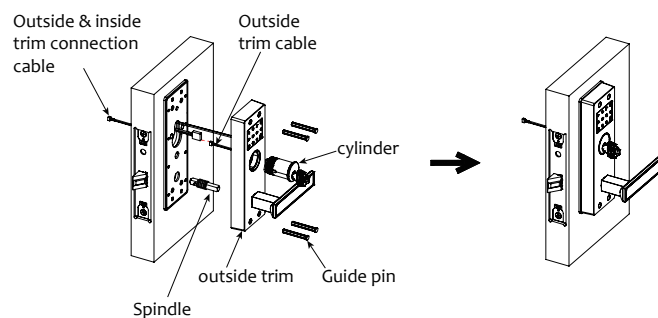
Electronic Mortise Lock

6

Installation

d Install outside trim (Figure 11)

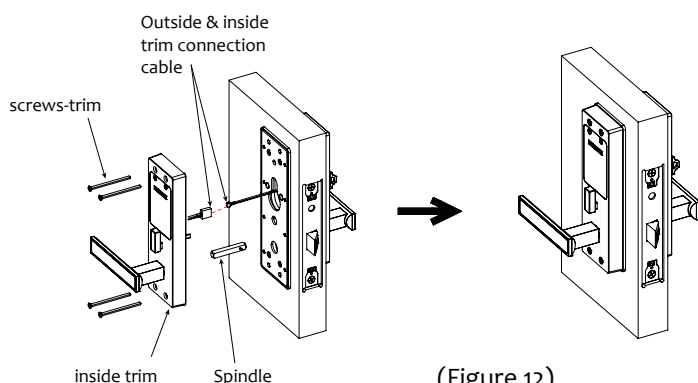
- Route the “outside & inside trim connection cable” to the inside of door.
- Connect the motor cable with outside trim cable.
- Install the spindle, outside trim, guide pin, cylinder in sequence.
- Screw the cylinder into the trim without fully tightening, tighten only enough to prevent the trim from falling off.



(Figure 11)

e Install inside trim (Figure 12)

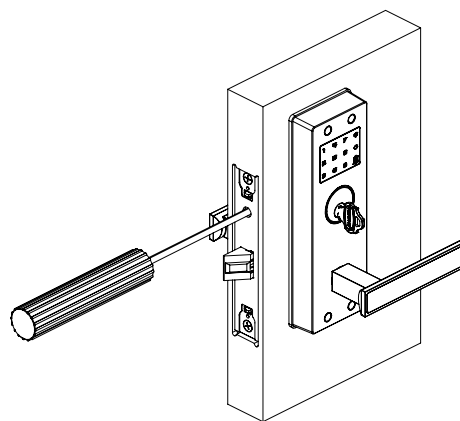
- Connect the two cable connectors, and place the cable into the door pocket.
- Install the spindle, inside trim, and screws in sequence, then tighten the 4 screws.



(Figure 12)

f Install cylinder (Figure 13)

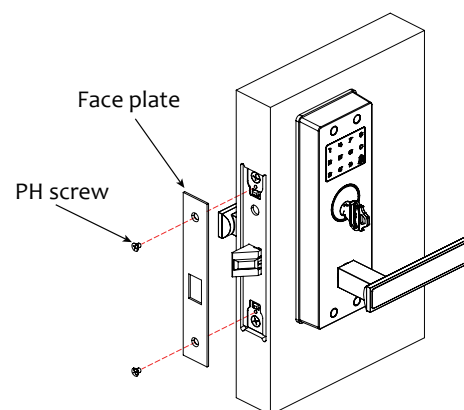
- Rotate the cylinder into the lock body until it is flush with the trim surface, ensuring the cylinder logo is level and facing upward.
- Slightly withdraw the key from the cylinder to assist installation.
- Keep the key vertical, tighten the cylinder retaining screw using a Phillips screwdriver.
- Ensure correct keyway orientation and smooth cylinder operation; verify latch and deadbolt function with the key.



(Figure 13)

g Install face plate (Figure 14)

- Install the face plate back to the lock front, and tight with two screws.



(Figure 14)

Electronic Mortise Lock

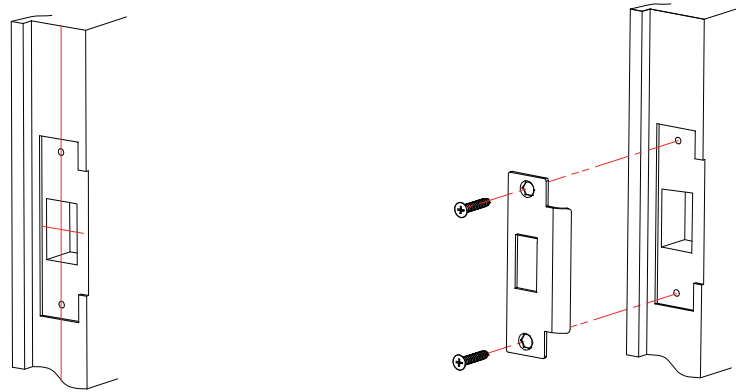
6

Installation

h

Mortise and install strike (Figure 15)

- Mortise the pocket $3\frac{3}{4}" \times 15/16" \times 1\frac{1}{8}"$ (95×24×28.5mm) for latch bolt and dead bolt according the strike template.
- Make cutout $4\frac{7}{8}" \times 1\frac{1}{4}" \times 1/8"$ (124×32×3.4mm) for strike plate according to the strike template.
- Fix the strike and strike box with 2 screws, make sure that the dead bolt can be completely projected after the door is closed.
- Make sure that the auxiliary latch will lock the latch bolt after the door is closed.



(Figure 15)

7

Trial Operation

- If resistance is encountered, do not force operation. Verify correct orientation and adjust if necessary.

a

Operate the key (if equipped) to ensure it works smoothly and test if it can operate the both bolts.

b

Operate the thumb turn (if equipped) and rotate to ensure smooth operation without friction, and properly locks and unlocks the latches.

c

Test levers. Inside lever must able to retract latch bolt. If with easy unlock function, inside lever can also retract deadbolt. Outside lever can/can't retract latch bolt depending on different functions, but must not retract deadbolt.

d

Refer to the electronic lock manual, set the master code and test the pin code, and RFID card unlocking functions.

Note: Perform all functional tests with the door in the open position. Do not close the door until all functions operate correctly.