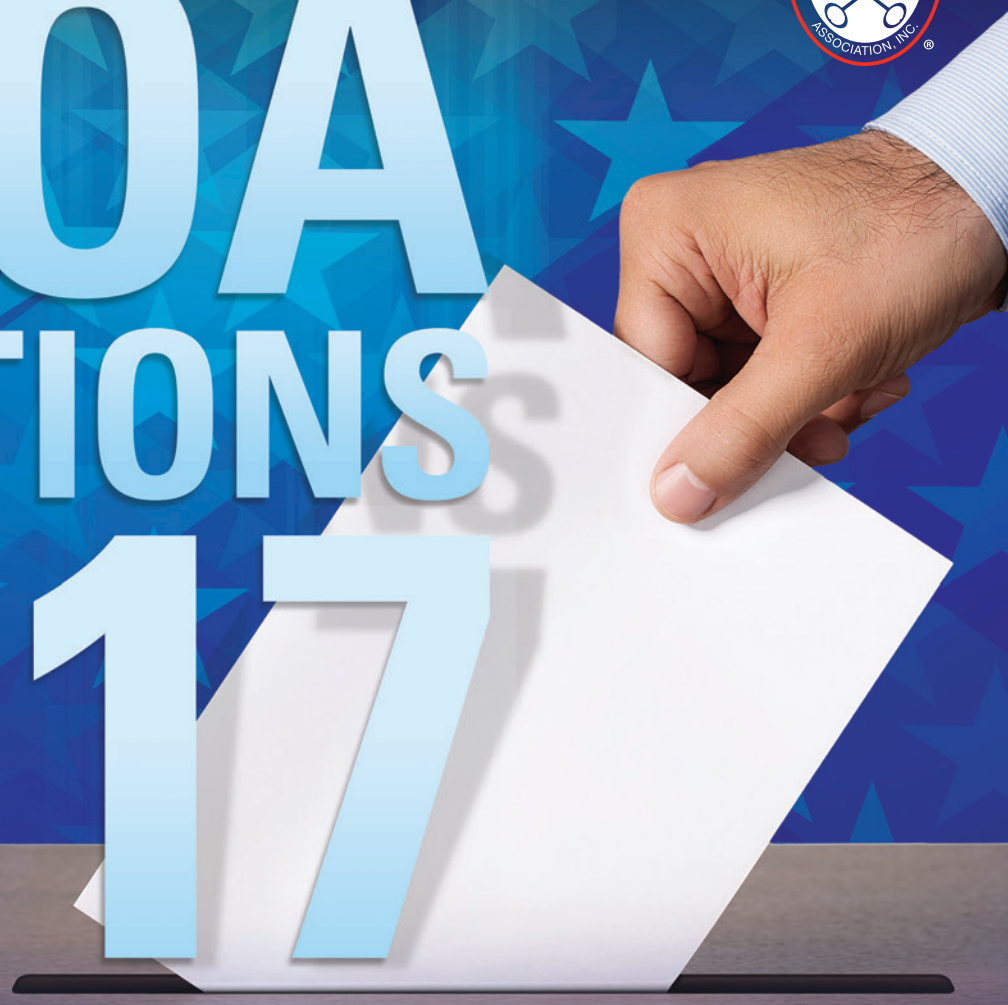
The official publication of ALOA SPAI, an international association of security professionals May 2017

KEYNOTES

SECURING YOUR SUCCESS

ALOA ELECTIONS 2017



Make Your Voice Count

Blast From the Past

A Look at the Unforgettable Schlage Wafer Locks

PLUS

Fixing a Panic Device Installation

Member Spotlight | Building and Fire Code Adherence | Manipulating a Round Floor Star Safe

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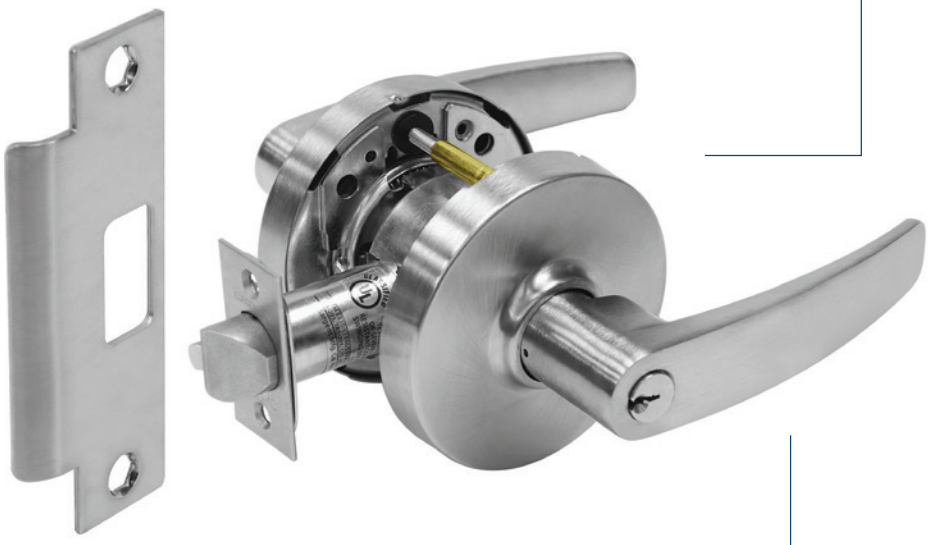

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May 2017 | Volume 63, Issue 5

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EXPLORE WHAT'S INSIDE

SIGN UP FOR A DETEX TRAINING SESSION.

Grab your screwdriver and get the inside view of some of the industry's best life safety and security door hardware. Detex security solutions are made to function flawlessly in the most extreme applications. But don't take our word for it. Come dig into our hardware and see for yourself at one of our training sessions.

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UPCOMING TRAINING SESSION:
Detex Corporation
May 25, 2017
8 am - 5 pm

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KEYNOTES

MAY 2017 | VOLUME 63, ISSUE 5

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Mission Statement: The mission of the ALOA Security Professionals Association, Inc., as dedicated members of the security industry, is to ensure professional excellence and ethics; create a public demand for professional locksmith services; represent and speak for the locksmith industry; and expand the exchange of trade information and knowledge with other security-related organizations to preserve and enhance the security industry.

Policies and Disclaimer: *Keynotes* is the official publication of the ALOA Security Professionals Association, Inc. (ALOA SPAI). *Keynotes* does not guarantee the accuracy of any data, claim or opinion obtained or quoted from an acknowledged source. The opinions expressed by the authors do not necessarily reflect the official views of ALOA SPAI. Advertisements and new products or service information does not constitute an endorsement by ALOA SPAI, nor does the Association accept responsibility for the inaccuracy of any data, claim or opinion appearing in this publication due to typographical errors on the part of the authors, Association staff or its agents. ALOA SPAI reserves the right to refuse any article for any reason, and to edit submissions for accuracy, clarity and fairness.

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Time to Vote in ALOA's Next Leaders

TIME TO STAND UP AND BE COUNTED. Vote for your favorite candidate, friend or maybe just a person you met or heard about. Just vote! We made it even easier for you this year, so no excuses, just do it.

I was honored to be invited to attend the ASSA ABLOY Medeco Service Center event held in Orlando, FL. It started out with a snow storm in the Northeast, so a lot of people were scrambling to find alternative ways to get there. Some even drove hundreds or even thousands of miles to catch a plane or just drove all the way in. We were all looking forward to the warm weather down in Florida, but we were met with only a cool 45 to 55 degrees. Still, it didn't stop the energy and great networking that took place. I got to meet with a lot of my ALOA members and friends and even met a few new locksmiths whom I can now consider to be friends also.

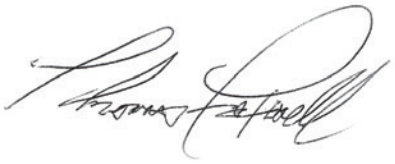
While at this event, I was very happy and excited to listen to all of the success stories and learn about how busy not only a few of the business were, but ALL of them. They were saying they were overburdened by too much work and needed to hire more technicians. Sounds like the scammers did not win — we just adjusted and became stronger, finding new ways to improve our businesses.

There was a strong buzz going around about the upcoming ALOA Security Leaders Business Conference, and a lot of the people there were looking forward to attending and networking with the progressive business owners who are going to be there. If you have not signed up yet, there is still time to get in on this great event to learn how to make your company bigger and stronger.

> **"There was a strong buzz going around about the upcoming ALOA Security Leaders Business Conference."**

Also don't forget that the SAFETECH Convention is coming up in just a few days! I will be there and want to see all of you so we can talk about the good old times — and mostly the even better times coming.

Best regards,



Tom Foxwell, RL, CAI, CFDI
President
ALOA Security Professionals Association, Inc.
president@aloa.org

Be a Part of ALOA's Future

As a member organization, our strength comes directly from our members. Not only does your membership allow ALOA SPAI to put on all of the valuable programs and conduct all of the advocacy that we do, but it also helps give a collective voice to the entire industry. And you, as a member, have a strong individual voice to be heard as well.

No other time of year is more important to our membership than right now, when we select our future leaders and vote on bylaws changes. When you cast your vote, you're not just selecting people and changing words. You're giving a direction to the association and the industry overall. You're giving power to future ideas and initiatives. Your actions can help your association run more smoothly or streamline processes and remove roadblocks. Your votes for new leaders will bring fresh perspectives to the board and help generate new ideas. Essentially, you are voting for progress, no matter what way the votes swing.

It's important to ALOA as a whole that you have a voice and place a vote. Being an active member helps us bring you more of what you need and chart our course in the direction you want to go. It will only take a few minutes to fill out your ballot and send it in, or go online to www.aloa.org/Members Only. You don't have to attend the meeting in person. It's your association — be a part of it!

Later this year, when we put forth new petitions for board elections, please consider running for office or recruiting one of your fellow local members to throw his or her hat in the ring. It's so important to have involved members, and we need your new ideas and your energy. Please feel free to reach out to me with any questions about what it's like to serve on the board and what the commitment entails.

On Deck: ALOA Convention & Security Expo 2017

This month, we're holding the annual SAFETECH convention as well as the Security Leaders Business Conference in Albuquerque, NM. In just a few short months, it will be time for the ALOA Convention & Security Expo in Rosemont, IL, just outside of Chicago. This year, we have several new classes — including enhanced tracks for automotive and electronic locksmithing — and new exhibitors for the Expo.

"When you cast your vote, you're not just selecting people and changing words. You're giving a direction to the association and the industry overall."

The Rosemont (just outside of Chicago) area is such a convenient and family-friendly travel destination; you won't want to miss out on attending this year! The early-bird registration deadline is June 16, so hurry to register now before your favorite classes fill up. For more information, see the full brochure that was included with April *Keynotes*, click on the ALOA Convention tab on ALOA.org, or email conventions@aloa.org.

See you in Rosemont!

Mary A. May

Mary A. May
Executive Director
mary@aloa.org

NEW for 2017:
New Certifications In Electronic Access & Automotive
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- Connect with the industry's best suppliers
- Get educated on the latest products and techniques to save you time and money
- Network with security leaders from around the world

Want more information? Contact ALOA at conventions@aloa.org or (800) 532-2562

JOIN US IN ROSEMONT!

Medeco Wins Two GOVIES Awards for Outstanding Government Security Products

Medeco Security Locks, a division of ASSA ABLOY N.A., located in Salem, VA, has won two GOVIES Awards, which honor outstanding government security products in a variety of categories. Medeco won in the Access Control Devices/Peripherals – Wireless category for the Medeco XT Slim Line B Key with XT Air app, and in the Locks and Locking Systems category for the Medeco XT Dual-Tech Cylinder.

The Medeco XT Slim Line B key with Bluetooth (BLE) technology and its companion XT Air application allow administrators to program keys from any location within a cellular coverage area without the need to "dock" the key.

The XT Air app, available for Android and iOS platforms, connects directly to the XT Web Manager, allowing administrators to unlock cylinders, electronically remove SFIC cores, program the lost key list in cylinder, upload audit data from cylinders and transfer to the XT database.

The Medeco XT Dual-Tech retrofit cylinder combines two cylinder technologies in one mortise housing: the Medeco XT electronic cylinder and the Medeco X4 mechanical cylinder. The product allows for remote electronic scheduling and auditing plus rapid entry due to the fact that each cylinder operates independently; access is provided using either the XT electronic key or the X4 mechanical key.

Medeco has won two GOVIES Awards, including one for the Medeco XT Slim Line B Key with XT Air app.

IDN-Hardware Sales' 28th Annual Trade Show a Success

IDN-Hardware Sales hosted its 28th Annual Trade Show and Security Conference March 15-18 in Novi, MI, with many ALOA members in attendance for the four days of classes and 70 trade show exhibitors. Education topics included servicing storefront doors, door installation, school security hardware, automotive updates, access control solutions and key machines.

The Friday night Casino Night gave attendees a chance to play craps, roulette and blackjack, earning gift card prizes for their winnings at the end of the night.

IDN-Hardware Sales is part of the International Distribution Network (IDN), which provides security products, access control solutions and related services to security professionals through its seven regional business hubs in North America. IDN has a wholesale distribution network of more than 50 locations.

IDN-Hardware Sales hosted its annual Trade Show and Security Conference in March.

Hurry to Register for ALOA 2017!

The early registration deadline for the 2017 ALOA Convention & Security Expo in Rosemont, IL, is coming up on June 16. Don't miss your chance to get the early-bird pricing! Register at ALOA.org, or contact ALOA at conventions@aloa.org or (800) 532-2562, ext. 218, for questions and assistance.

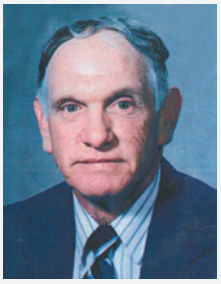
NEWS BRIEFS

Jerry Burhans has been hired to fill the role of Vice President of Sales and Business Development for Assa Inc., in the High Security and Aftermarket Group. He will be responsible for the management and promotion of the Assa Inc. brand in the U.S., reporting directly to President Tom Kaika. Burhans comes to Assa Inc. from his most recent position as Worldwide Sales & Marketing Manager. He has more than 25 years of experience in the security industry and is a graduate of the University of Missouri. He is the membership director of the ASIS Chapter of Chicago. When he is not traveling to meet with customers, he will be splitting time between Salem, VA, and New Haven, CT. Contact him at (312) 909-5535.

IN MEMORIAM

Andrew B. Connolly, RL, of Chicago, IL, passed away January 25. A Navy veteran, he had been an ALOA member since 2005.

Leslie Hardy Matthews Sr., 77, of Suffolk, VA, passed away in February. He was a Lifetime member of ALOA. Memorial donations can be made to the Salvation Army of Suffolk, 400 Bank St., Suffolk, VA 23439 or the American Lung Association, 9702 Gayton Road No. 110, Richmond, VA 23238.



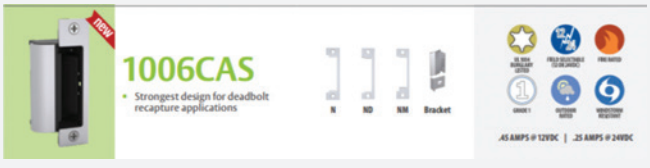
PRODUCT BRIEFS

Codelocks Inc. has expanded its smart lock range with the addition of the CL4510, which is suited to a wide range of internal commercial or residential applications. The product uses Codelocks Inc.'s NetCode technology, which allows administrators to generate and send time-sensitive codes to authorized individuals using the K3 Connect App or NetCode portal. An Application Programming Interface (API) allows businesses to integrate NetCode into their existing systems.

The CL4510 can also be accessed using smart cards as well as via the push-button keypad. The lock can also be set in a code-free mode at fixed times of the day. Once set up, the lock does not require Wi-Fi connection for operation.

Westinghouse Security has unveiled the Starlight color camera series, available in a turret or bullet model. The 1080p high-resolution color cameras can operate day or night and are suitable for home security and business surveillance. They are available in a 4-in-1 that uses existing coaxial cables and work with HDTVI, HDCVI, AHD and CVBS technologies or IP version. The 3.6mm F1.2 starlight lens works up to nearly 1,000 feet, and the camera has a waterproof housing.

HES Complete Pacs has added the 1006CAS option, which is specifically designed for cylindrical or mortise locks with 1" deadbolts that require continuous recapture. The CAS option includes faceplates and brackets to make any A or T series options.



dormakaba has expanded its 8000 Series exit device product line to include an escutcheon trim option, the 8H Escutcheon Trim. The trim requires clearance holes only for the standoffs and spindle. A single plate connects pieces, and it's available in five functions, three lever styles and one knob style. Six finishes are available, and it includes multiple mounting stand-offs, uses a standard 1⅛" mortise cylinder (for 08/09 keyed functions), has an ANSI/BHMA 156.3 Grade 1 rating, is UL Listed and is ADA and NFPA 80 and 101 Compliant.

DeltrexUSA has introduced two new products. The new #149 Vandal Resistant Switch has a flush surface and is made from marine-type aluminum. It's built to withstand dust and rain and is made for all standard electrical mounting boxes. Color, lettering and logo engraving is optional. OEM custom design and development services are available.

The company has also unveiled the model HF107 Hand/Foot Push Plate Control Assembly. It's available in lengths from 30" to 60" with SPDT-momentary 6 amps at 125VAC/28VDC 1-gang switches. Marine-type aluminum construction is standard; a variety of finishes are available. For more information, visit www.deltrexusa.com.

Hollon Safe Co. has introduced the new TTW-2015 C/E Safe. The "Through the Wall" safe allows employees to turn in paperwork, money and other items through a wall deposit slot without having access to the inner office. Users can open and access the safe through a door inside the office.

The TTW is made with a ½-inch steel door, five 1¼-inch solid steel active bolts and an internal spring-loaded relocking device that provides a secondary line of defense. The locks and relocker are protected by a drill- and ballistic-resistant hardplate. An anti-fish baffle prevents theft through the depository door. Hollon offers a UL Listed Group II mechanical dial or UL Listed Type 1 S&G Spartan electronic lock.

As of March 21, 2017

NEW APPLICANTS

ALABAMA

Clanton
Millard Downey

CONNECTICUT

Stamford
Francis J. Wainwright
Sponsor: Alfonso J. Sgritta, CRL

FLORIDA

Dania
Angel M. Alamo Jr.

IDAHO

Pocatello
Andrew J. Stubblefield
Sponsor: Dennis M. Huff, RL

ILLINOIS

Chicago
Eli Tal, CRL
Ramon Valles
Apprentice Member
John H. Anderson
Apprentice Member
Avishay Yizhak
Roscoe
Bill J. Close
Sponsor: Guy M. Spinello, RL

LOUISIANA

Metairie
Monroe Galland, CLL
Sponsor: J Casey Camper, CML, CPS

MINNESOTA

Bemidji
Matthew Haugstad
Sponsor: Eric R. Carlson, CRL

NEW MEXICO

Albuquerque
Christopher Gatan
Apprentice Member

NEW YORK

Astoria
Christian E. Schoeck
Sponsor: Barry M. Gelfand, CML
Bronx
Paul Montalvo
Apprentice Member
Hudson
Jeffrey A. Waterhouse
Sponsor: Joseph P. Kenneally, RL

NORTH DAKOTA

Minot
Chad Goodermote
Sponsor: Duane M. Haberlock, CML

OHIO

Cincinnati
Avi Yaslovitz

SOUTH CAROLINA

Charleston
Chip Carpenter
Sponsor: Brett McMenimon, RL

TEXAS

Como
Philip W. Kincaid
Sponsor: Ruben V. Sanchez, RL
Dallas
Aurelio Hernandez
Institutional Locksmith
Houston
Ovidio E. Marquez, RL
Sponsor: Clifford D. Lipscomb, CML, CPS, CAL
Aaron J. Noama
Sponsor: Clifford D. Lipscomb, CML, CPS, CAL
Lubbock
Chad Tibbets
Sponsor: Steven C. Brock, CML, CPS, CFDI
San Antonio
Eugene Rodriguez
Sponsor: Barry L. McMenimon, CPL

WASHINGTON

Seattle
James Kung
Sponsor: Barry L. McMenimon, CPL

WISCONSIN

Oak Creek
DeAnn L. Chojnacki
Sponsor: Bruce P. Eagan, CML, CFDI

These applicants are scheduled for clearance as members of ALOA. The names are published for member review and for comment within 30 days of this *Keynotes* issue date, respectively, to ensure applicants meet the standards of ALOA's Code of Ethics. Protests, if any, must be addressed to the ALOA membership department, signed and submitted via e-mail to membership@aloa.org or via fax to 214-819-9736.

We Need Your Help

Attention, ALOA members: Help us eliminate the ongoing industry problem of scammers by screening the new applicants listed on these pages. If you have questions or concerns about any of the applicants, please contact Kevin Wesley, membership manager, at (214) 819-9733, ext. 219, or email kevin@aloa.org.

For a complete calendar of events, visit www.aloa.org.

CALENDAR

MAY

May 1-6
SAFETECH
Crowne Plaza Albuquerque
Albuquerque, NM
www.savta.org or
(800) 532-2562, ext. 218

May 6-9
Security Leaders Business Conference
Crowne Plaza Albuquerque
Albuquerque, NM
ALOA.org or (800) 532-2562, ext. 218

May 15-20
Six-Day Basic Locksmithing
ALOA Training Center
Dallas, TX
education@aloa.org or
(800) 532-2562, ext. 101

JULY

July 16-22
ALOA Convention & Security Expo
Donald E. Stephens Convention Center
Rosemont, IL (Chicago area)
ALOA.org or (800) 532-2562, ext. 218

OCTOBER

October 2-7
Six-Day Basic Locksmithing
ALOA Training Center
Dallas, TX
education@aloa.org or (800) 532-2562, ext. 101

October 18-22
Yankee Security Conference & Tradeshow
Sturbridge, Massachusetts
www.yankeesecurity.org
Contact Seth Derderian at
(508) 757-1434

DECEMBER

December 4-9
Six-Day Basic Locksmithing
ALOA Training Center
Dallas, TX
education@aloa.org or
(800) 532-2562, ext. 101

MASTER YOUR SKILLS.

ALOA17

CONNECT WITH YOUR PEERS.

Join Us in Rosemont!

Make plans now to attend the 2017 ALOA Convention & Security Expo July 16-22!

With less than three months until the ALOA Convention & Security Expo, now's the time to register if you haven't already! Master your skills and connect with your peers at the preeminent event for security professionals. Join us July 16-22 in Rosemont, IL, for the most valuable event in the industry.

Education

Along with a lineup of all your old favorites, we have several new classes on tap so you can master your skills! To aid in achieving the new Certified Master Automotive Locksmith certification, we have classes to help get you ready. To prepare you for the test, take classes 102, 202, 302, 402 and 502, covering topics such as EEPROM, auto essentials, foreign auto and advanced automotive topics. See the full brochure included with the April issue of *Keynotes* for more information.

We are also offering classes to help you achieve the Certified Electronics Locksmith and Certified Master Electronics Locksmiths credentials. Take classes 105, 205, 305, 405 and 505 to learn about electronics topics such as access control, CCTV and networking.

And for the institutional professionals, be sure to become a Certified Institutional Shop Manager! Take classes 209, 309, 404, 409, 504 and 509 to learn about physical security, shop management and more.

Networking

In addition to the world-class education available at the convention, there are a host of networking opportunities so you can connect with your peers. Attend one of the many social events, such as the Kick-Off Party, CML Breakfast, Women in Locksmithing reception or the Key Squares Club Breakfast. Talk shop and socialize with your fellow professionals while making connections! There are also several meetings such as the Membership Meeting, IAIL and AIL meetings where you can help influence the direction of ALOA and its divisions.

And who can forget the Security Expo? While you browse all of the new products, forge stronger connections with manufacturers and distributors to help your business in the future — or even to help you find a future position!

Location

You can't beat the Rosemont location in the Greater Chicago area! Cost-effective travel meets a family-friendly destination to provide you with the perfect convention setting. With so many reasonably priced flights to Chicago from around the nation and several hotel choices, you are sure to have options to meet your budget.

And transportation from the airport? Many of the hotels offer a free shuttle, as does the convention center.

There are a good number of restaurants near the convention center to meet any level of dining, from grabbing something quick to a sit-down dinner. If you're bringing the family — or even if you're traveling alone — the Rosemont and Chicago area have so many recreational activities that combine to make it a great vacation destination. In Rosemont, visit the new Fashion Outlets of Chicago for some great deals, or go gambling at the nearby Rivers Casino. The free Rosemont Entertainment Circulator shuttle bus leaves every eight minutes from the convention center and takes you around to local attractions and dining. You can't get any more convenient than that!

In Chicago, there are all the famous sites waiting for you, from Navy Pier and breweries to Millennium Park, dinner cruises on the lake and the famous shops of the Magnificent Mile. To get to downtown Chicago, there is convenient rail service on the "L" Blue Line.

For more information on local entertainment, visit www.rosemont.com and www.choosechicago.com.

Security Expo

The Expo has a great selection of manufacturers and distributors this year — don't miss out on all of the new product unveilings! There will be prize drawings for you to take part in over the two-day Expo where you can win fantastic items for your business. Get in on it!

Remember that this year, you must pre-register for the Exhibits Only before June 16; otherwise, there will be a $10 fee, even for members. Get online now to register, or visit the ALOA Convention tab on ***ALOA.org*** *for more information.*

In addition to your usual favorites, there will be several new exhibitors in Rosemont, such as the following::

- Entrematic
- Global Network Security
- Hornady Security Products
- Luckylocks AD
- LTS Chicago Enterprises
- MMF Industries (B Lock)
- Millner-Haufen Tool Co.
- VHS Hardware
- Wilson Bohannan Lock Co.

QUICK FACTS

July 16-22, 2017
Trade Show: July 21-22
Rosemont, IL

Venue Information

Donald E. Stephens Convention Center
5555 N River Rd
Rosemont, IL 60018
(847) 692-2220

Hotel Information

Visit ALOA.org for hotel choices (four to choose from!)

Early Registration Deadline: June 16

For more information, email conventions@aloa.org.

Join IAIL to Be an Expert Witness

IAIL President Tom Demont discusses how to add this exciting profit center to your business.

For those of you who have signed up for your first forensics class at SAFETECH, welcome. I am looking forward to having an enjoyable two-day class with everyone. Keep in mind that if you want to have a career as an expert witness or do investigative inspections, you need to learn the basics, and the Investigative Locksmith two-day course is a great start. You will have two great opportunities in 2017: The first is at SAFETECH this month in Albuquerque, NM, and the second will be at the ALOA Convention & Security Expo this July in Rosemont, IL.

I was just contacted by an attorney in Texas who wanted an automotive expert witness with court room experience. I had to go all the way to Indiana for someone who would do a professional job in reviewing the evidence and, if needed, appear in court to refute the insurance company's expert. You do not need to be a CFL (certified forensic locksmith) to be an expert witness. You just need to be a member of IAIL and submit your CV (enhanced resume) to IAIL along with your experience with depositions and court appearances as an expert witness. If I had an auto expert witness registered with IAIL living in Texas, I would have given his/her name to the attorney.

If you would like referrals from our office, then submit your paperwork so you can become listed as an investigative forensic locksmith or a registered expert witness — or both. Your CV should speak for your specialties and qualifications. All CVs are reviewed and approved before listing can take place. Send your information to iailpresident@aloa.org.

For those of you reading this page for the very first time who would like to experience the excitement of forensic locksmithing and add another profit center to your thriving business, join IAIL. If you are an existing ALOA or SAVTA member, it's only an additional $50 for this valuable membership. I'm looking forward to seeing you in Albuquerque at SAFETECH.

If you have any questions or would like information on IAIL programs, courses and/or CFL certificates, contact our office.

Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CMIL, CML, CMST, IFDI, LSFDI, ARL, President, International Association of Investigative Locksmiths.
IAILPresident@aloa.org

Get Published!

IAIL members: Submit your articles for the Investigative Spotlight department. Send your information to Ross Squire at ross@abcforensic.com.

hes

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Retired Locksmith Reflections

John Dorsey, CTM, CML, CPS, CFL(R), reminisces about his early locksmithing days and the lessons he's learned along the way.

"I was beginning to realize there was an amazing science being presented in my correspondence lessons."

Back in the early 1970s, ads appearing near the back of *Popular Mechanics, Popular Science* and other such magazines were always highly interest-piquing. After reading one that had the message "Make big money as a PROFESSIONAL LOCKSMITH," I was more than a little curious — especially considering that it offered a free trial lesson. So I sent for the free trial lesson from the Locksmith Institute of Little Falls, NJ.

I surprised myself because I was actually very anxiously looking forward to receiving that free trial lesson. After all, like everyone else, I had frequently heard that (in the mid 1970s) locksmiths charged a whopping eight bucks — and sometimes even more — just for unlocking a car! Making big money like that and being my own boss… what a dream!

When the free trial lesson arrived, I dove right in. To my amazement and delight, I could easily comprehend and make sense out of what was presented.

The associated enrollment form was quite basic. Of course, they asked if I was a criminal or had a criminal history, and I knew I qualified with a clean background. The "easy installment payment plan" was far from expensive, so I filled out the enrollment form and sent my check for the first installment of lessons. When my first five-lesson package arrived, I was impressed with the basic history of locks, especially how the Egyptians had actually invented pin tumbler locks eons ago. I completed the questions after each lesson and sent them in. I received good grades on each

one. It seemed like almost no time at all before I was sending for my next five-lesson package, and then the next five, and then the next.

This locksmithing stuff was obviously well beyond what any handyman could figure out, and I was beginning to realize that there was an amazing science being presented in my correspondence lessons.

The lessons evolved from ancient history to warded locks, to wafers, lever locks and then pin tumblers, and on to the automotive field. My eagerness resulted in long and eye-opening lessons being completed in rapid fashion. Then, about 70 to 75% of the way through the whole course, I had conflicting demands on my spare time, and my interest in completing my lessons waned substantially.

I received letters from the correspondence school urging me to persevere and continue my lessons so I could get my free key-duplicating machine upon completion. I returned to my earlier studious mindset and completed the course, receiving the diploma and my free key-duplicating machine. I was one proud guy and couldn't wait to get into business. I started making a few keys (probably 10 to 20) for the company I worked for and for co-workers.

Shock and disbelief came over me when I had my first few miscut keys… how could I not duplicate a key correctly, especially with my professional free key-duplicating machine? Adding to that, key blanks were not cheap unless you bought a whole box of 50! And, even if I did want to get a lower price for blanks, there were probably more than 20 needed blanks for various keyways of the common brands of locks in my area. I quickly discovered that there was a serious cost and investment in key blanks. Then there were automotive key blanks needed — and also a seemingly endless list of expensive blanks for imported cars and motorcycles.

Soon I realized that there was a valid reason for what I had previously thought were outrageous prices for some key dupes from established lock shops.

While I was far from rich, I invested in a selection of common key blanks recommended by my supplier and made my first key board (that didn't even fill a 4' x 8' plywood).

I purchased my car-unlocking tool: a Slim Jim. I just knew if I charged two bucks less than the big guys (established locksmiths in my town), I would soon get the lion's share of lockouts and reap the big bucks quick from the volume of lockouts.

Somehow it didn't turn out that way… and I couldn't figure out why.

I rented a storefront and quit my regular job. Again, I dug deep into my meager savings to finance all the basic accoutrements for my own fledgling shop.

My dad, wishing the best for me, pointed me to an ad in the B.P.O.E. (Elks) magazine about residential burglar alarms. It sounded like a real opportunity to augment and compliment my physical lock business — and it was another significant investment in inventory. I started to wonder, "Is there no end to buying inventory?" Money was going out far, far faster than it was coming in.

"Soon I realized there was a valid reason for what I had previously thought were outrageous prices for some key dupes from established lock shops."

To say I fell on my financial face in less than a year would have been a gross understatement.

I checked with my former employer, but my job had been filled and there was no position for me for the foreseeable future. So I pretty much had to stick with 'smithing.

I started a mobile route going to 18 smaller communities and doing lock work for them through appointments at hardware stores that would get a 10% finder's fee. No bonanza, but it did pay the bills (and I made some very good friends with those hardware store owners).

After about three and a half to four years, I decided to try opening another shop. I sublet a small space from a salvage (junk) shop and started to make a few bucks doing locksmithing in my hometown. I just got my financial feet tenuously under me when the salvage storeowners had a marital split, and I inherited the whole storefront… just when my costly Yellow Pages ad came out. I also had to hire a clerk to watch the shop while I was out working. I really had one nickel chasing the other. My landlord was a great guy and sold me his Curtis key machine and blanks for a pittance.

Over the previous few years, I had written a "How to Make Money on Locksmithing" book. In 1979, I went to the ALOA Convention in Albuquerque, NM. The book was so basic, and the information — good as it was — was really nothing more than what could

be easily gleaned from the trade journals of the time. I had no luck selling the book.

Just a side note about that convention: I met Earnest Schlage, son of the founder of Schlage Lock Company. When I was introduced to Earnest, they pronounced his name "Schlaaahhg." I said I was glad to know how to pronounce it because I had heard it a couple of other ways. Earnest, a quite large man, said, "My name is (and he pronounced it) "Schlaaahhg," and my locks are "Schlaaaayg (with the A pronounced as we do today, with the A in way). I was given the elbow by a bystander to not pursue the subject. A few moments after that, I was told his father started the lock company around 1910, but it soon became unpopular to be German. So, they tried to change the pronunciation of the company name so it would be more American-sounding.

I was already an ALOA member, but was very happy to discover how experienced, journeymen 'smiths were eager to share their knowledge to help all others in our age-old profession. Some of their "old-timers" stories stay with me even today.

I realized that good education would be the key to practicing my trade to the benefit of those for whom I provided my services. It didn't take long for me to discern that my correspondence course (great as I originally believed it to be) was hardly more than a primer, and that I would need to learn far more through ALOA training/education. I attended as many classes as I could through ALOA conventions (as I could afford), the Wisconsin Locksmith Association and the Minnesota Lock Guild. Each of these sources for quality specialized knowledge were outstanding.

My shop was beginning to see enough income to pay the bills. I was establishing a small but growing clientele list of commercial, residential and automotive patrons.

Being a responsible individual, I joined a local service club to give back to the community where I made my living. Just through osmosis, I gained more commercial customers from that. That was an unexpected benefit — unplanned yet very welcome.

Around that time, ALOA established the PRP (Professional Registration Program), which established high standards of professional recognition. I reviewed many trade journals and took the PRP. I passed the CRL on my first evaluation. Then it took me a couple of years — and many more classes through ALOA and smaller, regional associations — and three attempts to attain the CPL level.

Quite a few years later — and again many, many more classes and failed attempts — I finally in 1999, was recognized by ALOA as a CML. I was only the eighth CML in my state of Wisconsin at the time.

I had joined SAVTA a few years before, and in 1999, I attended the SAFETECH Convention in Reno, NV. After a lot of cram-study sessions, reviewing as many books and articles as I could, and taking the study class to obtain my CPS, I was still very uncertain, and not entirely confident, yet I took the SAVTA evaluation for CPS. I later found out that 80% fail on their first attempt. When I received notification in the mail several weeks later that I had passed, it was an extremely proud moment.

"Anyone wanting a successful locksmithing service business absolutely needs to take classes on proper business practices."

I had also become a member of the relatively new IAIL (International Association of Investigative Locksmiths) and completed the arduous qualifications to take the unique test/evaluation for CFL (Certified Forensic Locksmith). It was entirely unique because, unlike ALOA and SAVTA evaluations, IAIL's test for CFL was given one-on-one (that is, one test taker and one test giver). I passed that a little later in the same year I attained my CPS from SAVTA.

Taking ALOA's class for instructor training earned for me the opportunity to become an ACE (ALOA Continuing Education) Instructor so I could share the knowledge and skills contained in several of the professional classes with other locksmiths. Over five or six years, I either instructed or co-instructed Master Keying, Lock Picking, Investigative Locksmithing and Forensic Locksmithing.

Back in the early 1990s, I busted my tail to organize an ALOA chapter in western Wisconsin. We saw that effort come to fruition. While contacting locksmiths across upper western Wisconsin, I helped 20 of those good professionals better themselves by becoming members of ALOA. In doing that, I became a member of ALOA's Presidents Club for signing up 10 or more locksmiths to ALOA. The Wisconsin Indianhead Chapter of ALOA held annual educational seminars and at least two swap meets, drawing locksmith attendees from many states. Some attendees of these events traveled nearly

1,000 miles. That ALOA chapter still flourishes today, although I have not maintained membership since retiring in 2003.

Unlike some younger locksmiths seem to think, the "alphabet soup" of letters after someone's name does not make them superior to other locksmiths. Actually, much the opposite is the case — after taking many classes, we all seem to discover how much we don't know! Nonetheless, letters that designate accomplishments do certify that they're less likely to have to go back to a book or reference source than those who are less trained.

A locksmith's clients will benefit from the locksmith's training, and so does their whole community. Besides — or maybe I should say, above and beyond — all the professional education available, anyone wanting a successful locksmithing service business absolutely needs to take classes on proper business practices. Without good business operations, the best, most skilled professional security provider will constantly fight an uphill battle to remain financially solvent.

Over my 40-plus years in this great profession, it's been my honor and privilege to have shared tips and experiences through submitting about 14 — or maybe even 16 — articles to the *Locksmith Ledger*, (at the time) *Reed's Reporter*, *The National Locksmith* and, of course, *Keynotes*.

One difficulty with being a retired locksmith is you have to turn down many old friends who want your services. Retirement just is not easy sometimes.

Locksmithing is rewarding and satisfying, yet a frustrating and grueling road to go down in life, but I'd do it again if I were starting over. I have always been, and always will be, proud to identify my self as a locksmith!

John Dorsey is a Pre-Boomer, born in 1944. He entered the locksmithing profession after taking a correspondence course in the mid 1970s and has been an ALOA member since 1977. He has operated two storefront locations at different times and a strictly traveling mobile shop in between. He has organized an ALOA chapter, is an ACE Instructor and is a member of the ALOA Presidents Club for recruiting 20 locksmiths to ALOA. John retired from active locksmithing in 2003.

MAP: As Seen by Turn 10 Wholesale in the Safe Market

To start with, MAP stands for Minimum Advertised Price on brand-name products. This is done by the factory to set the lowest price that their products can be advertised at. MAP is now used by several of the brand-name safe manufacturers to help protect local shop and mobile dealers across the USA.

Strong Safe Dealers know how to use MAP to win local safe orders. They continue to sell a lot of safes locally.

All Local Dealers will greatly benefit in knowing how MAP works as the minimum advertised price.

MAP should be used to gain the TRUST of local safe buyers by showing that you indeed sell at the MAP published by the factory. The fact is that local safe buyers prefer local safe professionals who they can trust for the safe selection, hands-on training, delivery/installation and future service. Over 90% of catalog sales through Amsec, Gardall and Hayman are made by local dealers.

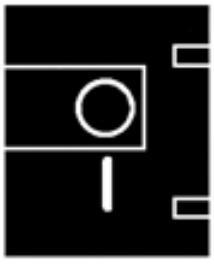
That is why brand-name safe manufacturers developed MAP: to help the network of local dealers compete among the growing trend in America of internet selling. Although MAP is not perfect, its intent is to set a Minimum Advertised Price for everyone selling. 2017 factory MAP programs are now in place by Gardall and Hayman to reflect 24-25% off retail, and Amsec is a mix of 25% and 33% off retail. Printed MAP schedules are available for each manufacturer through Turn 10.

On a good note: When using MAP correctly, dealers can make 20 – 35% profit on retail!

- **20 profit points selling the safe** (Plus, sell a lot more safes in 2017)
- **10 to 15 profit points for added services** (delivery/install)

In a PERFECT Non-Price War Environment, MAP would NOT be needed.
But Aggressive Internet Discounts and E-Mail Blasts have made MAP a necessity.

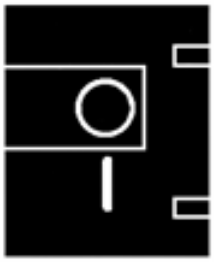
Without MAP Program...
gives a low selling price



~~$2,000~~ **Retail**
~~$1,500~~
~~$1,400~~
~~$1,300~~
$1,200 Non-MAP Price

Dealer Cost: $1,100
Dealer Profit = $100 if matching price

With MAP Program



$2,000 Retail
$1,500 MAP Price

Dealer Cost: $1,100
Dealer Profit = $400 on sale

TURN 10®
WHOLESALE SERVICE
Serving Dealers for 40+ Years

USE FACTORY MAP AS YOUR SALE PRICE IN YOUR SHOWROOM AND MAKE MORE MONEY

Be pro-active with a plan — ALL DEALERS SELLING SAFES

- **Need a copy** of MAP to show local customers
  - This allows them to see they are getting the MAP price = fair price.
- **Sell your added services**
  - Installation services.
  - Security is your business — buying a safe is a confidential purchase.
  - Help with any warranty issues if they do arise.
  - Quick service because you are local.
  - Peace of mind! Here when you need us.
- **Explain the risks** of purchasing from the Web
  - Financial risk (credit card fraud).
  - Strangers now have your personal information (identity theft).
  - Strangers delivering your safe. They can talk about your home/business to others.
  - Who has the combination to their safe?
  - Such a personal and confidential purchase is not worth buying on the internet.

Always TAG your safes in your showroom with a RETAIL PRICE and SALE PRICE being MAP.

Using MAP upfront will greatly reduce price shopping for web coupons. Try new approaches to local selling and keep us posted on your successes. ▪

Andy Miller is the operations manager for Turn 10 Wholesale, which stocks Amsec, Gardall and Hayman. You can reach the Turn 10 ladies at (800) 848-9790.

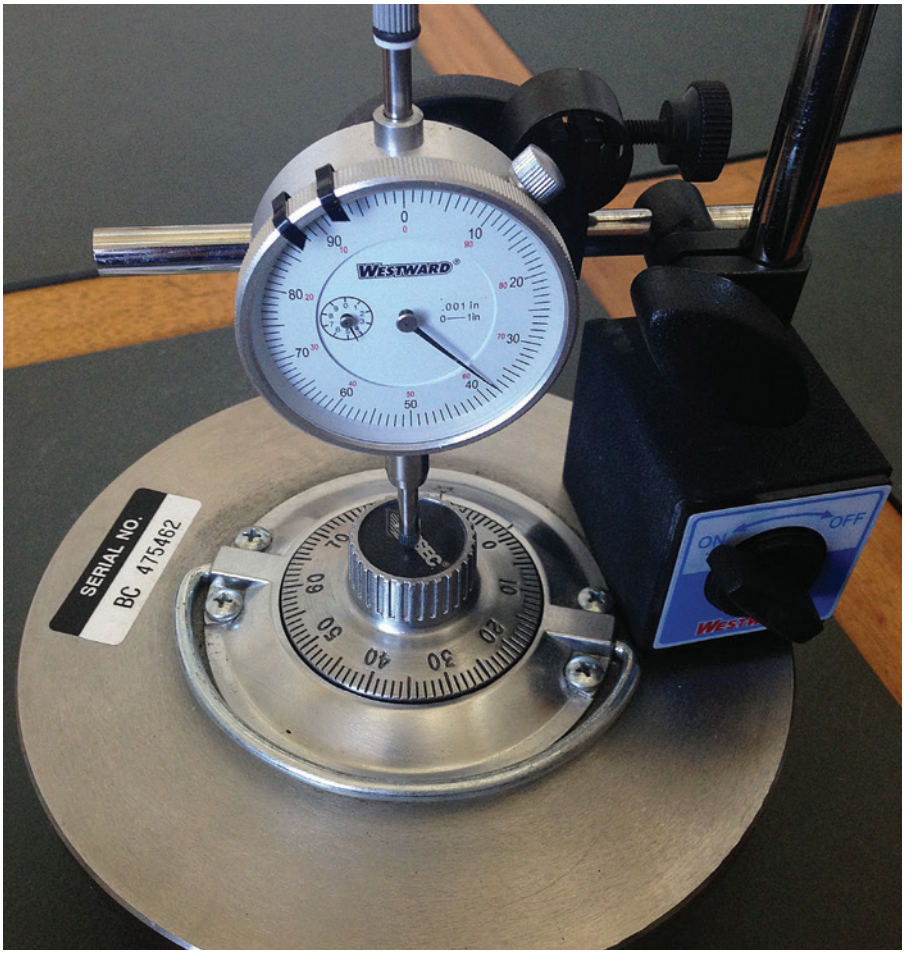


Figure 1. A dial indicator with magnetic base and a safe lid are important tools to have for this procedure.

Rounding Out Your Knowledge

Armed with the right knowledge, dial indicators and a safe lid, manipulating a Round Floor Star Safe is a cinch. By Phil Domenici

If you've manipulated standard Group II locks in the past, then it's time to broaden your skills to Star-brand and -style round floor safes. This article is best for those who have the foundation for manipulating Group II locks already in place, as the techniques will often be transpired. If you've never been introduced to dial manipulation, then this article may present some confusion. However, I never shy away from what could be a good read, because for all I know, you as the reader may benefit more with this as your starting point.

Can Round Floor Star Safes be manipulated? Definitely. And it's nothing new to the industry for those who've manipulated them, or for those who at least know of it being accomplished.

Is it hard? That's tough to answer. I personally find them to be slightly easier than a 6730. It depends on the variables that the lock gives you (dial stiffness, ease of physical access, condition of lock, etc.). The simple reason I find them a bit easier is that I have to use a tool to manipulate these locks, whereas I can be tool-free with a 6730 (it's purely a matter of preference). Is the procedure the same as a Group II lock? Almost identical, really, and it'll be very clear as to why.

Tools and Set-Up

If you haven't purchased a dial indicator with a magnetic base *(see Figure 1)*, then you will be hands-off at this point in time. (A safe lid may be an important necessity as well. Also, check the end of the article for tool specifics —most importantly, where to buy them.)

This tool feels like it was actually built for this application. The photos pretty much tell it all, but it's simply a strong magnet (85-lb. pull) with a miniature boom stand holding a dial indicator. The photos, however, don't reveal whether the magnet is electrified. Thankfully, it's completely mechanical. The on-off lever physically rotates the magnet inside the base, holding the indicator firmly in place.

Figure 2. Place the magnetic base on the lid's edge so that the opening index will not be hindered from view, then throw the lever on.

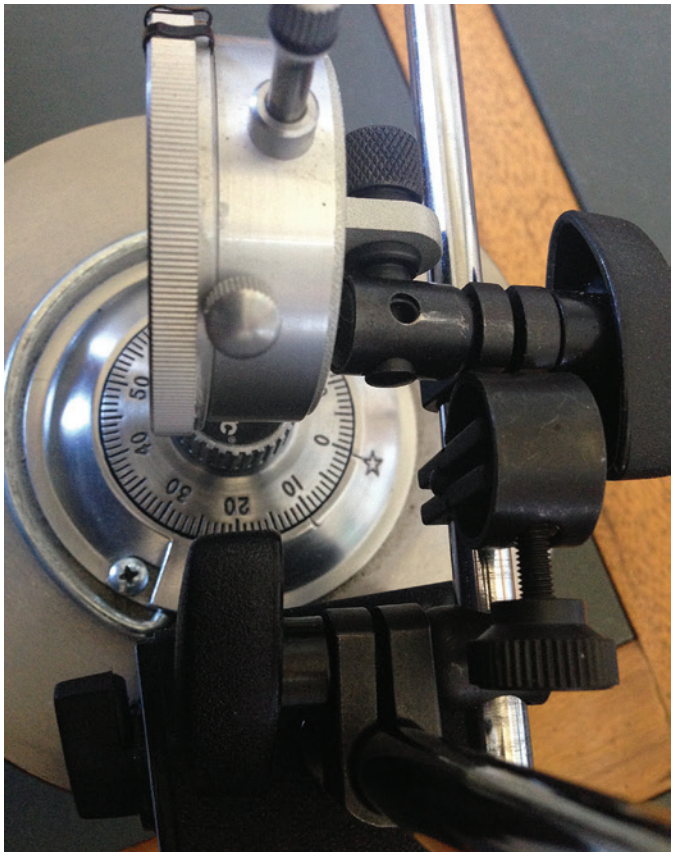


Figure 3. Attach the indicator to the arm and make sure the plunger on the indicator is pressed in about halfway while the lock is at rest.

First Things First

Begin with the magnetic base and place it on the lid's edge so that the opening index will not be hindered from view. Throw the lever on. If placed well, it'll be a real challenge to remove the magnet without turning it back off *(Figure 2)*. With my setup, I'm lacking the body of the safe, which would force the size of the magnetic base to not sit completely flat as it does sitting on a solo lid. The lip of the safe's body is easily overcome, as sitting on a minor slant does not degrade the magnet's strength significantly enough.

Next, you'll need to attach the horizontal arm that connects the indicator to the base. This arm is actually split about a third of the way, allowing you to change the pitch by the turn of a thumbscrew. This is handy when the base is not level.

Finally, attach the indicator to the arm (just tighten the screw through its mounting hole, very straightforward). Make sure the plunger on the caliper is pressed in about halfway while the lock is at rest. Important: whether the dial is pressed in all the way or completely at rest, you want to always have tension on the plunger *(Figure 3)*. Make sure all thumbscrews and knobs are tight. If your setup looks similar to mine, it's ready to go.

Dial the lock to zero, and press in and release to test the caliper's integrity. The needle should whip around smoothly. At this point, the tool is calibrated and ready to use.

Dialing In on the Details

At this point in the process, readers will have a natural tendency to want to use their own methods and techniques, rather than regurgitate my methods and techniques. All that will be important to you are the required differences. And the biggest difference, if you haven't already figured it out, is where and how do you check the contact point?

Let's begin by picking up all the wheels (rotate the dial four times left, stop on zero). Now advance the dial 2.5 numbers more to the left so that it lands on the space between the 2 and the 3 marker. Dial back to zero (2.5 numbers to the right). Press down on the dial as if you were trying to open, and slowly let the dial rise back up.

This is the point where we feel our contact. It will be felt just before the dial is completely back at rest. As the dial is raised slowly, there will be a slight tug,

causing the needle to stop prior to the dial going back to its full rest position. As with first learning a standard Group II, you will need to develop a feel. Unfortunately the "feel" is not the same, as these locks have spring tension on the dial.

One bit of advice is to use your index and middle fingers (using both hands if possible) to press down on the edge of dial so that it always remains level. Keeping the dial level as it "floats" back up is crucial so that each time you find the contact point, your indicator is giving you the same reading *(Figure 4)*. (Remember that the hardest part of manipulation is how you treat the lock. Concentration and consistency are above everything else.) Practice locating the contact point until you find your readings are consistent and you begin to feel comfortable with the tool.

Figure 4. Keep the dial level as it "floats" back up so that each time you find the contact point, your indicator is giving you the same reading. You can use your index and middle fingers to press down on the edge of dial so that it always remains level.

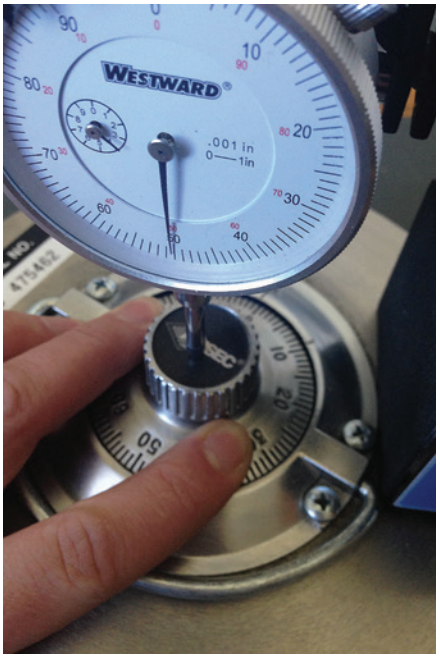


Figure 5. The drop went down ten thousandths of an inch (60 down to 50). Advancing another 2.5 numbers put me right back around the 60 mark. This means I have a single number in the combination.

Getting Good Readings

In *Figure 4* you can see the needle is hitting right above 60. Margin for error here is ideally within one thousandths of an inch. But as you will see, it could be larger depending on the entire scope of the lock's readings. Notice that the caliper does have index markers that you can move around its circumference. I personally do not like to use them, because it requires me to touch the tool after it's been calibrated. It doesn't take much to bump a tool off where it had been set when only measuring in thousandths of inches.

Instead, either make a mental note or write down on a piece of paper where the needle is stopping. From here you can continue walking around the dial to check where the contact is landing on the indicator. I prefer walking in increments of 2.5, so the next step for me would be to dial left again, stopping at 5. Next, I would dial back to zero and check the contact. I would continue walking until I find a sudden drop (feeling at home yet?). The question is, how big of a drop? It varies, but typically the drop is nearly impossible to miss with all variables working in your favor.

In my example, you can see the drop went down exactly ten thousandths of an inch (60 down to 50). Advancing another 2.5 numbers put me right back around the 60 mark *(Figure 5)*. So it's pretty clear that I have a single number in the combination. At this point, I would either continue walking with all wheels traveling to see what else I might find, or I may want to verify and isolate the number I found to a specific wheel and work from there. Learning how to use this tool and becoming familiar with reading a contact point under tension are essentially the two things that differ with these safes.

For this article, I used a Westward Indicator/Base Set, part No. 4KU71. It was purchased from Grainger online (www.grainger.com) at just over $100. I recently discovered that a close friend of mine found the exact same tool at www.zorotools.com for about a third the price. (I wish I had known that a few years ago!) The site says "Value Brand," not "Westward." However the one that was shipped to my friend was indeed a Westward with no visible differences.

Prior to diving into locksmithing, **Phil Domenici**'s career path was headed in the direction of computer sciences with a focus in network security. After much of his childhood and teenage years, his love for computers was exhausted — and after a single seminar of picking locks, he was hooked on his current (and only) career. He has worked as a professional locksmith for five years and has been employed in Virginia, Hawaii and California while learning and practicing almost all areas of locksmithing, including commercial, residential, automotive, access control and safes.

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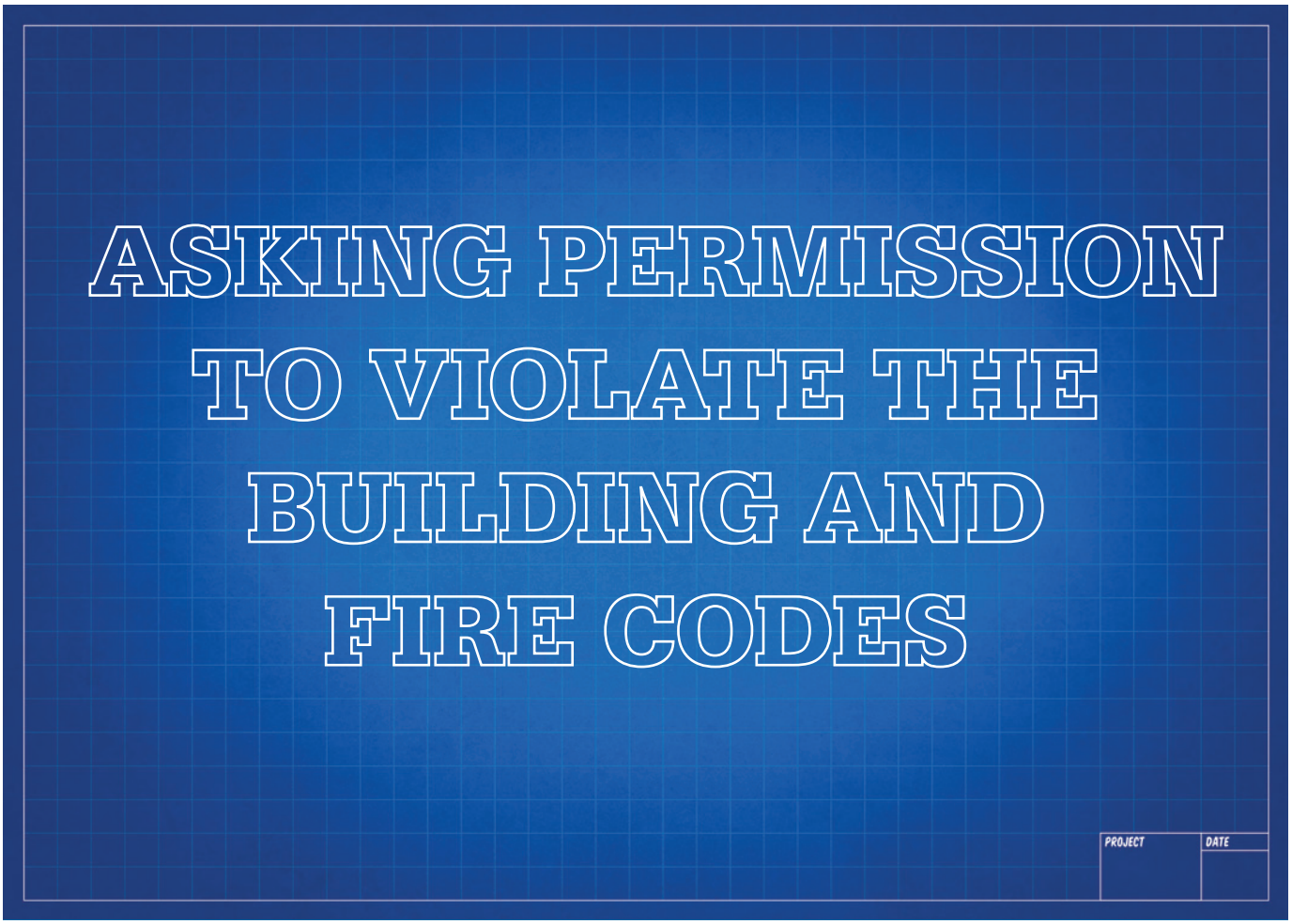
ASKING PERMISSION TO VIOLATE THE BUILDING AND FIRE CODES



Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CMIL, CML, CMST, IFDI, LSFDI, ARL, explains the importance of following codes — even if you're told not to.

Building and fire codes become the law in your state once they are voted into law by the state legislative body and signed by the governor. Once voted into law, you the locksmith/hardware installer can be legally charged when breaking these laws, ranging from a misdemeanor to a felony depending on the severity of the infraction. Knowing the building and fire laws in your state is the responsibility of every locksmith/hardware installer.

So who should you ask permission from to violate the building and fire laws before you install hardware, knowing that if you install the hardware you would be liable of this violation? If you believe that you are asked to install hardware that is in violation of the building and fire laws, you have a legal obligation to notify them immediately and not to install the hardware until it can be done correctly.

If you are asked to solve the problem without correcting the hardware, you need to present your concerns to the local Authority Having Jurisdiction (AHJ) for a ruling. In new construction (while the building is under construction), it would be the building inspector. In the aftermarket, it would be the Fire Marshal. You should submit your concerns in writing to the AHJ, who can give you written permission to proceed.

Here is a fictional case study that I altered by reading an online article by a well-known locksmith who had a similar situation that he solved by obtaining written permission from the AHJ. My rendition is giving you the "what if" scenario.

"I was asked to install 11 Securitech Trident Security Exit Devices on exit doors. The hardware was supplied to the general contractor, and my company was contracted to install the hardware. I noticed that the push pad was only 16" in length, and the door leafs were 36" wide. The push pad supplied is for a 32" wide door. The code requires that the push pad

extend no less than half the width of the door surface."

NFPA 101 (Published in NFPA since 2000 to current 2015)

7.2.1.7.1 Where a door assembly is required to be equipped with panic or fire exit hardware, such hardware shall meet all of the following criteria:

1. It shall consist of a cross bar or a push pad, the actuating portion of which extends across not less than one-half of the width of the door leaf.

IBC 2015 (Published in IBC since 2000 to current 2015)

1010.1.10.1 Installation. Where panic or fire exit hardware is installed, it shall comply with the following:

1. Panic hardware shall be listed in accordance with UL 305.
2. Fire exit hardware shall be listed in accordance with UL 10C and UL 305.
3. The actuating portion of the releasing device shall extend not less than one-half of the door leaf width.

Securitech offers these options in their Trident price book:

POPULAR FIELD INSTALLED OPTIONS	
TEL-EP2	24" Paddle extension with end guard
TEL-EP4	18" Paddle extension with end guard

(I called Mark Berger, president of Securitech, and was told that the installer could have exchanged the 16" push pads for the 18" push pads at no additional cost to stay within code compliance)

Back to our fictional installer's article. "I notified the general contractor (GC) that the hardware push pad was not in compliance. The GC stated that he would bring it to the architect and building owner. The order came back stating that the decision was to install them as is, and if the inspector cites it, then we'll comply with the inspector's violation. Once the building reached substantial competition and the owner requested an occupancy permit, the building was inspected for occupancy. At that time, no mention was said about the push pads being 2" too short and the hardware not being in compliance." The writer believes that he and his company are free and clear of this violation. What do you think? Here is what I think.

"No one can give you permission to break the law. The AHJ is the only person who can accept the liability and allow you to proceed."

The installer should have stood his or her ground and not installed the hardware until the correct push pads were onsite so that the installation would be in compliance with the law. Some may say that it was up to the AHJ that inspected the site to catch it. True, but inspectors are only human and have more than the fire door assemblies to inspect to sign off on an occupancy permit. This is why the requirement for annual fire door inspection is done and requires a certified or trained person to inspect these door assemblies. Fire Marshals are very knowledgeable in many areas, but door hardware is not one of them.

As an expert witness, Certified Forensic Locksmith and code expert who has worked many cases of negligence, the buck would have stopped at the hardware installer whose job it was to know the law and should have done the job properly. The GC, building owner and architect would get a pass, citing that if there was an issue, the AHJ should have caught it. The bottom line here is that **no one can give you permission to break the law.** The AHJ is the only person who can accept the liability and allow you to proceed. By giving you permission in writing, they assume the liability of your actions. Don't get excited; this does not happen very often.

So why was this all falling on the hardware installers? Because it's the installers' responsibility to know the law and to install proper hardware that meets the law. In this particular case, the installer is a respected knowledgeable locksmith. If it was me and I screwed up this job, I would contact the manufacturer, arrange for the replacement push pads and go out on my own time and replace them all to make the job right — and remove me and my company from any future liability! My recommendation to everyone reading this article is to take a code class of at least eight hours and get immersed in the codes! You will be a better locksmith/hardware installer for it.

Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CMIL, CML, CMST, IFDI, LSFDI, ARL, is president of Technical Services, Inc. and is the author of "*Life Safety Codes – In the Means of Egress*," 2017 edition, and "*Fire Door and Frame Repair*," 2016 edition. Tom has been teaching building and fire codes since 1990. If you have a question, text Tom at (703) 283-6192 and send a picture.

ALOA ELECTIONS 2017

A LETTER FROM THE PRESIDENT

Dear ALOA SPAI Member,

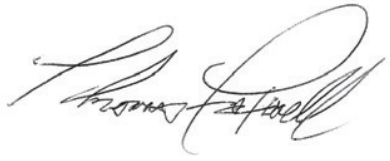
The bylaws of ALOA Security Professionals Association, Inc. designate that the president of the association and directors of the Southeast, North Central, Southwest and Associate regions shall be elected in odd-numbered years. The bylaws allow voting by proxy, a procedure that allows all members to participate in the election of their respective directors and/or officers. A proxy allows you to authorize someone to vote for you at a meeting.

As president, I've called a special meeting at 10 a.m. CDT on June 9, 2017, at ALOA SPAI Headquarters, 3500 Easy Street, Dallas, TX. The purpose of the meeting is to elect the officers and directors of the association. The ballot is in the form of a proxy, prepared for you to give specific instructions to the holder of the proxy. This will ensure that your vote is counted exactly as you desire. You must provide your name, member number and date, and must sign the form. (Failure to properly complete the proxy may result in your ballot being invalid.) Please vote for president and your representative director(s). Write-in candidates are not allowed, and no one is "running from the floor" at this special meeting of the membership.

After the elections materials in the following pages, we have also included proposed new Bylaws, which your ALOA SPAI board of directors have approved and need ratification from you, the members. Each bylaw must be voted on separately in the ballot. If you have any questions, you can direct them to Mary May, our Executive Director, and/or me.

Please vote online at www. aloa.org, or mail or fax the proxy, as soon as possible. In order for your vote to count, the holder of your proxy, as designated, must be present at the meeting and have the properly completed proxy with him. This means that your ballot must be received no later than 11:59 p.m. CDT on June 6, 2017. You do not have to designate Barry Roberts, Esq., as your proxy. You may give your proxy to anyone else, but they must attend the special membership meeting on June 9, 2017, with your signed and dated proxy in hand.

Please participate in the future of your association!



Tom Foxwell, RL, CAI, CFDI
President
ALOA Security Professionals Association, Inc.
president@aloa.org

FOR THE OFFICE OF PRESIDENT

Vote for One Only | Eligible to vote: All active, probationary, retired, life, company and associate members

Jim Wiedman, CML, CAI

My name is Jim Wiedman and I would like to take this opportunity to ask you for your vote for President of ALOA Security Professionals Association Inc. I have served on the board of directors for three terms as Southeast Director. I am presently a non-voting board member serving at the will of the current President.

I have been the owner/locksmith of Mid-State Lock and Key in Nashville, TN since 1999. I am a third generation locksmith originally from Philadelphia, PA I have been involved in the state and local associations in Tennessee since starting my business and have served in numerous board positions in both of them. I was the recipient of the GPLA "Lee Rognon Award" in 2004 for fostering cooperation between locksmith associations and received the ALOA- LAN "Person of the Year Award" in 2006. I have been a successful participant of the ALOA Proficiency Rating Program and have received the designation of CML and am a Certified Ace Instructor.

I would appreciate your vote and the opportunity to continue to serve you in an effort to make ALOA a better association for us all.

FOR THE OFFICE OF NORTH CENTRAL REGION DIRECTOR

Vote for One Only | Eligible to vote: All active, probationary, retired, company and life members whose business address is in Illinois, Indiana, Iowa, Manitoba, Michigan, Minnesota, Nebraska, North Dakota, Northwest Territories, Ontario, South Dakota or Wisconsin

Tom Ripp, ICPL

With more than 37 years of experience as a locksmith, owner of Wauna-key LLC and 21 years experience as a technician in the Access office at UW-Madison, I have become the preferred source of expertise for other locksmiths regarding operation and maintenance of critical, complex systems. This includes both hands-on operations and supervision of locksmith crews. I continue to attend many educational opportunities and ALOA chapter meetings, an active ALOA member since 1992, I was Chairman of the Fox Valley Chapter of ALOA for 5 years. I am currently Chairman of the West Central Chapter of ALOA. I have served as North Central Region Director 1999-2001 and 2011-2013. I have the flexibility to devote time to the ALOA board and request your vote in this election.

Guy Spinello, RL

I have been involved in the locksmith business since age 13; a full-fledged locksmith since 1969. My membership in the ALOA began in 1971 (Membership #3306). I was extremely active and supportive in developing modern day standards for locksmithing through my affiliation with ALOA and working with other locksmiths with similar goals at the local and regional level. My background includes all facets of security sales, service and installation, including consultation, planning and installation of complex security systems from specialized locking devices to video surveillance and retrieval systems. I have served as North Central Director previously from 2003-2009.

I would bring to the ALOA a background of nearly 50 years of experience, honed by technological hands-on involvement in management and technical savvy. I would work to encourage unity throughout the locksmithing field. I would support ongoing training programs for all practicing locksmiths. I would work to have locksmiths revered as professionals.

FOR THE OFFICE OF SOUTHWEST REGION DIRECTOR

Vote for One Only | Eligible to vote: All active, probationary, retired, company and life members whose business address is in Arizona, California, Colorado, Hawaii, Nevada, New Mexico or Utah

Charles "Locksmith Charley" Eastwood, CRL, Southwest Director

In two years on the board, I have advocated:

- A dispatching APP system to refer consumers searching ALOA to local locksmiths wanting/needing calls;
- A nationwide protest at US Attorneys' offices to educate them and consumers about scammers.

Both ideas have been killed by the board.

I have paid for www.TheLocksmithShow.com (until we ran out of money) which contains copies of podcasts and letters written to legislators who don't seem to give a damn.

Mike Bronzell presented **THE ALOA LETTER** and a **"Charley Letter"** to his Congressman.

Bronzell and his Congressman **want/need more letters from locksmiths across the nation to their congresspersons** (and copies to Mike) to influence legislators to fix broken laws (CDA*, Tele-Com) and compel relevant agencies to effect appropriate enforcement action. (RICO, ANTITRUST*)

UNITED WE STAND! *SUPPORT BALDINO!

GENERAL APATHY requires replacement with DEDICATED RESOLVE to achieve our goals and missions. Necessarily each member should communicate to ALOA-SPAI the direction(s) we should be proceeding and copy or author new letters to all of their Federal legislators requesting or demanding changes by their representatives.

FOR THE OFFICE OF SOUTHEAST REGION DIRECTOR

Vote for One Only | Eligible to vote: All active, probationary, retired, company and life members whose business address is in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Puerto Rico, South Carolina or Tennessee

William "Bill" Boughman, CRL, CPS, CFL, ACI, CJS, CFDI

A second generation locksmith, William "Bill" Boughman was a life-long Philadelphian before moving to sunny Naples.

Prior to starting BB Locksmith, Bill owned and operated Guild Services, Inc. selling, installing and servicing alarm services in the Greater Philadelphia area. Bill has been in the security field in many different specialties including personal security and private investigations. Before that, he was employed as a pipe fitter at Sun Shipbuilding Co. during his last year of high school and college where he majored in Psychology and went on to be a counselor. He was a member of The National Guild of Hypnotists and owned and operated The Mid-Atlantic Center for Hypnotherapy.

He has served his community as a volunteer fireman and as a paramedic.

Bill is a member of NLA, ALOA, NSO, SAVTA, IAIL, IAFDI and MLA.

He proudly holds the following designations: CRL, CPS, CFL, ACI, CJS, CFDI.

FOR THE OFFICE OF DIRECTOR, ASSOCIATE REGION

Vote for One Only | Eligible to vote: Associate members

Noel Flynn

Noel Flynn is a degreed business management consultant with global senior leadership experience including more than 20 years in manufacturing, wholesale distribution and consulting sectors of the security industry.

Noel has also been a "C" level executive, officer, board director and advisor to not-for profit and for profit companies in numerous industries world wide. This includes the ALOA board where he has been a director since 2010 and currently serves as Chairman of both the Audit and Strategic Planning committees.

ALOA'S PROPOSED BYLAWS CHANGES

1.) CURRENT BYLAWS
Article 5, Section 5

PROXIES

Unless otherwise required by the Texas Not-For-Profit Corporation Law, as amended, written or printed notice stating the place, day, and hour of any meeting of members shall be delivered, either personally or by mail, to each member entitled to vote at such a meeting not less than twenty (20) or more than fifty (50) days before the date of such meeting, by or by the direction of the President, or the Secretary, or the persons calling the meeting. In the case of a special meeting, or when required by statute or by these Bylaws, the purpose or purposes for which the meeting is called shall be stated in the notice. If mailed, the notice of the meeting shall be deemed delivered when deposited in the United States mail addressed to the member or the Associate member representative at his or her address as it appears on the records of the corporation, with postage thereon prepaid. Any member may waive notice of any meeting.

PROPOSED BYLAWS
Article 5, Section 5

PROXIES

Unless otherwise required by the Texas Not-For-Profit Corporation Law, as amended, written or printed notice stating the place, day and hour of any meeting of members shall be delivered, either personally**, by mail or by electronic means** to each member entitled to vote at such a meeting not less than twenty (20) or more than fifty (50) days before the date of such meeting, by or by the direction of the President, or the Secretary, or the persons calling the meeting. In the case of a special meeting, or when required by statute or by these Bylaws, the purpose or purposes for which the meeting is called shall be stated in the notice. If mailed, the notice of the meeting shall be deemed delivered when deposited in the United States mail addressed to the member or the Associate member representative at his or her address as it appears on the records of the corporation, with postage thereon prepaid. Any member may waive notice of any meeting.

This would add the ability to notify members of the meeting by email or any other electronic means that may come to pass in the future. Members who "Go Green" would not be notified by mail of the meetings if published in Keynotes.

ALOA'S PROPOSED BYLAWS CHANGES

2.) CURRENT BYLAWS
Article 5, Section 4

QUORUM AND MANNER OF ACTING

A quorum of the voting members shall be the lesser of one hundred voting members or one tenth of the voting members. If a quorum is not present at any meeting of members, a majority of the members present may adjourn the meeting without further notice. If a quorum is present, the affirmative vote of the majority of the members represented at the meeting and entitled to vote on a matter shall be the act of the members, unless the vote of a greater number is required by law, the Articles of Incorporation or these Bylaws.

3.) Article 5, Section 5

PROXIES

A voting member may vote by proxy solely with respect to the election of directors, officers, and the amendment or modification of these Bylaws, provided the proxy is executed in writing by the member or the Associate member representative or his or her duly authorized attorney-in-fact. No proxy shall be valid after eleven months from the date of its execution, unless otherwise provided in the proxy. The Board of Directors may provide for voting by electronic means.

4.) Article 7, Section 2 (g)

There shall be the following International Regions: Asia-Pacific, Europe, Middle-East, and Latin America.

5.) Article 7, Section 6

A regular annual meeting of the Board of Directors shall be held at such time and place as may be designated by resolution by the Board of Directors without other notice than this Bylaw and such resolution.

PROPOSED BYLAWS
Article 5, Section 4

QUORUM AND MANNER OF ACTING

A quorum of the voting members shall be the lesser of 100 voting members or one tenth of the voting members. Properly executed proxies shall be counted as meeting the quorum. If a quorum is not present at any meeting of members, a majority of the members present may adjourn the meeting without further notice. If a quorum is present, the affirmative vote of the majority of the members represented at the meeting and entitled to vote on a matter shall be the act of the members, unless the vote of a greater number is required by law, the Articles of Incorporation or these Bylaws.

Article 5, Section 5

PROXIES

A voting member may vote by proxy, provided the proxy is executed in writing by the member or the Associate member representative or his or her duly authorized attorney-in-fact. No proxy shall be valid after eleven months from the date of its execution, unless otherwise provided in the proxy. The Board of Directors may provide for voting by electronic means.

This would get around the lack of a quorum at the annual meeting because it would allow us to get the votes by electronic means to ratify anything we need ratified. It would also give those members who can't attend the annual meeting a chance to vote.

Article 7, Section 2 (g)

There **may** be the following International Regions: Asia-Pacific, **Europe-Middle East** and Latin America.

Article 7, Section 6

A regular annual meeting of the Board of Directors shall be held at such time and place as may be designated by resolution by the Board of Directors **or the President** without other notice than this Bylaw and such resolution.

This would bring us into compliance with the President deciding when the annual meeting would be.

ALOA'S PROPOSED BYLAWS CHANGES

6.) CURRENT BYLAWS ARTICLE 7, SECTION 3

REGIONS

The regions shall initially be as follows:

(a) The Northwest Region shall comprise Alaska, Alberta, APO San Francisco, British Columbia, Idaho, Montana, Nunavut, Oregon, Saskatchewan, Washington, Wyoming, and Yukon.

(b) The Southwest Region shall comprise Arizona, California, Colorado, Hawaii, Nevada, New Mexico, and Utah.

(c) The North Central Region shall comprise Illinois, Indiana, Iowa, Manitoba, Michigan, Minnesota, Nebraska, North Dakota, Northwest Territories, Ontario, South Dakota, and Wisconsin

(d) The South Central Region shall comprise of Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas.

(e) The Northeast Region shall comprise of APO New York, Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Brunswick, New Hampshire, New Jersey, New York, Newfoundland, Nova Scotia, Ohio, Pennsylvania, Prince Edward Island, Quebec, Rhode island, Vermont, Virginia, and West Virginia,

(f) The Southeast Region shall comprise of Alabama, Florida, Georgia, Kentucky Mississippi, North Carolina, Puerto Rico, South Carolina and Tennessee.

(g) There shall be the following International Regions: Asia-Pacific; Europe and Middle East and Latin America.

PROPOSED BYLAWS ARTICLE 7, SECTION 3

REGIONS

There shall be geographic regions: Northeast, Northwest, North Central, Southeast, Southwest, South Central and International established and modified by the Board. The regions will include States, U.S. Territories, Canadian Provinces and other countries as established by the Board of Directors.

ALOA ELECTIONS 2017 BALLOT

The undersigned, being an ALOA Security Professionals Association, Inc. (ALOA SPAI) member, hereby appoints Barry Roberts, Esq., my proxy and true and lawful attorney of the undersigned to attend the Special Meeting of the Membership of ALOA to be held at 3500 Easy Street, Dallas, TX 75247 on June 9, 2017, at 10 a.m. CDT, or any adjournment thereof, and to vote on behalf of said ALOA member as designated below:

For the Office of President
Vote for One Only. (Eligible to vote: All active, probationary, retired, life, company and associate members)
❑ Jim Wiedman, CML, CAI

For the Office of North Central Region Director
Vote for One Only. (Eligible to vote: All active, probationary, retired, company and life members whose business address is in Illinois, Indiana, Iowa, Manitoba, Michigan, Minnesota, Nebraska, North Dakota, Northwest Territories, Ontario, South Dakota or Wisconsin)
❑ Tom Ripp, ICPL
❑ Guy Spinello, RL

For the Office of Southwest Region Director
Vote for One Only. (Eligible to vote: All active, probationary, retired, company and life members whose business address is in Arizona, California, Colorado, Hawaii, Nevada, New Mexico and Utah.)
❑ Charles "Locksmith Charley" Eastwood, CRL

For the Office of Southeast Region Director
Vote for One Only. (Eligible to vote: All active, probationary, retired, company and life members whose business address is in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Puerto Rico, South Carolina or Tennessee)
❑ William "Bill" Boughman, CRL, CPS, CFL, ACI, CJS, CFDI

For the Office of Associate Region Director
Vote for One Only. (Eligible to vote: Associate members)
❑ Noel Flynn

Proposed Bylaws Changes
Please choose to approve, disapprove or abstain from voting for each the following proposed bylaws changes referenced above.

1.) Article 5, Section 5
PROXIES
❑ Approve
❑ Disapprove
❑ Abstain

2.) Article 5
SECTION 4. QUORUM AND MANNER OF ACTING
❑ Approve
❑ Disapprove
❑ Abstain

3.) Article 5, Section 5
PROXIES
❑ Approve
❑ Disapprove
❑ Abstain

4.) Article 7, Section 2 (g)
❑ Approve
❑ Disapprove
❑ Abstain

5.) Article 7, Section 6
❑ Approve
❑ Disapprove
❑ Abstain

6.) Article 7, Section 3
REGIONS
❑ Approve
❑ Disapprove
❑ Abstain

Print/type name of ALOA member

Member number

Signature Date

Vote online at www.aloa.org/MembersOnly or submit signed and dated ballot to: Simply Voting, PO Box 10287, Eugene, OR 97440; or Fax: (817) 649-3202.
This proxy must be signed and dated with member number to be considered valid. It must be received no later than 11:59 p.m. CDT, June 6, 2017.

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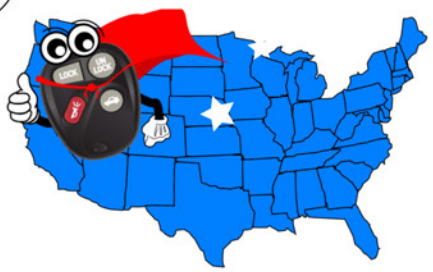

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BLAST FROM THE PAST

William M. Lynk, CML, CPS, ICML, M.Ed,
discusses the unforgettable Schlage wafer locks.

History often holds for us its secrets from which to learn. This is quite true of the Schlage double-bitted disc/wafer tumbler locks. Wafer locks are not nearly as well known as their pin tumbler relatives, even though it's estimated that one-fourth of the world's locks are wafer locks. This particular lock type, both key-in-knob design and padlocks, was researched for years and then marketed for the first time by Schlage Lock Company of San Francisco in 1927. This lock, invented by Walter Schlage, was widespread globally and extremely well liked through the early 1980s. Oddly enough, today it's an extremely popular lock for new construction in South America!

Aside from the fact that it lasted, and quite famously, for more than 50 years as a sturdy and mechanically reliable lock, it still remains the best and easiest way to understand the concept of positional master keying. Let's tap into that historical treasure that occasionally requires servicing even now in the 21st century.

Servicing — Disassembly/Reassembly

The Schlage wafer lock (Key-In-Knob) is installed as you would any traditional cylindrical lock: one hole for the lock and one for the dead latch. There were two models for the Schlage wafer lock: "old style" and "new style." Each will be addressed, as they were both popular during

Figure 1. Schlage double-bitted disc/wafer tumbler locks are still popular in new construction in South America.

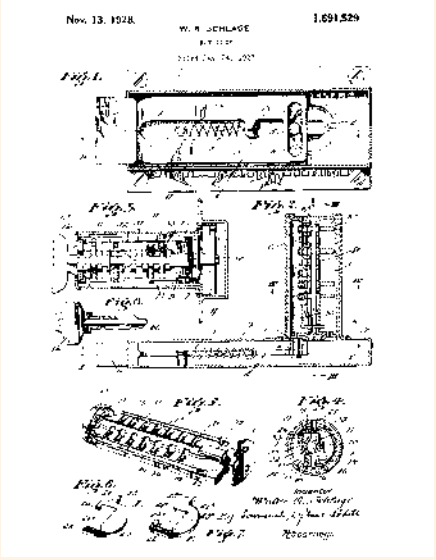


Figure 2. Schlage Lock Company of San Francisco marketed these locks for the first time in 1927.

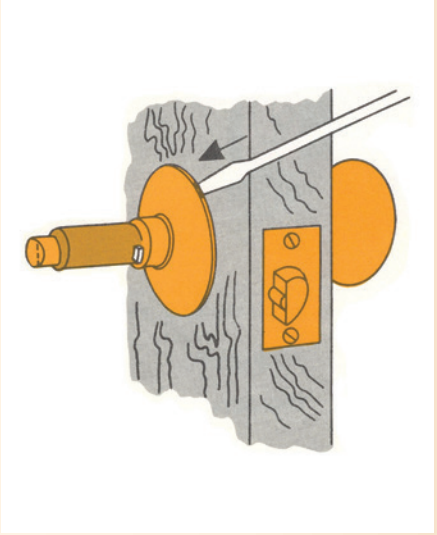


Figure 3. To disassemble, first remove the escutcheon and then the two machine screws from the plate on the inside the door.

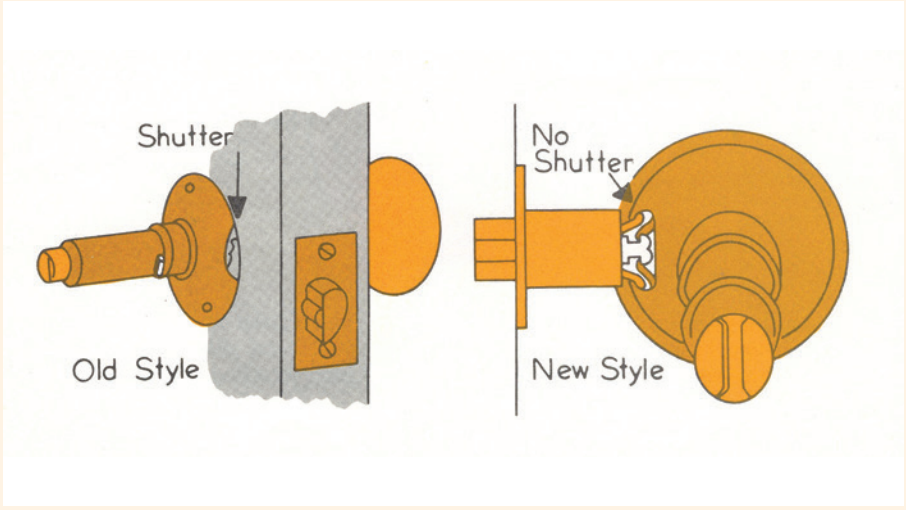


Figure 4. If the lock is new style, no shutter exists.

its manufacture. Let's look at disassembly first, as that is most likely what you would encounter in the field.

1) Remove the escutcheon *(See Figure 3)* and then the two machine screws from the plate on the inside of the door.
2) If the lock is old-style, turn "up" the shutter that covers the latch with a screwdriver. If it is new style, no shutter exists, so pull out the lock from the door *(Figure 4)*.
3) Old-style locks have a lug holding on the cup-shaped cover. Simply bend the lug to straighten, then remove. The cup can be detached in the new-style locks by removing the two cotter pins *(Figures 5-6)*.
4) To separate the lock base assembly from the knob in the old style, depress the slide with your thumb and push the plug out of the knob *(Figures 7-8)*.

In the new style, depress the slide that is dovetailed into the bolt, which will release the button tube so the plug can be

Figure 5

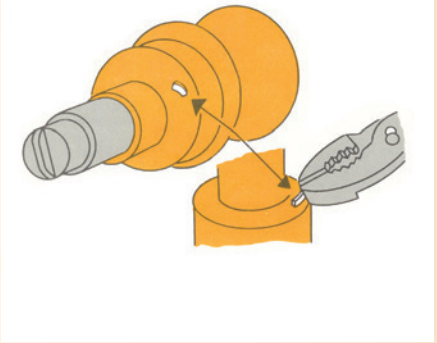
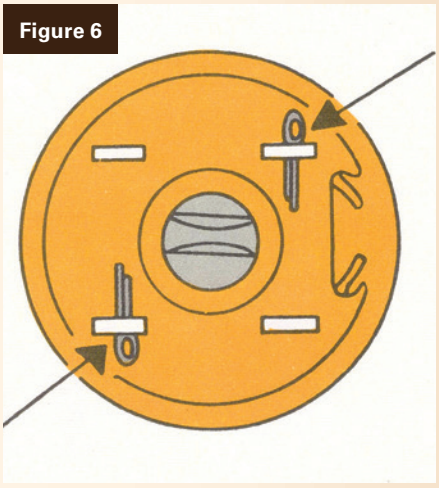
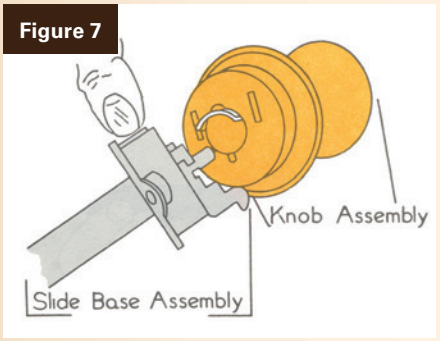
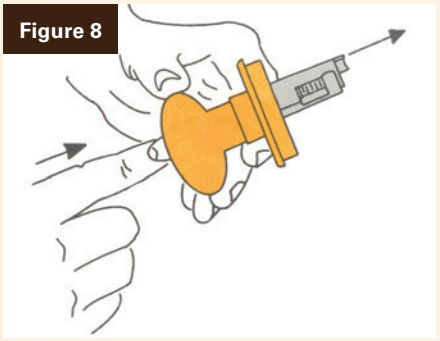


Figure 6



Figures 5-6. Old-style locks have a lug holding on the cup shaped cover.





Figures 7-8. To separate the lock base assembly from the knob in the old style, depress the slide with your thumb and push the plug out of the knob.

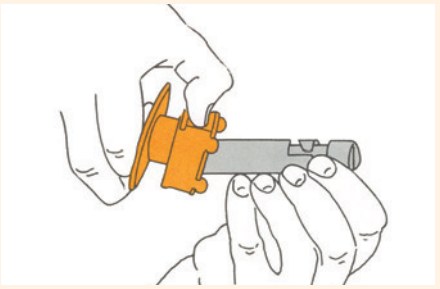


Figure 9. In the new style, depress the slide that is dovetailed into the bolt, which will release the button tube so the plug can be tilted and pulled out.

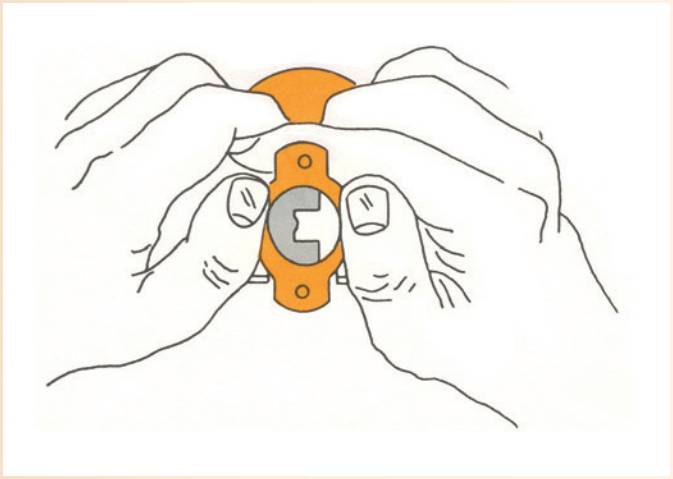


Figure 10. Remove the hub plate by spreading the lugs with thumb pressure.

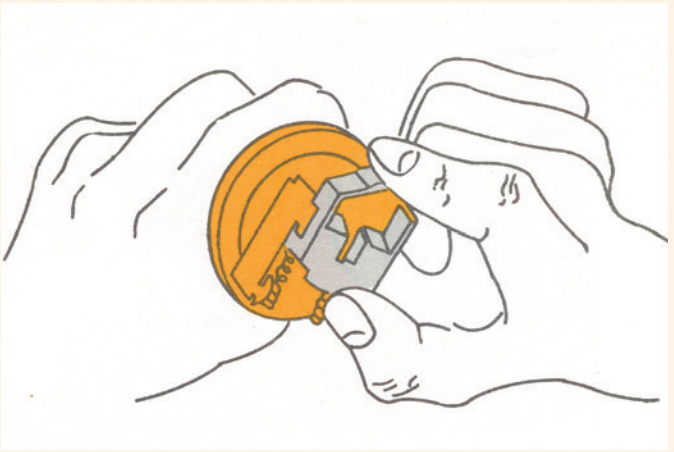


Figure 11. Carefully lift out the slide and compression springs, then turn the knob and pull loose from the remaining assembly so your finger can push out the plug.

tilted and pulled out *(Figure 9)*. Remove the hub plate by spreading the lugs (that were held on with the cotter pins) with thumb pressure *(Figure 10)*. Carefully lift out the slide and compression springs *(Figure 11)*. Turn the knob and pull loose from the remaining assembly so your finger can push out the plug.

Reassembly

1) Depress all extended plug wafers with your thumb so they don't hook into the knob.
2) Test the keys for operational ease.
3) Leave the plug turned so that the overhanging flange of the plug is underneath the overhanging flange of the knob.
4) The remaining reassembly procedure is the reverse of the disassembly instructions.

Rekeying and Keys

The first step to successful rekeying is to determine if the plug is a left-hand or right-hand version. This translates to a Type 1 plug (Number 10 model, where the "1" indicates the keyway orientation and the "0" indicates a stock keyway) or a Type 2 plug (Number 20 model). One wafer at the back of the plug dictates which of the two it will be (10 or 20), and the award goes to: the master wafer (applause). There will usually be a small tip notch cut out either on the bottom right side or bottom left side of the blank, and the key will only fit in the correctly appointed model, depending on the position of the master wafer. There are master blanks (Type 0) that will fit either orientation used in master keying applications.

Within the plug, you'll find each of these three types of wafers: master, series and combination. And with only four compartments *(Figures 12-13)*, it's perhaps one of the smallest pin kits ever!

Figure 14 shows the impressive array of spectacular keys once available. Now, all have been discontinued except for the Type 0, in two keyways. You can still find the others at locksmith swap meets and on the dusty lower left corner of many locksmiths' shelves. The two keyways are referred to as the "A" keyway and the "W" keyway, so called because of the keyway shape *(Figures 15-16)*.

Figure 12

Figure 13

Figures 12-13. With only four compartments, this is perhaps one of the smallest pin kits ever.

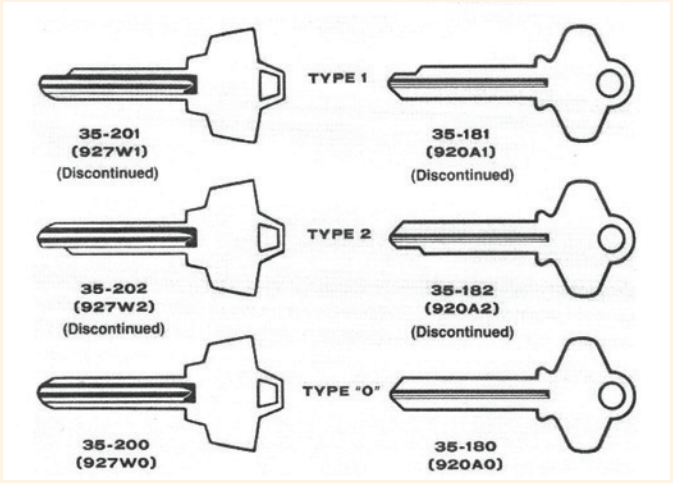


Figure 14. All of these keys have been discontinued except for the Type 0, available in two keyways.

Figure 15

Figure 16

Figures 15-16. These two keyways are referred to as the "A" keyway *(Figure 15)* and the "W" keyway *(Figure 16)* because of their shape

Construction

Now the fun begins! Looking at the plug pictured in *Figure 17*, you'll see some wafers extending outside of the plug and others inside the plug. If extended, this occurs because of the small notch on each type of wafer.

Other than the single master wafer, the remaining three wafers that extend out of the plug are series wafers. A small spring puts constant pressure on the series wafer, forcing it to extend out of the plug. But, when a key blank is inserted, you'll notice that all of the series wafers are then withdrawn into the plug.

Conversely, the remaining wafers that were resting peacefully inside the plug will be forced out for a breath of fresh

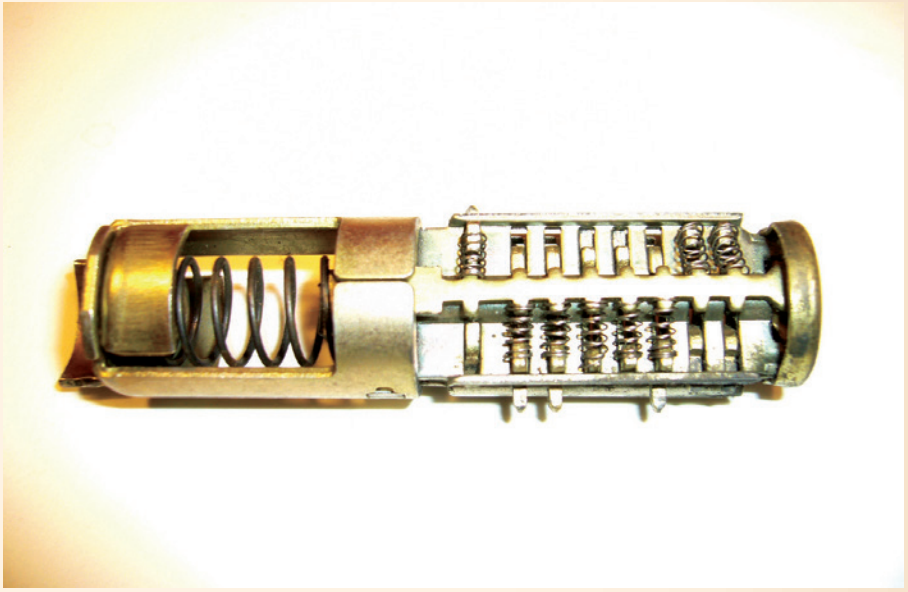


Figure 17. In this photo, some wafers are extending outside of the plug and others inside the plug.

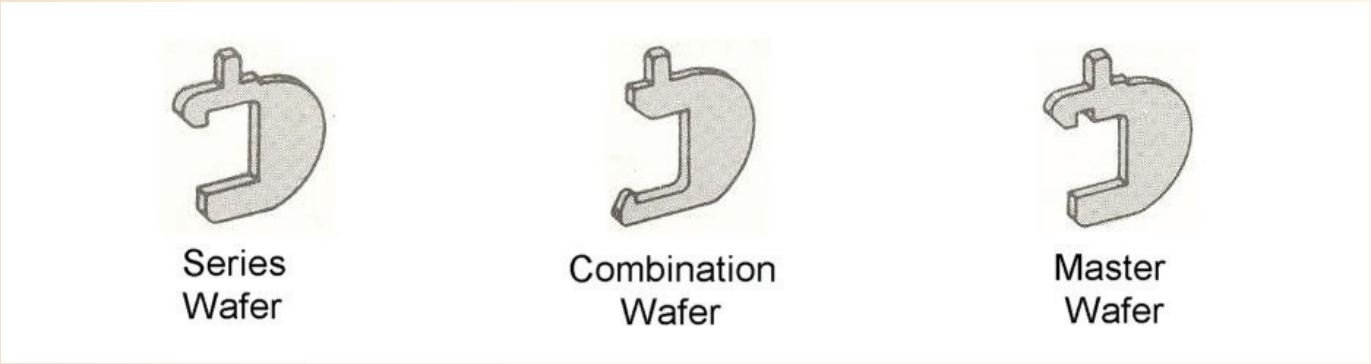


Figure 18. The mixture of these three kinds of wafers prevents a key blank or a wrong key from freely turning the plug.

air when the key blank is inserted. These are known as combination wafers. These are the wafers that will ultimately match the key "combination" and be withdrawn again into the warm and cozy comfort of the plug when the key is removed.

As stated previously, the wafer in the back of the plug is the sentry — allowing only a Type 1 or a Type 2 key all the way inside by virtue of its wafer position, accepting or declining a key based on the key's tip. That is its only function. It is known as the master wafer.

As you can see, it's the mixture of these three kinds of wafers *(Figure 18),* each acting differently to a cut or a non-cut — or even the wrong blank — that prevents a key blank or a wrong key from freely turning the plug. But, how many of each are in a plug? That depends, and we will answer that question. But let's look first at a matrix that clearly shows how the combination wafer and the series wafer react in the three possible scenarios: at rest, with blank inserted and with a cut in that position. *Figure 19* should clear up any confusion of who does what, when and how.

Conventional Schlage wafer locks are based on the basic concept that there are only four combination wafers and three series wafers in each plug, but don't forget the one master wafer in the back. Your task in creating a workable change key is to make sure that the location of the key cuts aligns with the location of the combination wafers so they withdraw into the plug. Easy peasy.

What's even simpler is the fact that the cuts are only one depth! At a 90-degree angle, the .060" cut does the trick: no shallower, no deeper. Even the root cut (cut width at the base) is .060". The inset from the tip to get the tip cut (for either #1 type or #2 type) is .252". The center of the cut closest to the bow shoulder is .270" to the shoulder, and the cuts are spaced (center to center) at .120". The cut center closet to the tip, from the tip is at a distance of .340".

Figure 20 provides the key specifications.

One may ask, "So what is the importance of the series wafer?" Well, it has great value.

Imagine a plug with no series wafers in it (ouch!). Any key with cuts in all 14 positions would operate the plug because the combinations wafers would drop into the plug, regardless of their locations. Now we can begin to see the protective significance of the series wafers. On the other hand, when a blank enters the plug, any uncut areas will allow the series wafers to withdraw into the plug. The same will occur on any portion of a cut key where there are no cuts. So, logically, all it will take is one cut position to stop at a series wafer to block plug rotation. Non-master-keyed Schlage wafer locks usually have three series wafers to ensure no plug rotation when an incorrect key combination is inserted.

Keys By Code

Let's take a look at the 14 locations that the series and combination wafers can inhabit *(Figure 21).* The numbering system was designed to be counted from the back of the plug (tip of the key) moving toward the front of the plug (bow of the key). Notice the odd numbers are on one side and the even on the other. Cuts were numbered 1 through 0 (acting like a 10), then one prime, two prime, three prime and four prime. Punching out the keys was not complicated — just somewhat tedious, as both sides of the key would need cuts.

Incidentally, the master wafer (having absolutely nothing to do with conventional master keying techniques) is located at the back of the plug. Again, it only guards the plug for the correct left or right-handed key to enter the keyway and activate the master wafer.

Numbers stamped on the key are direct digit codes: the actual number of the key combination, or bitting. If the key stamp read 106813, it would indicate a Type 1 blank, and the 0 shows a stock keyway, with the four combination wafers at positions 6, 8, 1 and 3 — the combination code of the plug pictured in *Figure 21.* That's where you would make those four cuts on the key.

Comparison Chart — Combination Wafers and Series Wafers			
Wafer Type	At Rest (in door)	Blank Inserted (no cuts)	Cut Key (all 14 cuts)
Combination Wafer	Withdrawn into Plug (plug can turn)	Extended Outward (plug blocked)	Withdrawn into Plug (plug can turn)
Series Wafer	Extended Outward (plug blocked)	Withdrawn into Plug (plug can turn)	Withdrawn into Plug (plug can turn)

Figure 19. This matrix shows how the combination wafer and the series wafer react in the three possible scenarios: at rest, with blank inserted and with a cut in that position.

SCHLAGE WAFER - Key Specifications	
Reference	Measurement
Cut Depth Increment	.060″
Cut Spacing	.120″
Angle of Cut	90 degrees
Cut Flat [root width]	.060″
Tip to nearest cut center	.252″
Shoulder to nearest cut center	.340″
Shoulder to 1st cut	.340″
Shoulder to 2nd cut	.460″
Shoulder to 3rd cut	.580″
Shoulder to 4th cut	.700″
Shoulder to 5th cut	.820″
Shoulder to 6th cut	.940″
Shoulder to 7th cut	1.080″

Figure 20. This chart provides the key specifications.

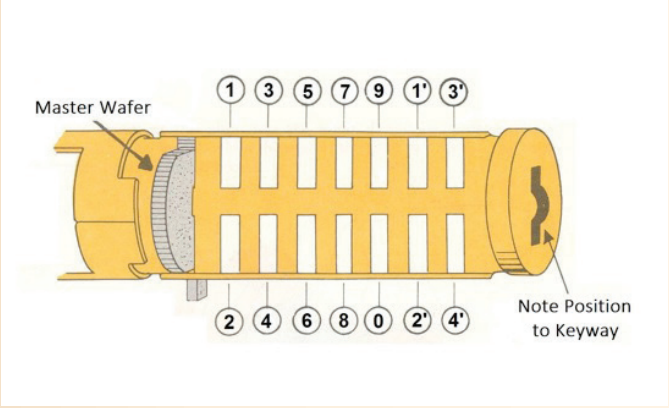


Figure 21. This image shows the 14 locations that the series and combination wafers can inhabit.

Figure 22. The key pattern shown in this image illustrates the numbering on the key, beginning near the tip.

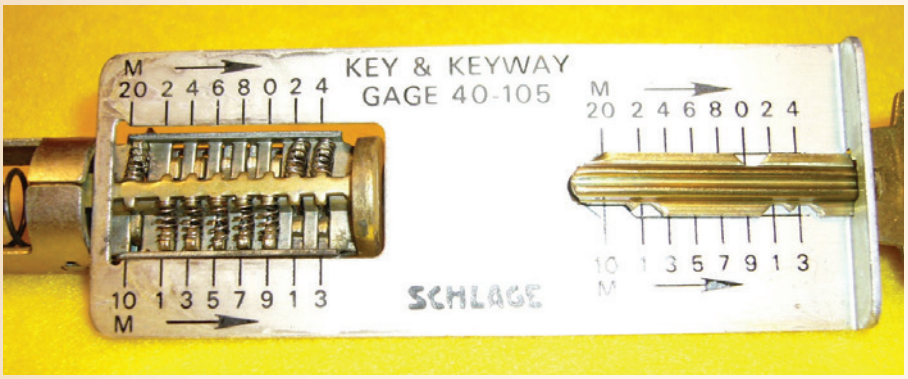


Figure 23. The special key gauge can show both the location of the wafers in the plug, as well as indicate the cuts on the key.

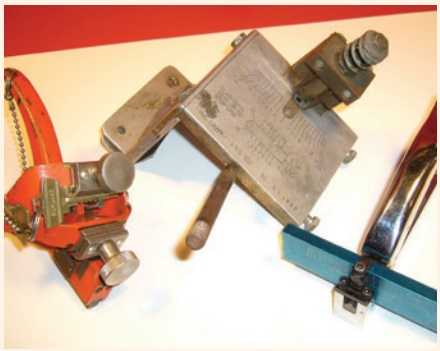


Figure 24. Depicted in this photo are some of the previously available hand-held key punches for the Schlage wafer locks.

The key pattern shown in *Figure 22* illustrates the numbering on the key, beginning near the tip.

Figure 23 shows how the special key gauge can show both the location of the wafers in the plug, as well as indicate the cuts on the key.

Figure 24 shows some of the previously available hand-held key punches for the Schlage wafer locks. The orange punch is the hand-held Schlage duplicator, which uses two pattern keys for the wafer cuts. You can also see a bench-mounted version as well.

Creating Change Key Bittings

Any simple Schlage wafer key system will use one to three series wafers. Three will provide the highest security, though using only one series wafer will allow for the highest number of bittings. The combination wafer is a special little guy, as it can also be used to help create various master keyed systems, as we will see later.

Notice that any "occupied" position excludes its opposing position for active use. That is, if the combination wafer is in the first position pointing down, its upper counterpart is unable to be used and is considered inactive. So, a 3 and a 4 combination wafer cannot possibly be used together, as that would require two wafers in the exact same place. You would have to call on Merlin the Magician for that to happen.

At least one plug position (top and bottom) is reserved for the series wafer, though only one of those directions will be used. This leaves a total six plug positions (12 locations) for active use.

In other words, there are six slots offering 12 possible active positions (remember that at least one slot is reserved for the series wafer). When the first combination wafer is installed, five slots with 10 active positions will remain. When the second combination wafer is installed, eight active positions remain. The third wafer leaves us with six positions, and the last wafer ends the available slots.

The formula for determining the possible number of change keys is:

$$\frac{\text{Number of Active Positions}}{\text{Number of Wafers Used}}$$

$$\frac{12 \times 10 \times 8 \times 6 = 5{,}760}{4 \times 3 \times 2 \times 1 = 24} = 240$$

Because the keyway frames are handed, a total of 480 changes are possible with

one series wafer in the same location.

Because the series wafer can be relocated to form different systems, there is a possibility of 14 different systems that can be created using only one series wafer. It would also be possible to add a second or even a third series wafer, but the number of possible changes would diminish proportionally in master keyed systems, even though the security level would be greater. And, there are no MACS losses.

Master Keying the Schlage Wafer

In *Figure 25,* you can see one series wafer used in this potentially larger master keyed system. Four combination wafers are used and rotated within the nine empty slots. But, a master keyed system can have as many as three or as few as one series wafer, depending on the number of

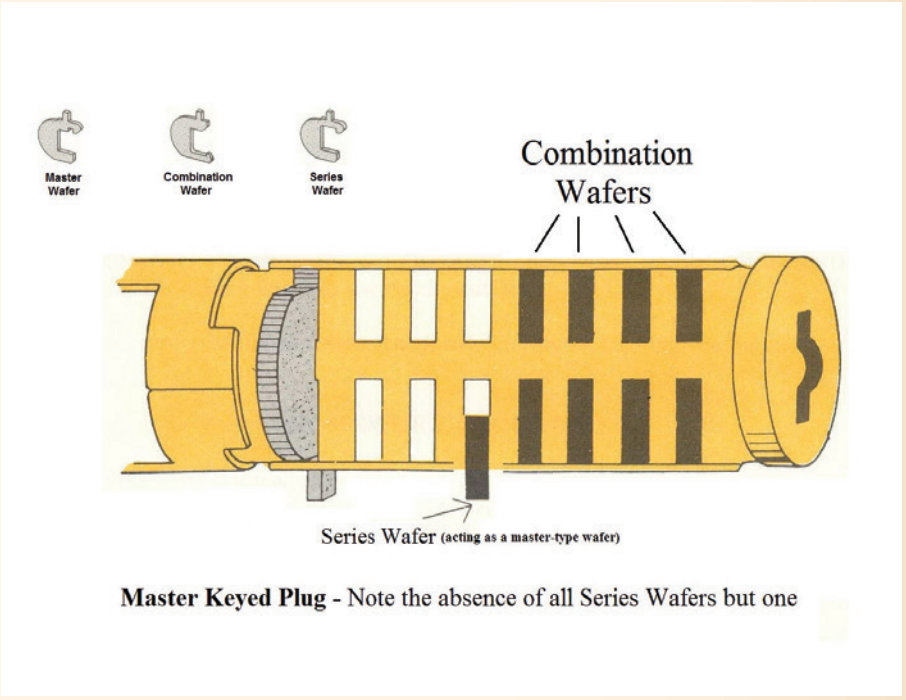


Figure 25. In this image, you can see one series wafer used in this potentially larger master keyed system.

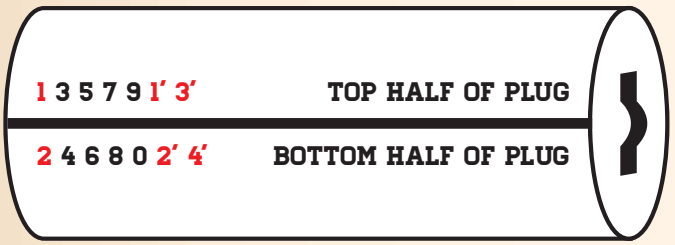


Figure 26. This image depicts the plug, showing which positions will hold series wafers and which will hold combination wafers.

Change Keys with 3 Series Wafers			
3579	4579	3679	4679
3570	4570	3670	4670
3589	4589	3689	4689
3580	4580	3680	4680

Figure 27. Colored boxes are used here to illustrate how the progressions of combination cuts (8 possible positions) will change.

bittings required. Regardless, wherever the series wafers are placed in a master keyed system, they must remain in those positions in every plug.

For this example, we have selected four combination wafers (black-bold font) to progress to make a simple master keyed system. Notice that the three series wafers (in red) do not rotate/progress and stay in the same location in all master keyed plugs. *Figure 26* is a visual of the plug showing which positions will hold series wafers and which will hold combination wafers:

Colored boxes are used to illustrate how the progressions of combination cuts (8 possible positions) will change in an orderly fashion. Sixteen change keys for a small system would be progressed, as shown in *Figure 27*.

To create more bittings for a larger system, we will then have to remove one series wafer (two remaining in the plug), and in its place you can use the two extra slots (now 10 positions) for your combination wafers (still four combo wafers in the plug). Figure 28 is how the plug would look. The master key would be cut as: 1 2 3 4 5 6 7 8 9 0.

Eighty change keys would be created, progressed as shown in *Figure 29*.

The final possibility would be to create a master keyed system by removing two series wafers (one left in the plug), and in its place you can use another two extra slots for your combination wafers (12 positions to rotate the four combo wafers in the plug). The master key would be cut as: 1 2 3 4 5 6 7 8 9 0 1' 2'. Progress as shown previously to generate a total of 240 change keys.

If you were even thinking of removing the last series wafer to create more bittings, stop! If you did and had zero series wafers in the plug, then you would be allowing any blank to be cut in all 14 positions, and it would operate every lock in the system. Additionally, a screwdriver pushing up on the master wafer would easily turn the plug — with no key inserted. On second thought, not a great idea, huh?

Would you still like to double your bittings? You can, by using the blank with the opposite tip, and in effect, create a multiplex system generating a total of 480 key changes. So, perhaps that master wafer can add its own personal pizzazz to the master keying effort.

More Masters... Fewer Changes

If you desired to have two masters under one top master, it can easily be done. Select the position for the series wafer (only one) and select another position for the master key (combination) wafer.

This would leave you with five combination wafers to progress, offering 160 changes in the complete system. In the master key position would be a combination wafer that would be in each plug. Master Key System A would have the combination wafer up (allowing for 80 key changes), and in Master Key System B, it would be inserted down (allowing for 80 more key changes). Each of the two individual masters would reflect that up or down cut orientation on the individual master key. The TMK would have that cut in both positions.

This concept can be expanded to yet another position set aside for two more masters — four total. But keep in mind that the change keys under each master are greatly reduced to only 16, allowing for a total of 64 changes in the entire system.

Why Is This Positional Master Keying?

Positional Master Keying tends to be unknown to many locksmiths. The reason may be because it relies on tumbler positions to provide master keying capabilities, rather than using master pins in

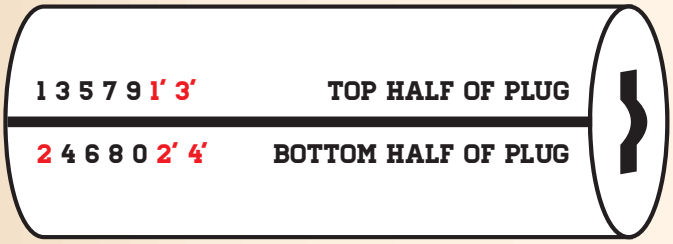


Figure 28. The master key would be cut as: **1 2 3 4 5 6 7 8 9 0.**

Change Keys with 2 Series Wafers							
1357	1389	1479	1689	2379	2469	2679	3689
1358	1380	1470	1680	2370	2460	2670	3680
1359	1457	1489	2357	2389	2479	2689	4579
1350	1458	1480	2358	2380	2470	2680	4570
1367	1459	1579	2359	2457	2489	3579	4589
1368	1450	1570	2350	2458	2480	3570	4580
1369	1467	1589	2367	2459	2579	3589	4679
1360	1468	1580	2368	2450	2570	3580	4670
1379	1469	1679	2369	2467	2589	3679	4689
1370	1460	1670	2360	2468	2580	3670	4680

Figure 29. Eighty change keys would be created, progressed as shown in this chart.

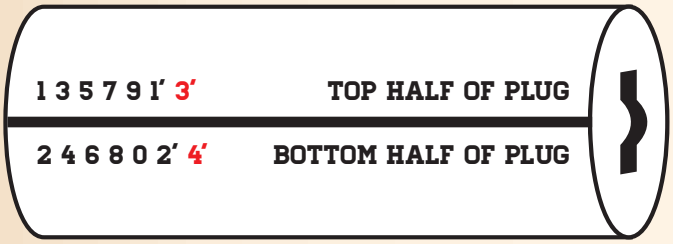


Figure 30. The master key would be cut as: **1 2 3 4 5 6 7 8 9 0 1′ 2′.**

various cylinder chambers, the hallmark of conventional split pin master keying. The secret lies in active versus inactive tumbler positions. It's either a "go" or "no-go" situation, hence why it's called a binary system. We can relate this to a computer: 0 or 1, + or -, true or false, on or off, yes or no (I think you get the idea). There are basically only two options; this is why it is binary in configuration. Schlage wafer locks, MIWA magnetic locks, Sargent Keso and Kaba Gemini are some of the products that use this technique of master keying.

One definition for positional master keying is: "a method of master keying typical of certain binary type disc tumbler key-in-knob locks and of magnetic and dimple key cylinders. Of all possible tumbler positions within a cylinder, only a limited number contain active tumblers. The locations of these active tumblers are rotated among all possible positions to generate key changes. Higher level keys must have more cuts or magnets than lower level keys." Schlage wafer locks use this same concept.

In a Schlage wafer lock, usually four combination wafers (active) are moved throughout the plug with three series wafers (inactive). The plug itself has seven positions, though at least one (maybe two or three) is reserved for the series wafers — again, inactive in function.

Compared to split pin master keying, the Schlage wafer lock's unique approach to cylinder keying is accomplished by relocating wafers to various positions rather than by varying the depths of cuts. Furthermore, master keying this type of lock is accomplished by eliminating wafers instead of adding to them. By systematically moving combination wafers throughout 12 locations with a no-cut series wafer to delimit an all-cut key from operating, the master key "positionally" uses all cuts, minus the series wafer cut position to have authority to operate all locks in the system. It's the systematic rotation of these active and inactive positions that is the guts of positional master keying.

Conclusion

Hopefully, the reader can now see the simplicity of not only Schlage wafer locks, but in the method of positional master keying that is used. True, extremely large systems cannot be generated effectively; the security is obviously less than stellar and installation and disassembly can be somewhat laborious. However, all things have their place under the sun, and you needn't go to South America to have a "blast from the past" with the retro Schlage wafer locks.

Thanks are extended to Billy B. Edwards, CML, and to John Hubel, CML, ICML, M.Ed., for their help in preparing for this article.

William M. Lynk, CML, CPS, ICML, M.Ed. has been a locksmith since 1975 and is the owner of www.ICLSglobal.com. Bill is an IC specialist, an industry author, the subject matter expert on IC for ALOA, and an ALOA ACE instructor, teaching classes on interchangeable cores and master keying across the country. He has originated SFIC Technical Manuals for both national and international lock manufacturers, and maintains a working relationship with the major lock and security manufacturers throughout the world. In 2013 and 2015, he was named *Keynotes* Author of the Year.

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Are you licensed to perform Locksmith/Access Control work in your state? ❑ Yes ❑ No If Yes, License # _____

Business License #_____ EIN # _____

Any other license held by applicant (Contractors Lic., Low Voltage) _____

Any other states you do business in and licenses held in those states _____

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Applicants from countries not listed must submit background check and report from local Law Enforcement with application.

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❑ Annual Dues Amount _____
❑ Application Fee _____
Total Amount Due _____

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I certify that all statements are true and, if accepted as a member, I agree to abide by the rules, regulations, and Bylaws of ALOA, and further agree to adopt the Code of Ethics of ALOA as my own, and adhere to it to the best of my ability. Should my membership be discontinued, I agree to return my membership card and cease use of all ALOA insignia.

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Signature Date Signed

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Figures 1 and 2. Shown is one pair of the doors as the author found them, inside and out. The yellow arrow points to the bracket for the bottom bolt, which is missing the rod and bolt.

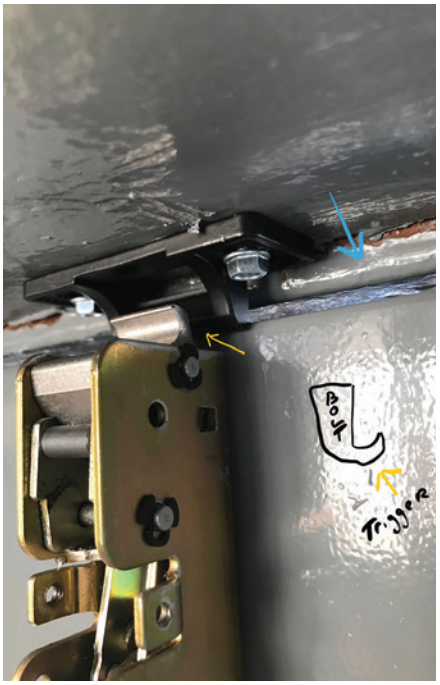

Figure 3. The drawing of the bolt is in the locked position, and the yellow arrows point to the "trigger" on the actual bolt and on the bolt drawing.

The Golden Door

Tony Wiersielis, CPL, CFDI, had to overcome an unusual situation while working on PHI vertical rod panic devices.

This month, I'm taking you on a bit of an adventure to a special place in American history: Ellis Island. I'd be willing to bet that most of you have an ancestor or two whose first step onto American soil was on this island. That is, after they passed the Statue of Liberty, which is nearby.

Before I get to the technical part of the story, I'll give you some background about the area, and later there'll be some pictures from the island at the end.

To get into New York harbor, you pass under the Verrazano Narrows Bridge, which connects Brooklyn to Staten Island. As you head north up the Hudson River, you see Manhattan in front of you and Jersey City on the left.

Close to Jersey City, you see the Statue Of Liberty and a little past that, Ellis Island. If you turned to the right at that point, you'd be about even with the southern tip of Manhattan, the Battery. You'd also see Brooklyn and the East River on the other side of Manhattan, and possibly the Brooklyn Bridge. There is a lot of history here. Later, you'll see what I mean by the Golden Door.

The Problem

The technical part of the article is about some PHI vertical rod panic devices that were installed incorrectly. I was asked to see if I could get them working and found an unusual situation I needed to overcome to do it.

Figures 1 and 2 are pictures of one pair of the doors as I found them, inside and out. In this particular situation, the panic bars were not intended to be installed "top rod only." The yellow arrow points to the bracket for the bottom bolt, which is missing the rod and bolt. In fact, there was no hole in the saddle for the bolt either.

There were two other pairs of doors in the same condition. The contractor, Tom, initially planned to do the complete installation on all three doors but ran into a problem. He struggled on the first door and was able to get the top latch to lock — sometimes — but he couldn't unlock it from inside.

Figure 4. The bracket holding the top latch is placed too close to the top of the door to compensate for the lack of stop.

Figure 5. The contractor installed the angle stock to act as a temporary stop molding, allowing the author to correct the issues with the installation.

Figure 6. The penciled cross marks the centerline and the top of the top latch bracket.

Figure 7. The latch is installed. Compare *Figure 7* with *Figure 4* to see the difference in height. The pink arrow points to an unused extra hole.

Because the other doors had no hardware at all and couldn't be left that way, (they are literally on the Hudson River in a windy environment), he had to do something to keep them closed and latched. It was getting late, so he decided to install the second two exactly like the first, lock them and put up cones. The next morning, he shot up a flare and asked for help.

The inactive doors (RHRB) were predrilled for PHI vertical rod devices, and the active doors (LHRB) were set up for mortise devices. All doors were brand new and faithful copies of the originals. Tom was mystified as to why the hardware wouldn't work on new, predrilled doors. It wasn't the hardware; it was the installation.

Take a look at *Figure 3* to see what was happening. For those of you who haven't worked with PHI before, I drew a little drawing of the bolt on the right side of the photo. That is the bolt in the locked position.

Look at the yellow arrows. They point to the "trigger" on the bolt and the drawing. Notice the actual bolt isn't in the same position as the drawing.

What's supposed to happen when the door closes is this: The strike hits the "trigger" as the door closes, and the bolt flips up into the locked position (like the drawing) and stays there. What happened instead was that the door swung in too far, and the trigger got stuck behind the strike instead of flipping up the bolt and jammed. This is why he couldn't open the door.

Now take a look at the blue arrow. It looks like it's pointing to the stop molding, right? But look again. How could the stop be above the door? On an outswinging door, the stop would be about ⅝" below the top of the door and, in this view, in front of the door. You wouldn't see any light over the top of the door, would you? What's going on?

Figure 8. The top of the rod extends too far into the latch mechanism.

Figure 9. The author is cutting the bar with a Dremel.

Figure 10. The author drilled a new hole in the rod for a steel pin.

It turned out that the original doors had been double-acting and hung on pivots. For the uninitiated, that means the doors could swing in both directions. The only way this could be possible is without a stop molding.

Apparently, whoever looked at the job didn't notice the lack of stop molding, or realize the implications in it not being there. Without it, the door has nothing to stop against and has about zero chance of aligning with the strike consistently.

Look at *Figure 4,* which shows the bolt in the locked position. The bracket holding the top latch is placed too close to the top of the door to compensate for the lack of stop. Now look at *Figure 5*. Notice how the contractor installed the angle stock to act as a temporary stop molding. This allowed me to correct the issues with the installation.

The first step was to remove the top latch assembly and unscrew the top rod to get it out of the way. I used the proper measurements to mark the new location for the latch. In *Figure 6,* the penciled cross marks the centerline and the top of the top latch bracket.

I placed the bracket on the mark and found that I was able to reuse one of the existing holes. I marked, drilled and tapped the second hole and reinstalled. *Figure 7* shows the latch installed. Notice the extra hole to the right of the latch; I don't know why he drilled that. Compare *Figure 7* with *Figure 4* to see the difference in height.

Figure 11. Here, the author is screwing the top rod back onto the head of the bar.

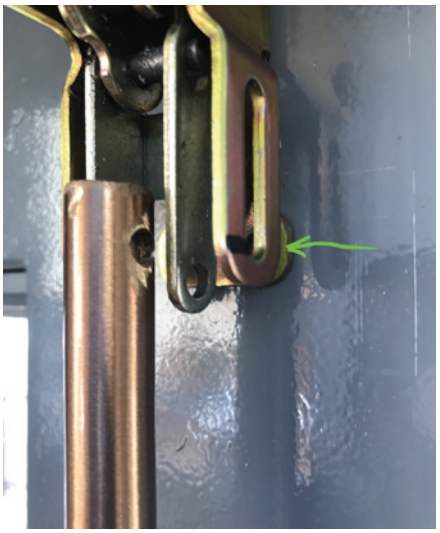

Figure 12. The rod is adjusted so that the hole lines up with the bottom of the U-shaped channel.

Before I go further, I want to share some information about PHI surface vertical rod panic devices. The horizontal centerline on these is set at 39 15/16" from the finished floor. The bottom rod is set for that, so if you apply the bar at that height you don't have to do anything to it other than adjust it.

The top rod you receive with the bar is specific to the height of the door and needs to be ordered that way. You cut the bar to custom fit it, so you can always use a longer rod, but you can't stretch a shorter rod.


Figure 13


Figure 14


Figure 15

Figures 13-15. In *Figure 13,* a machined pin is inserted through the rod, and in *Figure 14,* the author is installing a metal clip that holds it all together. *Figure 15* shows it in place.


Figure 16


Figure 17

Figures 16-17. The author is triggering the latch with his finger to make sure he's adjusted the rod properly.

Because I moved the top latch down, I needed to cut the rod down a bit. In *Figure 8,* the top of the rod extends too far into the latch mechanism. In *Figure 9,* I'm cutting the bar with a Dremel; a hacksaw works as well. Make the cut as square as you can, but you needn't worry that it will visible when installed. *Figure 10* shows that I drilled a new hole in the rod for a steel pin. It's a good idea to drill the hole slightly bigger than the pin so you don't struggle with it later.

Figure 11 shows me screwing the top rod back onto the head of the bar. Notice the visible threads; this gives you about an inch of adjustment on both top and bottom rods.

In *Figure 12,* with the top latch in the locked position, I've adjusted the rod so that the hole lines up with the bottom of the U-shaped channel. The green arrow points to it. In *Figure 13,* I've inserted a machined pin through the rod, and in *Figure 14,* I'm installing a metal clip that holds it all together. *Figure 15* shows it in place.

In *Figures 16 and 17,* I'm triggering the latch with my finger to make sure I've adjusted the rod properly so it locks in the upright position. Notice the position of the rod in both pictures. When you press on the panic bar, the rod moves up to unlock and stays there. When the trigger hits the strike, gravity and the weight of the rod help rotate the latch to the locked position.

Now that I have that taken care of, I need to mount the strike as though it were installed on stop molding. To do this, I needed a pretty thick, solid shim. The top strike comes with two thin shims, and I have quite a few extras, but I don't like to stack too many up that way. There's too much room for movement, and it looks tacky. Incidentally, this strike is the same one used for a rim device with a latch. Always save your leftover shims.

I was about to leave and pick up some steel to make shims and explained this to the contractor. He had some large pieces of angle iron that were close to the right

Figure 18. The contractor had some large pieces of angle iron that were close to the right thickness and cut them to size for the author to use as shims. All he had to do was drill through holes.

Figure 19. This photo shows the almost-finished strike and shim.

Figure 20. This image shows the bottom bolt improperly installed too low on the door.

thickness and graciously offered to cut them to size for me.

This was a huge time saver for me because all I had to do then was drill through holes as you see in *Figure 18*. Notice the two screws next to the shim. I had to use the longer silver screw to make this work. Tom said he'd paint the shims to match the frame after I left.

Figure 19 is the almost finished strike and shim. I added one more thin shim to make sure the trigger didn't slip under the strike, as you see here. Ideally, I would have rather had shim stock a bit thicker than ⅝" and closer to ⅞", but we had to use what was available. I'm going to pick up some stock, cut it, prime it, drill the through holes and stash them in my truck for future use.

Figure 20 shows the bottom bolt improperly installed too low on the door. It should never be installed below the bottom edge of the door. The bolt itself is long enough, and there is enough adjustment with it to take care of a gap in between the bottom of the door and the saddle.

The problem here was that the bar was not installed with the horizontal centerline at 39¹⁵⁄₁₆". It was much lower and forced me to cut the bottom bar the same way I did for the top and move the bolt bracket up and flush with the bottom of the door.

Figure 21. This photo depicts the drilled strike hole.

All that remained was to drill out the strike hole *(Figure 21)* in the saddle and adjust the bottom rod. Both rods are adjusted by removing the black clip and pin you previously saw in *Figure 15* and screwing the rods up or down as needed.

Figure 22. This is a view of the island from the bridge as the author drove over it.

The View From the Island

Ellis Island is between Liberty State Park in Jersey City and Manhattan in Upper New York Bay, right about where the Hudson River empties into it. In 1997, the Supreme Court settled a long-standing dispute about which state the island was actually in. New Jersey won because most of the island is in its territorial waters, but the federal government administers it as a national monument.

Figure 23


Figure 24

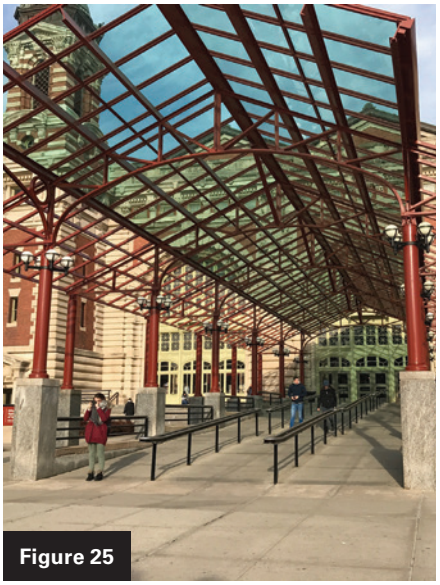
Figure 25

Figures 23-25. These photos are of the main building where the immigrants were processed.

Figure 26. This image shows where the author was working (the ferry building).

Figure 27. This hallway led to the hospital building, and behind it, the contagious disease ward.

Figure 28. You can see the hospital buildings through the glass on one of the doors.

The only way to get to it for the average tourist is by ferry from either Manhattan or Liberty Park. However, the island is so close to the park that a bridge was built between them to allow trucks and machinery to get onto the island. Because I was doing work there, I was able to arrange to drive onto the island. It was not an easy task and it included a dog being able to climb into the back of my van.

Figure 22 is a view of the island from the bridge as I drove over it. To the left is Battery Park at the southern tip of Manhattan, and behind it, you can see part of Brooklyn. *Figures 23-25* are pictures of the main building. These photos appear to have been taken somewhat close to the buildings, but I was about 100 yards away from it. This is where the immigrants were processed.

Figure 26 is a shot of where I was working (the ferry building) taken from the main building. Under the gray tower and large window is an awning, and the doors were directly under it. To the left, you can see ferry slips that are no longer used. However, when large waves of immigrants were arriving, the ferries pulled right up to the doors I worked on to disembark.

You can't really see this in *Figure 26*, but two large hallways led out from the left and right of those doors, *Figure 27*. The hall to the left led to the

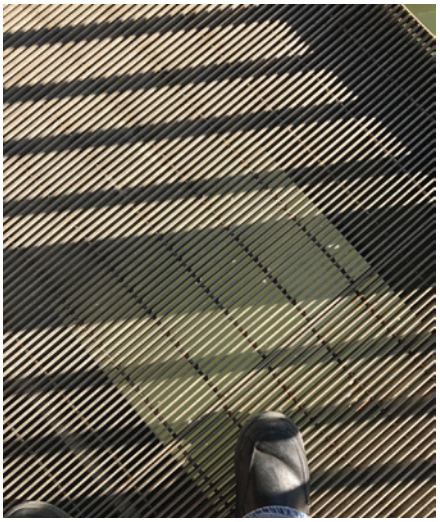

Figure 29. The Hudson River is directly under the steel grate.

Figure 30. This photo provides a view of the Verrazano Bridge over the Narrows, with Brooklyn on the left and Staten Island on the right.

Figure 31. This photo shows Manhattan, with a view of the Freedom Tower, and the green arrow is pointing to the Empire State Building.

Figure 32. Battery Park is on the right, and Brooklyn is on the left.

hospital building and behind them, the contagious disease ward. If you saw *The Godfather Part II*, young Vito Corleone walked down one of these hallways.

I didn't get a shot of the hospital buildings, but you can see them through the glass on one of the doors in *Figure 28,* to the right. Remember when I said the job was close to the Hudson River? In *Figure 29,* I'm standing in front of the doors on a steel grate. That's the river under me.

Figure 30 is a view of the Verrazano Bridge over the Narrows, with Brooklyn on the left and Staten Island on the right. The Statue of Liberty is to the right, a few hundred yards away from the south end of Liberty Park.

The park came into being because Jersey City businessman Morris Pesin took his family on a trip to the see the statue. He had to drive into Manhattan and take a ferry to get there, which took hours. This annoyed him because he knew the statue was extremely close to Jersey City, but you couldn't get to it from there.

One day, he decided to act. He took a friend and paddled a canoe to Liberty Island —from what is now Liberty Park — in 22 minutes. He proved his point about the need for access to the statue from N.J. He worked tirelessly until the park became a reality. One of the streets in the park is named after him.

Figure 33. The green arrow is pointing to the Central Railroad of N.J. Terminal at the north end of Liberty Park. The pink arrow points to where the trains pulled in to pick up newly arrived immigrants.

Figure 34. "The Golden Door" is the terminal immigrants passed through on their way to their new lives. The arrow points to one of the train cars used to transport the immigrants.

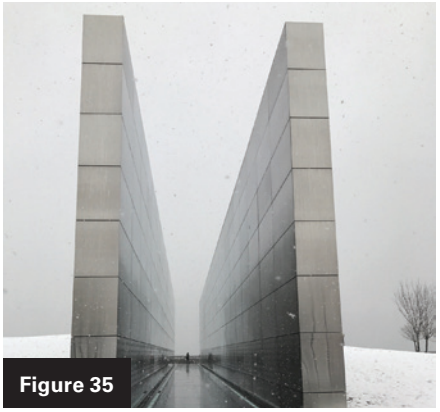

Figure 35

Figure 36

Figures 35-36. The Empty Sky memorial shows the names of NJ residents who died on 9/11, right next to the terminal. *Figure 36* shows the name of one of the author's friends.

Shim Tips

I've found that it pays to keep some steel and aluminum stock in your truck in case you need to manufacture shims or the like at a job site. You can find an assortment of sizes in a rack in the hardware aisle at Home Depot and probably Lowes.

I like to keep 3' lengths of ⅛" steel and aluminum in various widths. One size should be at least as wide as the stop molding on a typical metal frame in your area. Another should be as wide as the panic bar strike you use most often.

Small angles and small square or rectangular tubes are also helpful and are great as strikes on some desk locks.

Make sure you keep a can of flat primer on your truck to prep these before you put them on. Even better, prime them as soon as you get them. That way, when you cut off a piece, you'll only have to prime the ends. Inform the customer that you'll install it primed, but he will need to finish paint it.

For some interesting history, Google "Black Tom Explosion." This happened in WWI when part of the park was a munitions storage area that was sabotaged by the Germans.

Figure 31 is a shot of Manhattan with a view of the Freedom Tower and the green arrow pointing to the Empire State Building. *Figure 32* is a shot of Battery Park on the right and Brooklyn on the left.

I got the title for this article from what you see in *Figure 33.* The green arrow is pointing to the Central Railroad of N.J. Terminal at the north end of Liberty Park. The end of the Morris Canal is on the other side of it, but you can't see it.

This was the point to which westward-bound immigrants were brought to after processing at Ellis Island. The pink arrow is pointing to the roofed area where the trains pulled in to pick them up and take them on their journey to their new homes.

This terminal was referred to as "The Golden Door" you passed through on your way to freedom and a new life in America. *Figure 34* is a closer but snowy shot of the terminal. The arrow points to one of the train cars used to transport the immigrants.

Figure 35 is The Empty Sky memorial to the NJ residents who died on 9/11, right next to the terminal. If the sky were clear you would be able to see the Freedom Tower, which is erected on the World Trade Center site, between the two walls. *Figure 36* is the name of someone I knew.

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Securitech Group Inc
Phone: 718-392-9000
Fax: 718-392-8944
www.securitech.com

Security Door Controls
Phone: 805-494-0622
Fax: 866-611-4748
www.sdcsecurity.com

Select Hinges
Phone: 269-910-1988
selecthinges.com

Stanley Security Solutions Inc
Phone: 317-849-2250
Fax: 317-806-3797
www.stanleysecuritysolutions.com

STRATTEC Security Corp.
Phone: 414-247-3333
Fax: 414-247-3564
http://aftermarket.strattec.com

Trine Access Technology
Phone: 718-829-2332
Fax: 718-829-6405
www.trineonline.com

Ultra Lift Corporation
Phone: 800-346-3057
Fax: 408-297-1199
www.ultralift.com

Vault Structures Inc
Phone: 800-226-3990
Fax: 239-332-5593
www.vaultstructures.com

Westlake Web Works
www.westlakewebworks.com

WFE Technology Corp. - WAFERLOCK

Xhorse USA INC
Phone: 407-608-4288

SERVICE ORGANIZATIONS

WEBLEASE USA
Phone: 952-745-4105
Fax: 952-475-3579
webleaseusa.com

FOR SALE

Central Illinois Locksmith Business For Sale:

Highly profitable and established business for 35 years. Exceptional commercial and residential accounts. Provides service to numerous towns within 30 mile radius. Well-stocked storefront and service vehicle. Large inventory of supplies including safes. Retail storefront is 70 x 40. Great walk-in traffic. Will assist with transition to new owner. Excellent opportunity for ambitious person. Reasonably priced. Local financing available to qualified buyer. 217-892-8384. Selling price 75,000. <6/17>

Southwest Wisconsin Locksmith Business For Sale

Great location in beautiful Green County Monroe is an hour Southwest of Madison with close proximity to Milwaukee and Chicago. Sale includes: shop, inventory, equipment, and service vehicle. 10+years established client base with recurring income.
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(608)214-5236 monroelock@gmail.com <5/17>

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Locksmith Business For Sale

Middlebury, Vermont
MLS # 4613117
List Price: $135,000

- Well established and stable small business with potential for expanded services
- No competition in local area for services provided
- Owner willing to train inexperienced buyer
- Revenues of $115k/yr with Net Income over $70k/yr
- Includes over $65k in tangible assets
- Negotiable lease terms for current space in Marbleworks

Contact: Bryan Phelps
bphelps@stonewellproperties.com
(802)382-0032
PO Box 366 Middlebury, VT 05753
stonewellproperties.com

Information is believed to be accurate but not warranted. This is not a legally binding offer to sell/lease. <7/17>

Classified Advertising Policy

Classified advertising space is provided free of charge to ALOA members and for a fee of $2 per word, with a $40 minimum for nonmembers. Classified ads may be used to advertise used merchandise and overstocked items for sale, "wanted to buy" items, business opportunities, employment opportunities/positions wanted and the like. Members or nonmembers wishing to advertise services or new merchandise for sale may purchase a "Commercial Classified Ad" for a fee of $4 per word with a minimum of $100

Each ad will run for three consecutive issues. For blind boxes, there is a $10 charge for members and nonmembers. All ads must be submitted in a word document format and emailed to adsales@aloa.org by the 15th of the month two months prior to issue date. ALOA reserves the right to refuse any classified advertisement that it deems inappropriate according to the stated purpose of the classified advertising section.

Advertiser	Ad Location	Web Site	Phone Number/Email
ALOA SPAI	page 7	www.aloa.org	(800) 532-2562
ASSA ABLOY/HES	page 15	www.hesinnovations.com	
ASSA-Ruko/Technical Services	page 45	www.assatechnicalservicesinc.com	(724) 969-2595
Big Red	page 45	www.bigredsafelocks.com	(877) 423-8073
Brockhage (Logic America)	page 45	www.lockpicks.com	(800) KEY-BLANK
Bullseye S.D. Locks	page 45	www.bullseyesdlocks.com	(800) 364-4899
Capitol Industries	page 43	www.capitolindustriesinc.com	(800) 567-0451 Ext. 392
Cards and Keyfobs	page 45	www.cardsandkeyfobs.com	(855) 431-KEYS
ClearStar Security Network	page 60	www.clearstar.com	(360) 379-2494
Detex	page 3	www.detex.com/training7	(800) 729-3839
Dormkaba	page 25	www.dormakaba.us	
Hayman Safe Company	pages 41, 45	www.haymansafe.com	(800) 444-5434
HL Flake	inside back cover	www.hlflake.com	(800) 231-4105
Jet Hardware Mfg. Co.	back cover	www.jetkeys.com	(718) 257-9600
John Koons Locksmiths	page 59	www.koonslocksmiths.com	(800) 282-8458
Kustom Key	page 19	www.kustomkey.com	(800) 537-5397
Security Lock Distributors	inside front cover, page 45	www.seclock.com	(800) 847-5625
Turn 10 Wholesale	pages 1, 20-21	www.turnten.com	(800) 848-9790
We Buy And Sell Keyfobs	page 35	www.webuyandsellkeyfobs.com	(402) 964-2441

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