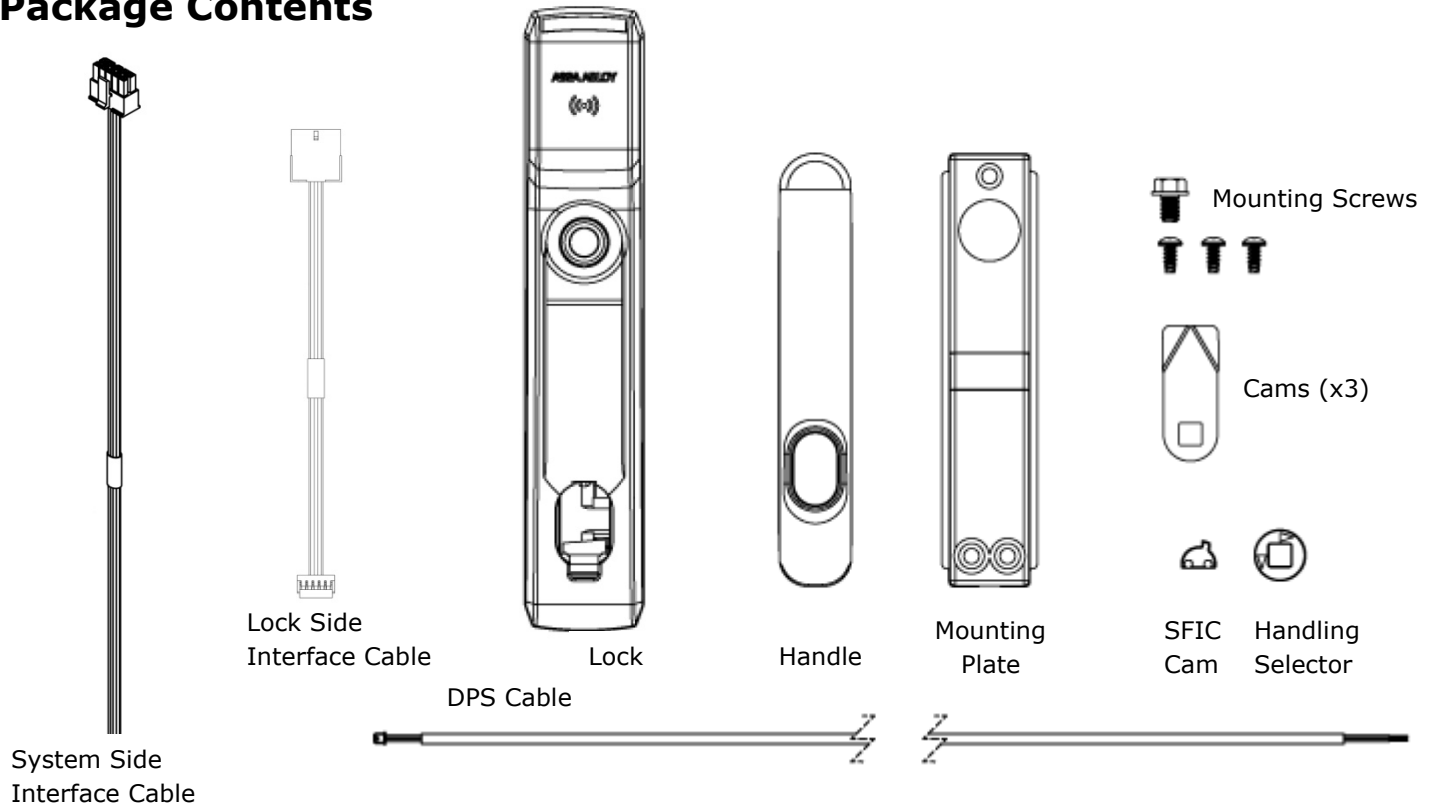




KS200-640 Server Cabinet Lock Series Installation Instructions

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www.hesinnovations.com

Package Contents



Recommended Tools

Approved RFID Credential
Phillips P2 driver

Optional Additional Tools:
Gang box to mount hub
SFIC Core for key override
Normally Open DPS Switches

Specifications

Voltage: 12-24 VDC $\pm 10\%$ (Power Supply not provided)

Power Consumption: <6W peak; <0.5W steady state

Operating Temperature: -10C to 50C

Holding Force: 250 lbs

External Interface Signals Summary:

Lock Signal Name	Lock Signal Direction and Wire Color	Electrical Interface	Logic
Vin	Input, Red/24 AWG	Power to Reader	Input Power
Unlock	Input, Orange/24 AWG	Wetted Relay Contact Closure (0–35 VDC)	Active High
Tamper / Door Position +	Output, Yellow/24 AWG	Dry Contact (0–35 VDC, <100mA)	Open = Unlocked Closed = Locked
Tamper / Door Position –	Output, Blue/24 AWG	Dry Contact (0–35 VDC, <100mA)	Open = Unlocked Closed = Locked
Wiegand Data 0	Output, Green/24 AWG	0–5 VDC	Active Low
Wiegand Data 1	Output, White/24 AWG	0–5 VDC	Active Low
Green LED	Input, Brown/24 AWG	0–5 VDC	Active Low
Red LED	Input, White/Brown/24 AWG	0–5 VDC	Active Low
Ground/Return	Input, Black/24 AWG	–	–

LED Function: LED states are controlled and defined by the User's EAC. Enabling the red and green LEDs on the KS200 occurs via an active low (ground) signal.

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

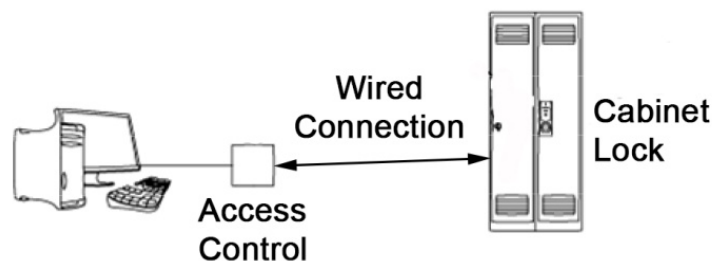
FCC Part 15, Compliant, Industry Canada Compliant

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

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

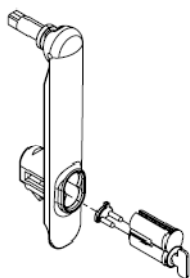
System Overview

The KS200 is an radio-frequency (RFID) lock for server cabinet installation applications. The lock is capable of reading RFID credentials and providing that data to an electronic access control (EAC) system via Wiegand data signaling. The EAC determines 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 KS200-640 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 the lock. Additional lock monitoring features (e.g., door position, tamper) are monitored within the lock and status provided to the EAC.

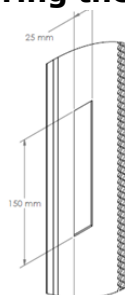


Installation Steps

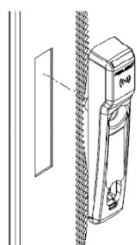
1. Installing an SFIC Core



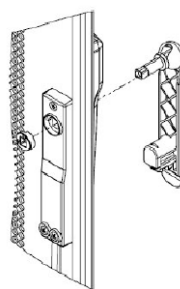
2. Preparing the Cabinet



3. Installing the Lock



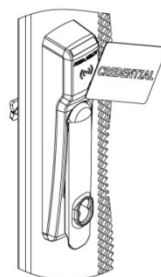
4. Installing the Handing Selector



5. Installing the Wiring



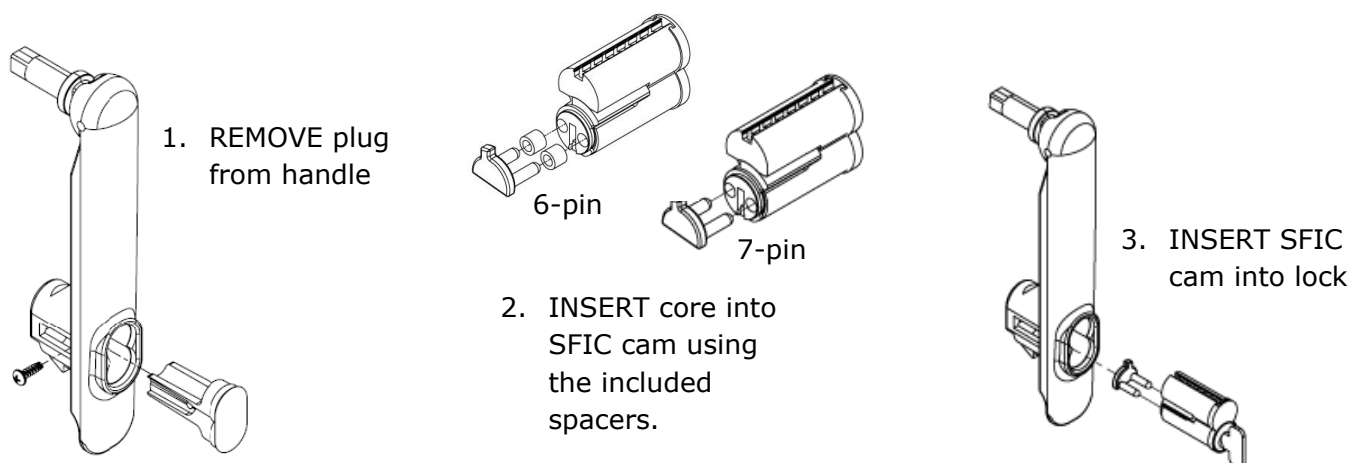
6. Testing the Lock with the Access Control



1. Installing an SFIC Core

NOTE 1: A key override (SFIC) provides a backup entry method in the rare case the KS200 or EAC is inactive (Recommended).

NOTE 2: The included SFIC cam has been tested with Medeco and Sargent 6- or 7-pin SFIC cores.

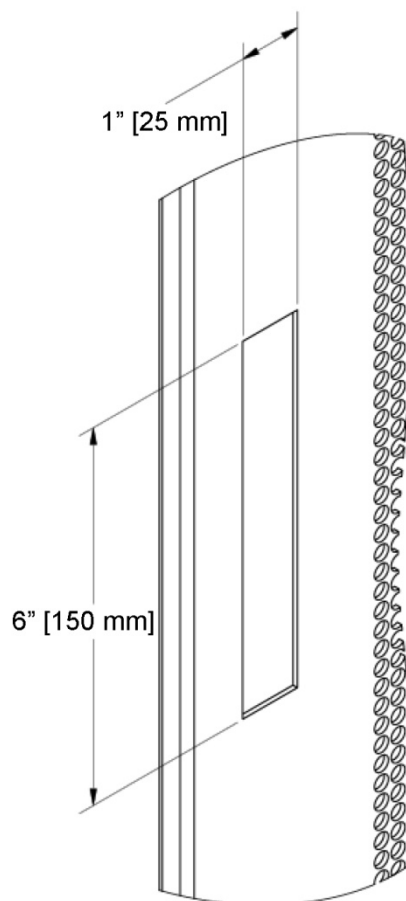
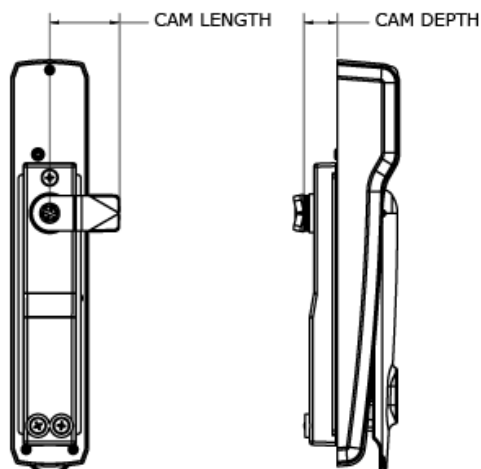


2. Preparing the Cabinet

1. LOCATE the 1" [25 mm] x 6" [150 mm] lock cutout on the door (some doors may require modification).
2. ENSURE power is available at the rack.
3. RE-USE the existing cam, if possible.

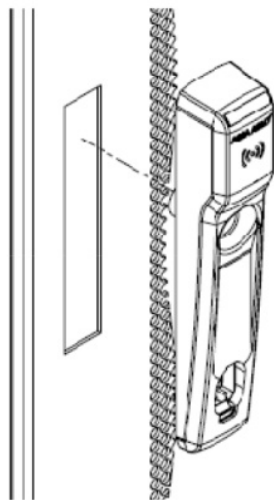
NOTE: Three cams are supplied.

CAM	CAM LENGTH	CAM DEPTH
CAM 1	1-1/2" [38 mm]	5/8" [16 mm]
CAM 2	1-1/2" [38 mm]	15/16" [24 mm]
CAM 3	1-3/4" [45 mm]	7/8" [22.5 mm]

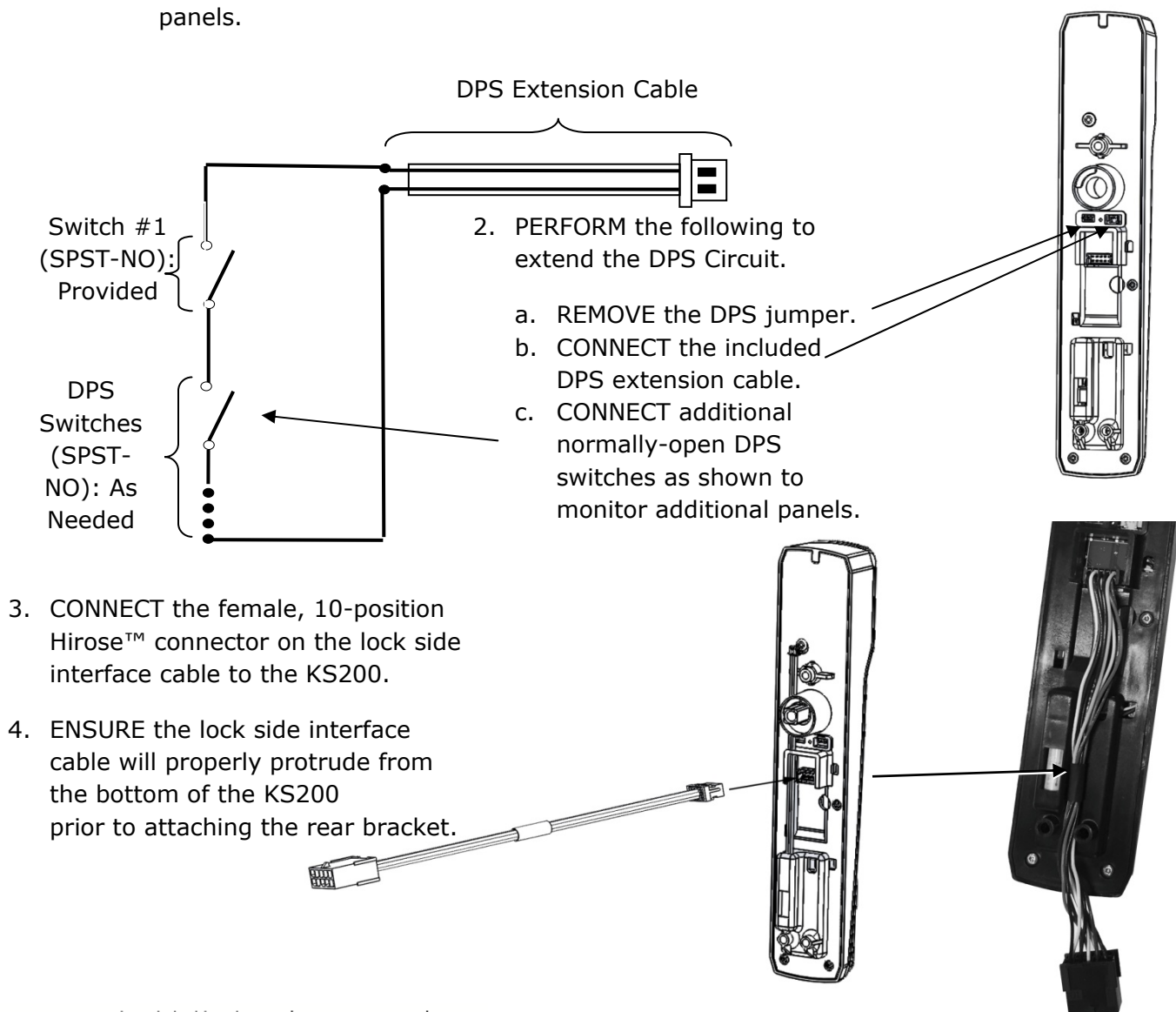


3. Installing the Lock

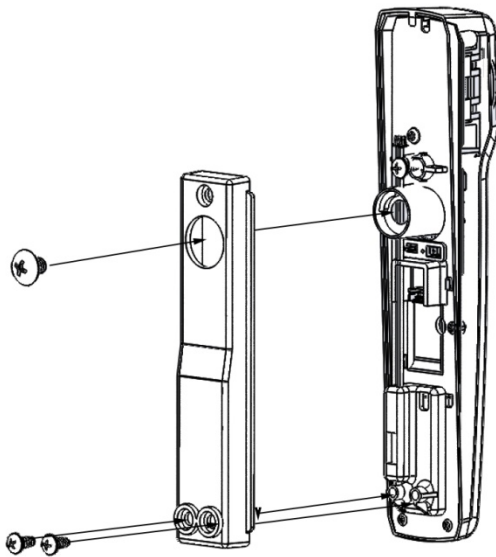
3. SLIDE lock into cutout.



NOTE: (Optional) The DPS signal is closed when the handle is resting in its locked position. The DPS circuit can be extended to include normally open DPS switches arranged in a series to monitor additional doors and panels.



5. ATTACH rear bracket with screws.

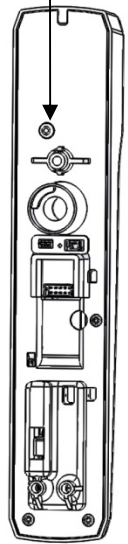


6. ENSURE that the lock is fully secured and flush to the mounting surface in order to depress tamper switch on back of device for correct operation.

NOTE: If the tamper switch is not fully depressed, the lock opens the Tamper/DPS+/- contact.

7. **IF** the tamper switch is not fully closed,
THEN REMOVE the tamper contact,
AND ENSURE the lock is closed.

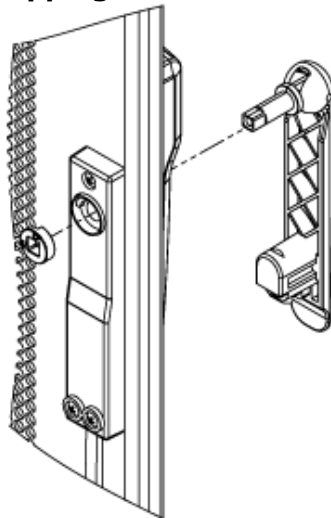
Tamper Switch



4. Installing the Handing Selector

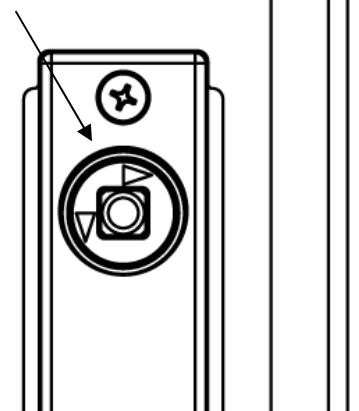
CAUTION! Inserting/snapping the handle all the way in will lock the lever

1. INSERT handing selector into lock.

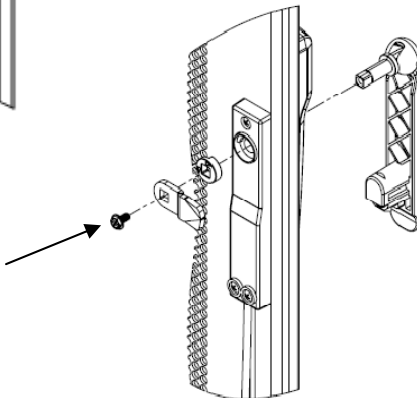


2. POSITION the arrows to point toward the door edge.

Door edge

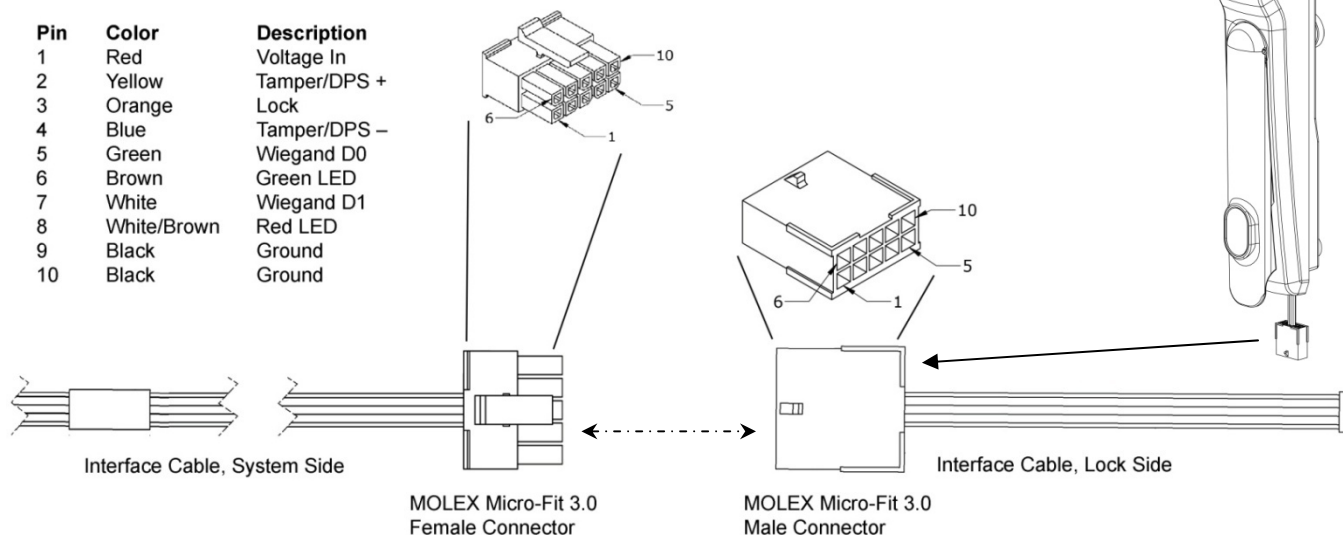


3. INSERT and SECURE cam with screw.



5. Attaching the Wiring

1. CONNECT the 10-position Molex Micro-Fit 3.0™ Cable between the KS200 and the EAC.



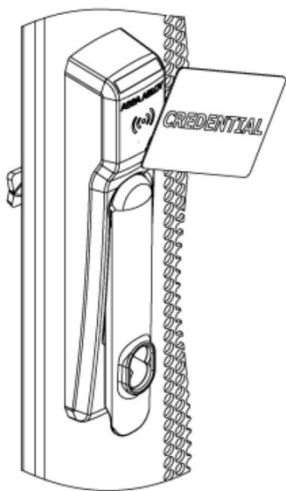
2. ENSURE the following power cabling guidelines are followed:

Wire AWG	Supply Voltage	Allowed Cable Length (ft.)*
20 AWG	12	419
	24	3217
22 AWG	12	264
	24	2023
24 AWG	12	166
	24	1272

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

6. Testing the Lock with the Access Control System

1. TEST the lock with a known good credential to confirm it will open as desired when installed.



- a. PRESENT a credential known to the EAC.
- b. LIFT lever and TURN to open the cabinet.

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.

CE Statement

HES hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

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 interférences 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 conforme avec Industrie Canada exempt de licence RSS standard(s). Son fonctionnement est soumise aux deux conditions suivantes:

- (1) cet appareil ne peut causer d'interférences, et
- (2) cet appareil doit accepter toute interférence, 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.

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