Protege Rear Mount Mortise Wireless Lock

The Protege Rear Mount Mortise Wireless Lock combines robust and intelligent locking technology with a leading mortise lock. A discrete rear mount cartridge creates a stylish security option for existing doors where an internal cartridge cannot be fitted, while an extensive range of aesthetic options ensures an impressive integrated locking solution.

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.

The future is wireless.

Feature Highlights

- Native integrated electronic access control solution
- Electronic mortise lock rated to ANSI/BHMA 156.25 Grade 1
- Rear mount control unit is easily retrofitted to existing doors
- Sleek reader design with rectangular or circular cover available in white or black
- Integrated LED indicator provides read response and status signaling
- **Bluetooth**® Wireless Technology
- MIFARE and DESFire credential reading
- Lock configuration programmable via the Protege Config App
- Efficient operation provides battery life of up to 2 years (40,000 activations)
- USB-C connection to supply power for emergency opening
- IP65 environmental rating allows installation both indoors and outdoors

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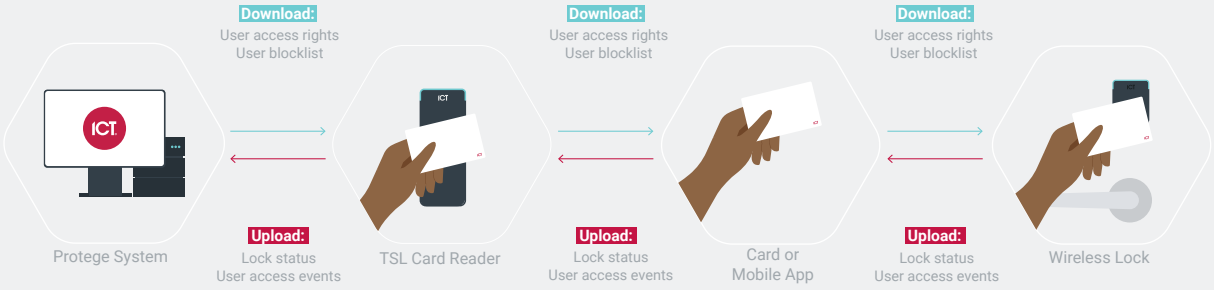
How Does It Work?

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.

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.

Rear Mount Mortise Wireless Lock

The Protege Rear Mount Mortise Wireless Lock is designed for customer-facing doors where appearance is a priority but it would be difficult to install an additional cartridge. Instead, the cartridge is mounted discretely on the back of the door, making it much easier to retrofit onto existing doors. The rear mount mortise lock is also IP65 rated for installation on exterior doors.

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.

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.

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.

You can even integrate mobile credentials into custom apps using the ICT Mobile SDK, providing end users with a truly unified smart building experience. For more information about the SDK, contact ICT.

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.

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, you can simply badge your phone at an update point 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.

Flexible Access

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

- Unlock the door temporarily on access
- Toggle the lock on access or by badging a card and holding down the inside handle
- Leave the door unlocked after exiting until a card is badged or for a set time
- 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 allows an authorized person to unlock the door once if the owner loses their card
- Privacy (Do not disturb) mode available on models with a thumbturn

Lock Your Doors with Confidence

The mortise lock meets ANSI Grade 1 lock standards and is rated for over 12 million cycles, boasting the following industry-leading construction.

- Stainless steel deadbolt
- Stainless steel anti-friction latchbolt
- Stainless steel deadlatch
- Stainless steel faceplate
- Stainless steel stop works
- Independent single retractor hub
- A single cam for all locking functions
- Four compression springs to ensure smooth controlled operation
- 12 gauge heavy duty alloy steel casing

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.

Hardware Options

The Protege Rear Mount Mortise Wireless Lock offers the flexibility to create your own configuration. Simply choose your preferred components from the range of available options to compile your perfect combination.

1. Select the **Electronic Assembly** color.
2. Select the **Rear Mount Module Cover** color.
3. Select the **Mortise Lock Body** type.
4. Specify the **Handing**.
5. Select the optional **Thumbturn** if required.
6. Select a **Handle Set**.
7. Select the **Sectional Trim**.
8. Specify the **Finish**.
9. Optionally, order a 1 ⅛" key cylinder from a third-party supplier.

The easiest way to order your wireless locks is with the Protege Lock Selector on the ICT website.

Electronic Assembly	Code
Mortise Electronic Rear Mount Assembly & Reader (Black)	RME-DFBT-B
Mortise Electronic Rear Mount Assembly & Reader (White)	RME-DFBT-W

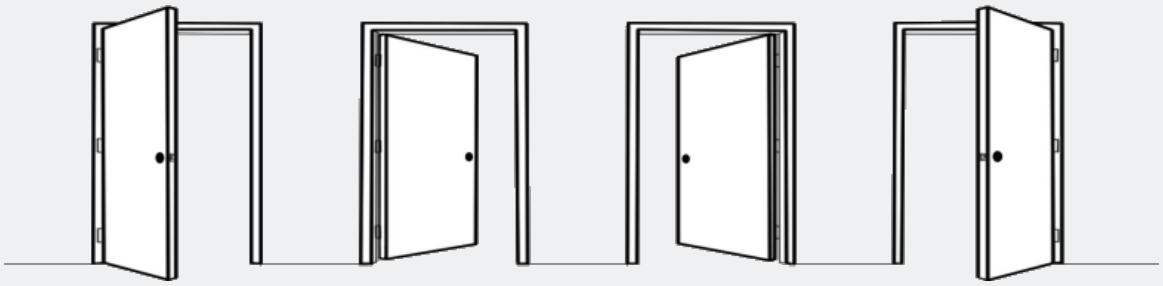
Rear Mount Module Cover	Code
Rear Mount Module Cover (Black)	RMC-B
Rear Mount Module Cover (White)	RMC-W

Mortise Lock Body	Code
Mortise Lock Body (with Optional Thumbturn)	MLB
Mortise Lock Body with Deadbolt and Thumbturn	MLB-DB

Handing	Code
Left Hand	LH
Right Hand	RH
Left Hand Reverse	LHR
Right Hand Reverse	RHR

Ensure that you select the correct handing when you order the locks. **Re-handing the product in the field is possible, but there is a risk of voiding the warranty.** If you do not have the correct locks for a project, we strongly recommend restocking instead of changing the handing of existing stock.

The handing of the mortise lock depends on the door orientation. To determine the handing, stand on the outside (entry side) of the door. Reach your right or left hand across your body to open the door. If the door opens inwards, it is a standard handing; if the door opens outwards, it is a reverse handing.



Left Hand Reverse (LHR) **Left Hand (LH)** **Right Hand (RH)** **Right Hand Reverse (RHR)**

For more information, see the *Protege Mortise Lock Handing Change Guide*, available from the ICT website.

Optional Thumbturn	Code
Mortise Thumbturn	MT

Handle Set	Code
Acadia	MH-AC
Aspiring*	MH-AS
Banff	MH-BA
Denali	MH-DE
Glacier	MH-GL
Jasper	MH-JP
Nightcap	MH-NI
Peak	MH-PE
Sequoia	MH-SE

** Handing needs to be specified when ordering the* Aspiring *handle set. Other handles are non-handed.*

Sectional Trim	Code
Round Rose	MR-RO
Square Rose	MR-SQ

Finish	Code
Bright Brass Clear Coated	605-BB
Satin Brass Clear Coated	606-SB
Satin Bronze Clear Coated	612-SB
Oil Rubbed Bronze	613-RB
Flat Black	622-FB
Bright Stainless Steel	629-BS
Satin Stainless Steel	630-SS

Color selection applies to the faceplate, strike plate, handle, trim, thumbturn and cartridge armor plate (if applicable). By default, all parts have the same finish. For split finishes, discuss with your sales representative.

Aesthetic Options

A range of aesthetic options means there is a look to suit every installation.

Electronics Covers

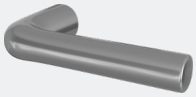
The card reader cover and rear mount module cover are each available in black or white.

Handle Set Options

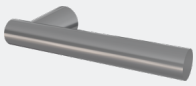
Acadia

Aspiring

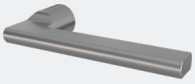
Banff



Denali



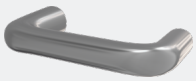
Glacier



Jasper

Nightcap

Peak



Sequoia

Note: Handing needs to be specified when ordering the Aspiring *handle set. Other handles are non-handed.*

Finish Options

Bright Brass Clear Coated

Satin Brass Clear Coated

Satin Bronze Clear Coated

Oil Rubbed Bronze

Flat Black

Bright Stainless Steel

Satin Stainless Steel

Color selection applies to faceplate, strike plate, handle, trim and thumbturn.

Replacement Parts

In addition to the components included in the initial installation, the following individual components may be ordered for replacement.

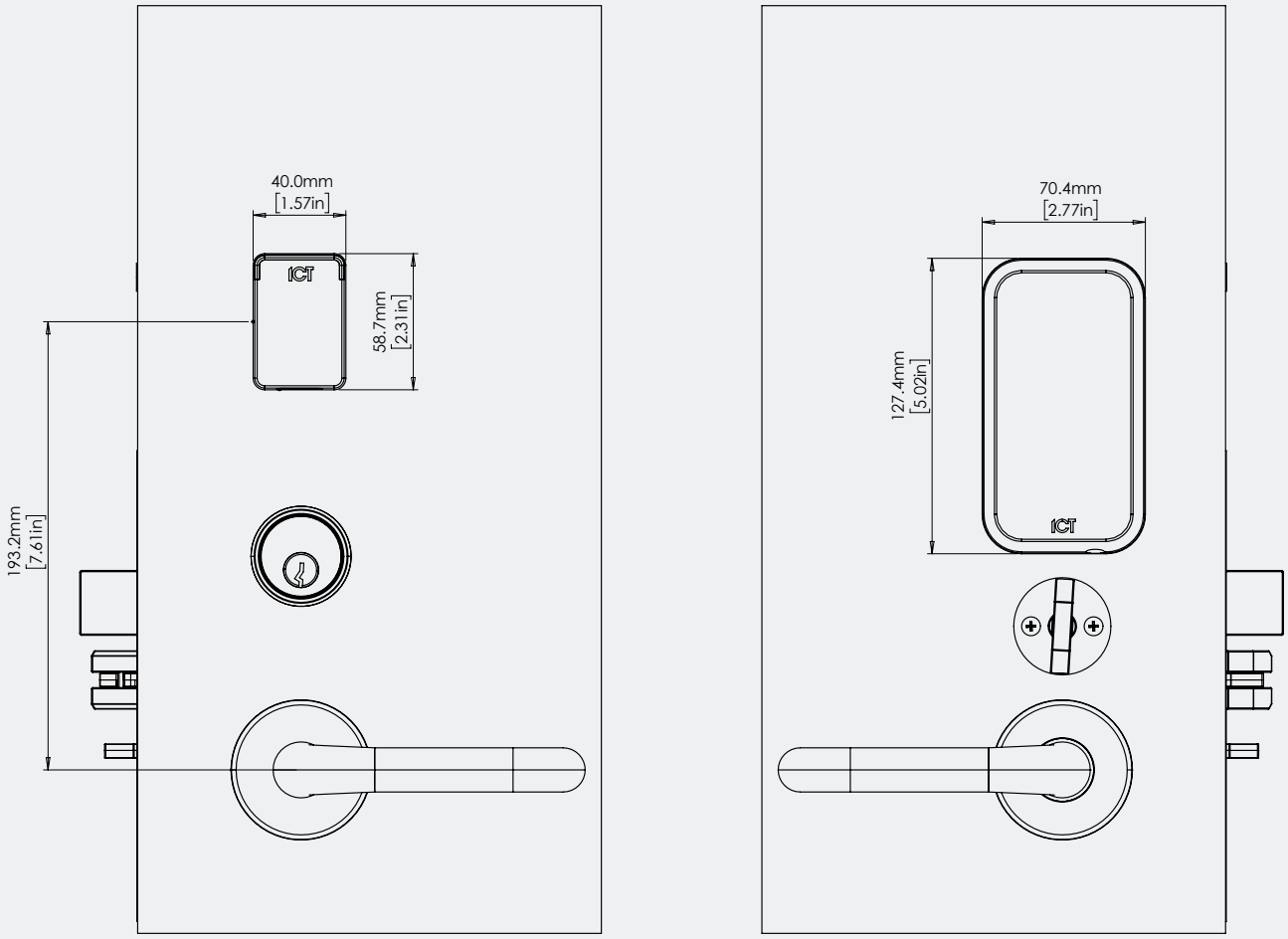
You must specify the required finish when ordering replacement parts.

Mortise Lock Strike Plate Replacement	Code
Mortise Strike Plate	SPM

Mortise Lock Faceplate Replacement	Code
Mortise Dress Plate (no Deadbolt)	DPM
Mortise Dress Plate (with Deadbolt)	DPM-DB

Mechanical Diagram

Optional key cylinder is not supplied.



Technical Specifications

Ordering Information	
Order Codes	See Hardware Options
Power Supply	
Battery	Alkaline AA 1.5V (x3) UL/cUL Energizer MAX Alkaline
Expected Battery Life	Up to 2 years (40,000 activations) *Length of battery life not evaluated by UL.*
Emergency Power Supply	USB-C connection allows power supply for emergency opening
Operating Voltage	Rated 4.5VDC Operating range 3.83 - 4.95VDC
Operating Current	370mA (Peak, Door Activation)
Average Operating Current	82µA (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 1 mortise lock
Casing	12 gauge heavy duty dichromated alloy steel
Faceplate	Stainless steel. Beveled. H x W 203.2 x 31.75mm (8 x 1.25")
Strike Plate	Stainless steel. Non-handed. Curved lip
Latchbolt	Stainless steel. Anti-friction. 19mm (0.75") throw
Deadbolt	Stainless steel. 25.4mm (1") throw
Handle Rotation	35 degrees
Door Thickness	1.75" - 2.00"
Dimensions	
Reader Body (H x W x D)	62 x 40 x 16mm (2.4 x 1.6 x 0.6")
Control Assembly (H x W x D)	131 x 74 x 24mm (5.1 x 2.9 x 1.0")
Operating Conditions	

Environment IP Rating	IP65
Operating Temperature	UL/cUL -35° to 66°C (-31° to 151°F) :
Storage Temperature	-10˚ to 85˚C (14˚ to 185˚F)
Humidity	0%-93% non-condensing, indoor/outdoor use (relative humidity)

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 3 hours when installed in a steel fire rated door, up to 90 minutes when installed in a wooden 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

> This electronic mortise lock has been tested and found to conform with ANSI/BHMA 156.25 Grade 1 for Electrified Locking Systems.

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.
Designed & manufactured by Integrated Control Technology Ltd.

www.ict.co

14-Feb-25