

# KS200 (Wiegand) & KS210 (OSDP) Integrated Wired Server Cabinet Lock



ASSA ABLOY

## Installation & Operating Instructions

Experience a safer  
and more open world

## Operation

To activate the KS200/KS210 integrated electronic access control Server Cabinet Lock, present a known/valid credential to the card reader. For emergency override, insert a valid key in to the SFIC (Small Format Interchangeable Core) cylinder and rotate to the unlocked position. Upon access granted, verify functionality by lifting and rotating the handle to release the locking cam and open the door.

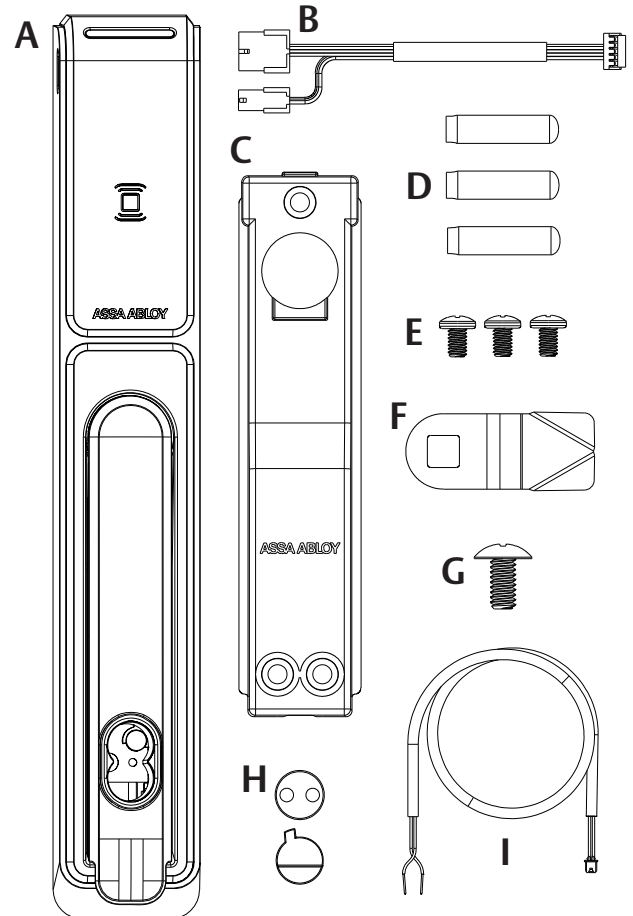
**NOTE:** The unit shall be powered by a UL294 listed power supply or access control output with a power limited Class 2 output. The DC input feed to the device shall be protected by 1A max rated over current protection provided at the installation site.

ASSA ABLOY recommends the use of Securitron and Life Safety Power power management products for use with ASSA ABLOY branded electromechanical and integrated electronic access control locking devices.

## Product Contents

- |  |   |
|--|---|
| <b>A</b> KS200/KS210 Lock Body                     | <b>G</b> Screw (1) #1/4-20 x 1/2" Truss Head Phillips |
| <b>B</b> Lock Interface Cable                      | <b>H</b> SFIC Cam & Spacer                            |
| <b>C</b> Rear Mounting Bracket                     | <b>I</b> Plug-In External DPS Adapter (Optional)      |
| <b>D</b> Connectors (3)                            |   |
| <b>E</b> Screws (3) #8/32 x 1/4" Pan Head Phillips |   |
| <b>F</b> Locking Cam                               |   |

Diagram 1: Product Components



## Recommended Tools

- Phillips #2 Screwdriver
- Cutting Wheel (As Required)

## Recommended Accessories

- **SFIC** Mechanical Core and Keys
- **KS-DPS** Door Open/Closed Status
- **CBL6-QC12** 6 ft Door Interface Cable
- **CBL12-QC12** 12 ft System Side Interface Cable
- **WT-2** Securitron Wiegand Test Box



### KS200

- **Contains FCC ID:** JQ6-ICLASSBTM
- **Contains IC ID:** 2236B-ICLASSBTM
- **WPC ID:** ETA-SD-20210402373

### KS210

- **FCC ID:** VC3-KS210
- **IC ID:** 7160A-KS210
- **WPC ID:** ETA-SD-20210402371



**WARNING:** This product can expose you to chemicals including lead, which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to [P65Warnings.ca.gov](http://P65Warnings.ca.gov).

# Specifications

Designed For Use With Data Server Cabinets (9U or larger).

- **Lock Prep** 150 x 25 mm
- **Locking Type** Cam Activated
- **Mechanical Key Override** SFIC 6 or 7-Pin (Sold Separately)
- **Holding Force** 350 lbs

## Electrical

- **Communication** KS200 (Wiegand TTL, SIAAC-01-1996) KS210 (OSDP RS-485, SIA v2.2, IEC 60839-11-5)
- **Card Technology** HID multiCLASS SE
- **HID Mobile Access** NFC or BLE
- **LED Visual Indicator** Red / Green / Amber
- **Voltage** 12 to 24 VDC (-10% to +15% per UL294)

## Environmental

- 32° to 122°F [-10° to 50°C]
- **Weather Resistance** Tested to meet IP54 (Not evaluated by UL)
- Indoor Use Only

## Current Consumption

| INPUT VOLTAGE            | 12 V DC | 24 V DC |
|--------------------------|---------|---------|
| Standby Avg <sup>1</sup> | 50 mA   | 40 mA   |
| Max Avg <sup>2</sup>     | 100 mA  | 75 mA   |
| Peak <sup>3</sup>        | 130 mA  | 130 mA  |

**1 Standby AVG** – RMS current draw without a card in the RF field with both LEDs active.  
**2 Maximum AVG** – RMS current draw during continuous card reads, and both LEDs active.  
**3 Peak** – Highest instantaneous current draw during RF Communication, in-rush, or unlock cycles.

## Certification & Listings

- **UL294 Performance Levels**
  - **Destructive Attack** Level 1 (Attack Test)
  - **Line Security** Level 1\* (Line Security)
  - **Endurance** Level 4 (250,000 Cycles)
  - **Standby Power** Level 1\* (No Standby)

**\*NOTE:** Line Security, Destructive Attack and Standby Power are determined by the end-product application. Hereby, Hanchett Entry Systems, Inc (HES) declares that the radio equipment type KS200/ KS210 are in compliance with Directive 2014/53/ EU. The full text of the EU declaration of conformity is available at the following internal address: [assaabloyesh.com/en/tech-info/digital-asset-search](http://assaabloyesh.com/en/tech-info/digital-asset-search)

# Credential Formats Supported

## RF Frequency / Power

| RADIO                     | FREQUENCY (MHZ) | MAX OUTPUT POWER (mW) |
|---------------------------|-----------------|-----------------------|
| RFID                      | 0.125           | 108                   |
| RFID                      | 13.56           | 1375                  |
| Bluetooth LE (KS210 Only) | 2480            | 1                     |

## LF (125 kHz Low Frequency)

| CARD TECHNOLOGY | KS200 | KS210 |
|-----------------|-------|-------|
| HID Prox        | ✓     | ✓     |
| Indala Prox     | ✓     | ✓     |
| EM4102          | ✓     | ✓     |
| AWID Prox       | ✓     | ✓     |
| Kantech Prox    |       |       |

## KS200 (Wiegand) Models

| CARD TECHNOLOGY | DESCRIPTION      | LF | HF | BLE |
|-----------------|------------------|----|----|-----|
| IPS             | Standard         | ✓  | ✓  |     |
| IPE-XXXXXX      | HID iCLASS Elite |    | ✓  |     |
| PIV040          | PIV 40-bit       |    | ✓  |     |
| PIV064          | PIV 64-bit       |    | ✓  |     |
| PIV075          | PIV 75-bit       |    | ✓  |     |
| PIV128          | PIV 128-bit      |    | ✓  |     |
| PIV200          | PIV 200-bit      |    | ✓  |     |

## HF (13.56 MHz High Frequency)

| CARD TECHNOLOGY                    | KS200 | KS210 |
|------------------------------------|-------|-------|
| ISO 14443 A/B                      | ✓     | ✓     |
| ISO 15693 – Felica™ (IDm)          | ✓     | ✓     |
| HID iCLASS® Standard               | ✓     | ✓     |
| HID iCLASS® Elite*                 | ✓     | ✓     |
| HID iCLASS® SE                     | ✓     | ✓     |
| HID iCLASS® SR                     | ✓     | ✓     |
| HID iCLASS® Seos                   | ✓     | ✓     |
| HID Security Identity Object (SIO) | ✓     | ✓     |
| PIV-II                             | ✓     | ✓     |
| MIFARE DESFire® 0.6                | ✓     | ✓     |
| MIFARE DESFire® EV1                | ✓     | ✓     |
| MIFARE DESFire® EV2                |       |       |

**\*NOTE:** Contact Technical Support at (800) 626-7590 for questions regarding enabling HID iCLASS Elite, BLE\*\* or NFC over HCE.

**\*\*The product employs provisions to be used with a mobile credential that utilizes a smart application that is installed on a smart device such as a phone. The mobile credential utilized is required to run on a smart device that employs a compatible operating system:**

Apple iOS 11.0 or higher

Android v8.0 or higher

Furthermore, the reader utilizes the Smart devices Bluetooth functions. The units were verified with Bluetooth version 4.2 or higher as well as HID Mobile Access App (Version 3.76) or higher was verified as an access control credential.

## Mobile Access\*

| CARD TECHNOLOGY                  | KS200 | KS210 |
|----------------------------------|-------|-------|
| HID NFC Mobile Access over HCE** | ✓     | ✓     |
| HID BLE Mobile Access**          |       | ✓     |

# Mounting

1. LOCATE the 6" x 1" [150 x 25 mm] lock cutout on the door. **Diagram 2.**
2. INSERT the KS200/KS2100 Lock Body (A) into the 6" x 1" [150 x 25 mm] cutout. Make sure the unit bottom tabs grab the back of the wall. **Diagram 3.**
3. ENSURE KS200/KS210 Lock Body (A) is flush against the mounting surface to ensure the tamper switch on the back of the device is fully depressed and operating correctly. **Diagram 4.**
4. CONNECT the female, 10-position Hirose connector on the Lock Interface Cable (B) to the back of the KS200/KS210 Lock Body (A). **Diagram 5.**

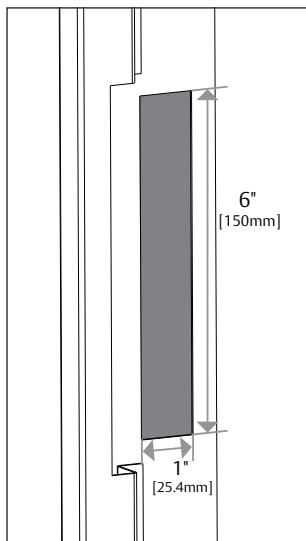
**NOTE:** ENSURE that the Lock Interface Cable (B) is not pinched or exposed prior to attaching the Rear Mounting Bracket (C).

- (OPTIONAL) REMOVE the 4-Pin and 8-Pin Molex Connectors from the end of the Lock Interface Cable (B) when the ElectroLynx Interface Cables are NOT utilized.
  - GOTO Optional Quick Connect Guide (CONNECTIONS & WIRING) when using ElectroLynx Interface Cables.
5. (OPTIONAL) CONNECT the Plug-In RS-485 Auxiliary Output Adapter Cable to extend control to other compatible locking devices.  
**NOTE:** Compatible with KS210 OSDP RS-485 models only.
  6. (OPTIONAL) CONNECT the Plug-In External DPS Adapter (I) **Diagram 6** to extend the Tamper/Locked State Monitoring to include other EXTERNAL normally open switches that can be wired in series to monitor additional doors or panels.

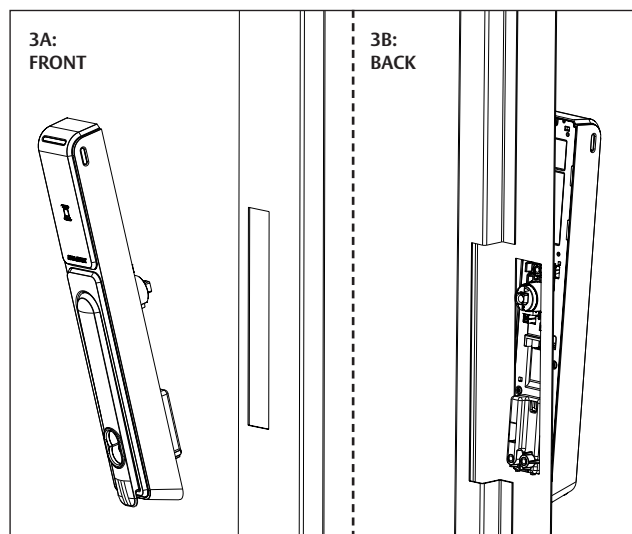
**NOTE:** The DPS signals a secure state (closed) when the handle is resting in it the locked/latched position.

External DPS/Tamper rated for use up to 100 mA at 30 VDC resistive load.

**Diagram 2** Door Preparation

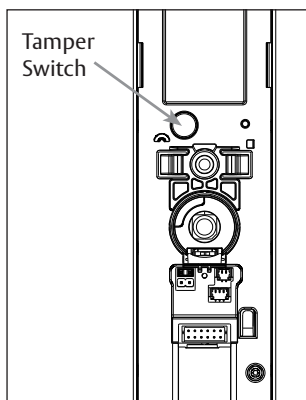


**Diagram 3** Insert Lock Body

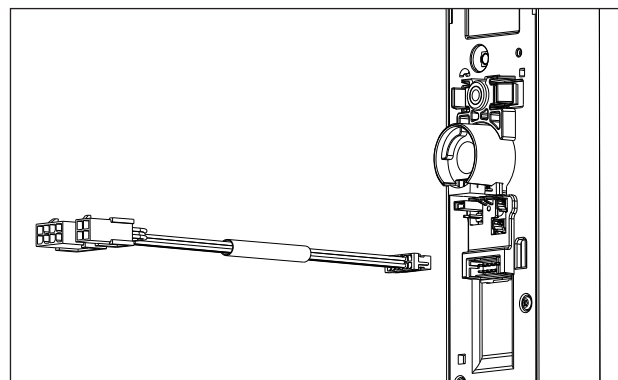


**Diagram 4** Tamper Switch

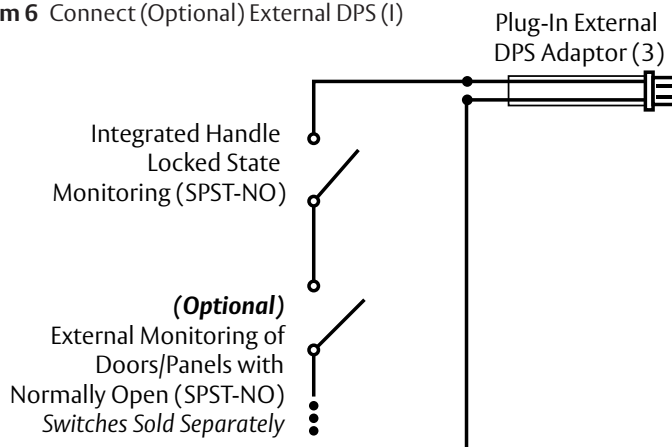
**NOTE:** If the tamper switch is NOT fully depressed, the Tamper/Locked State/DPS contact will report as a non-secure status.



**Diagram 5** Connect Lock Interface Cable (B)



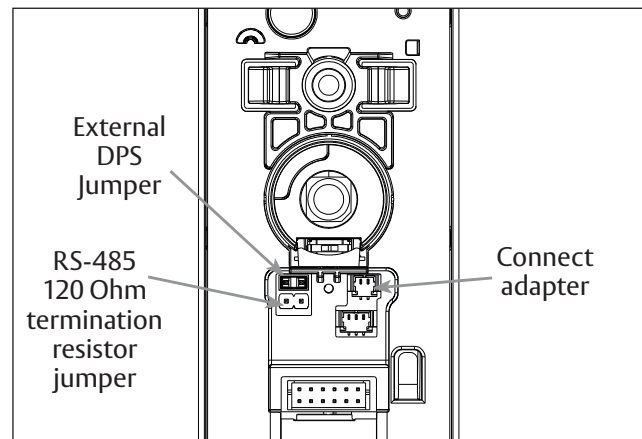
**Diagram 6** Connect (Optional) External DPS (I)



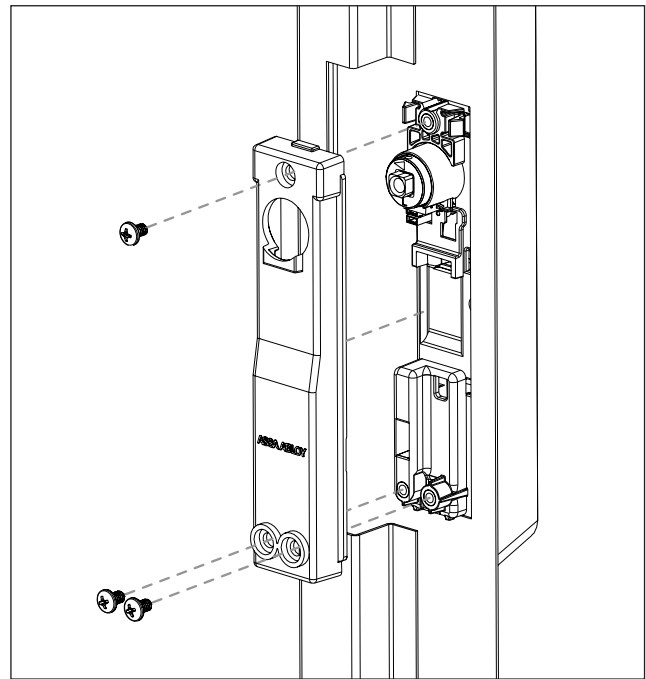
7. External DPS Adapter Activation. **Diagram 7.**

- REMOVE the jumper on the back of the KS200/KS210 Lock Body (A).
  - CONNECT the 2-Pin Plug-In External DPS Adapter (I) to the back of the KS200/KS10 Lock Body.
  - CONNECT additional normally-open switches as shown to monitor door/panel status in series with the integrated Locked State monitoring.
8. ATTACH Rear Mounting Bracket (C) to KS200/KS210 Lock Body (A) using 3 Pan Head Mounting Screws (E). **Diagram 8.**
9. INSTALL Locking Cam (F). Secure with Truss Head Screw (G). **Diagram 9.**

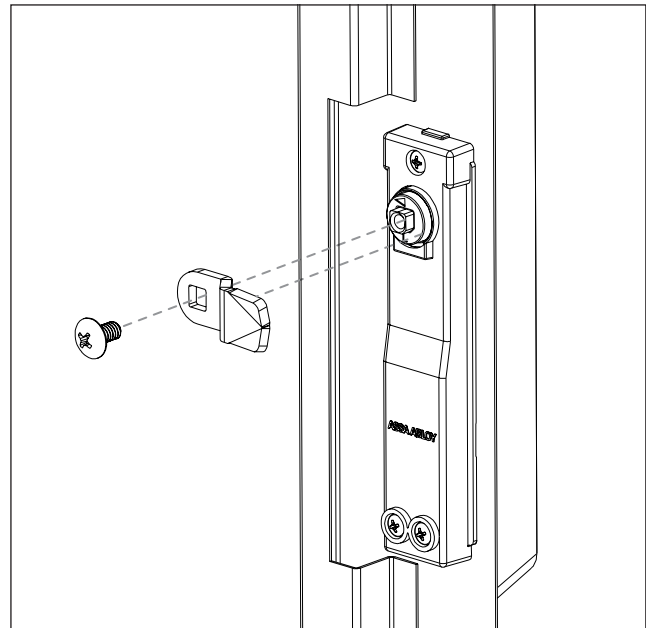
**Diagram 7** DPS Activation



**Diagram 8** Attach Rear Mounting Bracket (C) with Pan Head Screws (E)



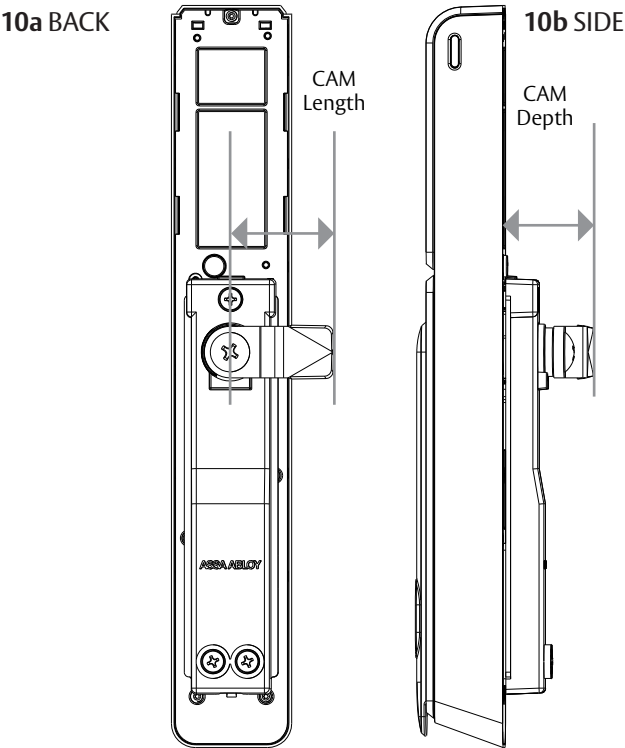
**Diagram 9** Install Locking Cam (F) with Truss Head Screw (G)



# Cam Selection

NOTE: RE-USE existing cam when possible.

Diagram 10 KS Cam Length Selection



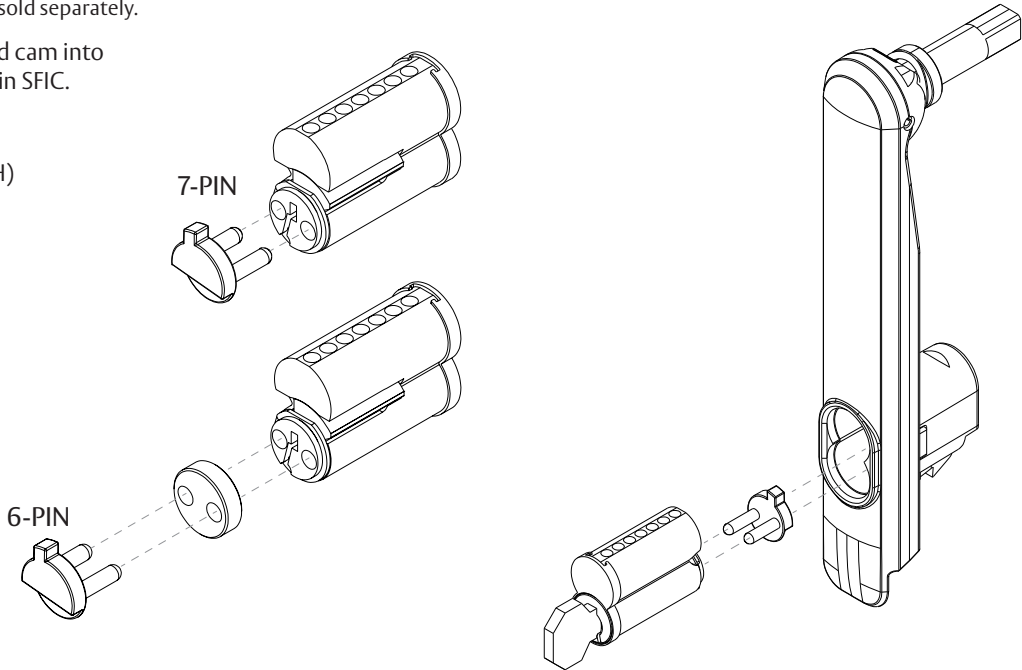
| PARTNO.  | CAM                 | CAM LENGTH    | CAM DEPTH      |
|----------|---------------------|---------------|----------------|
| Included | 38mm – 4 (standard) | 1-1/2" [38mm] | 1" [25.4mm]    |
| KS-CAM38 | 38mm – 1 (optional) | 1-1/2" [38mm] | 1-1/10" [28mm] |
| KS-CAM45 | 45mm – 5 (optional) | 1-3/4" [45mm] | 7/10" [18mm]   |

# Installing SFIC Key Override

NOTE: SFIC blank is required if an SFIC cylinder is not used.  
SFIC blank plastic core (SFIC-BC) sold separately.

- 1. Insert SFIC (H) cylinder and cam into handle. Use spacer for 6-pin SFIC.

Diagram 11 6 or 7-pin SFIC (H)

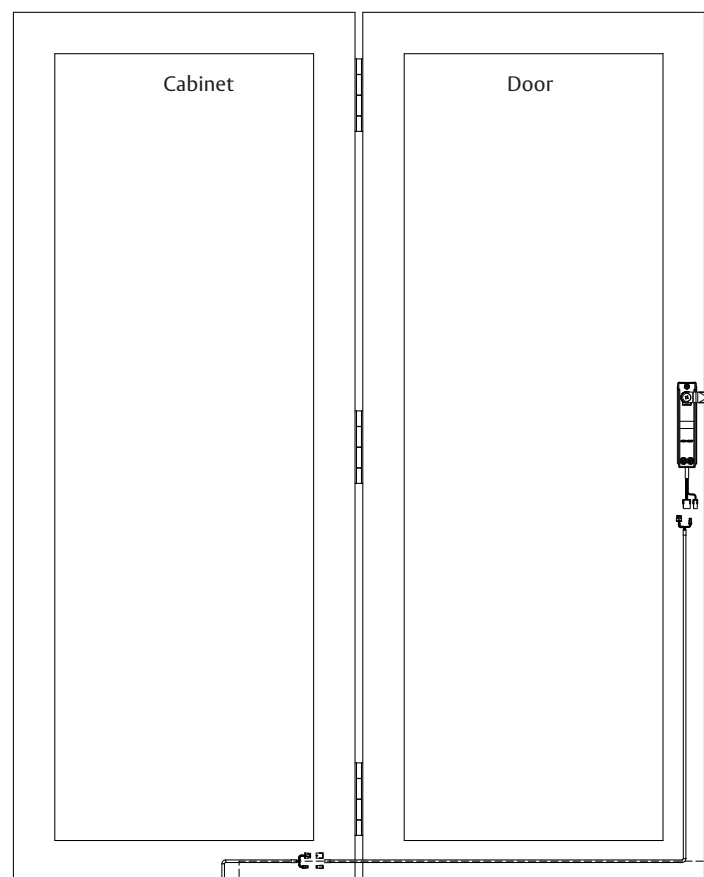


# Connections & Wiring



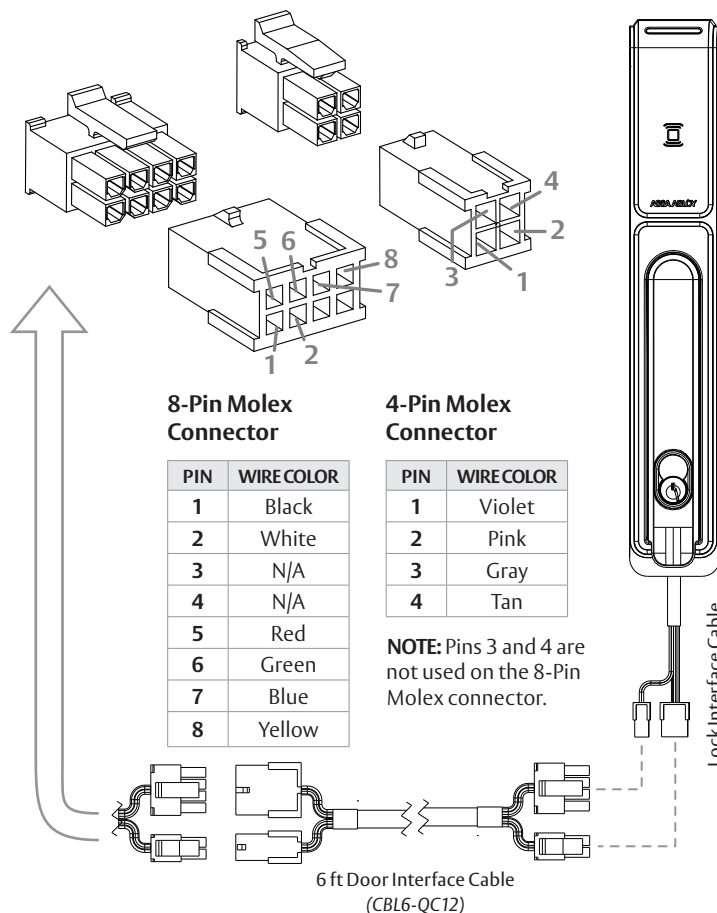
**ATTENTION:** Installation wiring for the product and wiring methods shall be in accordance with the National Electrical Code (NEC), ANSI/NFPA 70. Observe precautions for handling electrostatic sensitive devices.

**Diagram 12** Server Cabinet Wiring Example



CBL12-QC12, 12 ft System  
Side Interface Cable to EAC  
Panel Connection

CBL6-QC12, 6 ft Door  
Interface Cable



## Optional Accessories (Sold Separately)

**CBL6-QC12** 6 foot x 12-Wire Door Interface Cable (ElectroLynx connectors on both ends). Designed for use with the CBL12-QC12.

**CBL12-QC12** 12 foot x 12-Wire System Side Interface Cable (ElectroLynx connectors on one end, pins and loose connectors on opposite end). Designed for use with the CBL6-QC12.

## Cable & Wire Connections

**EAC Integrated Wired:** KS200/KS210 Server Cabinet Locks, ElectroLynx Wire Color/Function Assignments

### New 4-/8-Pin Molex

Products sold after January 2018

| 4-PIN MOLEX | WIRE COLOR | FUNCTION                | SETTING |
|-------------|------------|-------------------------|---------|
| 1           | Violet     | Lock Power              | COM (—) |
| 2           | Pink       | Tamper/Locked State/DPS | NO (+)  |
| 3           | Gray       | Lock Power              | COM (+) |
| 4           | Tan        | Tamper/Locked State/DPS | COM (—) |

| 8-PIN MOLEX | WIRE COLOR | FUNCTION            | SETTING            |
|-------------|------------|---------------------|--------------------|
| 1           | Black      | 12 VDC Reader       | (—)                |
| 2           | White      | Wiegand Data / OSDP | Data 1 / RS-485-A* |
| 3           | N/A        | N/A                 | Not Used           |
| 4           | N/A        | N/A                 | Not Used           |
| 5           | Red        | 12 VDC Reader       | (+)                |
| 6           | Green      | Wiegand Data / OSDP | Data 0 / RS-485-B* |
| 7           | Blue       | LED                 | Red                |
| 8           | Yellow     | LED                 | Green              |

\*KS210 OSDP models only

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

Products sold before December 2017

| 4-PIN MOLEX | WIRE COLOR | FUNCTION                | SETTING |
|-------------|------------|-------------------------|---------|
| 1           | Gray       | Lock Power              | COM (—) |
| 2           | Yellow     | Tamper/Locked State/DPS | NO (+)  |
| 3           | Violet     | Lock Power              | COM (+) |
| 4           | Blue       | Tamper/Locked State/DPS | COM (—) |

| 8-PIN MOLEX | WIRE COLOR | FUNCTION            | SETTING            |
|-------------|------------|---------------------|--------------------|
| 1           | Black      | 12 VDC Reader       | (—)                |
| 2           | White      | Wiegand Data / OSDP | Data 1 / RS-485-A* |
| 3           | N/A        | N/A                 | Not Used           |
| 4           | N/A        | N/A                 | Not Used           |
| 5           | Red        | 12 VDC Reader       | (+)                |
| 6           | Green      | Wiegand Data / OSDP | Data 0 / RS-485-B* |
| 7           | Orange     | LED                 | Red                |
| 8           | Brown      | LED                 | Green              |

\*KS210 OSDP models only

## Optional Quick Connect Guide (Sold Separately)

1. CONNECT the Lock Side Interface Cable to the optional 6 ft Door Interface Cable (CBL6-QC12).  
**NOTE:** SEE Server Cabinet Wiring Example, **Diagram 12**.
2. CONNECT the Door Interface Cable to the additional optional 12 ft System Side Interface Cable (CBL12-QC12).  
**NOTE:** 18 ft TOTAL wire run when BOTH optional interface cables are utilized.
3. RUN the 12 ft System Side Interface Cable, as required.
4. ATTACH the included 4-Pin and 8-Pin Female Molex Connectors to the bare wire side of the System Side Interface Cable to extend the interface cable for installations that require longer than 18 ft.

## System Side Connections

**NOTE:** Installation wiring for the product and wiring methods shall be in accordance with the National Electrical Code (NEC), ANSI/NFPA 70.

5. CONNECT the bare wires as required to the 3rd party wiring as needed to connect to Electronic Access Control System.
6. ENSURE the following power cabling guidelines are followed:

| WIRE AWG | SUPPLY VOLTAGE | MAX WIRE RUN (FT)* |
|----------|----------------|--------------------|
| 20 AWG   | 12             | 758                |
|          | 24             | 5305               |
| 22 AWG   | 12             | 477                |
|          | 24             | 3336               |
| 24 AWG   | 12             | 300                |
|          | 24             | 2098               |

\*Round trip loss.  $V = 2 * I * R * \text{ft}$      $\text{ft} = V / (2 * I * R)$

## Round Trip Loss Application Notes

1. Data 0 and Data 1 wires for Wiegand may be reused for OSDP. However, standard Wiegand cable may not meet RS485 twisted pair recommendations for maximum data transmission speed and distance.
2. For OSDP cable lengths greater than 200 ft [61 m] or EMI interference, install 120 Ohm termination resistor jumper on the KS210 as shown in **Diagram 7**.

## Additional OSDP Information

Available at:

[assaabloyesh.com/en/tech-info/digital-asset-search/](https://assaabloyesh.com/en/tech-info/digital-asset-search/)

1. Understanding OSDP Implementations (HID/Mercury FAQ)
2. How OSDP Is Revolutionizing Access Control Systems (Webinar)
3. Why Upgrade to OSDP (Infographic)
4. Demystifying OSDP (eBook)

## Testing & Commissioning

PRIOR to applying power.

1. VERIFY that the SFIC (Small Format Interchangeable Core) cylinder has been installed. If so, verify mechanical actuation of locking cam allowing for emergency override.
2. VERIFY that the handle has been returned to the secure/locked state; ensure the door is closed with the locking cam engaging the cabinet and the handle full seated in the lock body.
3. APPLY power to the system to verify electronic functionality.
4. VERIFY that the LED is illuminated with the correct RED or GREEN color displaying while in the secure state.
5. PRESENT a known/valid credential to the RFID target on the face of reader portion (as shown) of the lock to confirm acknowledgment of access granted.
  - » VERIFY that you hear an audible beep when a credential is presented to the reader.
  - » VERIFY that you see the visual LED indicator temporarily change state.
  - » VERIFY that you hear the motor actuate from a lock to unlock state.
6. LIFT the handle and ROTATE in the direction of the door hinges to open the cabinet.
  - » VERIFY that the Tamper/Locked State/DPS has changed to a non-secure state.
7. RETURN the handle to the secure/locked state; ensure the door is closed with the locking cam engaging the cabinet and the handle full seated in the lock body.
  - » VERIFY that the Tamper/Locked State/DPS has returned to the secure state.



# Regulatory

## FCC

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.

**CAUTION:** Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment.

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.

## Model KS200 Contains FCC ID

- JQ6-ICLASSBTM

## Model KS200 Contains IC ID

- 2236B-ICLASSBTM

## Canada Radio Certification

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

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.

## CE Marking

Hanchett Entry Systems, Inc. (HES) hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Por el presente, HES, Inc. declara que estos lectores de proximidad cumplen con los requisitos esenciales y otras disposiciones relevantes de la Directiva 2014/53/EU.

HES, Inc. déclare par la présente que ces lecteurs à proximité sont conformes aux exigences essentielles et aux autres stipulations pertinentes de la Directive 2014/53/EU.

HES, Inc., por meio deste, declara que estes leitores de proximidade estão em conformidade com as exigências essenciais e outras condições da diretiva 2014/53/EU.

HES, Inc. bestätigt hiermit, dass die Leser die wesentlichen Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EU erfüllen.

HES, Inc. dichiara che i lettori di prossimità sono conformi ai requisiti essenziali e ad altre misure rilevanti come previsto dalla Direttiva europea 2014/53/EU.

# Warranty

For information on warranty coverage and replacement options, please visit [hesinnovations.com/warranty](https://www.hesinnovations.com/warranty)



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