



## Protege Motorized Deadbolt Wireless Lock

The Protege Motorized Deadbolt Wireless Lock combines intelligent locking technology with a robust automated deadbolt lock in a simple, self-contained package, providing the perfect economical security solution for doors which don't require customer-facing aesthetics.

With no cabling necessary you can deploy integrated electronic access control in areas where traditional wired locking solutions are not possible. Wireless locks offer unprecedented flexibility, allowing businesses to significantly reduce labor and material costs.



## Feature Highlights

- > Native integrated electronic access control solution
  - > Grade 2 deadbolt lock meets ANSI lock standards
  - > Suitable for standard deadbolt installations
  - > Reversible handing
  - > Self-contained design with robust deadbolt operation
  - > Integrated LED indicator provides read response and status signaling
  - > **Bluetooth®** Wireless Technology
  - > MIFARE and DESFire credential reading
  - > Advanced technology wireless operation provides up to 12 months battery life (10,000 activations)
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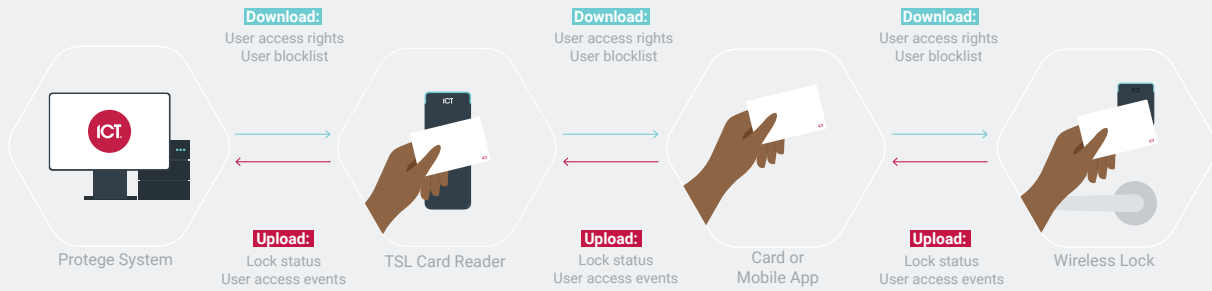
## How Does It Work?

Unlike wired doors, which contact the controller to determine whether to grant or deny access, offline wireless locks make access decisions based on the permissions stored on the user's credential ('data on card').

In an offline wireless locking system each user acts as a walking data store carrying access and event data to and from the locks, like a colony of ants creating a mobile data network.

## Wireless Locks In Action

The mechanics of wireless lock operation are remarkably simple.



When a user presents their credential at a wired update point (such as at a main entrance) the reader downloads a 'credential blob' to the card/phone. This credential blob contains encrypted information about the access rights for that specific credential, including which doors they can access and when. It also includes a blocklist of users who have recently been banned from the site.

When the user presents their credential at a wireless lock the credential blob tells the lock whether that user should be granted or denied access. All the lock has to do is follow the instructions. The blocklist is also uploaded to the lock to ensure that inactive users who have not yet had their credential blob updated can no longer gain access. At the same time the lock downloads the user's events to their credential, and when they next present at a wired update point their accumulated events are uploaded to the controller.

Access-related programming changes to access levels, schedules and so on are downloaded to the controller as normal. The next time the user presents the credential at a wired update point the credential blob is updated with any changes that affect their access for that specific credential.

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## Which Wireless Lock is Best for You?

Protege wireless locks are available in a range of hardware configurations, designed to provide the right solution for any installation. Which lock is best for you depends entirely on the door you intend to install it on.

*All ICT wireless locks are compatible with each other as part of an integrated access control system.*

### **Mortise or Deadbolt?**

Mortise locks are generally considered to offer superior security. Being embedded into the door provides excellent protection against tampering and damage. This also makes the lock less visible so the end result is more visually attractive. Mortise locks are typically more durable and offer greater functionality and options.

Deadbolts are usually more visible than mortise locks, as they often protrude from the door, but their simple design means greater flexibility, easier installation and lower cost. Deadbolts are generally more convenient for low-security situations, resulting in a cost-effective solution that still offers excellent security.

### **Cartridge Mortise Wireless Lock**

The Protege Cartridge Mortise Wireless Lock provides superior locking functionality with premium aesthetic appeal. A clever cartridge design houses the lock control components inside the door. With all lock and control components hidden from view, this lock is ideally suited to new customer-facing doors where appearance is paramount and the lock control cartridge can easily be built into the new door.

### **Motorized Deadbolt Wireless Lock**

The Protege Motorized Deadbolt Wireless Lock is the perfect solution for general-purpose doors such as staff, maintenance and storage areas which require the protection of an automated deadbolt without the premium aesthetics of a mortise installation. The lock control components and deadbolt motor are housed inside two compact trim assemblies, conveniently mounted on the front and rear of the door, either side of a single installation hole.

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## Native Access Control

ICT wireless locks are a native component of your Protege system. No integration, middleware or third-party interface.

All configuration is performed within your existing Protege setup using standard door programming and utilizes existing records for users, access levels, schedules and other access control features. The solution truly is seamless.

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## Bluetooth® Mobile Credential Reading

Bluetooth® capability enables you to use your smartphone as your access credential for maximum convenience.

With the Protege Mobile App you can unlock the door using a unique access credential that is entered against your user record in the Protege system and authenticated by a secure cloud based server.

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## Secure with MIFARE DESFire

Based on the international standard ISO/IEC 14443 Type A, MIFARE DESFire represents the highest level of physical credential security.

- > Fully compliant with the international standard ISO/IEC 14443 Type A
- > Multi-application memory to store several services on the same card, allowing for many integration possibilities
- > Fast transaction speed
- > High security and fraud protection

Wireless locks also support MIFARE Classic and ICT Secured MIFARE cards for compatibility with lower security sites.

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## Convenient Programming

Because offline locks are not actively connected to the network, in many systems they are extremely inconvenient to program. In contrast, Protege wireless locks can be configured using the tool you already have in your pocket.

With the Protege Config App, simply badge your phone at an update reader to pick up the latest configuration then send the updates to any lock within Bluetooth® range. The app will automatically update the lock firmware as well, saving you time and money.

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## Flexible Access

The deadbolt lock supports a wide range of functionality to provide flexible and secure access control, including:

- > Unlock the door temporarily on access or when exiting via the thumbturn
- > Toggle lock on access
- > Unlock on schedule with optional late to open operation, preventing the door from unlocking if no one arrives at the office
- > Extended unlock time for people with disabilities
- > Emergency open function, allowing an authorized person to unlock the door once if the owner loses their card

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## End-to-End Encrypted

The ICT wireless locking system is **end-to-end encrypted** with a minimum of 128-bit encryption\* at every step in the chain of communication. All encryption keys are uniquely generated for every site and shared between components using industry-standard methods. The wireless lock itself contains a Secure Access Module (SAM), an isolated chip which handles all key storage, encryption and decryption to provide the highest level of security for encryption keys.

\* Only applies when using DESFire cards and/or mobile credentials for access. MIFARE Classic cards do not provide the same level of security.

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## Hardware Options

The Protege Motorized Deadbolt Wireless Lock is available in two color options.

Deadbolt Lock Body	Code
Motorized Deadbolt Wireless Lock	MDB

*Two keys are supplied with each lock.*

Deadbolt Trim Finish	Code
Flat Black	622-FB
Satin Chromium Plated	626-SC



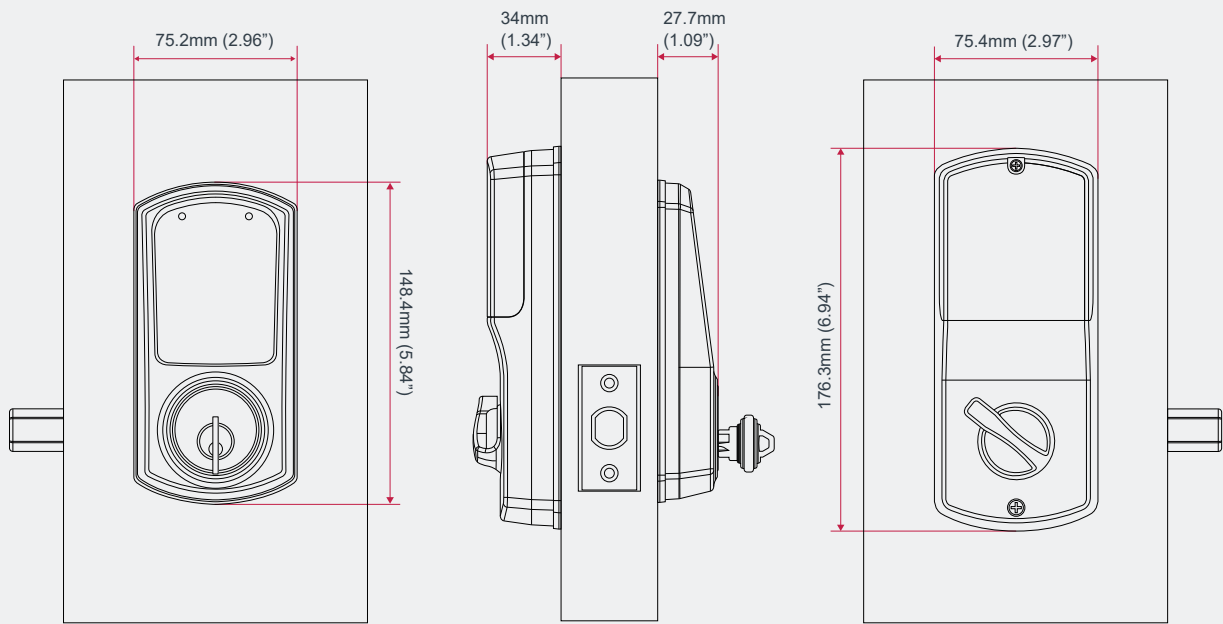
Flat Black



Satin Chromium Plated

*Handle sets can be ordered from a third-party supplier.*

## Mechanical Diagram



## Technical Specifications

Ordering Information	
Order Codes	See Hardware Options
Power Supply	
Battery	Alkaline AA 1.5V (x4) UL/cUL Energizer MAX Alkaline
Expected Battery Life	Up to 1 year (10,000 activation cycles) <i>Length of battery life not evaluated by UL.</i>
Operating Voltage	6V
Operating Current	900mA (Peak, Door Activation)
Average Operating Current	82 $\mu$ A (Standby Mode)
Memory	
Event Memory Storage	40,000 log entries
Communications	
Frequency	13.56 MHz ISO/IEC 14443 Type A
Card Read Range	20mm (0.79") (Typical)
Tag Read Range	15mm (0.59") (Typical)
Bluetooth® Wireless Technology	
Bluetooth® Read Range	Proximity mode: up to 0.5m (1.6ft) configurable Action unlock (shake): up to 5m (16.4ft) configurable
Bluetooth® Electronic Credential Transmission Technology	Bluetooth® version 5.2 compliant Proprietary data exchange protocol. AES-128 encrypted Credentials can be distinguished by unique site code and card number
Bluetooth® Wireless Device	Protege Mobile 1.0.x
Lock Specification	
Lock Type	Grade 2 heavy duty deadbolt lock
Deadbolt	Stainless steel. 25.4mm (1") throw
Latch Plate	Stainless steel. H x W 57.2 x 28.6mm (2.25 x 1.13")
Strike Plate	Stainless steel. Non-handed.
Default Keyway	Schlage C Compatible (SCC). Other options available on request
Default Keying	Keyed Different (KD). Other options available on request
Door Thickness	44.45 to 50.8mm (1.75 to 2") standard. Larger thickness by special order
Control Hardware Dimensions	
Front (H x W x D)	148.4 x 75.2 x 27.7mm (5.84 x 2.96 x 1.09")
Back (H x W x D)	176.3 x 75.4 x 34mm (6.94 x 2.97 x 1.34")
Weights	
Net Weight	1.32kg (2.9lbs)
Gross Weight	1.68kg (3.7lbs)
Operating Conditions	



Operating Temperature	UL/cUL 0° to 49°C (32° to 120°F)
Storage Temperature	-10° to 85° C (14° to 185° F)
Humidity	0%-93% non-condensing, indoor use only (relative humidity)
Mean Time Between Failures (MTBF)	520,834 hours (calculated using RDF 2000 (UTE C 80-810) Standard)

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## Regulatory Notices

For a full regulatory and approval list please visit the ICT website.

### **UL/cUL (Underwriters Laboratories)**

- > UL 10B for Safety - Fire Tests of Door Assemblies
- > UL 10C for Positive Pressure Fire Tests of Door Assemblies (up to 20 minutes when installed in a steel fire rated door)
- > CAN/ULC-S104 for Fire Tests for Door Assemblies
- > UL 294 for Access Control System Units
- > CAN/ULC 60839-11-1 for Electronic Access Control Systems

### **ANSI/BHMA**

- > Deadbolt lock hardware rated to ANSI/BHMA 156.13 Grade 2

### **Industry Canada**

ICES-003

This is a Class A digital device that meets all requirements of the Canadian Interference-Causing Equipment Regulations.  
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (A)/NMB-3(A)

### **Federal Communications Commission (FCC)**

FCC Rules and Regulations CFR 47, Part 15, Class B.

This equipment complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; (2) This device must accept any interference received, including interference that may cause undesired operation.

### **Accessibility**

Protege wireless lock hardware is designed to adhere to legal and industry guidelines:

- > Americans with Disabilities Act (ADA)
- > International Code Council A117.1 (ICC A117.1)

Designers & manufacturers of integrated electronic access control, security and automation products.  
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