## HES K200-622 Cabinet Lock Series Installation Instructions

## ASSA ABLOY

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Phillips drivers P0, P2

Pencil, Wire Stripper

## **Recommended Tools**

Drill, Drill bits: 5/32", 1/2"

Approved Credential:

i.e. iCLASS or Prox ID card

## **Specifications**

<b>Voltage:</b> 12–24 VDC ±10% (Power Supply not provided)							
HES K200-622 (Reader) Current Consumption:							
12 VDC:	38 mA peak for Red and Green LED only						
	226 mA peak for Red and Green LED and Motor Drive						
24 VDC:	17 mA peak for Red and Green LED only						
118 mA peak for Red and Green LED and Motor Drive							
Operating Temperature: -10C to 50C							
Holding Force:	Holding Force: 150 lbs						

Optional:

Cam lock for key override

Molex 8-Pin Connector Pin	Wire Color	Description
1	Black	12 VDC Reader (–)
2	White	Wiegand Data (1)
3	N/A	N/A
4	N/A	N/A
5	Red	12 VDC Reader (+)
6	Green	Wiegand Data (0)
7	Blue	Red LED
8	Yellow	Green LED
Molex 4-Pin Connector Pin		
1	Violet	12/24 VDC / Lock (COM, –)
2	Pink	Tamper / DPS (NC, +)
3	Gray	12/24 VDC / Lock (COM, +)
4	Tan	Tamper / DPS (COMM, –)

**LED Function:** LED states are controlled and defined by the User's EAC. Enabling the red and green LEDs on the HES K200 occurs via an active low (ground) signal.

Output Type: SIAAC-01-1996 Wiegand Output Compliant.

#### FCC Part 15, Compliant, Industry Canada Compliant

#### BHMA: A156.3, A156.36, A156.25 Compliant

**NOTE:** Contact HID Global Technical Support at (866) 607-7339 for additional configuration cards to enable the credential capabilities of "iCLASS Elite" and "NFC over HCE."

**Credentials Supported:** 125 kHz Proximity or 13.56 MHz iCLASS, iCLASS Elite, iCLASS SEOS, iCLASS SE, ISO 15693 ICLASS, ISO 14443A Mifare, Mifare Plus, Desfire SE, Desfire EV1, and NFC over HCE.

### SYSTEM OVERVIEW

The HES K200-622 wired cabinet lock (K200) extends access control to a cabinet or drawer. The HES K200 lock is capable of reading radio-frequency identification (RFID) credentials and providing that credential data to an electronic access control (EAC) system via Wiegand data signaling. The EAC is responsible for determining whether user access should be granted or denied. When the EAC provides an active-high unlock signal to the lock in the access granted case, the HES K200 drives a motor to complete the unlock/lock cycle. EAC indication of user access/denial is provided to the user by way of LED control inputs on each lock. Additional lock monitoring features (e.g., door position, tamper) are monitored within the lock and status of each is provided to the EAC.



## **MOUNTING THE LOCK**

**NOTE:** The HES K200 reader and lock body can be oriented in several ways to accommodate various cabinets and drawers. When selecting an orientation, it should be noted that some reader orientations may prevent use of the key override function. For example, in the door handing shown here, the key override paddle cannot be accessed in orientation "A", but it can be accessed in orientations "B," "C" and "D".



- 1. ESTABLISH the horizontal centerline of the latch.
  - a. HOLD the lock body to the inside of the door and POSITION it generally where you would like it to mount.
  - b. LOCATE lock centerline notch on the latch, and MARK this point on the inside of the cabinet door using a pencil.
  - c. DRAW the horizontal latch centerline from this mark on the inside of the cabinet door and TRANSFER it to the outside of the cabinet door.
  - d. TRANSFER this centerline to the inside of the cabinet or the second door on a double-door cabinet.



- 2. TRANSFER the location of the inside wall of the cabinet to the door.
  - a. MEASURE the horizontal distance between the inside edge of the cabinet and the door edge.

**NOTE:** The drawn line depicts the location of the strike mounting surface.

- b. LOCATE the lock centerline notch on the latch and MARK this point on the inside of the cabinet door using a pencil.
- c. DRAW the horizontal latch centerline from this mark on the inside of the cabinet door and TRANSFER it to the outside of the cabinet door.



Cabinet/door front view

3. PLACE and USE the Lock/Reader Template.

**NOTE:** The orientation will be reversed for a right hand door.

- a. CUT through line to separate the Strike Plate Template.
- b. PEEL OFF the protective layer of the Lock Template, ALIGN it to both the latch centerline and the line depicting the inside wall of cabinet, and PRESS to secure.
- **NOTE:** Two of the holes in the following step are 3/16" [4.76 mm] diameter and two are 1/2" [12.70 mm] diameter. The two pilot holes are 1/16" [1.59 mm].
- c. DRILL four holes and two pilot holes through the cabinet, as shown in the figure below.
- d. DRILL only one 3/16" [4.76 mm] hole, depending on the desired Antenna/Reader orientation.

3a





- e. **IF** the optional key override will be installed, **THEN** GO TO Step 5.
- f. REMOVE the lock template from the door.

4. INSTALL the shaft extension.

IF the cabinet door thickness is greater than 1/2" [12.70 mm] (see Table 1),

**THEN** INSTALL the Shaft Extension to the Antenna/Reader as shown below to ensure proper engagement into the lock. Firmly tighten the screw.



#### Table 1

Door Thickness	Extension Shaft Used?
1/16" [1.59 mm] – 1/2" [12.70 mm]	
> 1/2" [12.70 mm] - 1-1/2" [38.10 mm]	Yes

- IF a Cam Lock key override will be used, AND the orientation allows for installation, THEN INSTALL the Key Override Paddle.
  - a. INSERT the paddle's arm into the opening shown, and ALIGN the rails of the paddle to the ones on the lock.
  - b. SLIDE the paddle gently until it stops.



6. PREPARE the Key Override Door.

6a

**NOTE:** The Cam Lock is optional and is not included with the HES K200.

- a. **IF** a Key Override is used, **THEN** MARK and DRILL a hole for a 3/4" [19.05 mm] Cam Lock in the door using the template as a guide.
- b. INSTALL the optional Cam Lock with the Cabinet Lock as shown in the figure.



Part Number 3085006.001, Rev 3

#### 7. INSTALL the Antenna/Reader.

#### CAUTION

#### Pinching the wires may prevent the Reader and Lock from properly functioning.

- a. PLACE and HOLD the antenna/reader to the outside of cabinet, routing the wire through the 1/2" [12.70 mm] offset hole, and ENSURE the knob is in the vertical, locked position.
- **NOTE:** Use Table 2 to determine the length of the top mount screw needed, based on the thickness of the cabinet door.
- b. INSTALL the top mount screw to attach the antenna/reader to the outside case.





Door Thickness	Reader Mounting	Approximate Screw Cut Length	Lock Mounting	Approximate Screw Cut Length
1/16" [1.59 mm]	8-32 x 5/16" [4.00 mm x 7.94 mm]	No cut	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	1 1/16"
¼" [6.35 mm]	8-32 x 5/16" [4.00 mm x 7.94 mm]	No cut	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	1 3⁄4"
½" [12.70 mm]	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	5/8"	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	1 7/16"
¾" [19.05 mm]	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	7/8"	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	No cut
1" [25.40 mm]	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	1 1/8"	8-32 x 2 1/2" [4.00 mm x 63.50 mm]	2"
1 ¼" [31.75 mm]	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	1 3/8"	8-32 x 2 1/2" [4.00 mm x 63.50 mm]	No cut
1 ½" [38.10 mm]	8-32 x 1 3/4" [4.00 mm x 44.45 mm] Breakaway	No cut	8-32 x 2 1/2" [4.00 mm x 63.50 mm]	No cut

#### Table 2

#### 8. INSTALL the lock body.

- a. REMOVE the cover from lock body.
- b. PLACE the lock on the inside of the door, threading the cable through the lock.
- c. ATTACH the lock to the antenna/reader using two 8-32 [4.00 mm] lock mount screws (see Table 2 for length), and TIGHTEN the screws.
- d. INSTALL the two #6 [3.5 mm] self-threading screws, and TIGHTEN.
- **NOTE:** The third #6 [3.5 mm] self-threading screw is important to achieve maximum holding force for doors greater than 5/8" [15.88 mm] thick.
- e. INSTALL the third #6 [3.5 mm] self-threading screw only if the door is greater than 5/8" [15.88 mm] thick, using the lock as a guide, and TIGHTEN.



9. CONNECT the antenna/reader wire to the lock body.

**NOTE:** The antenna/reader wire connector is engineered to fit only one way.

- a. INSERT the antenna/reader wire connector, ensuring correct orientation
- b. TUCK excess cable into the lock body.
- c. ATTACH the cover.



#### 10. Attaching the Wiring

#### ATTENTION OBSERVE PRECAUTIONS FOR HANDLING

ELECTROSTATIC SENSITIVE DEVICES

#### New 4-/8-Pin Molex

#### Integrated Wiegand: K/KS200 Cabinet Locks, ElectroLynx Wire Color/Function Assignments

Connecto r	8-Pin Molex Connector							4-Pin Molex Connector				
Pin/Wire Color	1 Black	2 White	3 N/A	4 N/A	5 Red	6 Green	7 Blue	8 Yellow	1 Violet	2 Pink	3 Gray	4 Tan
Function	12 VDC Reader	Wiegand Data	N/A	N/A	12 VDC Reader	Wiegand Data	LE	ED	12/24 VDC/ Lock	Tamper / DPS	12/24 VDC/ Lock	Tamper / DPS
Setting	NEG	Data 1	N/A	N/A	POS	Data 0	RED	Green	COM, -	NC, +	COM, +	COM, -

#### Legacy 10-Pin Molex to 4-/8-Pin Molex

#### Integrated Wiegand: K/KS200 Cabinet Locks, ElectroLynx Wire Color/Function Assignments

Connector	r 8-Pin Molex Connector								4-Pin Molex Connector			
Pin/Wire Color	1 Black	2 White	3 N/A	4 N/A	5 Red	6 Green	7 Orange	8 Brown	1 Gray	2 Yellow	3 Violet	4 Blue
Function	12 VDC Reader	Wiegand Data	N/A	N/A	12 VDC Reader	Wiegand Data	LI	ED	12/24 VDC/ Lock	Tamper/ DPS	12/24 VDC/ Lock	Tamper/ DPS
Setting	NEG	Data 1	N/A	N/A	POS	Data 0	RED	Green	COM, -	NC, +	COM, +	COM, -

- a. CONNECT the Lock Side Interface Cable to the lock.
- b. CONNECT the Lock Side Interface Cable to the optional System Side Interface Cable (see Connector and Cable Diagram).
- c. RUN the System Side Interface Cable, as required.
- d. ATTACH the included 4-Pin and 8-Pin Molex Female Connectors to the bare wire side of the System Side Interface Cable.



**NOTE:** It is recommended that 10-conductor, 24 AWG, cable be used.

Wire AWG	Supply Voltage	Allowed Cable Length (ft.)*					
00.000	12	872 6679					
20 AWG	24						
	12	548					
22 AVVG	24	4201					
24 0000	12	345					
24 AVVG	24	2641					
* Round trip loss. V =	Round trip loss. $V = 2 \times I \times R \times xft$ $xft = V / (2 \times I \times R)$						

11. ENSURE the following power cabling guidelines are followed:

12. POSITION the cable out of the way, as required.

- 13. PREPARE for the single door strike plate. (If installing on a double door, skip to Step 15)
  - a. PEEL OFF the protective layer of the Strike Plate Template and ALIGN it to both the latch centerline and the cabinet edge.
  - b. DRILL the two pilot holes shown on the template.
  - c. REMOVE the template.



#### CAUTION

#### The Installer must ensure that the lock can be opened before closing the cabinet door.

14. INSTALL the single door strike plate.

- a. PLACE the strike plate over the pilot holes, and INSERT and TIGHTEN the two screws in the slotted holes.
- b. CLOSE the door to verify installation, and ADJUST the strike plate if necessary.
- c. INSERT and TIGHTEN the lock down screw on the strike plate.



#### 15. INSTALL for the double-door strike plate mounting bracket. (OPTIONAL)

**NOTE:** The double-door strike plate bracket requires that one door can be inactive or secured.

- a. PLACE the bracket on door, making sure it aligns with the mark made in Step 2c and the edge of the door.
- b. MARK the door.
- c. REMOVE the bracket and DRILL pilot holes at the two marks.
- d. INSTALL the bracket using the provided mounting screws.



16. INSTALL the double-door strike plate.

- a. PLACE the strike plate over the holes on the bracket.
- b. INSERT and TIGHTEN the three  $6-32 \times 5/16''$  (3.5 mm x 7.94 mm) provided screws.



## **FCC Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

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

## **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.

# **CE Statement**

ASSA ABLOY Electronic Security Hardware hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC (<u>http://ec.europa.eu/enterprise/sectors/rtte/files/guide</u>2009-04-20\_en.pdf).

# **Conformité aux normes FCC**

Cet appareil est confrome à la Partie 15 des règlements de la FCC. 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.

# 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.

# Conformité aux normes CE

HES déclare par la présente que ces lecteurs à proximité sont conformes aux exigences essentielles et aux autres stipulations pertinentes de la Directive 1999/5/CE (<u>http://ec.europa.eu/enterprise/sectors/rtte/files/guide2009-04-</u>20 en.pdf).

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# For Technical Support please call 1-800-626-7590

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