



# SECURITY FACTS

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## THE FUTURE IS HERE: THE INTERNAL LOCKING DEVICE SYSTEM

This article addresses the Internal Locking Device (ILD) high security locking system, developed by the DoD Lock Program to provide security for DoD arms, ammunition and explosives (AA&E) storage structures, nuclear weapons structures, and chemical weapons structures.

The DoD Lock Program provides research, development, test and evaluation (RDT&E) of locking devices and related security systems used to protect nuclear, chemical, and other munitions, and in the safeguarding of national security information and material.

### INTRODUCTION

Forced entry tools and methodologies, used to defeat security equipment protecting weapons storage magazines, are continually advancing in effectiveness. Portable power tools are lighter, quieter, and much more powerful than their predecessors. New thinking must be applied to the challenges DoD faces in the ever-changing world of physical security. The ILD was developed to address vulnerabilities in externally mounted high security padlock and hasp systems.

### ILD OVERVIEW

The ILD is a mechanical locking device engineered to operate magazine door boltwork systems. A complete ILD system consists of an ILD lock, boltwork assembly, and mounting hardware for either sliding or swinging doors. The ILD lock is approximately 8 by 5 by 3 inches and weighs less than ten pounds. ILD applications are available for:

- Single sliding magazine doors
- Double sliding magazine doors
- Single personnel doors (armory)
- Double swinging magazine doors
- Universal mount for double swinging magazine doors (blast doors)

The ILD design includes features that increase security, ensure reliability and maintainability, improve operation, and provide application flexibility.

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# SECURITY FACTS

## ADVANCED FORCED ENTRY RESISTANCE

An ILD system is five times more resistant to forced entry attack than the currently approved high-security padlock and hasp system. This is accomplished by placing the ILD lock system behind the magazine door or in a protected housing, making it less accessible to an adversary during a forced entry attack. The system incorporates a high-security cylinder, a sliding or rotating bolt to secure the door, and a sophisticated locking device. The design of the Internal Locking Device eliminates the most vulnerable aspect of externally mounted locking devices - exposure to attack.

## RELIABILITY AND MAINTAINABILITY

ILD systems are designed to require very little maintenance. An ILD lock receives a Teflon based anodized finish, to maximize product life and eliminate periodic lubrication. Each ILD is thoroughly inspected and operated through lock/unlock sequences prior to shipment. ILDs are protected from wind-driven sand, rain, ice, corrosive salt spray, extreme heat and cold, freeze-thaw conditions, and insect infestations.

### **SLIDING MAGAZINE DOOR ILD**



## IMPROVED OPERATION

The ILD uses a unique Key Guide System and an integrated tamper alarm sensor (proximity switch). The Key Guide System aids the operator with correct and complete key insertion, and it prevents the operator from rotating the key until it is fully inserted into the lock cylinder. This minimizes operator error during key operations and greatly reduces the possibility that a key will break off in the cylinder – a common occurrence on externally mounted padlock systems. In the unlikely event a key does break off, the system is designed so that the key will break at a specific point outside the cylinder to allow for easy removal. The tamper alarm sensor is integrated into the ILD shutter plate, and it requires no additional steps by the operator to arm or disarm when opening the magazine door. This feature, along with the Key Guide System, significantly reduces opening and securing times.

## APPLICATION FLEXIBILITY

ILDs can be easily switched from a single key lock to a dual key lock when necessary to meet the two-person integrity requirements for storage of nuclear, chemical, and Risk Category I weapons. Two high security key cylinders are used to operate independent internal locking bolts on the dual key ILD system. By changing mounting hardware and boltwork assemblies, ILD systems can easily adapt to other door systems.

## COST EFFECTIVENESS

The ILD system provides superior performance versus the high security padlock, hasp, and anti-intrusion barrier system for about the same cost. Compare the 30 year old technology of the current padlock and hasp systems to the ILD system. Ease of installation, operation, maintenance, and increased forced entry resistance makes the ILD a cost/performance winner. The ILD can replace existing high security padlock and hasp systems through retrofit, or it can be installed during the installation of new magazine doors.

## DOD REQUIREMENTS

DoD instructions and directives mandate specific security requirements to ensure DoD weapons systems are protected against threats of theft, terrorism, sabotage, and espionage. The primary documents that describe these requirements are: DoD 5100.76M, "Physical Security of Sensitive Conventional Arms, Ammunition and Explosives"; DoD C5210.41M, "Nuclear Weapons Security Manual"; and DoD 5210.65, "Chemical Agent Security Program." DoD 5100.76M, paragraphs C3.1.4 and C3.2.4, and DoD C5210.41M, Paragraph C6.4.2.2.3.2, specifically call out the required use of the ILD system. Chemical agents (DoD 5210.65) are required to be secured in the same manner as conventional AA&E (DoD 5100.76M).

## **ADDITIONAL INFORMATION & AVAILABILITY**

The ILD has successfully passed all operational, environmental, and forced entry testing. Over 350 ILD systems are currently installed and in use by the Navy, Army, Air Force and Marine Corp. Development of a double personnel door ILD system and a biometric operator verification interface system are underway. For additional information on the ILD or for purchasing information, please contact the DoD Lock Program at:

### **DOD LOCK PROGRAM TECHNICAL SUPPORT HOTLINE**

**(800) 290-7607**

**(805) 982-1212**

**DSN 551-1212**

**Fax: (805) 982-1253 or DSN 551-1253**

**E-mail: [NFESCLock-TSS@navy.mil](mailto:NFESCLock-TSS@navy.mil)**

**Web Site: <https://portal.navfac.navy.mil/go/locks>**





## X-09 COMBINATION MOTOR REPLACEMENT

The Department of Defense (DoD) Lock Program has handled warranty calls and warranty lock replacements for the Kaba Mas X-09 and CDX-09 locks since 2002. Warranty replacements are covered for agencies that buy their locks from the Defense Supply Center Philadelphia (DSCP). This warranty program includes combination motor (combo motor) replacements.

The combo motor is an internal component of the lock and should be replaced if it is determined to be faulty through lock failure analysis. Call the Technical Support Hotline to confirm a combo motor failure. It is easier and less expensive to replace the combo motor than to replace the entire lock. In order to receive a warranty replacement, you must mail us the failed motor accompanied with a completed lock/component return form. The return form can be downloaded from the DoD Lock Program Website.

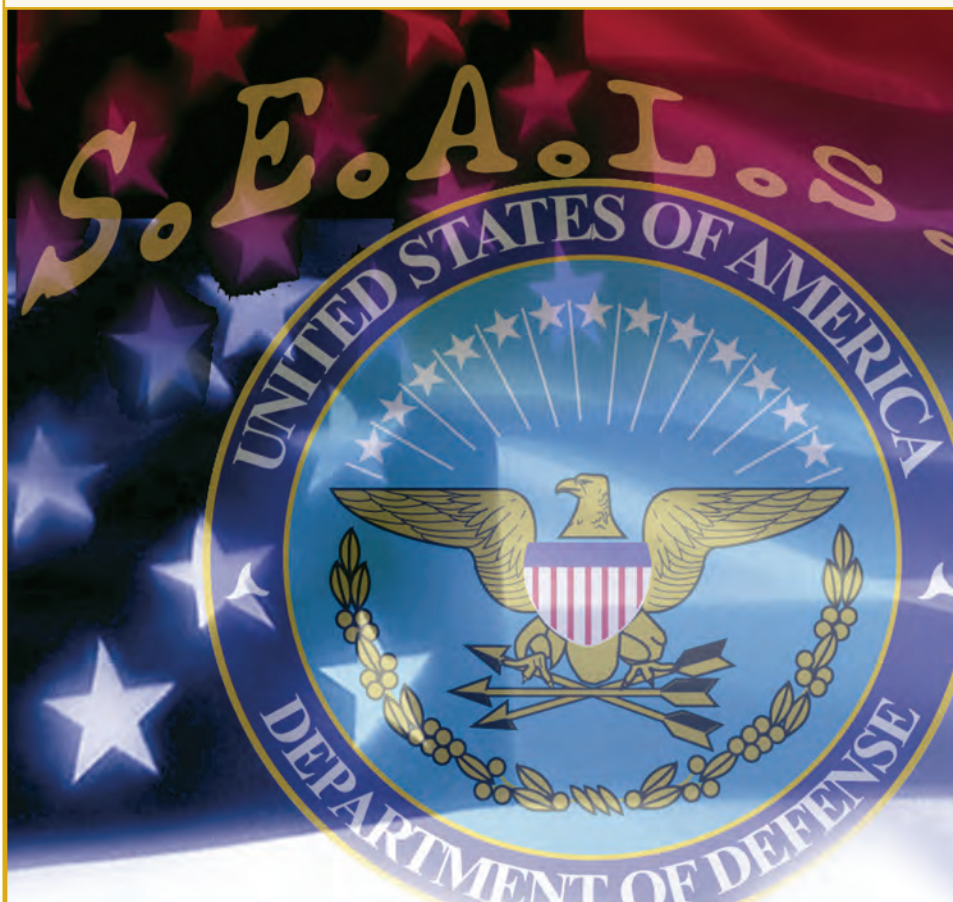
The warranty period for the Kaba Mas X-09 and CDX-09 locks is one year after the date of purchase from DSCP. We will make sure you get a replacement combo motor if your lock falls within the warranty period. After one year, you will be directed to a Kaba Mas distributor. (Distributors are listed on the Kaba Mas website.)

The gear on the combo motor was recently redesigned by Kaba Mas and was tested and approved by the General Services Administration. The new combo motor kit (part #507101) includes: (1) combo motor, (1) fence, (1) slide retainer, (1) LOBC pin assembly, (3) Torx Screws for X-09 Combo Motor, (2) Flat Head Screws for CDX-09 Combo Motor, (2) Back Cover Screws, and (1) Phillips Head Screw for the Slide Retainer. Full step-by-step instructions for the installation are included with each kit. A size T8 Torx wrench is required for the installation and is not included in the kit. If you have any questions or need assistance, please call the DoD Lock Program technical support hotline.

## STORAGE EQUIPMENT AND LOCKING SYSTEMS (SEALS) SUBCOMMITTEE

The Storage Equipment and Locking Systems (SEALS) subcommittee was established under the Interagency Committee on Security Equipment (IACSE). The SEALS Subcommittee is presently chaired by the Director of the DoD Lock Program and is tasked to perform the following functions:

- Advise the IACSE on issues relating to the requirements for locks, safes, vaults, seals, containers, and associated equipment/systems intended to protect National Security Information (NSI) and sensitive assets owned or under the control of the United States Government.
- Write, review, and/or coordinate proposed changes to the government and industry specifications that define performance, design and functional characteristics of equipment needed by the United States Government to meet physical security and storage requirements for NSI.
- Conduct an ongoing review of existing and evolving technologies that may be used to defeat equipment used to protect NSI, and make recommendations to the IACSE as appropriate.
- Work with manufacturers to address discrepancies in GSA approved security equipment.
- Develop training requirements for locks, safes, vaults, seals, containers, and associated equipment/systems intended to protect National Security Information.
- Other duties relating to the protection of NSI as assigned by the Chairman of the IACSE.



# SECURITY FACTS



## APPROVED GSA CONTAINERS AND VAULT DOORS

Charts 1 and 2 illustrate the various classes of GSA approved containers and vault doors. It shows the level and type of protection provided by each class, and indicates those currently available. All containers and vault doors that have been GSA approved in the past are still approved for use, with the EXCEPTION of Art Metal USA Class 5 single-lock containers (2-drawer and 4-drawer). The Art Metal USA Class 5 single-lock containers (2-drawer and 4-drawer) must be removed from service.

**CHART 1 - CLASSIFICATION OF GSA APPROVED CONTAINERS**

CLASS	FEDERAL SPECIFICATION	INSULATED	AVAILABLE	PROTECTION <sup>1</sup>
1	AA-F-357 (canceled)	Yes	No	10 minutes forced entry 30 minutes surreptitious* 1 hour fire
2	AA-F-357 (canceled)	No	No	5 minutes forced entry 20 minutes surreptitious* 1 hour fire
3 <sup>2</sup>	AA-F-358	No	No	No forced entry requirement 20 minutes surreptitious*
4 <sup>3</sup>	AA-F-358	No	No	5 minutes forced entry 20 minutes surreptitious*
5	AA-F-358 AA-F-363 AA-C-2786	No No No	Yes Yes Yes	10 minutes forced entry 30 minutes covert entry 20 hours surreptitious*
5	AA-C-2859	No	Yes	10 minutes forced ONLY
6	AA-F-358 AA-F-363	No	Yes	No forced entry requirement 30 minutes covert entry 20 hours surreptitious*
7	AA-F-2815 (canceled)	No	No	No forced entry requirement 15 minutes covert entry 20 hours surreptitious*

**CHART 2 - CLASSIFICATION OF GSA APPROVED VAULT DOORS**

CLASS	SPECIFICATION	INSULATED	AVAILABLE	PROTECTION <sup>1</sup>
5	AA-D-600	No	Yes	10 minutes forced entry 30 minutes covert entry 20 hours surreptitious*
6	AA-D-600	No	No	No forced entry requirement 30 minutes covert entry 20 hours surreptitious*
8	AA-D-2757 (canceled)	No	No	5 minutes forced entry 30 minutes covert entry 20 hours surreptitious*

1 Protection as listed in newest or current version of the specification

2 Replaced by Class 4

3 Replaced by Class 5

\*"Surreptitious" in products made before 10/1/90 included "covert"



## GSA APPROVED SPECIAL SIZE CONTAINERS

The majority of GSA approved security containers come in legal or letter width sizes. However, there are also GSA approved security containers that come in special size Class 6 one and two drawer models. These special size security containers should not be confused with the field safes. Field safes are used for field operations and should not be used in an office setting.

The GSA approved security container referred to as special size containers are good for small office situations, and confined areas such as ships or aircraft where a smaller security container is needed. The most notable difference between special size and the standard sizes is the depth. (measured front to back).



### 1-DRAWER, SPECIAL SIZE

The one-drawer model comes with four factory drilled holes on the bottom of the container so it can be bolted down for added protection from theft. The drawer width is close to the letter size (approximately 16 inches), but not as deep (approximately 17 inches) and stand about 12 inches high. With these smaller dimensions they will fit into many small areas where the normal size containers will not.

### 2-DRAWER SPECIAL SIZE

The two-drawer models do not come with drilled holes in the bottom. However, they have the advantage of fitting into smaller areas than regular size class 6 containers. The dimensions are similar to the class 6 legal size container; the noticeable difference is the depth (about 8 inches less). The approximate dimensions are 24 inches high, 19 inches wide, and 20 inches deep. All special size containers meet the federal specification AA-F-358H.

Both special size containers come from the manufacturer with locks meeting federal specification FF-L-2740 (currently the Kaba Mas X-09 lock). For specific sizes and ordering information see the DoD Lock Program website.

## GSA APPROVED

### REPLACING MISSING FILLER PLATES IN GSA APPROVED CONTAINERS

On GSA approved security containers the combination lock is surrounded by a hardplate. This is usually in the form of a five-sided box with the back of the box open to allow access to the lock. A removable piece of hardplate slides in behind the lock to complete the hardplate protection.

Depending on the manufacturer of the container, a filler plate may be placed behind the lock and in front of the removable hardplate. This piece was not hardened, but was inserted to deny an attacker the room to defeat the lock. If the lock has been replaced, the filler plate might not have been reinstalled. For example, if a Mosler MR 302 lock were replaced by an S&G T8430XMP lock, the new lock's case would be thicker, and there would be no room for the filler plate.

If there is room for a filler plate, it should be installed. These may be cannibalized from out-of-service containers or can be manufactured by cutting steel of the appropriate thickness and to the dimensions necessary to fit. Use of non-original filler plates should be noted on the Container Records Form (Optional Form 89, AFTO Form 36, etc.).



# SECURITY FACTS

## UPCOMING EVENTS

AMERICAN SOCIETY FOR INDUSTRIAL SECURITY  
INTERNATIONAL (ASIS) TRAINING AVAILABLE IN THE COMING MONTHS

JULY				
DATE	TITLE	LOCATION	MEMBER	NON-MEMBER
07/09/2007 to 07/11/2007	Physical Security: Advanced Applications and Technology	Redondo Beach, CA Crowne Plaza Redondo Beach and Marina	\$900.00	\$1,100.00
07/18/2007 to 07/18/2007	I Spy: Covert Surveillance and Workplace Privacy	Virtual Forum	\$195.00	\$225.00
07/23/2007 to 07/24/2007	Executive Protection	Austin, TX Hotel Intercontinental Austin	\$730.00	\$930.00

AUGUST				
NO PROGRAMS SCHEDULES FOR AUGUST				

SEPTEMBER				
DATE	TITLE	LOCATION	MEMBER	NON-MEMBER
09/12/2007 to 09/12/2007	Implementing a Risk Based Approach to Determining Vulnerability	Virtual Forum	\$195.00	\$225.00
09/21/2007 to 09/22/2007	Professional Certified Investigator (PCI™) Review	Las Vegas Las Vegas Hilton	\$695.00	\$895.00
09/21/2007 to 09/22/2007	Physical Security Professional (PSP™) Review	Las Vegas Las Vegas Hilton	\$695.00	\$895.00
09/21/2007 to 09/22/2007	Certified Protection Professional (CPP™) Review	Las Vegas Las Vegas Hilton	\$695.00	\$895.00
09/24/2007 to 09/27/2007	ASIS International 53rd Annual Seminar and Exhibits 2007	Las Vegas	-Price TBD or varies-	-Price TBD or varies-

OCTOBER				
DATE	TITLE	LOCATION	MEMBER	NON-MEMBER
10/17/2007 to 10/17/2007	Expanded Opportunities Under the SAFETY Act	Virtual Forum	\$195.00	\$225.00
10/22/2007 to 10/25/2007	CCTV-Analog to Digital: Applications and Advances in Surveillance	Annapolis, MD Loews Annapolis Hotel	\$950.00	\$1,150.00

NOVEMBER				
DATE	TITLE	LOCATION	MEMBER	NON-MEMBER
11/07/2007 to 11/07/2007	Improving Workplace Performance Through Coaching	Virtual Forum	\$195.00	\$225.00
11/07/2007 to 11/08/2007	Enhanced Violence Assessment and Management	Denver, CO Grand Hyatt Denver	\$750.00	\$850.00
11/12/2007 to 11/15/2007	Assets Protection Course I - Concepts and Methods	Annapolis, MD Loews Annapolis Hotel	\$1,035.00	\$1,235.00
11/07/2007 to 11/07/2007	Improving Workplace Performance Through Coaching	Virtual Forum	\$195.00	\$225.00

For more information and to register for these classes, go to <http://www.asisonline.org> and click on "Education"



## FREE OPEN/SECURED SIGNS FOR SECURITY CONTAINERS

The DoD Lock Program is now providing "Open/Secured" magnetic signs to the DoD community free of charge. These signs will include the Technical Support Hotline contact information for quick reference in getting support for your security equipment. It is good practice to use these signs on containers or vault doors in order to provide a visual status of the equipment to personnel working in the area. To place your order,

Send an e-mail to [NFESCLock-HL@navy.mil](mailto:NFESCLock-HL@navy.mil) with your shipping address, phone #, and quantity required. Please put "Open/Secured Magnet Request" in the subject line.

### MAGNETIC SIGN

SIDE 1

Technical Support Hotline: 1-800-290-7607 or DSN: 551-1212

# OPEN



DoD Lock Program: <https://portal.navfac.navy.mil/go/locks>

SIDE 2

Technical Support Hotline: 1-800-290-7607 or DSN: 551-1212

# SECURED

DoD Lock Program: <https://portal.navfac.navy.mil/go/locks>

## FREQUENTLY ASKED QUESTIONS

### Q. DO I HAVE TO BE "GSA APPROVED OR CERTIFIED" TO WORK ON AN X-09 LOCK?

**A.** The answer is: "No." There is no such certification as a GSA approved locksmith or GSA approved X-09 lock technician. However, it's a very good idea for anyone working on or replacing an X-07, X-08, or X-09 to have completed one of the factory-authorized training courses, including the one-day course presented by the DoD Lock Program. These locks can be tricky to install and costly to replace; a little training goes a long way. See "Training" under the DoD Lock Program's website for available classes.



# Department of Defense Lock Program



**DOD LOCK PROGRAM:** The objective of the DoD Lock Program is to provide technical and management support for research, development, test, and evaluation of locking devices and related security systems used by the DoD. As such, the Program staff has considerable knowledge, skills, and abilities related to locking devices and security systems that can be of substantial value in providing guidance, solutions, and information on these products. The Technical Support Hotline is structured to provide quick and accurate answers to technical questions on hardware selection, requirements, training, specifications, stock numbers, and troubleshooting of equipment failures. The Hotline personnel are also knowledgeable on many other types of security equipment such as vehicle barriers, magazine doors, emergency destruct equipment, etc., and can often provide immediate guidance or at least get you headed in the right direction. Please call us today.

## **FOR ASSISTANCE OR INFORMATION CALL:**

### **Technical Support Hotline:**

(800) 290-7607; (805) 982-1212; DSN 551-1212

Fax: (805) 982-1253 or DSN 551-1253

E-mail: [NFESCLock-TSS@navy.mil](mailto:NFESCLock-TSS@navy.mil)

Please leave a commercial number for return calls.

### **Training Coordinator:**

(805) 982-1575; DSN 551-1575

E-mail: [NFESCLock-TC@navy.mil](mailto:NFESCLock-TC@navy.mil)

### **Drawer Head Replacement Information:**

(805) 982-6962; DSN 551-6962

E-mail: [NFESCLock-DHRA@navy.mil](mailto:NFESCLock-DHRA@navy.mil)

### **Field Support Program Manager:**

(805) 982-2673; DSN 551-2673

E-mail: [NFESCLock-HL@navy.mil](mailto:NFESCLock-HL@navy.mil)

### **Director, DoD Lock Program:**

(805) 982-1567; DSN 551-1567

E-mail: [NFESCLock-PM@navy.mil](mailto:NFESCLock-PM@navy.mil)



## **You Save Time and Money When You Purchase Equipment from the Defense Supply Center Philadelphia (DSCP)**

DSCP sells a variety of Physical Security Equipment (PSE). PSE available through the Lock Program website include products required for the protection of classified materials, and weapons and ammunition.



Locate the PSE you need from our website. A DLA icon (shown to the right) next to the item indicates that it is available from DSCP. Call the Technical Support Hotline to find out more about DSCP and the products they sell.

## **DOD LOCK PROGRAM WEBSITE UPDATE:**

Remember to add the new DoD Lock Program website home page to your favorites. You can find it at:

<https://portal.navfac.navy.mil/go/locks>

## **SECURITY FACTS**

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