Cencon®
ATM Cash Vault
Security System

Where there's cash, there's Cencon.

CENCON

(See page 6 for details.)

dormakaba

Cencon

The Challenge

The unique challenge of securing ATM cash vaults characteristically requires shared access among several companies. This typically consists of the parties responsible for replenishing cash and pulling deposits, as well as those providing 1st or 2nd line maintenance. Additionally, for ATMs located at the bank as opposed to off-premises, branch employees may require entry to the vault during certain hours. Some companies may still have their service personnel access the ATM vault by sharing the same lock combination. Bank employees, cash replenishers, technical service reps, repair personnel all know the one combination that opens an ATM safe typically holding tens of thousands of dollars in cash!

This type of archaic locking method with no accountability or access control equals serious temptation even for the most honest of employees.

The Solution

The Cencon ATM Cash Vault Security System from dormakaba was designed to combat insider theft from ATMs through the combined use of lock hardware, systems software, and Smart Keys. Cencon offers total access control and accountability with its One Time Combination (OTC) feature. The OTC is dispatched from the software and can only be used by that particular key for that lock's next opening, thus eliminating temptation. Unique software allows you to control and monitor tens, hundreds, even thousands of locks and users located anywhere in the world — from one central location. Cencon is the leading cost-effective solution for today's most serious security challenges.

Dead Bolt   Swing Bolt

Features and Benefits

Dual Token Access Control
A user needs both a combination and a Smart Key to access the lock.

One Time Combination
A One Time Combination (OTC) is dispatched each time access is required to open a Cencon lock in either of the OTC modes (FLM or Route mode).

Smart Key
Encrypted electronic keys are used as personal identifiers to open a lock (blue F, yellow R, green B), log in to the software (black D, S, SS), or as a device to activate or audit a lock (red SA).

Close Seal
The close seal acts as an electronic signature, stamping the date and time in the lock and key's memory and allowing the software to remotely know the lock status in the two OTC modes.

3 Alarm Compatible
Each Cencon comes standard with the capability to connect to an existing alarm system to (1) monitor the position of the lock bolt and (2) send a silent duress signal by adding 10 to the combination when the user needs to open the lock at gunpoint. The lock also offers the optional shunt alarm (3) to

deactivate the alarm when a correct combination and associated Smart Key are presented.

Audit Trail
The Cencon lock records all lock activity, a maximum of more than 1,000 events in some situations, and permits easy downloading of the information via a Smart Key for generating detailed audit reports.

Additional Security Options
Each group of lock or software access users can be configured with individual time window restrictions, including the dual-mode requirement to provide two-person integrity, or a software grouping method to prevent certain users from accessing certain locks.

Easy Retrofit
Cencon locks have the same footprint as conventional mechanical combination locks, making the retrofit process simple and inexpensive.

PowerStar® Technology
Use of an internal generator creates all the necessary power for the lock. No batteries or external wiring are required to operate the lock. Optional line power available if using **Cencon 0_2**

Cencon 0_2
Communicate remotely to the Cencon lock by adding hardware and software components, which when connected to the ATM PC, allow for streamlined operations.

User Friendly Software
Cencon software allows access control to all containers with no special wiring. The Windows® 7 or higher operating system or Microsoft® SQL Server interface, makes it simple to install and use on a stand-alone PC, a local area network (LAN) or wide area network (WAN).

Technical Support
Our Technical Support Staff is available 24 hours a day, seven days a week, to assist you in resolving hardware or software related issues.

POWERSTAR

Cencon Innovations: Shared Access

Cencon locks can operate individually or in any combination of these three modes — one for the First Line Maintenance personnel (FLM Mode), one for cash replenisher or armored service (Route Mode), and one for bank branch employees (Bank Mode). Each mode addresses the individual access needs for each category of user.

FLM MODE
Key + OTC
(One Time Combination)
Use Cencon 5 Software
(CenTran optional)

ROUTE MODE
Key + OTC
(One Time Combination)
Use Cencon 5 Software
(CenTran optional)

BANK MODE
Key + RAC
(Repeatable Access Code)
Use Cencon 5 Software

Designed for First Line Maintenance personnel, the FLM mode of the Cencon lock permits the dispatch center to give an OTC to a technician "on the fly." FLM personnel are issued a blue Smart Key, then call their dispatch center to request an OTC. Once used, this combination will not function again, thus insuring absolute access control. Once the Cencon unit is locked, a close seal code is displayed on the lock's LCD and, when entered into the dispatch center's computer, assures that the Cencon is locked and secure.

While permitting the same access control as FLM Mode, Route Mode additionally allows pre-defined routes for armored cash replenishers. Route personnel are each issued a yellow Smart Key. A route of locks may be assigned, permitting route personnel to access a series of locks without contacting their dispatch center between each opening. Route personnel can either call their dispatch center at the end of the shift to report the close seals, or the close seals can be read from the key by the Cencon software.

Bank Mode is designed for bank personnel who may need access to the Cencon lock but do not wish to operate through a dispatch center. Green Smart Keys and combinations are issued to bank personnel who may unlock the Cencon lock at any time within that user's access schedule. An internal audit trail tracks all activity of bank personnel just as it does for FLM and Route personnel. Kaba Mas Cencon 5 software permits bank administrators to manage Bank Mode on site. Bank users may be added or deleted and audit trails may be downloaded from the lock.

Remote Management for Streamlined Operations

dormakaba's commitment to ATM cash security is over one million Cencon locks strong. As the market leader in combating insider theft from ATM's, we are dedicated to streamlining the security process, increasing efficiency while maintaining complete user accountability.

A large part of the ATM cash security investment comes from hardware costs and associated operational expenses. Financial organizations already own the locks and keys. Cencon O$_2$ was designed with this in mind. The system provides an optional upgrade to your new or existing locks and keys. From the field, your system can be upgraded with a simple firmware update and the addition of the new Interconnect Box and software components.

The Interconnect Box — Real Time Functionality

Dead Bolt
The Interconnect Box enables remote management of your Cencon dead bolt locks by connecting directly to the ATM PC via USB port. This allows your locks to be on your ATM network and opens the door to enhanced functionality. You can also upgrade your current field dead bolt locks by contacting dormakaba for a firmware update, available January 2014 (applies to Gen2 locks only). If connectivity is not desired, no additional components or interfaces are required.

Swing Bolt
Utilizing one of two USB versions of the swing bolt Interconnect Box enables remote management of the Cencon swing bolt locks by connecting directly to the ATM PC via USB port. Shunted and non-shunted versions are available. If connectivity is not desired, then versions with no USB connection are also offered.

Four Options for Swing Bolt (Must be Ordered with Swing Bolt Lock)

- Non-Shunt Interconnect Box, No USB Connection, Duress,Bolt Switch, Door Contact, 12" Cables
- Non-Shunt Interconnect Box, USB Connection, Duress, Bolt Switch, Door Contact, 12" Cables
- USB is for Connection to ATM PC for Cencon 02 or for Lock Programming
- Shunt Interconnect Box, No USB Connection, Duress, Alarm Shunt, Bolt Switch, Door Contact, 12" Cables
- Shunt Interconnect Box, USB Connection, Duress, Alarm Shunt, Bolt Switch, Door Contact, 12" Cables

Connecting Securely From Anywhere
Traditionally, CenTran software has given you the ability to automate certain Cencon features, such as code generation and distribution through third-party dispatching software. CenTran 5, with its Windows Service feature, supports remote operations. With the use of a third-party IVR system or CenTran Appliance, CenTran's Web Service allows field personnel to receive their One Time Combination via text or email, eliminating contact with dispatch personnel. The new Interconnect Box for USB connection to the ATM PC, used in conjunction with CenTran Web Service and ATM-side CenTran Agent software, allows you to remotely activate, audit, shelve, and manage Cencon Locks. By installing the new KeyBox Agent software, you can manage keys and users remotely too!
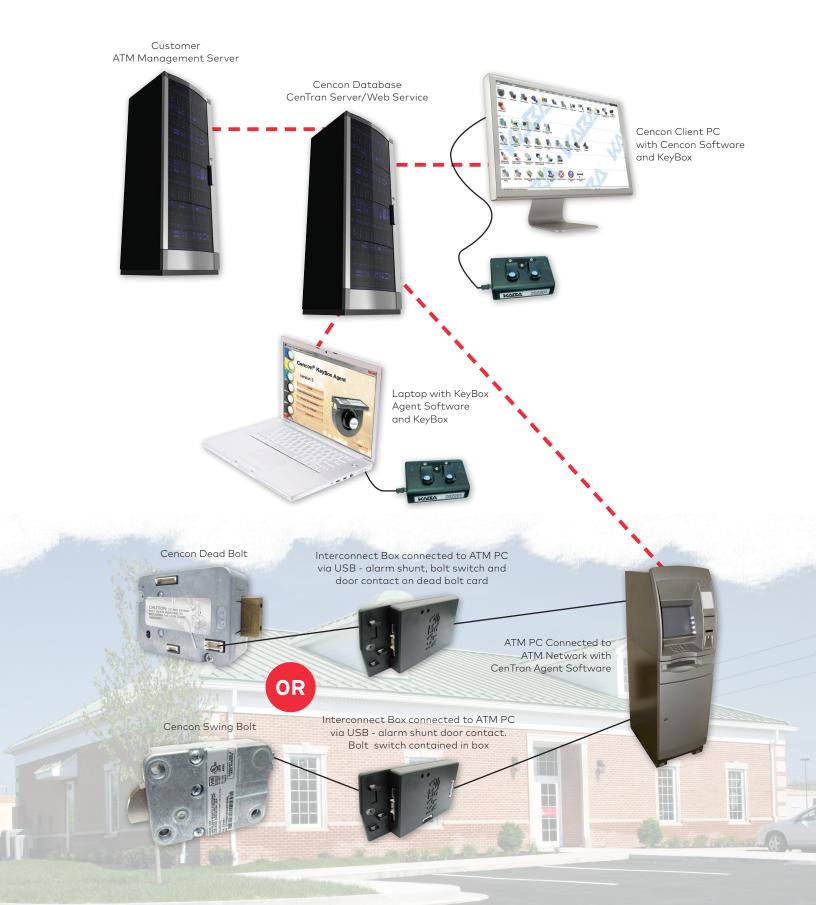
Streamline Operations and Reduce Costs
Today, when an ATM security breach occurs, retrieving the audit is a multi-step process that involves multiple people and additional expense. The option of Cencon O$_2$ allows a Security Director to remotely log into the lock and retrieve the audit in a matter of seconds.

Emergencies happen. When they do, Cencon O$_2$ allows technicians to create keys and codes from the field without heading to the office first.

CENCON

Typical System Deployment

Customer
ATM Management Server

Cencon Database
CenTran Server/Web Service

Cencon Client PC
with Cencon Software
and KeyBox

Laptop with KeyBox
Agent Software
and KeyBox

Cencon Dead Bolt

Interconnect Box connected to ATM PC
via USB - alarm shunt, bolt switch and
door contact on dead bolt card

ATM PC Connected to
ATM Network with
CenTran Agent Software

OR

Cencon Swing Bolt

Interconnect Box connected to ATM PC
via USB - alarm shunt door contact.
Bolt switch contained in box

Cencon Dead Bolt Specifications

Product Specifications

Access Control

- User Authentication — Combination + Smart Key
- Operating Modes — Three Modes (FLM, Route and Bank)
- Single or Dual User Access — For any of the three modes
- Factory (Shelved) Mode — 50-25-50 or changeable by user
- One Time Combination — For FLM & Route Mode
- User-Defined Combinations — For Bank Mode users
- Wrong Combo Penalty — After five incorrect attempts
- Central Control — With Cencon 5 software
- Audit Trail
  - Lock — Can achieve more than 1,000 events
  - Key — Up to 32 events
  - Software — Unlimited events
- Time Windows by User — Optional
- Time Delay — 1-99 minutes, Bank mode only
- Number of Users — Unlimited for FLM & Route mode — 100 per lock for Bank mode

Alarm Interface

- Silent Duress Alarm — Standard - combination +10
- Bolt Status — Standard
- Alarm Shunt — Optional

Agency Approvals / Certificates

- U.L. - Type 1 (USA)
- U.L.C. - Type 1 (Canada)
- VdS - Class 2 (Germany)
- ECB•S/EN1300 - Class B (Europe)
- A2P / CNPP - Class B/E (France)
- SBSC - High Security (Sweden)

Environmental

- Operating Temperature — -23 °C to 65 °C @ 90% RH
- Humidity — Up to 95% RH
- ESD — 5KV to 25KV
- Endurance — 25,000 operations
- Vibration — 3-axis, 10-150 MHz 1G acceleration, 3 oct/min (per IEC 68-2-2)
- Shock — 50 G (per IEC 68-2-27)
- Mechanical Attack — 30 minutes (per ULC)

Electrical Specifications

- Power — PowerStar Technology Self-generated with internal generator.
- Alarm Interface — Optional 9-pin din, three NO/NC outputs
- Door Contact — 4-pin connector to hook up door contact switch, remote disable
- Serial Communications Port — 10-pin serial port allows for remote operations directly connected to a Cencon PC (audit, activate, shelve, etc.) Option to connect to ATM PC via Interconnect Box available January 2014
- Smart Key — 1K-bit to 64K-bit read-write memory, some with time-clock, multi-stage encrypted, internal 10-year lithium battery, mounted in a stainless steel case

Mechanical Specifications

Input Unit

- Keypad — 12-button sealed with tactile feedback
- Key Reader — Accepts Cencon Smart Keys
- Display — 3-character LCD (with audible beep)

Lock Case

- Dead bolt die cast
- Bolt with three thread options (see price book)
- Bolt travel: 8.7 mm

Cencon KD (Keypad Down)
Dial & Keypad
4.78" H x 3.95" W x 1.38" D
Lock Case
2.40" H x 3.35" W x 1.22" D

Cencon KU (Keypad Up)
Dial & Keypad
3.79" H x 3.83" W x 1.38" D
Lock Case
2.40" H x 3.35" W x 1.22" D

Cencon Swing Bolt Lock Specifications

Product Specifications

Access Control
- User Authentication — Combination + Smart Key
- Operating Modes — Three Modes (FLM, Route and Bank)
- Single or Dual User Access — For any of the three modes
- Factory (Shelved) Mode — 50-25-50 or changeable by user
- One Time Combination — For FLM & Route Mode
- User-Defined Combinations — For Bank Mode users
- Wrong Combo Penalty — After five incorrect attempts
- Central Control — With Cencon 5 software

Audit Trail
- Lock — Can achieve more than 1,000 events
- Key — Up to 32 events
- Software — Unlimited events
- Time Windows by User — Optional
- Time Delay — 1-99 minutes, Bank mode only
- Number of Users — Unlimited for FLM & Route mode — 100 per lock for Bank mode

Alarm Interface (Requires Interconnect Box)
- Silent Duress Alarm — Combination +10
- Bolt Status
- Alarm Shunt

Agency Approvals / Certificates
- U.L. - Type 1 (USA)
- U.L.C. - Type 1 (Canada)
- VdS - Class 2 (Germany)
- ECB•S/EN1300 - Class B (Europe)
- A2P / CNPP - Class B/E (France)
- SBSC - High Security (Sweden)

Environmental
- Operating Temperature — -23 °C to 65 °C @ 90 %RH
- Humidity — Up to 95% RH
- ESD — 5KV to 25KV
- Endurance — 25,000 operations
- Vibration — 3-axis, 10-150 MHz, 1G acceleration, 3 oct/min (per IEC 68-2-2)
- Shock — 50 G (per IEC 68-2-27)
- Mechanical Attack — 30 minutes (per ULC)

Electrical Specifications
- Power — PowerStar Technology Self-generated with internal generator.
- Alarm Interface — Optional 9-pin din, three NO/NC outputs (Requires Interconnect Box)
- Door Contact — 4-pin connector to hook up door contact switch, remote disable (Requires Interconnect Box)
- USB Communications Port — Located in Interconnect Box, USB port allows for remote operations directly connected to an ATM PC (Requires Interconnect Box)
- Smart Key — 1K-bit to 64K-bit read-write memory, some with time-clock, multi-stage encrypted, internal 10-year lithium battery, mounted in a stainless steel case

Mechanical Specifications

Input Unit
- Keypad — 12-button sealed with tactile feedback
- Key Reader — Accepts Cencon Smart Keys
- Display — 3-character LCD (with audible beep)

Lock Case
- Swing bolt die cast
- Bolt travel: Into lock case.

Keypad Dimensions
- 5.14" H X 3.83" W x 1.43" D

Lock Dimensions
- 2.40" H X 3.33" W x 0.91" D

Interconnect Box Dimensions
- 4.40" H X 2.40" W x 0.67" D

Entry

Swing Bolt

Cencon 5 Software

Do More than Ever Before by Updating to Cencon 5 Software

dormakaba is constantly improving the Cencon software to meet the changing needs of your financial organization. By enhancing the functions available at the dispatch center, your company's processes will be streamlined, further increasing your return on investment for the Cencon System. As your business grows with more ATMs, you can continue to trust your partnership with us to keep up with new security and technology requirements the industry demands.

When a One Time Combination in FLM or Route mode is dispatched, Cencon software manages locks and user keys. A unique security code is encrypted to the USB KeyBox that accompanies the software. All actions are stored in the activity log's record of events and are tracked by the particular user who was logged into the software.

Cencon Software supports the following database engines:
- Microsoft SQL 2008 Express or higher, for stand-alone or LAN applications.
- Microsoft SQL 2008 Server, Standard or Enterprise Editions or higher for network applications. (Customer must obtain software/license separately.)

New Features/Improvements
- Updated database SQL operations to use a forward-only cursor to improve wide area network operations. This improves system performance and allows for compatibility with Windows 8. As a result, large reports in Cencon now load more quickly.
- Added support for checking lock audit event dates to determine the correct user name to display. User keys are often renamed or deleted and reused. Thus, different user names are assigned to a user key at different points in time. The key serial number from the audit is compared against the active user table as well as the user history table to determine the correct user name to display.
- Improved CenBank import in the DBSetupUtility, allowing for easier transition from legacy CenBank software to Cencon 5.
- Added a lock serial communications operation to cancel a dispatch and advance a mode of network connected lock to the next combination. This operation is used to cancel the dispatch mode of a Cencon Gen 2 or higher lock that is connected to a network IP address. It is executed by checking the status of the lock to determine if the dispatched user has reached the lock and opened it. If the user has opened and closed the lock, then the operation closes out the dispatch and returns that the user already opened the lock. If the user has not opened the lock, then the combination for that lock mode is advanced to the next combination at the lock, and the dispatch is force closed in the Cencon database.
- Improved threading of Cencon reports to allow simultaneous report operations.

- Improved database query speed tuning for sets of strings, increasing performance of retrieving large lists of strings from the database.
- Improved performance of database checks at Cencon startup by making them operate in parallel (multi-threaded). This hides network latencies for the individual database queries by checking each table. Each database table check operates in its own thread.

Cencon 5 Software Specifications
- Qty. Locks Controlled   Unlimited w/ enough PC space
- Qty. Users Managed   Unlimited w/ enough PC space
- Qty. of Audit Events   Unlimited when properly archived
- Multi-Level Access   Yes
- Audit Reports   Yes
- Lock Status Reports   Yes
- User Reports   Yes
- Operating System   Microsoft Windows 7 (32/64 bit) or higher.
- Min. PC Requirements   4 GB RAM; 50 MB available hard disk space initially (hard disk space requirement will grow as database files grow) Available USB port for USB KeyBox
- An installed Database Management System (DBMS) — Microsoft SQL Server 2008 or higher (including the SQL Server Express Editions). The PC requirements listed above do not include the requirements of a DBMS. If the DBMS is run on the same computer as Cencon, then the total requirements will be the requirements of Cencon plus those of the DBMS.

Software Options for Cencon Locks

CenTran 5 Software
With the release of CenTran 5, the program is even more powerful and integrated with Cencon. It performs all the functions as the previous versions of CenTran, plus so much more. In CenTran 5, Cencon locks can be partnered with the new CenTran Agent Software, Cencon USB Interconnect Box, and Cencon KeyBox Agent Software to enable real-time functionality, resulting in reduced operational costs and improved management of your Cencon ATM Cash Vault Security System!

With the introduction of CenTran 5, several landmark changes have occurred, the most important of which is that CenTran now runs in the background as a Windows service! This allows for improved server stability and database integrity. If a server is reset, then CenTran will automatically restart without manual intervention. The networked CenTran Agent Software and CenTran Web Service enable real-time monitoring of access to the lock. It also takes care of close seal reporting for closing out locks automatically.

With CenTran 5, the web service implementation for CenTran has been added, matching the XML file transactions. This web service implementation supports HTTPS operations for REST and SOAP protocol web service calls. It also supports local named pipe communications. The web service authenticates users based off of either user name/ password or Windows authentication.

The setup of the CenTran web service is done primarily by editing the CenTran configuration file. The configuration file defines the web service endpoints and settings to be used by CenTran. Setup of self-signed security certificates for CenTran is supported by the CenTran Configuration Manager; however, use of a certificate authority server is recommended.

CenTran Configuration Manager
The CenTran Configuration Manager is installed with the CenTran service to facilitate installing, starting, stopping, and uninstalling the CenTran service. It is used to assist you in managing the CenTran service, where CenTran no longer has a direct user interface.

CenTran Web Client Template
The CenTran Web Client Template adds HTML-based client interface for CenTran web service operations. This is used as a light weight web browser replacement for Cencon. The intent is to facilitate your integration of CenTran into your business systems through a web browser interface.

CenTran Agent
The CenTran Agent service software is used at ATM console computers running on Windows 7 to monitor the status of the connected Cencon lock, as well as to handle requests to CenTran to update the status of the connected Cencon lock.
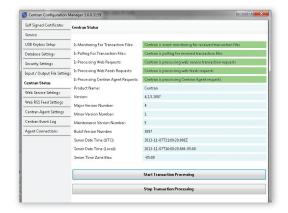
Cencon KeyBox Agent
The Cencon KeyBox Agent service software is used at client computers with an attached Cencon KeyBox, allowing web-based interfaces to use CenTran when initializing keys remotely from a web browser.

Available Remote Lock Operations

- Query Lock Status
- Query Lock Audits
- Evaluate Lock Event
- Activate Lock
- Add Users To Bank Mode Lock
- Delete Users From Bank Mode Lock
- Shelve Lock
- Set Lock Time
- Set Lock Single/Dual Access
- Set Lock Open Delay Window
- Resynchronize Lock Dispatching
- Resynchronize Bank Mode Lock Users
- Cancel Dispatch and Advance To Next Lock Mode Combination
- Reboot Lock

CenTran 5 Configuration Manager