

February 2012, Rev. 00

08 7400 – Access Control

PART 1. GENERAL

1.01 Summary

A. This Standard covers:

1. Lock cylinder and keys
2. AD Series Integrated locks
3. Proximity Readers with Controllers and Cards
4. Knox Box

B. NIU issues:

1. All programming issues with proximity systems shall be brought to the attention of the Owner's Key Control Manager for resolution.
2. Upon completion of the proximity system installation, the system shall be programmed to the Owner's server.
3. The Owner reserves the right to perform inspections at any time during the project.

1.02 Submittals

A. ANSI – Upon request of the Architect, the hardware manufacturers will issue letters of compliance that their products meet with ANSI standards, have been tested, and are the grades required.

B. Supplier – A recognized builders hardware supplier who has been furnishing hardware in the project's vicinity for a period of not less than five (5) years, and who is or has in employment an Architectural Hardware Consultant (AHC) in good standing as certified by the Door and Hardware Institute or equivalent. This consultant shall have experience in the preparation of Architectural hardware specifications, estimating, detailing, ordering, and servicing of Architectural hardware and will be available at reasonable times during the course of the work for hardware consultation with the Owner, Architect and Contractor.

C. Templates – The Hardware Supplier shall provide necessary templates and/or physical hardware to all trades requiring them in order to cut, reinforce, or otherwise prepare their material or product to receive the hardware item. In the event that physical hardware is required by any manufacturer, the Hardware Supplier shall ship to them such hardware via prepaid freight in sufficient time to prevent any delay in execution of their work.

- D. All hardware provided and installed shall comply with all regulatory agency requirements including the Americans with Disabilities Act, Illinois Accessibility Requirements and NFPA 101 Life Safety Code.
- 1.03 References
- A. Access Control hardware in this section shall meet the following standards as established by the American National Standards Institute, Inc. (ANSI) which is sponsored by the Builders Hardware Manufacturers Association, Inc. (BHMA). Product tests are to be administered by the ETL Testing Laboratories, Inc., Underwriters Laboratories, or other official testing laboratories, which have been designated by BHMA for the testing of ANSI standards. The standards latest revision will be in effect.
1. Locks & Lock Trim ANSI A156.2 Grade 1
- 1.04 Warranty
- A. The finish hardware shall carry a limited warranty against defects in workmanship and operation for a period of one year or as listed below from date of final acceptance. No liability is to be assumed where damage or faulty operation is due from abuse, improper usage, improper installation or failure to exercise normal maintenance.
- B. The finish hardware shall be delivered in good condition, expeditiously as possible.
- C. The finish hardware shall be wrapped and covered to eliminate any deterioration caused by weather or freak occurrences.
- PART 2. PRODUCTS
- 2.01 Manufacturers:
- A. NIU uses Schlage products and systems exclusively
- 2.02 Knox Box
- A. The Owner shall provide an emergency key lock box (Knox Box) where directed by local Fire Department (and/or NIU Fire and Safety Officer). Knox Boxes shall be ordered through the DeKalb Fire Department and be Model 4400. NIU Key Control will provide the keys requested by the DeKalb Fire Department.
- 2.03 Keying
- A. All locks and cylinders shall be keyed to the existing SCHLAGE GMK system as required by the owner's instruction.

- B. It is required that the key systems have visual key control and that all keys and cylinders be stamped with the alphanumeric key symbol designated for each key change as recommended by the Owner’s Key Control Manager.
- C. Provide six (6) construction master keys to be supplied with the locksets to the General Contractor. The construction master key shall operate all locks and cylinders, and shall permit access to all areas by the General Contractor, during the construction period, prior to the owner assuming control of the building.
- D. Upon completion of the building, the Owner shall remove the construction cores by means of a control key to be supplied by the finish hardware contractor and install the permanent master keyed cores.
- E. Provide to the Owner the requested number of cut keys and blanks for each core combination.
- F. Deliver all keys to:
 - Key Control
 - c/o Ms. Char Marx
 - Northern Illinois University
 - Physical Plant Building
 - 100 West Stadium Drive
 - DeKalb, IL 60115

2.04 AD Series Integrated Locks

A. General

1. BHMA/ANSI 156.25 Grade 1 Security and Operational
2. Cylindrical / Mortise Key-In-Lever on all chassis
3. Built in Door Position Switch
4. Built in Request to Exit Switch
5. Adaptability: Without removing lock from door
6. Credential Reader
7. Offline to Online Network
8. 4AA to 8AA Battery Module
9. Lock Function (70, 50, 40, 60)

B. Codes and Certifications:

1. UL 294, Attack Class 1
2. UL 10 C
3. UL 2043 Plenum (For PIM / PIB)
4. BHMA/ANSI 156.25 Grade 1 Operation and Security
 - a). A156.2

- b). A156.3
- c). A156.12
- d). A156.13

- 5. NFPA 101 – Ch 7
- 6. NFPA 80 – Ch 6 & 7
- 7. IBC – Ch 10
- 8. ADA – Ch 4.13
- 9. FCC Part 14

C. Power Failure Mode:

- 1. FSE/FSA driven by electronic motor in place of solenoid
- 2. Hardwired utilizes capacitor if 12/24VDC power is lost
- 3. Field configurable

D. Communication Failure Mode:

- 1. FSE/FSA driven by electric motor
- 2. Cache Mode manages access without Host
- 3. Field Configurable

E. 900 MHz Wireless Communication:

- 1. Wake-up ON Radio (WOR)
 - a). Centralized lock/unlock to wireless devices in <10 sec
 - b). Maintain up to 2 yr battery life

F. Interior Push Button on Network Locks:

- 1. Input to Host Hardware
- 2. Ability to simulate Office, Privacy, & Apartment Function

G. Expanded Offline Capacity:

- 1. Stand-A-Lone programmed at the lock: (specified number users and audits)
- 2. Stand-A-Lone computer manage: (specified Audits)

H. Audible Indicator:

- 1. Configurable On/Off

I. Acceptable and Approved as follows:

- 1. Schlage AD300-MS series as scheduled

2.05 Proximity Readers with Controllers and Cards

- A. Reader Controller: Schlage “SRCNX-R” model with 24 reader interfaces as required.
- B. Reader Interface: Schlage “SRINX” model which is compatible with various read head technologies.
- C. I/O Expansion Board: Schlage SIONX-8 Model with 8 relays. Provide one SIONX-8 Board with each SRCNX-R controller.
- D. Upon request by the Owner, provide one handheld device (HHD) for the project. The HHD unit is the link between the access control software and the electronic offline locks. The HHD unit is used to initialize and configure the network devices.
- E. Proximity Readers: Schlage SXF1050 mini-mullion readers.
- F. All wiring to be supplied and pulled by the system integrator. All connections to the existing Schlage SMS software system, programming and training shall be done by the Owner.
- G. Upon completion of the project, the Owner shall provide cards to all personnel authorized to utilize the system.

2.06 Cylinders

- A. All cylinders shall be Schlage, seven pin small format interchangeable core type, keyed to the existing master key system.
- B. All cylinders are to be provided with two key blanks and stamped “Do Not Duplicate” on the reverse.
- C. Deliver all keys to:
 - Key Control
 - c/o Ms. Char Marx
 - Northern Illinois University
 - Physical Plant Building
 - 100 West Stadium Drive
 - DeKalb, IL 60115
- D. Acceptable and Approved as follows:
 - 1. Schlage – Everest SFIC, seven pin.

PART 3. EXECUTION

3.01 Installation

- A. All hardware shall be installed or supervised by tradesmen skilled in the application of commercial grade hardware.
 - B. Install each hardware item in compliance with the instructions and recommendations.
- 3.02 Adjusting and cleaning
- A. Adjust and check each operating item of hardware to ensure correct operation and function. Units which cannot be adjusted to operate as intended for the application made shall be replaced.
 - B. Final adjustment: Whenever hardware is installed more than one month prior to building acceptance of occupancy of a space or area, the installer shall return to the work during the week prior to acceptance or occupancy and make a final check and adjustment of all hardware items. Hardware shall be cleaned as necessary to restore correct operation, function, and finish.
 - C. Upon completion of the project, the Owner shall remove the construction cores by means of a control key to be supplied by the hardware contractor and install the permanent master keyed cores.

End of Division 08 7400

This section of the NIU Design and Construction Standards establishes minimum requirements only. It should not be used as a complete specification.