



For Colleges and Universities

Wireless real-time access control

In response to customer requests for wireless access control, CBORD® has partnered with Ingersoll Rand®, a leading wireless lock provider. Integration of CS Gold® and Ingersoll Rand's powerful Wireless Access locking solution includes online, real-time communication between the integrated reader locks and CS Gold.

Integrated reader locks, available as either mortise or cylindrical locks, combine all elements required at the door for complete access control into one modular, yet integrated package.

The card reader, electric lock, Request-to-Exit sensor, Door Position switch, power supply, and RF communications are all included. Reliable communications are achieved via Spread Spectrum wireless technology. Time-consuming wiring is no longer required from the panel to the door, or around the door.

Wireless Access

CS Gold®

Reliability

Ultra-reliable communications to access panels and CS Gold result from several technological advances and incorporated features. High transmission power in a license-free band is made possible by 900 MHz Spread Spectrum technology; encoded Spread Spectrum transmission data yields a system that is virtually uncompromisable; each transmission is randomly repeated three times to ensure success; linking is done at lower power to make sure that full-power transmissions during regular communications are successful; a Packet-Error-Rate calculation is done during linking; and the Integrated Reader Locks (IRLS) and Panel Interface Module (PIM) communicate at regular intervals to ensure good communications are maintained.

Benefits for CS Gold users

The incorporation of wireless locks into an access plan gives CS Gold users the ability to secure areas that previously were impossible or cost-prohibitive to secure. These areas include architecturally sensitive places where wiring could not be pulled, wiring was not available, or distances were too great, as well as parking lots and elevators where cabling may have been an issue. Crash bars and other components can also be accommodated with Wireless Exit kits. Faster and cheaper installations reduce the per door cost of online, real-time access, giving all CS Gold institutions more control and security on campus.

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Features

- **No wiring to the door**
- **Easy to maintain**
- **Long range with ultra-reliable communications**
- **Weigand or magnetic stripe interface**

Wireless Access

Longevity and easy maintenance

The battery pack lasts up to four years with as many as 10,000 card swipes per year. It lasts two years with 40,000 card swipes and a five-minute heartbeat interval. A Low Battery Trouble signal is given long before the battery is depleted.

Changing the batteries is as simple as removing one screw, unplugging the battery pack, plugging in a new one, and replacing the screw. It only takes a few minutes, and neither memory nor settings are lost during the process.

Fast installation

Wireless also avoids interrupting daily activities in residence halls or academic buildings any more than is absolutely necessary. All devices required at a door for real-time access control are combined into the IRL. A locksmith can install one of these locks in about 30 minutes. Nothing else has to be done to install full access control at the door.

Easy to move or reuse

If protected areas are being "rehabbed," and walls and secured doors are being moved, the IRLs are easy to move to the new control points. Just take off the IRLs and move them to other doors. It's quicker, and much easier than rewiring.

Secure

Wireless Access is virtually uncompromisable. Several functions are built into the firmware and software to thwart any attempt to trick the lock into opening. For starters, each message transmitted has many, many more bits than the actual bit stream from the access card, making it hard to determine where in this bit stream the actual access card code resides. Additionally, there is an internal, randomly generated address adopted by each IRL and PIM pair that resides in the bit stream. Before transmission, the entire message is encoded and then spread over a one MHz band by the Spread Spectrum algorithms. Also prior to being transmitted, the message is mixed with several Pseudo-Noise codes to make the transmitted signal appear as noise to an eavesdropper. These manipulations generate several billion alternatives that would need to be deciphered in order to recreate the correct message. As a result, the system is extremely secure. Add to this the fact that an IRL will not respond to a correct "open" command unless it has requested to be opened, and it is apparent that the system's security is extremely robust.

Specifications

Certifications:

FCC Park 15 RSS-210 of Industry Canada pending UL 294, UL 10C

Power Supply: 8-AA battery pack

Battery Life:

Two years at 40,000 card swipes per year

Four years at 10,000 swipes per year

Frequency Range:

902 to 928 MHz license-free band in US and Canada
15 discrete channels

Transmission Type:

Encoded Direct Sequence Spread Spectrum

Data Rate:

62.5 Kbps max, half duplex

Verification Time:

Less than .7 second (not including panel delays)

Operating Environment:

-31° F to 150.8° F (-35° C to 66° C)

20-95% relative humidity, non-condensing

Weight:

Mortise 6.0 lbs (2.72 kgs); Cylindrical 4.0 lbs (1.81kgs)

Cylindrical Solid Brass Cylinder: 6 pin MARKS "C" keyway

Stainless Steel Latch:

1 1/8" x 2 1/4" (2.9 cm x 5.7 cm)

9/16" throw (1.4 cm)

Backset: 2 3/4" (7 cm), 4 7/8" (12.3 cm)

Roses:

Thru-bolted 3 7/16" (8.7 cm) diameter. Spring loaded.

Automatically adjust for door thickness, 2 #10 thru-bolts

Strike: 4 7/8" (12.4 cm) ASA curved lip

Door Thickness: 1 5/8" (4.1 cm) - 1 7/8" (4.8 cm)

Levers: Solid Cast Zamac to 1/2" (1.3 cm) return of door

Mortise Heavy Wrought Steel Case:

5 7/8" H x 4 1/4" D x 1" W (14.9 cm x 10.8 cm x 2.5 cm)

Zinc dichromate plated for corrosion protection

Armored Brass Faceplate:

1 1/4" x 8" x 7/32" (3.18 cm x 20.3 cm x .6 cm)

Backset: 2 3/4" (7 cm)

Door Thickness: 1 3/4" (4.4 cm)

Stainless Steel Latchbolt: 3/4" throw (1.9 cm)

Stainless Steel Throw: 1" (2.5 cm)

Brass Lever Handle

Roses: flat, 3 1/2" diameter (8.9 cm)

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