



A UTC Fire & Security Company

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This MANU-SPEC® utilizes the Construction Specifications Institute (CSI) *Project Resource Manual* (PRM), including *MasterFormat*™, *SectionFormat*™ and *PageFormat*™. A MANU-SPEC is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets []; delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies hotel and access control system including security access. These products are manufactured by Onity. Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat*® for other section numbers and titles.

SECTION 08 74 13 CARD KEY ACCESS CONTROL HARDWARE

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Hotel and access control system, to include security access.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Section 01 42 19 - Reference Standards may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

1.02 REFERENCES

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):
1. ANSI A156.25 Electrified Locking Devices.
- B. Americans with Disabilities Act (ADA): United States Public Law 101-336, 104 Stat. 327.
- C. National Fire Protection Association (NFPA):
1. NFPA 80 Standard for Fire Doors and Other Opening Protectives.
 2. NFPA 101 Life Safety Code.
- D. Underwriters Laboratories, Inc. (UL):
1. UL 10B Standard for Fire Tests of Door Assemblies.

1.03 SYSTEM DESCRIPTION

- A. General:
1. System includes magnetic and smart card reader locks for use with magnetic stripe cards or smart cards, and system hardware, software and components.
 2. System shall be backward-compatible with existing access control systems.



B. Design Requirements:

1. Electronic Lock:

- a. Lock shall accommodate a variety of finishes and handle styles.
- b. Lock shall have an automatic relock feature when outside handle has been turned.
- c. Lock shall have a selectable extended ADA "open time" card access feature to facilitate operation by disabled end users.

2. Latch/Lockset:

- a. Mortise lockset shall conform to ANSI/BHMA 156.25, Grade 1, and meet UL 10B.
- b. Lockset shall have programmable deadbolt override cards for emergency level.
- c. Lockset shall have simultaneous deadbolt and latch bolt retraction: 1 inch (25.4 mm) steel deadbolt and 3/4 inch (19.1 mm) anti-friction latch bolt.
- d. Lockset shall have a dead latch that shall block the latch.
- e. Exterior door applications shall have a weather protection package.

C. Performance Requirements:

- 1. Provide front desk system and electronic locking manufactured and installed to maintain specified performance criteria without defects, damage or failure.
- 2. Provide electronic locking system with the following:
 - a. Complete programming and data storage, hardware and software, including processing unit with display, card encoder and workstations.
 - b. Workstation equipment connector package and cable; lock units; batteries; portable programmer for lock units; special tools; operating manuals; and guest and staff level cards.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor, either before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Section [01 33 00 - Submittal Procedures].

1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Section [01 33 00 - Submittal Procedures] [_____].
- B. Product Data: Submit product data, including manufacturer's data sheets, for specified products.
- C. Shop Drawings: Submit drawings showing layout, profiles and product components, including anchorage, accessories and finish colors.
 - 1. Templates: After approval of shop drawings, submit lock templates to door and frame manufacturer(s) for fabrication.
- D. Samples:
 - 1. Selection: Submit samples of manufacturer's full range of standard colors for specified finish(es).
 - 2. Verification: For each finish selected, submit 6 inch (152 mm) square samples.
- E. Quality Control Submittals:
 - 1. Certificates: Manufacturer's certification that the installer is acceptable.
 - 2. Manufacturer's Field Reports: Reports of manufacturer's site visits.
- F. Closeout Submittals:
 - 1. Warranty: Manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Article below should include prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate article below with Division 01 Quality Assurance Section.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Acceptable to the manufacturer.
- B. Regulatory Requirements: In accordance with Section [01 41 00 - Regulatory Requirements] [_____].
 - 1. Fire-Rated Assemblies: Comply with NFPA 80 and NFPA 101.
 - 2. Accessibility: Comply with ADA Accessibility Standards.

1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Section [01 61 00 - Common Product Requirements] [_____].
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

1.07 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products when environmental conditions are outside manufacturer's limits.

Specifier Note: Coordinate article below with Conditions of the Contract and with Section 01 78 36 - Warranties.

1.08 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit for Owner's acceptance manufacturer's standard warranty document executed by authorized company official in accordance with Section [01 78 36 - Warranties] [_____]. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Warranty periods vary by product; consult with manufacturer.

- 1. Warranty Period: 2 years commencing on Date of Substantial Completion.

1.09 EXTRA MATERIALS

- A. Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels.
 - 1. Quantity: Furnish quantity of items listed equal to 5% of amount installed, not to exceed 20 of each of the following:
 - a. Locks.
 - b. Interior trim.
 - c. Exterior trim.
 - d. Handle sets.

PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

2.01 CARD KEY ACCESS CONTROL HARDWARE

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier's practice.

- A. Manufacturer: Onity, A UTC Fire & Security Company.
 - 1. Contact: 2232 Northmont Parkway, Duluth, GA 30096; Telephone: (866) 866-6489, (678) 512-7545; Fax: (678) 475-3920; E-mail: moreinfo@onity.com; website: www.onity.com.

Specifier Note: Retain products below to conform to project requirements. Select features for each product retained. If more than one product is retained, create designators and coordinate with drawings.

B. HT28 Smart Lock System:

1. System Functions:

- a. Keying Function: Locks shall open after insertion and removal of a correctly coded card. Use of a newly issued card shall automatically re-key the lock and void the previous card. Guest cards shall automatically self-cancel according to date and time. Perimeter door reader shall allow authorized guest cards.
- b. Lock function shall include the following:
 - 1) Audit Trail in lock of last 500 entries, including time, date and card identification.
 - 2) Flash memory for future upgrades.
 - 3) Office/Passage Function to operate both by card and automatically according to time for offices, entry doors or hospitality suite.
 - 4) Four standard AA alkaline batteries.
 - 5) Nonvolatile memory-lock that shall not lose program when batteries are removed.
 - 6) Programmable deadbolt override cards for emergency level and guest cards.
 - 7) Low battery indicator.
 - 8) Multiple technology reader that reads magstripe cards, memory chip cards, secured memory chip cards and smart MPCOS (EMV standard) cards.
 - 9) Online revalidator.
- c. Card function shall include the following:
 - 1) Capability to manage 5000 different master cards.
 - 2) Reusable standard magstripe cards for guests; microprocessor smart cards for staff.
 - 3) Staff cards programmed to be valid only during shifts (200 timetables).
 - 4) All cards shall be time limited.
 - 5) Suite cards shall access multiple rooms.
 - 6) Guest card shall be programmed to operate up to 4 rooms.
 - 7) Staff cards shall identify individual cardholders via lock audit.

2. HT28 Smart Front Desk System:

- a. Software shall be installed in manufacturer-approved computer system and shall interface with hotel property management system. System shall have the following:
 - 1) Password access to host computer.
 - 2) Transaction log of last 90 days on host computer.
 - 3) Back-up power supply/surge protector.
 - 4) Group check-in.
 - 5) Cards programmed for advanced check-in.
 - 6) Insertion style or motor driven Encoder:
 - a) Encoder shall erase, encode and validate cards.
 - b) Encoder shall be able to "read" a card.
 - c) Encoder shall store key codes and keep back-up card transaction in case of host computer failure.
 - 7) Back-up cards in case of catastrophic power failure.
 - 8) Password-protected portable programmer.
 - 9) Capability to perform diagnostic check.
 - 10) Capability to interrogate up to last 500 entries, including time, date and card identification.
 - 11) TCP/IP Interface.

3. Elevator, Wall Reader and Verifier: Shall be individual and time specific in foyer mode and will retain memory of last

500 entries in selective mode.

C. HT28/HT Advance Smart Lock System:

1. System Functions:

- a. Keying Function: Locks shall open after insertion and removal of a correctly coded card. Use of a newly issued card shall automatically re-key the lock and void the previous card. Guest cards shall self-cancel automatically by date and time. Perimeter door reader shall allow authorized guest cards.
- b. Lock function shall include the following:
 - 1) HT28 and/or HT Advance dual technology lockset to be used with the HT28 Smart Lock System.
 - 2) Audit Trail in lock of last 500 entries, including time, date and card identification.
 - 3) Flash memory for future upgrades.
 - 4) Office/Passage Function to operate both by card and automatically according to time for offices, entry doors or hospitality suite.
 - 5) Four standard AA alkaline batteries.
 - 6) Nonvolatile memory-lock that shall not lose program when batteries are removed.
 - 7) Programmable deadbolt override cards for emergency level and guest cards.
 - 8) Low battery indicator.
 - 9) Multiple technology reader that reads magstripe cards, memory chip cards, secured memory chip cards and smart MPCOS (EMV standard) cards.
 - 10) Online revalidator.
- c. Card function shall include the following:
 - 1) Capability to manage 5000 different master cards.
 - 2) Reusable standard magstripe cards for guests; microprocessor smart cards for staff.
 - 3) Staff cards programmed to be valid only during shifts (200 timetables).
 - 4) All cards shall be time limited.
 - 5) Suite cards shall access multiple rooms.
 - 6) Guest card shall be programmed to operate up to 4 rooms.
 - 7) Staff cards shall identify individual cardholders via lock audit.

2. HT28/HT Advance Smart Front Desk System:

- a. Software shall be installed in manufacturer-approved system computer and shall be interfaced with the hotel property management system. System shall have the following:
 - 1) Password access to host computer.
 - 2) Transaction log of last 90 days on host computer.
 - 3) Back-up power supply/surge protector.
 - 4) Group check-in.
 - 5) Cards programmed for advanced check-in.
 - 6) Insertion style or motor-driven Encoder:
 - a) Encoder shall erase, encode and validate cards.
 - b) Encoder shall be able to "read" a card.
 - c) Encoder shall store key codes and keep back-up card transaction in case of host computer failure.
 - 7) Back-up cards in case of catastrophic power failure.
 - 8) Password-protected portable programmer.
 - 9) Perform diagnostic check.
 - 10) Interrogate up to last 500 entries, including time, date and card identification.

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- 11) TCP/IP Interface.
 - b. Elevator and Wall Reader: Elevator, wall reader and verifier shall be individual and time specific in foyer mode and will retain memory of last 500 entries in selective mode.
 - D. HT24w Locking System:
 - 1. System Functions:
 - a. Keying Function: Locks shall open after insertion and removal of a correctly coded card. Use of a newly issued card shall automatically re-key the lock and void the previous card, and guest cards shall additionally self-cancel by date and time automatically. Perimeter door reader shall allow authorized guest cards.
 - b. Lock function shall provide the following:
 - 1) Low battery indicator.
 - 2) Exterior door applications shall have special weather protection package.
 - 3) Audit Trail in lock of last 500 entries, including time, date and card identification.
 - 4) Office/Passage Function to operate both by card and automatically according to time for offices, entry doors or hospitality suite.
 - 5) Four standard AA alkaline batteries.
 - 6) Nonvolatile memory-lock that shall not lose program when batteries are removed.
 - c. Card function shall include the following:
 - 1) Capability to manage 5000 different master cards.
 - 2) Reusable standard magstripe cards for guests.
 - 3) Staff cards shall be programmed to be valid only during shifts.
 - 4) Cards shall be time limited.
 - 5) Suite cards shall access multiple rooms.
 - 6) Guest card shall be programmed to operate up to 4 rooms.
 - 7) Staff cards shall identify individual cardholders via lock audit.
 - 2. HT24w Front Desk System:
 - a. Software shall be installed in manufacturer-approved computer and shall be interfaced with the hotel property management system. System shall have the following:
 - 1) Password access to host computer.
 - 2) Transaction log of last 90 days on host computer.
 - 3) Back-up power supply/surge protector.
 - 4) Group check-in.
 - 5) Cards programmed for advanced check-in.
 - 6) Insertion style or motor-driven Encoder:
 - a) Encoder shall erase, encode and validate cards.
 - b) Encoder shall be able to "read" a card.
 - c) Encoder shall store key codes and keep back-up card transaction in case of host computer failure.
 - 7) Back-up cards in case of catastrophic power failure.
 - 8) Password-protected portable programmer.
 - 9) Capability to perform diagnostic check.
 - 10) Capability to interrogate up to last 100 entries, including time, date and card identification.
 - 3. Elevator and Wall Reader: Elevator, wall reader and verifier shall be individual and time specific in foyer mode and will retain memory of last 500 entries in selective mode.
 - E. HT24w/HT Advance Locking System:

1. System Functions:
 - a. Keying Function Locks shall open after insertion and removal of a correctly coded card. Use of a newly issued card shall automatically re-key the lock and void the previous card, and guest cards shall automatically self-cancel according to date and time. Perimeter door reader shall allow authorized guest cards.
 - b. Lock function shall provide the following:
 - 1) HT24 and/or HT Advance magnetic stripe lockset to be used with the HT24w Lock System.
 - 2) Low battery indicator.
 - 3) Exterior door applications shall have special weather protection package.
 - 4) Audit Trail in lock of last 500 entries, including time, date and card identification.
 - 5) Office/Passage Function to operate both by card and automatically according to time for offices, entry doors or hospitality suite.
 - 6) Four standard AA alkaline batteries.
 - 7) Nonvolatile memory-lock that shall not lose program when batteries are removed.
 - c. Card function shall include the following:
 - 1) Capability to manage 5000 different master cards.
 - 2) Reusable standard magstripe cards for guests.
 - 3) Staff cards shall be programmed to be valid only during shifts.
 - 4) Cards shall be time limited.
 - 5) Suite cards shall access multiple rooms.
 - 6) Guest card shall be programmed to operate up to 4 rooms.
 - 7) Staff cards shall identify individual cardholders via lock audit.
2. HT24w/HT Advance Front Desk System:
 - a. Software shall be installed in manufacturer-approved computer and shall be interfaced with the hotel property management system. System shall have the following:
 - 1) Password access to host computer.
 - 2) Transaction log of last 90 days on host computer.
 - 3) Back-up power supply/surge protector.
 - 4) Group check-in.
 - 5) Cards programmed for advanced check-in.
 - 6) Insertion style or motor-driven Encoder:
 - a) Encoder shall erase, encode and validate cards.
 - b) Encoder shall be able to "read" a card.
 - c) Encoder shall store key codes and keep back-up card transaction in case of host computer failure.
 - 7) Back-up cards in case of catastrophic power failure.
 - 8) Password-protected portable programmer.
 - 9) Capability to perform diagnostic check.
 - 10) Capability to interrogate up to last 500 entries, including time, date and card identification.
3. Elevator and Wall Reader: Elevator, wall reader and verifier shall be individual and time specific in foyer mode and will retain memory of last 500 entries in selective mode.

F. HT22 Electronic Locking System:

1. System Functions:
 - a. Keying Function: Locks shall open after insertion and removal of a correctly coded card. Use of a newly issued card shall automatically re-key the lock and void the previous card. Guest cards shall automatically self-cancel

according to date and time. Perimeter door reader shall allow authorized guest cards. Canceled card shall not access perimeter reader.

- b. Lock function shall provide the following:
 - 1) HT24 and/or HT Advance magnetic stripe lockset to be used with the HT28 Smart Lock System.
 - 2) Audit Trail in lock of last 100 entries, including time, date and card identification.
 - 3) Office/Passage Function to operate both by card and automatically according to time for offices, entry doors or hospitality suite.
 - 4) Four standard AA alkaline batteries.
 - 5) Nonvolatile memory-lock that shall not lose program when batteries are removed.
 - 6) 15 levels per lock; 100 total master types.
 - 7) Low battery indicator.
- c. Card function shall include the following:
 - 1) All cards shall be time limited.
 - 2) Reusable standard magstripe cards for guests.
 - 3) Staff cards shall be programmed to be valid only during shifts.
 - 4) Suite cards shall access multiple rooms.
 - 5) Guest card shall be programmed to operate up to 3 rooms.

G. HT22 Front Desk System:

- 1. Microprocessor-based Front Desk Console shall have the following:
 - a. Password access to host computer.
 - b. Transaction log of last 5000 transactions on host computer.
 - c. Insertion style or motor-driven Encoder:
 - 1) Encoder shall encode and validate cards.
 - 2) Encoder shall be able to "read" cards.
 - d. Back-up cards in case of catastrophic power failure.
 - e. Password-protected portable programmer able to program up to 500 locks. Shall be separate from the Front Desk Controller HT22.
 - 1) Set time clock.
 - 2) Perform diagnostic check.
 - 3) Interrogate up to last 100 entries, including time, date and card identification.
 - f. Front Desk Controller shall have "hot" keys for front desk check-in type function.
 - g. Front Desk Controller shall have capacity of adding up to 7 auxiliary stations that communicate with Primary Front Desk Controller in order to prevent double issuing keys for rooms.
 - h. Networked system shall support up to 8 stations and 8 online readers.
 - i. Support up to 500 rooms.

2.02 ACCESSORIES

Specifier Note: Retain accessories below to conform to project requirements. If more than one door/grille is retained above and accessories vary, indicate accessories by door/grille designator.

- A. Wall Reader:
 - 1. Individual and time specific; provide power with battery back-up.
- B. Trim Sets: Custom.

Specifier Note: Select trim set finish below.

1. Finish: [Satin Brass] [Satin Chrome] [Antique Brass] [Polished Brass] [Polished Chrome] [Dark Bronze Powder Coat] [Satin Nickel] [Black Powder Coat] [Silver] [Ceramic] [Ivory] [Marble] [Oak] [Walnut] [Cherry].

Specifier Note: Select type, style and finish of handle sets below.

- C. Handle Sets: [Removable] [Non-removable DIN type].
 1. Style: [Granada] [Barcelona] [Knob] [Toledo] [Jerez] [Seville] [Wing] [Custom].
 2. Finish: [Satin Brass] [Satin Chrome] [Antique Brass] [Polished Brass] [Polished Chrome] [Dark Bronze Powder Coat] [Satin Nickel] [Black Powder Coat].

2.03 PRODUCT SUBSTITUTIONS

- A. Substitutions: Substitutions in accordance with Section [01 25 13 - Product Substitution Procedures] [No substitutions permitted] [_____].

PART 3 EXECUTION

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier's practice.

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify that substrate conditions, for substrates previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

3.03 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer.

3.04 INSTALLATION

Specifier Note: Retain paragraphs below that conform to project requirements.

- A. Guest Doors: Install electronic lock units at locations as scheduled.
- B. Back of House Doors: Install electronic lock units at locations as scheduled.
- C. Egress Doors: Install electronic locking system on egress doors in compliance with regulatory agency requirement for emergency operation and latching.
- D. Rated Doors: Install electronic locking system on rated doors in compliance with regulatory agency requirement for rated assembly.

3.05 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Provide manufacturer's field service consisting of product use recommendations and periodic site visits for inspection of product installation.

3.06 ADJUSTING

- A. Check and adjust operation of lock units in place to ensure proper latching and locking. Replace any units not fully functional as received.
- B. Touchup, repair or replace damaged products prior to substantial completion.

3.07 CLEANUP

- A. Proceed in accordance with Section [01 74 23 - Final Cleaning] [_____].
- B. Upon completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

3.08 PROTECTION

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- A. Protect installed products until substantial completion.

3.09 DEMONSTRATION

- A. Instruct Owner's personnel in operation and maintenance of installed units.
- B. Provide instruction to ensure that the electronic lock system is operated properly. Training shall be accomplished before Owner's personnel operate the system, and shall occur at the site of the project. Include training of managers, front desk, maintenance, security, housekeeping and other staff personnel as identified.

END OF SECTION