K100-620 Aperio Cabinet Lock Series Installation Instructions

HES, Inc.
Phoenix, AZ
1.800.626.7590
www.hesinnovations.com

Aperio Cabinet Lock Components

Installation Hardware

Antenna/Reader

Lock Body

Key Override Paddle
1X

Battery Cover
1X

Washer
1X

6 x 1/2"
3X

2-56x3/8"
2X

0-80x½"
1X

2-56x1-1/4"
1X

Shaft Extension
1X

Mounting Templates

DOOR STOP
(INSIDE FACE OF DOOR STOP HERE)
STRIKE
PILOT HOLES
1X

DOOR STOP
(INSIDE FACE OF DOOR STOP HERE)
STRIKE
PILOT HOLES
1X

DOOR STOP
(INSIDE FACE OF DOOR STOP HERE)
STRIKE IN LOCK
PILOT HOLES
1X

Strike Plate

Battery
1X

6-32 screws

5/16"
1X

1"
2X

1-1/4"
2X

1-5/8"
1X

1-3/4"
2X

1-7/8"
2X

2-1/2"
2X

Quick Installation Summary

1. Mark

2. Drill

3. Configure

4. Install

5. Connect
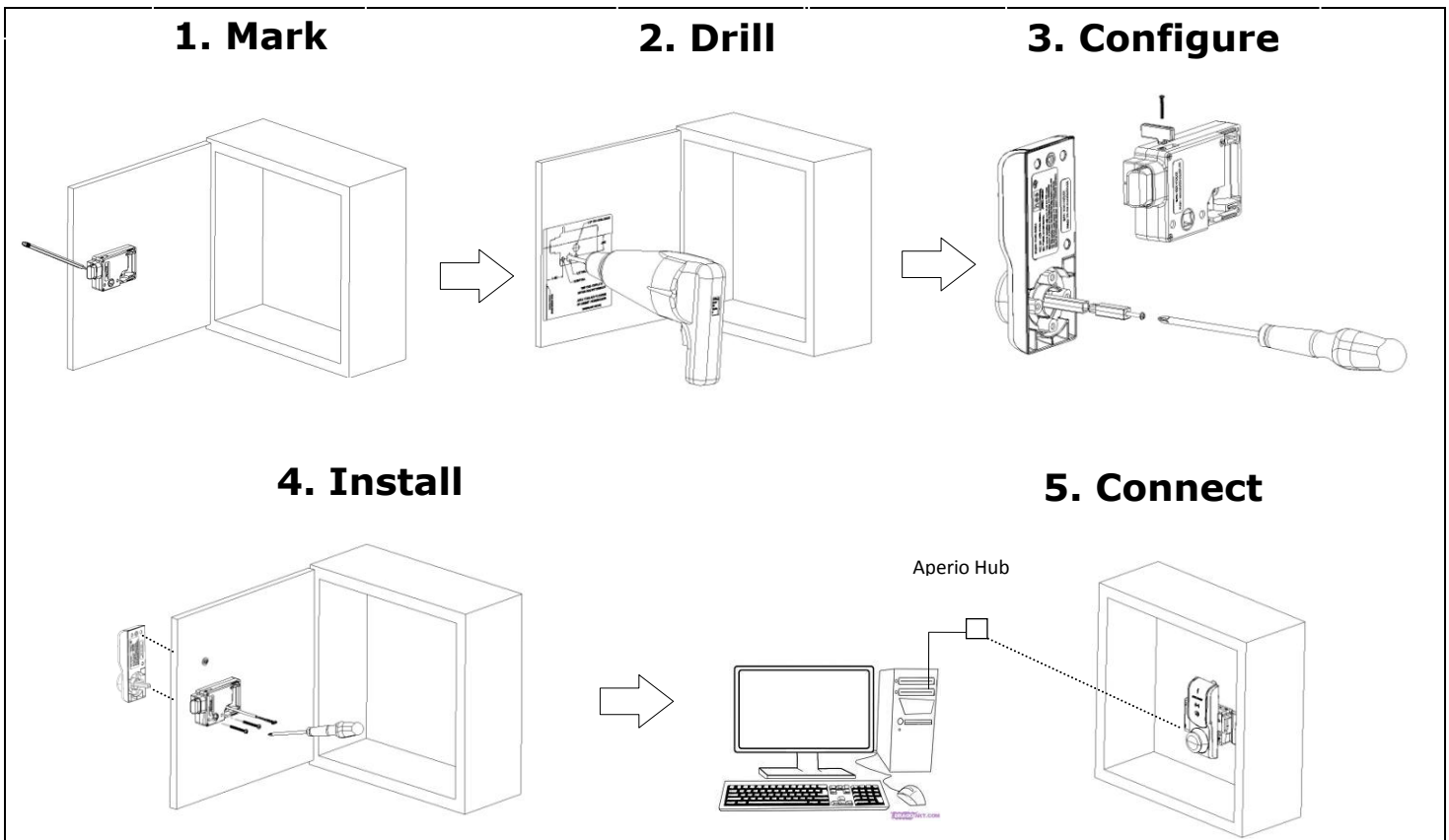
Aperio Hub

Installation Details

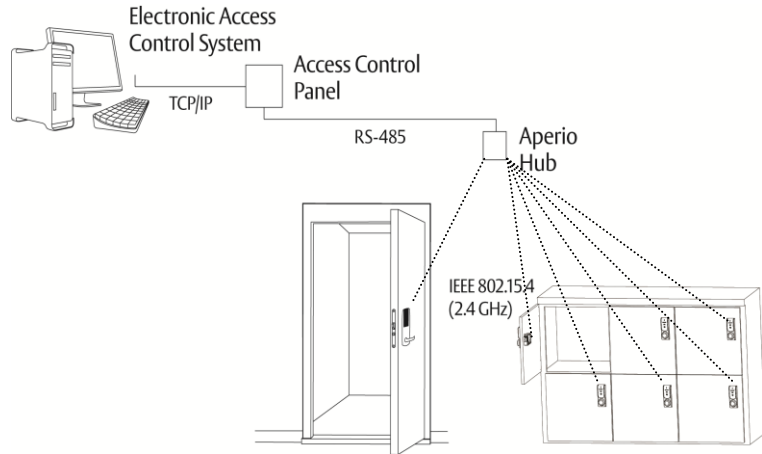|		
1	**Before You Begin.**	
	For a stable and reliable radio link, make sure the locker, drawer or cabinet on which you are installing the K100 is within fifty (50) feet of an Aperio hub. (For details on installing an Aperio Hub, please refer to the *Aperio Hub Installation Instructions.*)	Electronic Access Control System TCP/IP Access Control Panel RS-485 Aperio Hub IEEE 802.15.4 (2.4 GHz)

Mark

2	**Establish the horizontal centerline of the latch.**

2a. Hold the lock body to the inside of the door and position it generally where you would like it to mount. Locate lock centerline notch on the latch and use a pencil to mark this point on the inside of the cabinet door.

2b. Draw the horizontal latch centerline from this mark on the inside of the cabinet door.

2c. Next, transfer this centerline to the inside of the cabinet or the second door on a double-door cabinet.

2a. Mark cabinet at centerline notch

Latch centerline notch

2b. Draw latch centerline

2c. Transfer latch centerline
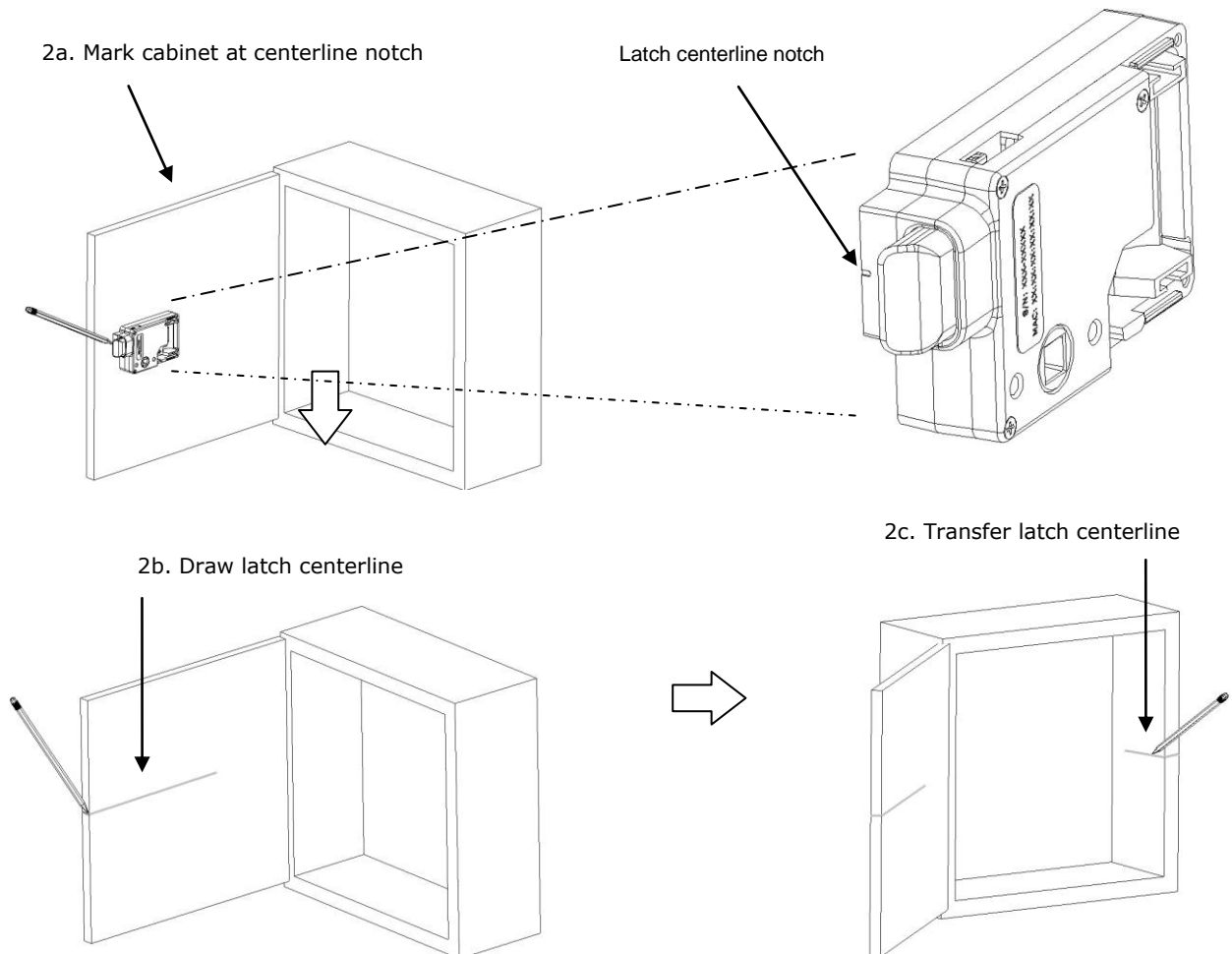
3	**Transfer the location of the inside wall of the cabinet to the door.**

3a. Measure the horizontal distance between the inside edge of the cabinet and the door edge.
3b. Using the same distance away from the door edge, draw a line on the **inside** surface of the door. This line depicts the location of the strike mounting surface.

Measure the distance from the inside edge of the cabinet to the edge of the door.

Door edge

3a. Cabinet/door front view

Mark the location of the inside wall of the cabinet to the door.

3b. Draw a line on the door that depicts the location of the inside edge of the cabinet
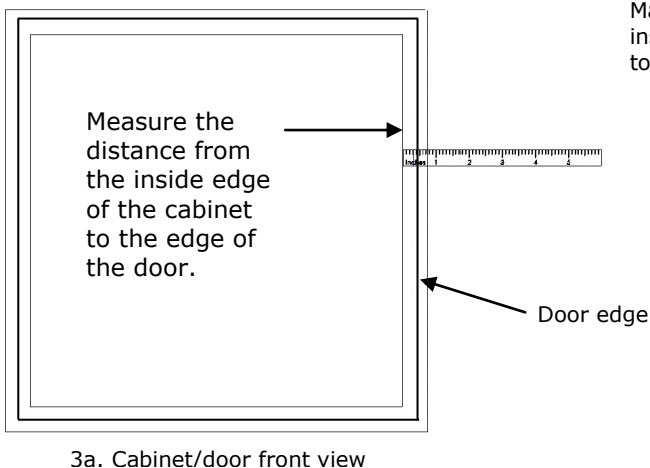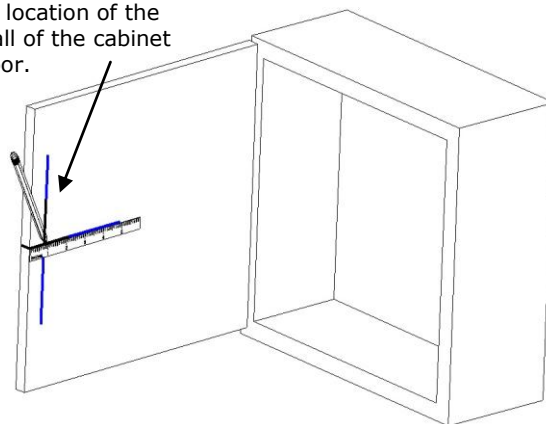
Drill

4	**Place and use the Lock Template.**

4a. Peel off the protective layer of the Lock Template and align to both the latch centerline and the line depicting the inside wall of cabinet. Press to secure.

4b. Drill four holes through the cabinet, as shown. Two holes are 5/32" diameter and two are 1/2" diameter.

4c. Remove the lock template from the door.

4a. Align and place template.
4b. Drill.
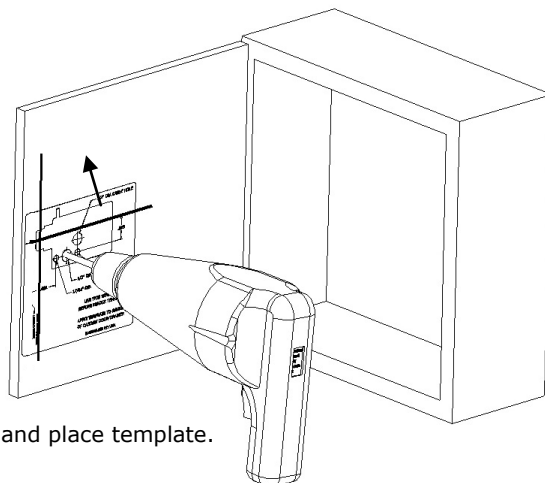
5	**Place and use the Reader Template.**

5a. Peel off the protective layer of the Reader Template and align it to both holes drilled in the previous step.

5b. Drill **only one** 5/32" hole depending on the desired antenna/reader orientations (see below).

5c. Remove the Reader Template from the door.

A   **B**   **C**
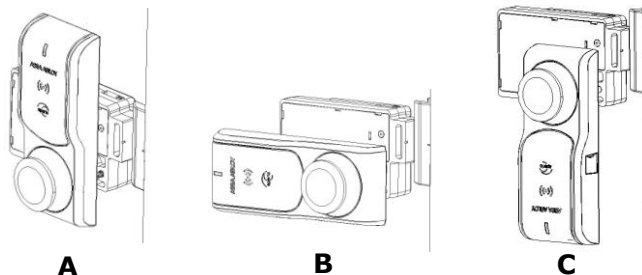
NOTE: Some antenna/reader orientations may prevent use of the key override function. For example, in the door handing shown here, manual override cannot be used in orientation "A", but it can be used in orientations "B" and "C".

5a. Align template to existing holes.
5b. Drill only **one** hole of the three possible antenna/reader orientations
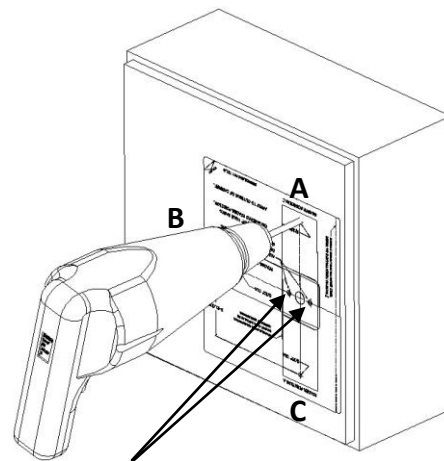
Configure

6	**Install the Shaft Extension.**	

If your cabinet door thickness is greater than ½", install the Shaft Extension to the Antenna/Reader to ensure proper engagement into the lock. Install the Shaft Extension to the shaft as shown here and firmly tighten the screw.
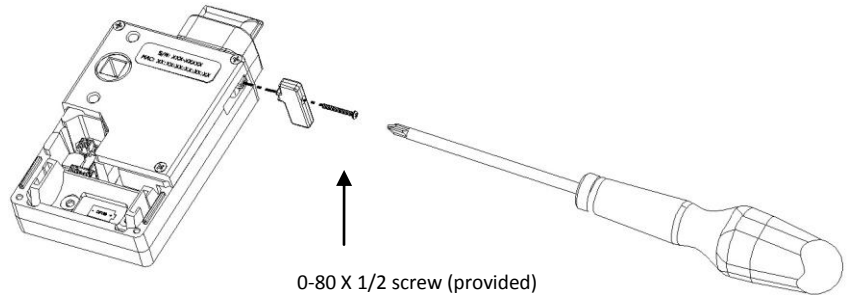
Table 1

Door Thickness	Extension Shaft Used?
1/16" – ½"	NO
> ½" – 1 ½"	YES

Shaft Extension

2-56 X 1-¼ screw (provided)

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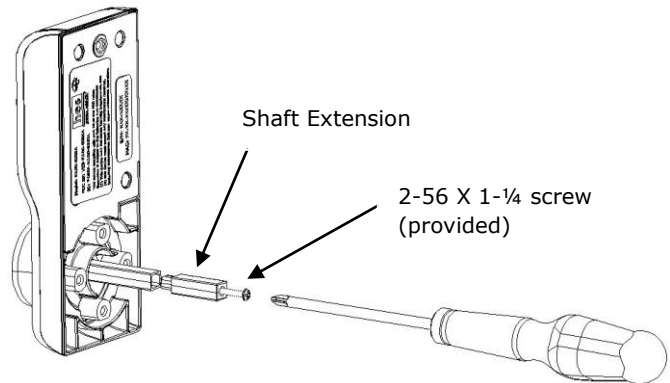
7   **Install the Key Override Paddle.**

If a Key Override is used, install the Key Override Paddle on the arm of the lock body as shown here and firmly tighten the screw.

0-80 X 1/2 screw (provided)

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8   **Key Override Door Preparation.**

If a Key Override is used, drill a hole in the door based on cam length (**R**).

8a. Measure cam length (**R**).

8b. Calculate the distance from the lock features based on the image to the right.

8c. Drill a hole in the door based on the cam lock installation instructions.

3/8"

Drill hole in door based on cam lock installation

R

$Y = 1\frac{1}{8}" + R$

Key Override Paddle

S/N: XXX-XXXXX
MAC: XX:XX:XX:XX:XX:XX

Latch centerline
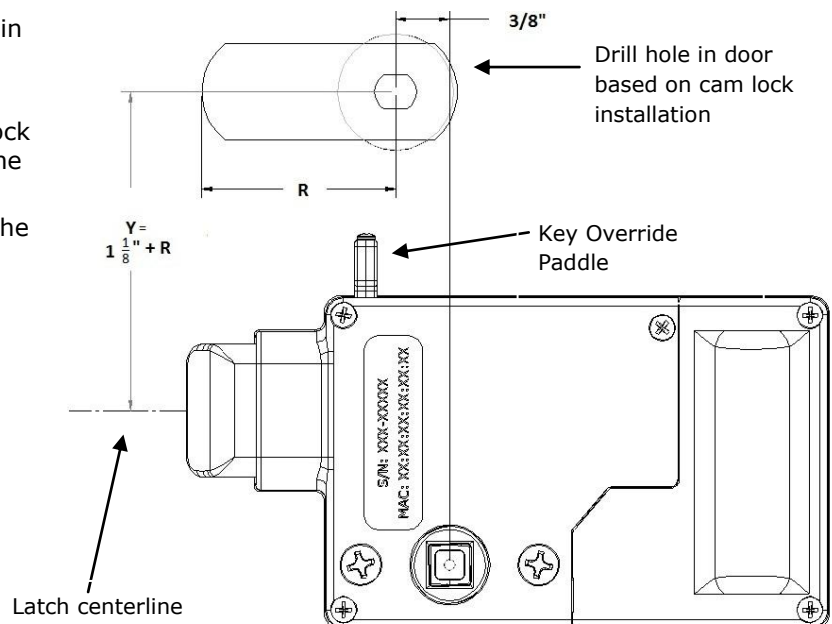
Install

| 9 | **Install the antenna/reader.** |

9a. Place and hold the antenna/reader to the outside of cabinet, routing the wire through the 1/2" offset hole.

9b. Install the washer and top screw, which attach the antenna/reader to the outside case.

Refer to the table below to determine the length of the top mount screw needed, based on the thickness of the cabinet door.
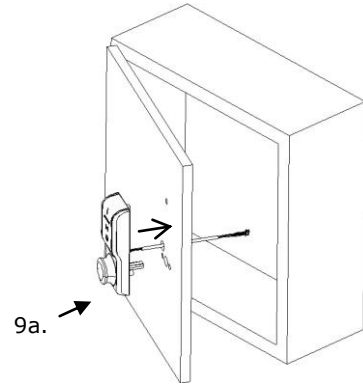
WARNING!

Make sure you avoid crimping the wires. Crimped wires may prevent the Reader and Lock from functioning.

9a.

Reader mounting. Washer and screw.

9b.

6-32 screws

Lock Mounting		
	Door thickness range [in]	Screw length [in]
	1/16 - 5/16	1 1/4
	5/16 - 3/4 *	1 3/4
	3/4	1 7/8
	3/4 - 1 1/2 *	2 1/2
Reader Mounting		
	1/16 - 5/16	5/16
	5/16 - 3/4 *	1
	3/4 - 1 1/2 *	1 5/8

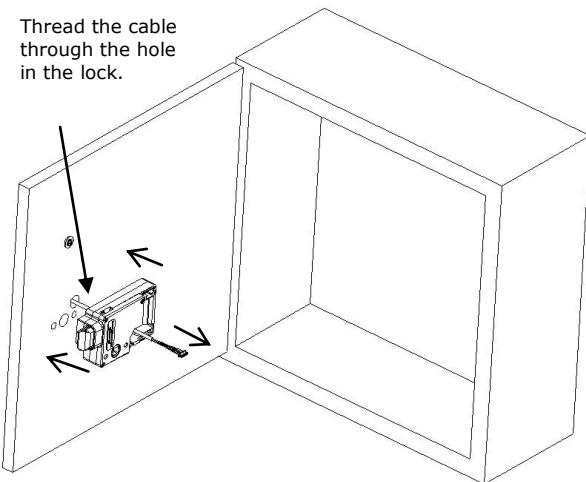* May require cutting the fastener.
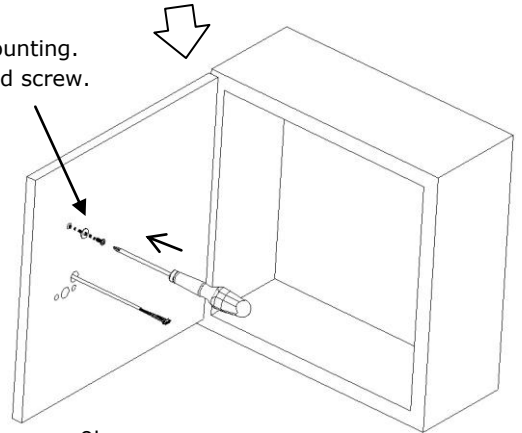
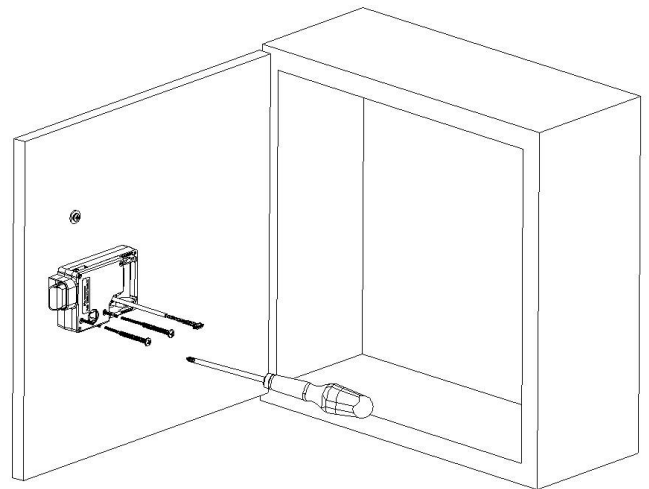**Table 2**

| 10 | **Install the lock.** |

10a. Remove the battery cover from lock. Place the lock on the inside of the door, threading the cable through the lock.

10b. Using two 6-32 lock mount screws (see table 2 for length), attach the lock to the antenna/reader. Tighten the screws.

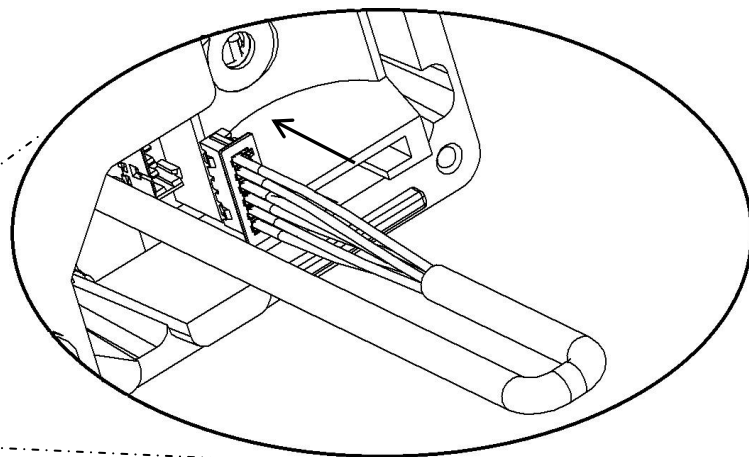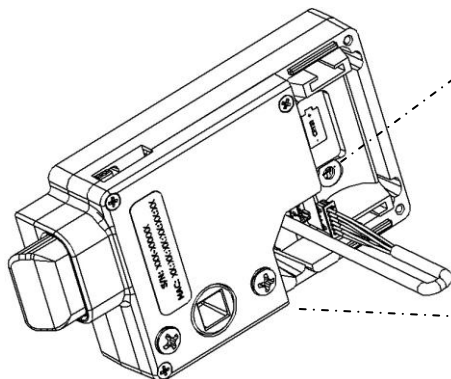Thread the cable through the hole in the lock.

10a. Place the lock and thread cable.

10b. Attach the lock to the antenna reader.

11	**Electrically connect the antenna/reader wire to the lock body.**
	Make sure to correctly orient connector while inserting it. It only goes in one way.

| 12	**Install the battery and operational check.**
	12a. Install the battery, noting correct polarity position
	12b. Wait approximately 10 seconds for the lock to initialize.
	12c. Check that the knob cannot be rotated and that the unit is locked.
	12d. Gently tuck the wires into the battery cavity.
	12e. Install the battery cover by inserting and tightening the provided screws.
	12f. Present a valid iClass or 125kHz prox credential to unlock the cabinet lock.
	Note: Note: See WEMN4 Aperio Programming Application for programming credential.

12a.

12d.
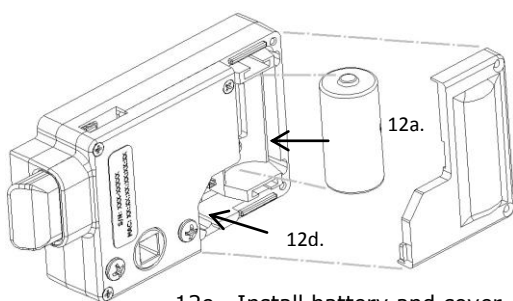
12e. Install battery and cover.
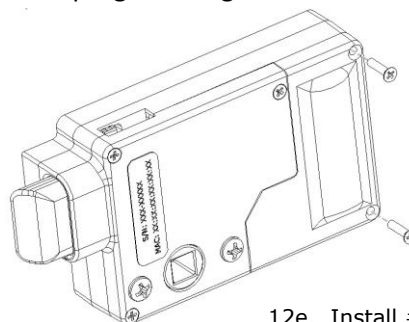
12e. Install #2-56 screws

Note: Always use new batteries installed with correct polarity.
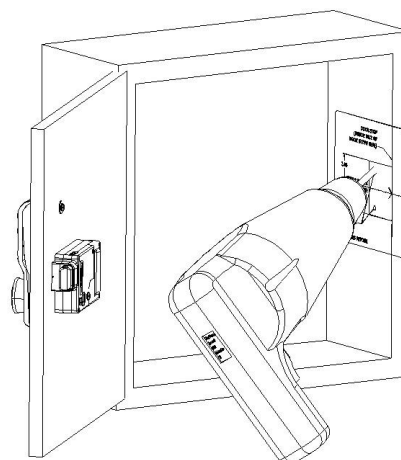
Configure the lock before continuing! Refer to the *Aperio Technology Installation Manual* for details.

| 13	**Place the single-door Strike Plate Template.**
	13a. Peel off the protective layer of the Strike Plate Template and align it to both the latch centerline and the edge of cabinet.
	13b. Drill two pilot holes as shown.
	13c. Remove the template.

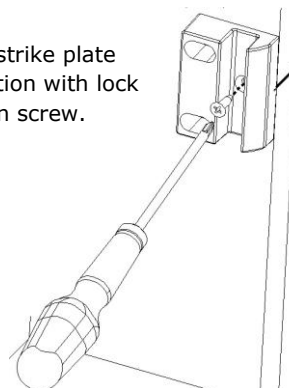| 14	**Install the single-door strike plate.**
	14a. Place the strike plate over the pilot holes. Insert and tighten two screws in the slotted holes.
	14b. Close the door to verify installation. Adjust the strike plate if necessary.
	14c. After adjusting, insert and tighten the lock down screw on the strike plate.
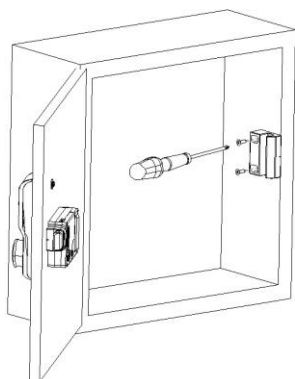
14a-b.
Place strike plate and adjust.

14c.
Set strike plate position with lock down screw.

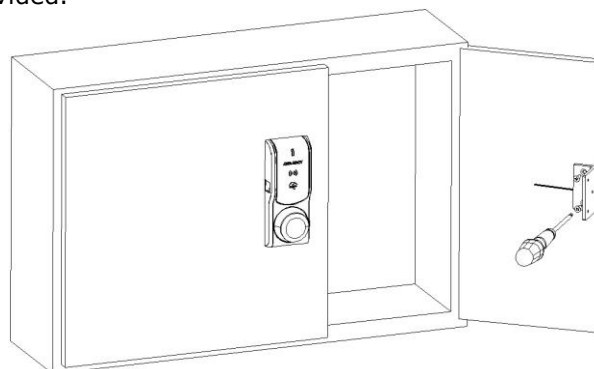**Note:** Do not install lock-down screw until the strike plate is correctly adjusted.

OPTIONAL DOUBLE-DOOR INSTALLATION

| 15	**Install the Double-Door Strike Plate Mounting Bracket (Model 620-DD).**
	15a. Place the bracket on door, making sure it aligns with the mark made in Step 2c and the edge of the door. Mark the door.
	15b. Remove the bracket and drill pilot holes at the two marks.
	15c. Install the bracket using the mounting screws provided.
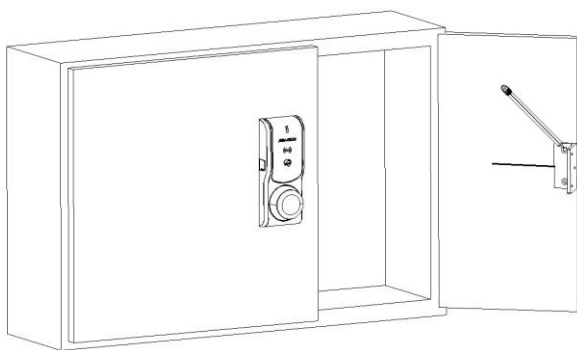
15a. Align the bracket with the line and edge of the door.

15b. Place the bracket and drill two pilot holes
15c. Install and tighten mounting screws.

16	**Install the double-door strike plate.**
	16a. Place the strike plate over the holes on the 620-DD bracket. Insert and tighten the two 6-32 X 5/16"screws provided with the 620-DD option.
	16b. Close the door to verify installation. Adjust the strike plate if necessary.
	16c. After adjusting, insert and tighten the lock-down screw on the strike plate.

16.c Set the strike plate position with the lock-down screw.
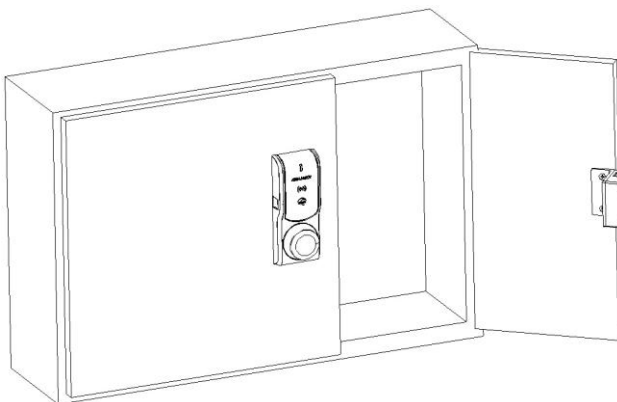
16.a-b.
Place the strike plate and adjust.
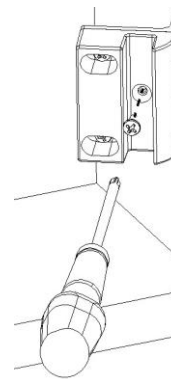
Note: Do not install the lock-down screw until the strike plate is correctly adjusted.

17 LED Indications

17a. Lock normal operation LED indication

The lock has three LEDs. They support an optical scheme with red, yellow and green. The indication scheme is described by the figures below:
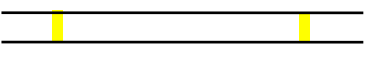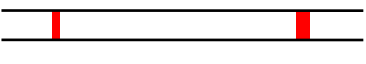
Card read (configurable)		One yellow flash (.25 second)
Access granted, EAC offline or online		One green flash (1 second)
Access denied, EAC online		One red flash (1 second)
Access denied, EAC offline		Three red flashes (.5 s each)
Lock mechanism is blocked when closing [1]		Continuous red flashes (.125 seconds every 1 second)
Error in lock, maintenance required [2]		Ten red flashes (.125 seconds each) repeated if lock can't close
Time to replace the battery		Continuous yellow flashes (.25 seconds every 5 seconds)
Battery reached end of life, lock disabled		Continuous red flashes (.25 seconds every 5 seconds)

Fig. Lock Normal operation LED indication

NOTE 1: When the lock mechanism is blocked (lock jammed) the knob must be turned to release it.

NOTE 2: The "Error in lock" indication is also shown instead of the POST flashes if the battery is not accepted as new after a power-on-reset.

17b. Lock maintenance LED indication

Some special LED indication schemes are used during lock maintenance actions:

Enter configuration mode		Five yellow flashes (.125 seconds each)

Fig. Lock Normal operation LED indication

17c. Lock self test LED indication

After replacing the battery, a Power on Self Test (POST) is performed. The result is indicated using a series of red and green LED flashes as is described by the figure below:
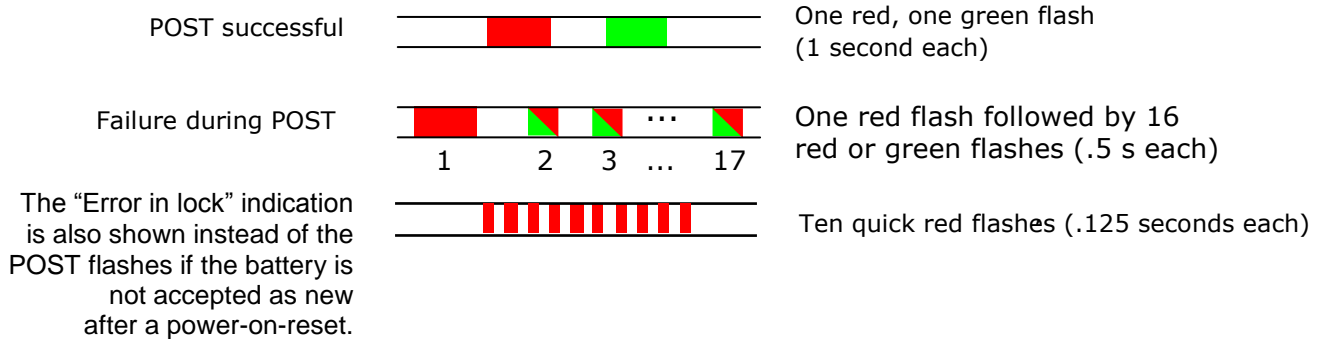
POST successful — One red, one green flash (1 second each)

Failure during POST — One red flash followed by 16 red or green flashes (.5 s each)

1   2   3   …   17

The "Error in lock" indication is also shown instead of the POST flashes if the battery is not accepted as new after a power-on-reset. — Ten quick red flashes (.125 seconds each)

Fig. Lock POST LED indication

The first flash is always red. If the POST fail, the color of the 16 trailing flashes indicate the status of each individual test as described by the following table:

Blink	Meaning if red	Code in event log
2	Main board firmware corrupt	0x0001
3	Override list corrupt	0x0002
4	Production data corrupt	0x0004
5	Security data corrupt	0x0008
6	Configuration data corrupt	0x0010
7	Battery power low	0x0020
8	RFID reader circuit error	0x0040
9	Voltage regulator error	0x0080
10	Card detection circuit error	0x0100
11	Secure area communication error	0x0200
12	Secure area memory corrupt	0x0400
13	Secure area sensor or motor error	0x0800
14	Radio modem communication error	0x1000
15	Radio modem memory corrupt	0x2000
16	Radio modem configuration error	0x4000
17	Radio modem RF circuit error	0x8000

FCC Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

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

Operation with non-approved equipment is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

IC Statement

This device complies with Industry Canada license-exempt RSS standards(s).
Operation is subject to the following two conditions:

 (1) this device may not cause interference, and

 (2) this device must accept any interference, including interference that may cause undesired operation.

Conformité aux normes FCC

Cet équipement a été testé et trouvé conforme aux limites pour un dispositif numérique de classe B, conformément à la Partie 15 des règlements de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre des fréquences radio et, s'il n'est pas installé et utilisé conformément ment aux instructions du fabricant, peut causer des interferences nuisibles aux communications radio. Rien ne garantit cependant que l'interférence ne se produira pas dans une installation particulière. Si cet équipement provoque des interférences nuisibles à la réception radio ou de télévision, qui peut être déterminé en comparant et en l'éteignant, l'utilisateur est encouragé à essayer de corriger les interférence par une ou plusieurs des mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.

- Augmenter la distance entre l'équipement et le récepteur.

- Branchez l'appareil dans une prise sur un circuit différent de celui auquel le récepteur est connecté.

- Consultez votre revendeur ou un technicien radio / TV pour assistance.Avertissement

Les changements ou modifications à cet appareil sans expressément approuvée par la partie responsable de conformité pourraient annuler l'autorité de l'utilisateur de faire fonctionner cet équipement.

Conformité aux normes IC

Cet appareil est confrome avec Industrie Canada exempt de license RSS standard(s).
Son fonctionnement est souimes aux deux conditions suivantes:

(1) cet appareil ne peut causer d'interférences, et

(2) cet appareil doit accepter toute interference, y compris des interférences qui peuvent provoquer un fonctionnement indésirable du périphérique.