

KEYNOTES

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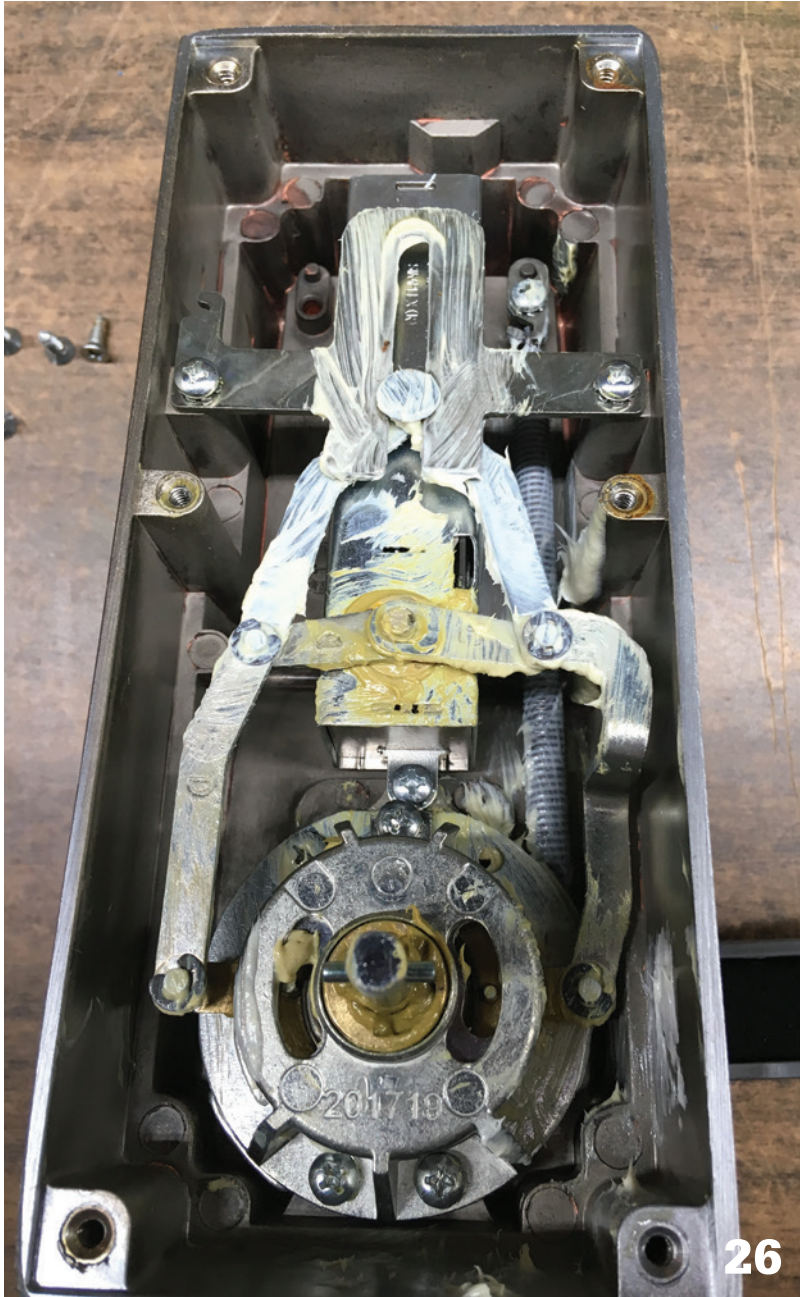
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KEYNOTES

DECEMBER 2018 | VOLUME 64, ISSUE 12

ALOA SPAI STAFF

Executive Director

Mary May
mary@aloea.org

Comptroller

Kathy Romo
kathy@aloea.org

Finance Coordinator

Phyllis Jones
Phyllis@aloea.org

Convention & Meetings Manager

Kathryn Beard
kathryn@aloea.org

Convention Coordinator

Bernadette Smith
bernadette@aloea.org

Education Manager

Jim Hancock, CML, CMST
jim@aloea.org

Assistant Education Manager

Joe Peach, CPL
joe@aloea.org

Membership Manager

Kevin Wesley
kevin@aloea.org

Membership Assistant

Hao Le
hao@aloea.org

Receptionist

Judy Risinger
receptionist@aloea.org

Mailroom Coordinator

Carlos Blanco

Legislative & Legal Counsel

Barry Roberts
barry@aloea.org

Education/Certification Coordinator

Dawne Chandler
dawne@aloea.org

Director of ALOA SPAI Chapters

Robert Mock, RL
(856) 863-0710
chapters@aloea.org

EDITORIAL ADVISORY BOARD

J. Casey Camper, CML, CPS

Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CIFDI, CMIL, CML, CMST, ARL

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EXECUTIVE BOARD

President

James W. Wiedman, CML
(615) 773-6115
president@aloea.org

Secretary

Clyde T. Roberson, CML, CMST
(540) 380-1654

Director, Northeast

William L. Mandlebaum, CML
(419) 352-9119
nedirector@aloea.org

Director, Southeast

William Boughman, CPS, CRL, CFL, CFDI
(239) 262-2000
sedirector@aloea.org

Director, North Central

Guy Spinello, RL
(815) 222-1486
nedirector@aloea.org

Director, South Central

Mark E. Dawson, RL
scdirector@aloea.org

Director, Southwest

Charles Eastwood, CRL
(602) 717-5397
swdirector@aloea.org

Director, International - Asia

Beta Tam, BA (Hons), FCSFS, RL
btam@alumni.cuhk.net

Director, International - Europe

Hans Meijshede, CML
intdirector@aloea.org

Director, Associate Region

Noel Flynn, RL
(800) 532-2562
nflynn@aloea.org

Director, ALOA Latino Division

Humberto Villegas, RL
+52-33-3121 7878
americaembajador@aloea.org

Director, Non-Voting

Robert E. Mock, RL
rmock@aloea.org
(856) 863-0710

Director, Non-Voting

Robert R. Cullum, CPL
(800) 225-1595
bcullum@aloea.org

Trustees

Tom Foxwell, RL, CFDI, CAI
(410) 206-5772
trustees@aloea.org

Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CIFDI, CMIL, CML, CMST, ARL
(724) 969-2595
trustees@aloea.org

Director, AIL Division

John Truempy, CRL, CMIL, IFDI, AIL

Director, IAIL Division

Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CIFDI, CMIL, CML, CMST, ARL
(724) 969-2595
trustees@aloea.org

Director, SAVTA Division

Michael Potter, CPS, CAI
president@savta.org
(330) 323-4198

Additional contact information for the ALOA SPAI Board is available on the ALOA SPAI website at www.aloea.org or by contacting the ALOA office at 3500 Easy Street, Dallas, Texas 75247. Phone: (800) 532-2562 Fax: (214) 819-9736 E-mail: aloea@aloea.org

PAST PRESIDENTS

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Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CIFDI, CMIL, CML, CMST, ARL

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2005-2007

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2001-2003

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1999-2001

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1993-1995

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1991-1993

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1977-1979

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1964-1966

William Meacham*

1962-1964

Robert Rackliffe, CPL*

1960-1962

Edwin Toepfer, RL*

1956-1960

Ernest Johannesen*

*deceased

KEYNOTES STAFF

Publisher

madsen/miles media

Editorial Director

Kimberly Turner

Editor

Wendy Angel
editor@aloea.org

Editorial Assistant

Kylie Ora Lobell

Ad Sales

Adam Weiss
madsen/miles media
(817) 908-7827
adsales@aloea.org

Art Director

Ben Carpenter
benc@madsenmiles media.com

Graphic Designer

Phil Lor

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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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Be a Part of ALOA's Growth in 2019

IF THERE IS ONE PARTICULAR thing that I associate with this time of year, it is "tradition." Traditions are very important, as they can help intensify our memories as well as keep us grounded. They can be passed down from generation to generation and help us better connect with our past as well as our future.

The locksmithing industry is heavily steeped in tradition, and I fear that if we fail to embrace our past and the traditions that accompany it, future generations may not have the same opportunities to enjoy them — and those traditions may wind up being lost forever. It is up to us to ensure that doesn't happen.

ALOA has played a large role in the history and traditions of the locksmith community for many years, as have the GPLA and other associations. I always look forward to attending their annual events. I encourage everyone to not only plan on attending the 2019 annual ALOA convention but also to invite some of the younger generation of smiths and techs to attend and join the association. If you do not usually attend the convention, why not start a brand new tradition for yourself and your company?

This year feels like it just rolled in, and now it is already coming quickly to a close. Where does the time go? It seems to move faster and faster with each passing year! So make sure to set some time aside over the holidays to plan for the upcoming year and set your business goals for 2019. It will be here before we know it and gone just as quickly. Let's plan to make the most of it!

"Growing our membership is of vital importance; the larger our membership, the more benefits we can provide, and the stronger we become."

Accomplishments and Goals

ALOA has made some positive changes in 2018, and I look forward to what we will be able to accomplish in the year ahead. This year, we have finally entirely done away with the unwieldy recertification program that was so burdensome and extremely unpopular with many of our members. In its place, we have begun to implement a rewards program that many members will find beneficial.

For 2019, I would like us to focus on growing our membership. I have already appointed a specialized committee that will focus on membership growth, retention and benefits as well as changing the reporting format and process of our regional directors. While it will create more work for our regional directors, my hope is that it will provide them with the tools needed for them to identify areas that need their attention. I believe it will also create a better avenue to present their plans for growth in their regions to the



rest of the board. Growing our membership is of vital importance; the larger our membership, the more benefits we can provide, and the stronger we become. There is power in numbers, and I cannot find one good reason why every security professional in the country shouldn't be a member of ALOA!

In closing, I would like to take this opportunity to say I hope you had a Happy Thanksgiving, and I'd like to wish all of you and your families Merry Christmas and a Happy New Year! Enjoy the time spent with friends and loved ones, and make sure to partake in your families' holiday traditions — and maybe even start some new ones.

Respectfully,

Jim Wiedman, CML
President
ALOA Security Professionals
Association, Inc.
president@aloea.org

Another Good Year for ALOA

LEADERSHIP IS SO IMPORTANT in a membership association. We have thousands of members with unique voices, interests, business needs, experience levels and viewpoints — and they live and work all across the globe. The job of our ALOA SPAI board is to consider all of these needs and opinions and use them to forge forward to better both the industry and the association. A tall order, but we've been blessed with hardworking and conscientious leaders who truly want to ensure all of our members are heard.

As you'll see in this issue, nominations are now open for the several seats that will be available next year. Now is the time for you to step up and consider running for an open position. Be the future leadership of this association and help us continue moving forward. Nomination forms are due by March 1, so get those signatures rolling in! If you have any questions, please contact ALOA Secretary Clyde Roberson at secretary@aloa.org.

If you can't commit to the time involved with serving on the ALOA Board, please do be involved and give feedback to the board and staff. We need your input to ensure that ALOA is giving our members what they need.

And thank you to the board members who have served throughout the years. Your dedication is so appreciated.

ALOA Accomplishments in 2018

Those very board members I just thanked have been instrumental in helping ALOA move forward with goals on many fronts this year. Between them and the hard

work of the ALOA staff, we've been able to accomplish some wonderful things for members.

One of the most recent changes that has been well received is the elimination of the recertification program, which some members had come to view as a burden. No longer do you need to track points and activities to keep your membership active! Instead, we now are implementing a fantastic rewards loyalty program that gives you incentives to participate in ALOA activities. By attending classes and the convention, taking the PRP, staying at the host hotel and other activities, you can earn free classes, free convention registration, ALOA Bookstore credits and even free airfare to attend conventions. We're proud of this new program, and we hope you take advantage of it. Contact membership@aloa.org for questions.

ALOA has also made changes to its education program both at the Aaron M. Fish Security Training Center in Dallas and at the conventions. We're offering many new classes and updating others, and we've added new events as well. At the Security Expo this year, we created a Tech Pavilion on the show floor where attendees could receive free education in short sessions. This added benefit let members get up-to-date information on new technology from industry experts.

We also recently held the first-ever IAIL Forensic Conference, where attendees received in-depth instruction on forensic work and serving as an expert witness. At the end of the conference, students had the option to sit for CFL exams. The conference was a great success, and there are already plans to expand it for next year as well.



Member Benefits

We continue to promote and develop our ALOA and SAVTA Tech Link apps, which allow members to access technical magazine articles going back several years. To access the ALOA Tech Link app, go to www.ALOATechLink.com, and log in with your email address in your member profile as your username, and your ALOA member number is your password. At the bottom of the home screen are directions on how to add the app to your phone or tablet.

These are just a few of the ways that ALOA has worked to improve programs for our membership. We're always looking for ways to add value to your membership dollars, and we'll continue to do so in 2019. If you have any ideas or questions, we're always here to listen. Contact us anytime at membership@aloa.org.

Thank you for being a part of ALOA in 2018. We hope that you are having a wonderful holiday season. See you in 2019!

Mary A. May

Mary A. May
Executive Director
mary@aloa.org

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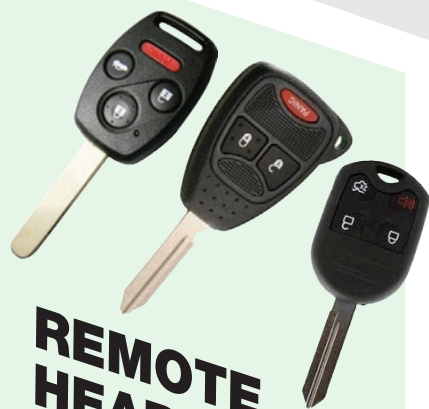
Mario Mendoza
Shark City Locksmith



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ALOA Board Nominations Open

NOMINATIONS ARE NOW OPEN FOR FIVE SEATS ON THE ALOA SPAI Board of Directors. Be more involved in ALOA and run for an open seat! Nomination forms are due by March 1.

Positions up for election this year include President, Southeast Director, North Central Director, Southwest Director and Associate Region Director. Elections will be held June 14, 2019, and information will be included in future issues of *Keynotes*.

For a nomination form and more information, please see pages 9 and 10 in this issue. If you have questions, please contact ALOA Secretary Clyde Roberson at secretary@aloa.org or (540) 380-1654.



PRODUCT BRIEFS

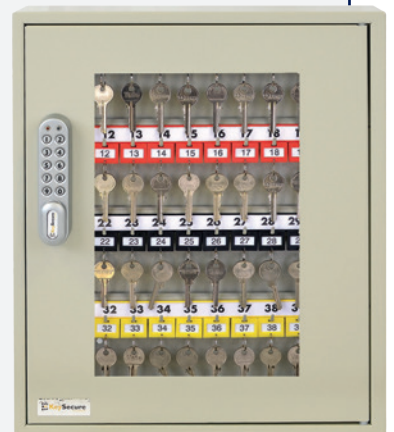
» **Medeco Security Locks**, a division of ASSA ABLOY N.A., has introduced Medeco CLIQ Go to its CLIQ family of programmable keys, cylinders and cloud-based software. The intelligent key system for small to medium-sized businesses lets users manage the system via a mobile app to change an opening's access rights, modify key schedules or disable a key. CLIQ cylinders can retrofit a business's mechanical cylinders without a need for hard wiring, as power for the system comes from the CLIQ key. For more information, visit www.medeco.com/cliqgo.

» **Iico** has released the Swift Plus laser key duplicator, an entry-level mechanical key-cutting machine for the duplication of laser, dimple and tubular keys. It is lightweight and compact for counter use or in mobile units, and it has a replaceable jaw surface on the cutter side. The product has a lockable carriage/table for dimple keys that prevents movement during transport.



» **Jet Keys** has stocked several new key blanks, including transponder keys for Honda, Toyota and Chrysler. They have also added Schlage Everest 35-009-C124, 35-0030C124, 35-009-C125 and 35-003-C125 6-pin keys. For more information, visit www.jetkeys.com.

» **KeySecure by Codelocks** is a new range of key control cabinets that regulate access and manage keys with only authorized users, using a single or unique access code. The steel squared-bodied cabinets, available in several sizes, have mechanical or electronic digital coded locks and can store keys, fobs and padlocks. They come in several configurations, including wall mounted, freestanding, self-closing slam shut and clear fronted. Cabinets have adjustable key hooks, allow the addition of extra hooks and have numbered and color-coded adjustable hook bars. The range includes key control cabinets that feature peg tracking to identify the person who removes a key from the key cabinet.



ALOA Security Professionals Association, Inc.

Board of Directors Nomination Petition



What ALOA Board Positions Are Open and Where Am I Qualified to Run?

- There are currently **four regional director positions** open for election in addition to the position of **President**.
- ALOA members now elect the directors from their own regions.
- Only ALOA members from a region are eligible to run for the open position(s) in that region.
- Members from any region are eligible to vote for or run for the position of **President**. **To run for the position of President, one must serve on the board for one year.**
- You must have been an ALOA member for at least three years to be eligible to run for a director position.
- The following vacancies will exist for the election that will be held on June 14, 2019:

President	one position
Southeast	one director
North Central	one director
Southwest	one director
Associate	one director

On this page, you will find the required nomination petition, and on the following page, the commitment to ALOA board service form.

The following is the number of signatures required for each board position:

President	25
Southeast Director	11
North Central Director	10
Southwest Director	9
Associate Region Director	1

If you have any questions, please contact the ALOA secretary:
Clyde T. Roberson, CML, CMST, (540) 380-1654 or by email:
secretary@aloea.org

I, the undersigned, request that _____ be placed
(name of nominee and member number)

on the ballot for _____ for the election to be held at the
(position for which individual is being nominated)

special meeting of ALOA-SPAI members at the ALOA-SPAI International Headquarters,
3500 Easy Street, Dallas, Texas on June 14, 2019 at 10 a.m., or any adjournment thereof.

I am eligible to vote in the _____ region.
(Associate, International, Northeast, Southeast, North Central, South Central, Northwest, Southwest)

1.	_____	_____	_____
	Printed Name	Member Number	Signature
2.	_____	_____	_____
	Printed Name	Member Number	Signature
3.	_____	_____	_____
	Printed Name	Member Number	Signature
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23.	_____	_____	_____
	Printed Name	Member Number	Signature
24.	_____	_____	_____
	Printed Name	Member Number	Signature
25.	_____	_____	_____
	Printed Name	Member Number	Signature

YOUR COMMITMENT TO ALOA BOARD SERVICE

(Please read carefully and sign where indicated)

The ALOA Board governs with emphasis on organizational vision rather than on interpersonal issues of the Board; encourages diversity in viewpoints; focuses on strategic leadership rather than administrative detail; observes clear distinction between Board and Executive Director roles, makes collective, rather than individual, decisions; exhibits future orientation rather than past; and governs proactively rather than reactively. (If you were not supplied a copy of the **ALOA Board of Directors Governance Policy** with this document, you may obtain one by contacting the ALOA headquarters office, or visit www.aloa.org.) The responsibilities of an ALOA Board Member include contributing a moderate amount of personal time, and a significant degree of professional guidance and expertise to the organization.

You will be expected to come to all Board Meetings and the Annual Membership Meeting. You will need to be prepared to sensibly discuss matters of great importance to your profession and participate in setting policy as part of a governing body. Your course of action during your tenure on the ALOA Board should be guided by fair-minded, constructive goals pertaining to matter of consequence for ALOA and for the industry. Your contributions are expected to benefit ALOA as a whole, taking individual member rights and concerns into account, but free of the taint of partisan politics of personal gain.

On a practical note, ALOA Board Members are expected to behave and dress professionally at all times, especially when actively representing the association. ALOA Board Members are required to participate in three Board meetings per year, of two or three days in length, one each fall, spring, and one during convention, in addition to the Annual membership meeting, which is also held during convention. Incoming Board Members are also **required** to attend **Governance training** classes and events during convention. Board Members may also be asked, on a voluntary basis, to represent ALOA at related local, state, or regional functions, including serving in the ALOA booth, and otherwise promoting ALOA. When travel is required for a Board Member, expenses covered by ALOA include lodging, travel, and a reasonable per diem. The Board has stipulated that assigned travel will be reimbursed at the lesser of the 30-day advance tourist class airfare in effect at the time of travel, or the current per-mile rate for travel by personal automobile, whichever is less. Spousal expenses, including extra room charges, etc. are the individual's responsibility.

I have read and agree to adhere to the **ALOA Board of Directors Governance Policies**. Furthermore, I understand the above responsibilities of an ALOA Board Member, and agree to commit my time and energies as needed. I certify all of the information contained on this form and supporting documentation to be true and complete.

Candidate Name: _____

Address: _____

Member #: _____ Phone: _____

Signature: _____ Date: _____

Membership Status:

Active _____ Life _____ Associate _____

Employer Name: _____

Address: _____

Please attach a recent photograph of yourself along with a 150-word-or-less biography, and retain a copy of this form for your own files. This form and all supporting documents must be received no later than March 1, 2019. Mail, or e-mail to:

Clyde T. Roberson, CML, CMST
Secretary, ALOA Board of Directors
P.O. Box 3075
Salem, VA 24153
Email: secretary@aloe.org
Phone: (540) 380-1654

ASSOCIATION/CHAPTER NEWS

Medeco Celebrates 50th Anniversary

MEDECO CELEBRATED ITS 50TH ANNIVERSARY OCTOBER 20 IN ROANOKE, VA. Kathy Romo, ALOA Comptroller, attended and presented a plaque to Medeco on behalf of ALOA SPAI. ALOA Secretary Clyde Roberson, who serves as director of technical services at Medeco Security Locks, accepted the plaque.

ALOA was also a part of Medeco's anniversary celebration at the 2018 ALOA Convention & Security Expo, where they served anniversary cake to attendees from their booth on the show floor.



ALOA Comptroller Kathy Romo presented a plaque of recognition to ALOA Secretary Clyde Roberson, Medeco's director of technical services. Medeco also celebrated its anniversary earlier this year at the Security Expo in National Harbor.

ALOA Reach at Local Conventions

ALOA HAS BEEN REPRESENTED AT MANY LOCAL CONVENTIONS and tradeshow the past few months, thanks to board member Bill Mandlebaum. Through his staffing an ALOA booth at events such as the Yankee Security Convention in Sturbridge, MA, and the IDN-Hoffman Chicago Security Convention, ALOA has been able to reach and sign up several new members.



ALOA Northeast Director Bill Mandlebaum has expanded ALOA's reach at local conventions the past few months.

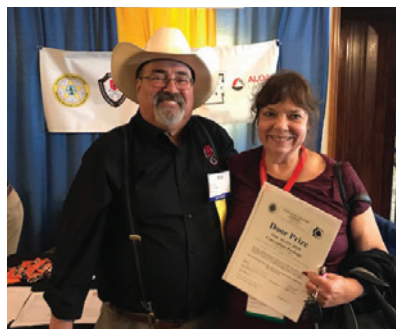
NEWS BRIEFS

» **IDN-Wilco** has moved and expanded their Oakland, CA branch to 1973 Davis Street, San Leandro, California 94577.



» **Jerry Burhans** has been appointed as the Managing Director for Abloy USA, effective January 1, 2019. Burhans will oversee Abloy USA and its business development. He will continue to have an office out of Chicago, IL, and will commute to the Irving, TX, office of Abloy USA. Burhans has more than 20 years of experience from management positions in sales and marketing in various AAC/CCTV companies. He currently serves as the VP of sales and marketing manager for ASSA Inc.

ALOA at GPLA



As always, ALOA had a big presence at the recent GPLA Convention. In this photo, Past President Bob Mock is presenting the ALOA booth prize drawing of a full 2019 ALOA Convention registration package to winner Deb Polla. Congratulations to her!

IN MEMORIAM

» **Robert "Bob" D. Breckenridge, CRL**, of A To Z Lock & Key in Great Falls, MT, has passed away. He had been a member of ALOA and SAVTA.

ALABAMA

Coker

- **Daniel R. Terry**
University of Alabama

ARIZONA

Chandler

- **Eran Sharabi**
Diamondback Lock and Key
Sponsor: David M. Lowell, CML, CMST, CAE

CALIFORNIA

Santee

- **Jeromie W. Jackson**

ILLINOIS

Chicago

- **Michael Schmerler**
All Key Services, LLC
Sponsor: Andrei Luchak, CRL

Ingleside

- **Matthew A. Kontos**

Wheeling

- **Vadim Pozdnyakov**
Sponsor: Semion Shlaira

INDIANA

Evansville

- **Anthony M. Underwood**
Conner Commercial Lock & Safe

KANSAS

Overland Park

- **Steve Adams**
Lock And Key Expert

LOUISIANA

Leesville

- **Shannon E. Reynolds-Fudge**
Classic Locksmith LLC

Ruston

- **Patricia A. Baker**
A-T.P Lock and Key
Sponsor: Tommy J. Warren, CML, CPS
- **Thomas D. Caldwell Jr.**
A-T.P Lock and Key
Sponsor: Tommy J. Warren, CML, CPS
- **Sheila Caldwell, CLL**
A-T.P Lock and Key
Sponsor: Tommy J. Warren, CML, CPS

MICHIGAN

Alpena

- **Andrew F. Agius Sr., AFL**
Frank's Key & Lock Shop, Inc.
(FRAMON)
Sponsor: Milton J. Clark, RL

Monroe

- **Charles F. Shy**
Monroe Lock & Safe Co.
Sponsor: Michael K. Moore, CRL

NEW JERSEY

West Orange

- **Ely Peleg, ARL**
LocksmithPM

NEVADA

Mesquite

- **Robin R. Love**
Mesquite Lock Doc

NEW YORK

Apalachin

- **Marc A. Baker**
Binghamton University
Binghamton

- **Joe R. Freer**
Binghamton University

- **MaryAnn Fletcher**
Binghamton University

Endicott

- **Steve Burns**
Binghamton University

Endwell

- **Nicholas C. Cochran**
Binghamton University

- **Jeff Martin**
Binghamton University

Norwich

- **Greg J. Knetchel**
Binghamton University

Orwego

- **Jewel Maliner**
Binghamton University

Port Crane

- **Ray B. Hallett**
Binghamton University

Richford

- **Robert F. Rounsville**
Binghamton University

Syracuse

- **Nicholas Devino**
Infinity Lock & Key

Vestal

- **Jedd W. Gardner**
Binghamton University

- **Erica Sigler**
Binghamton University

- **Mark Allen**
Binghamton University

Windsor

- **Peter J. Harris**
Binghamton University

- **Robert H. Mulcahy**
Binghamton University

PENNSYLVANIA

Finleyville

- **Vince M. Bushmire, AFL**
Assa Technical Services, Inc.
Hunlock Creek

- **Peter W. Grella**

SOUTH CAROLINA

Beaufort

- **Jerry L. Cartmill**
Secure Lock & Key Service
Sponsor: Kevin R. Wilson, CML, CPS

TENNESSEE

Franklin

- **Keven S. Broome, CPS, CRL**
The Flying Locksmiths - Nashville
Sponsor: Richard E. Harper

TEXAS

Houston

- **Mario A. Flores, CLL**
- **Igon Groysman**
Sky Lock and Doors Service

Irving

- **Kevin Anderson, AFL**

Lubbock

- **Nathan C. Rea**
Lubbock Lock & Key Inc.

VIRGINIA

Springfield

- **Mark A. Fetterolf, CRL**
Sponsor: Andrew S. Dennison, CML, CMST

WEST VIRGINIA

Morgantown

- **Christian K. Tucker**
Mylan Pharmaceuticals Inc.

WYOMING

Casper

- **Dale Leitner, RL**
Alpine Locksmith
Sponsor: Keith A. Wittmer, RL

Laramie

- **Mitchell J. May**
Wyoming State Safe & Lock Company

JAPAN

Fukuoka

- **Tatsuya Mori**
Key Craft, LTD

Tokyo

- **Manabu Sato**
Sougou Service Co.

ALOA CERTIFICATIONS

CLL

- **William Hunter Adcock, CLL**
Rayville, LA

We Need Your Help

Attention, ALOA Members: Help us eliminate the industry scammer problem by screening these applicants, who are scheduled for clearance as ALOA members, to ensure they meet the standards of ALOA's Code of Ethics. Protests, if any, must be made within 30 days of this Keynotes issue date, addressed to the ALOA membership department, signed and submitted via e-mail to membership@aloea.org or via fax to 214-819-9736. For questions, contact Kevin Wesley, membership manager, at Kevin@aloea.org or (214) 819-9733, ext. 219.

CALENDAR

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

DECEMBER**December 1-2**

Electronic Lock Servicing & Defeat
ALOA Training Center, Dallas, TX
education@aloea.org or
(800) 532-2562, ext. 101

December 3-8

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

December 7-9

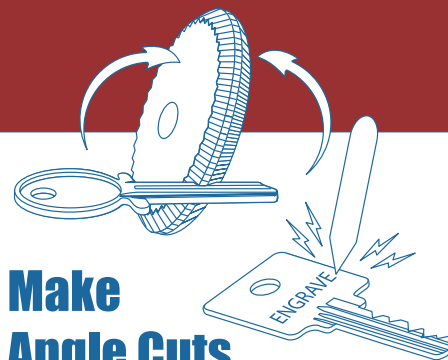
Certified ALOA Instructor (CAI) Training
ALOA Training Center, Dallas, TX
education@aloea.org or
(800) 532-2562, ext. 101

December 8-9

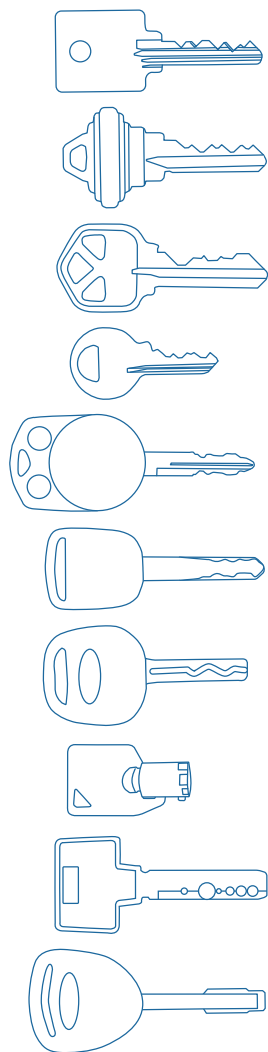
CCTV Two-Day Class
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The Path to Greener Pastures **SAFETECH** *Lexington* **2019**

Coming Soon: **SAFETECH** **2019**

Get details on SAFETECH —
and keep ALOA 2019 on your radar!

ONLY FOUR MONTHS ARE LEFT UNTIL SAFETECH 2019. IF YOU haven't already, mark April 1-6 on your calendar and make plans to attend! You don't want to miss out on all that SAFETECH has to offer this year.

Join us in Lexington for the 32nd Annual SAFETECH Convention

and find your path to “greener pastures” in your career. For 2019, we'll be at the Griffin Gate Marriott Resort & Spa on the north side of the city. Come see a different side of Lexington — with its rolling hills and access to horse country and the Kentucky Bourbon Trail — while still being close enough to enjoy the sights of downtown.

In addition to perennial favorites such as Basic Manipulation and Electronic Safe Lock Service, there are several new classes to choose from this year. Try out the new Safe Deposit Basics or Safe Deposit Defeat classes to add a service area to your business. Up your sales game with the Professional Safe Sales class, or learn about some of the common key locks on safes and vaults worldwide in the Intro to Euro Key-Operated Safe Locks and Picking class.



Join us for SAFETECH 2019 in Lexington, KY, for a week of the industry's best classes and events.

And, of course, while education plays a starring role, SAFETECH isn't just about the expertly taught classes. The networking and camaraderie you'll experience while you're learning and attending all of the fun events is unparalleled. Join us for favorite events such as the Kick-Off Party and the Swap Meet, or bid on items at the Friends of SAVTA Live Auction while helping raise money for the Association. Attendees from outside the United States are invited to the International Reception, and everyone is welcome to try their hand at the annual Manipulation Contest to see if you can win a spot on this year's podium.

More information will be available in the full SAFETECH brochure, which will be included in next month's issues of *Keynotes* and *Safe & Vault Technology*. For more information,

visit SAVTA.org and click on the Convention tab, or email conventions@aloea.org.

Save the Date for ALOA 2019!

While you're making your travel plans for SAFETECH, don't forget to also pencil in the 2019 ALOA Convention & Security Expo August 11-17 in Las Vegas. Join us at the South Point Hotel and Casino on the South strip for a week of the industry's best education and access to the latest products all under one roof. It's your key to professional winning!

Make your hotel reservations now by calling (702) 797-8050 and referencing the group name "ALO." More information coming your way soon! ☺



Invest in Your Future With IAIL

Consider a life membership and start planning for next year's forensic conference.

I WANT TO WISH EVERYONE A MERRY CHRISTMAS, HAPPY HANUKKAH, HAPPY Boxer Day, Happy Kwanzaa and Happy Holidays in case I missed anyone! Another year gone before you realize what is going on.

I am still excited from our 2018 Forensic Conference at our training center in Dallas. This year, 27 CFL candidates sat for the exam after the end of the conference. If they all pass, that will bring our total of CFLs to 45 out of 328 members. We had two SAVTA members take the new CFL safe and vault exam and five door hardware students take the CFL architectural hardware exam. Fourteen took the general forensics exam, and seven took the CFL automotive exam.

Plan on attending SAFETECH this April, and take the safe and vault mandatory class to qualify to sit for the CFL exam in safes and vaults. I'm sure a lot of lock and safe technicians are already expert witnesses, but how about adding a credential to your CV so that attorneys know that you are certified and tested?

Forensic Investigations on the Rise

This has been a very busy year for forensic investigations. As auto investigations start to decline, we are seeing an increase in other cases being offered. Consider additional training to broaden your portfolio and make your company look more attractive to your clients. Door cases have doubled for my company in one year, and I can only attribute this to improperly installed doors, frames and hardware. With the increased requirement for annual fire and smoke door inspections, it is bringing to light the problems we are facing. In the past, I have had a variety of cases that encompassed all forms of locks, but in the past three years, my workload is 95% doors, frames and hardware.

Any time the case involves children and amputations, there are large sums of money involved, so paying a high-dollar investigator is the standard. To investigate doors, frames and hardware, you must be proficient in building and fire codes as well. Because the building and fire codes change every three years, continual education is a must to stay current.

Plan Ahead for 2019

When you are paying your annual dues for IAIL, consider paying for a life membership. Five hundred dollars is a great bargain, and that will be another commitment that will go away. Staying current with your dues is very important so you can use our resources for referral services and documents.

It's not too early to mark your calendars for the IAIL Forensic Conference October 17-20, 2019, at the Aaron M. Fish Security Training Center in Dallas. We will have four forensic classes per day for three full days to fulfill your requirements and then sit for the CFL exam! It was suggested that we hold another forensics conference in the spring in New England. Stay tuned for more information on this event.

If you have any questions, please send me an email at IAILPresident@aloea.org. From my family to yours, Buon Natale, amici! ☺



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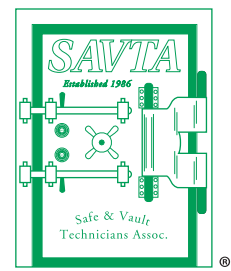


Figure 1. The customer's AMSEC TL30, which had a stuck handle, was tucked away in a corner of the back office.

Sometimes You Just Have to Tighten Your Belt

A tie-down ratchet strap helps open an AMSEC TL30 with a stuck handle.

By Bob DeWeese, CML, CPS, CJS, CAI

THIS MAY BE THE SHORTEST safe-opening article ever — but it was such a cool little opening that I just wanted to share it with y'all.

The call was to go to a jewelry store at a mall. The e-lock seemed to be accepting the combination, and the batteries had been replaced, but the handle still wouldn't turn.

Upon further questioning, my customer informed me that the handle had no play in it, and neither did the door. We figured it was either a boltwork problem or (more likely) something caught in the door.

On the Job

When I got to the site, I found the gate rolled down with a sign on it explaining that the store was closed but would open "as soon as possible." And there was nothing in the showcases.

I knocked on the gate and a lady sitting at a desk in the back jumped up and just about leaped across the store to let me in. She led me to a small AMSEC TL30 tucked away in a corner of the back office (see Figure 1). Confused, I asked her, "Is all of your merchandise in *there*?"

"No," she said, pointing at a much larger safe, "but the key to *that* is."

Sure enough, there was no play in either the handle or the door. I asked if the person who closed the safe the night before had a problem getting it closed. She said, "Yeah. He said he had a really hard time getting it locked up last night." (I gave her my speech about, "If the safe's really hard to close or lock, do not ever try to force it.")

Since there was no play in the door

“I ratcheted that puppy down tight, entered the combination, and the handle turned smooth as silk.”

itself, my first assumption was that whoever closed it had jammed something — papers? Bank bag? \$10,000 bracelet? — in the door at the bottom.

I asked for a piece of printer paper and started inserting it around the door. First I tried along the bottom, then up the sides, then (just for the heck of it) along the top. Nothing but bolts stopped the paper.

I tried a few gentle taps on the handle with a dead-blow hammer while pushing in on the door. Seeing no movement in the handle after just a few taps, I abandoned that approach.

I could feel and see the door move ever so slightly when I sat back and pushed on it with both feet — but it still wasn't enough to get the handle to move. Not even a little bit.

The Old 4x4 Trick

As I sat on the floor, staring at this thing and wondering what I would try next, I remembered a little trick I'd used once before, several years ago, in a similar situation.

I went out to my truck and grabbed an old tie-down ratchet strap and a 4x4. I wrapped it around the safe at the bottom of the door, figuring that if something had fallen down and was jamming it, that's where gravity most likely would've left it.

I ratcheted that puppy down as tight as I could get it, entered the combina-

tion, and the handle turned smooth as silk (Figure 2).

After removing the strap and the 4x4, I pulled the door open and began looking for the culprit.

I found no paper, no bag and no \$10,000 bracelet. I did notice a few cash drawers on the top shelf and asked the lady if they always kept those there. She said they did (Figure 3).

I tried closing the door, and sure enough, the door wouldn't close.

After asking her permission, and having her stand right there while I did it, I removed the cash drawers, and the safe closed and operated perfectly. Then I asked if the keys had always been hanging there like that. Again, she swore that nothing was any different than previous times.

I put the drawers back and began removing sets of keys one at a time from the top row, and trying the door. The more key sets I removed, the closer the door came to fully closing with no resistance.

After removing almost all of the keys, the door finally closed.

Again, she swore up and down that that was the way they always put things in there. But as I showed her, that was the problem. Go figure.

She said, “Well, I guess I'll just have to just find another place for those keys.”

I suggested that instead, she just move the cash drawers to the bottom. She gave me one of those “Don't I feel dumb” looks.

Problem solved. ☺



Bob DeWeese, CML, CPS, CJS, CAI, has been in the locksmith industry since 1980. He began specializing in safe opening and servicing in the late '90s.

“Bobby” lives in Baltimore, MD, where he and his wife, Theresa, own and operate Bear Lock & Safe Service, which they started in 1988.



Figure 2. Using an old tie-down strap and a 4x4, the author ratcheted the unit down tightly and entered the combination, allowing the handle to turn.



Figure 3. The unit's top shelf held a few cash drawers, which were keeping the door from closing properly.

Take the Social Media Challenge

Katelyn Radtke explains some social media basics and provides a blueprint for 30 days of posts.

SOCIAL MEDIA IS A VERY COST-EFFECTIVE AND IMPACTFUL WAY TO communicate with your customer base outside of an actual transaction. Once people are connected with your business via Twitter, Instagram or Facebook, they want to see quality content. To not post is a disservice, because every follower is a potential new client or recurring customer. Your company's posts can be influential in whether followers choose to use your company or a competitor.

We often talk about social media as a means of advertising and promotion, but it is also a valuable tool to simply interact with people who like your company. Most aspects of social media are free to use, so it is worth exploring and considering as a means of customer contact. While it is a passive and low-risk communication avenue, sometimes that's ideal for businesses lacking time and advertising dollars.

There are several mediums you can use to send out updates and connect with your

customer base. Some companies still rely on a mailed monthly newsletter, some companies may use a credit card platform such as Square that allows you to retain customer emails and others may use higher-end software to manage their customer contacts.

Your Customers Might Like You

Don't blush. Chances are, your business has repeat customers, and it's probably because they like you! Whether you are constantly helping a property management client with new tenant issues or assisting a local realtor with various move-ins, there is a reason why these customers come back to your company for their locksmith services.

Social media allows customers to keep in touch between appointments. It also lets you passively share information about services that they may not be aware you offer. You can use your social accounts to share more about yourself and the history of your company. Not every social media post should be promoting something — followers often don't like to be sold to, and the top thing you want to accomplish with your posts is engagement. Ideally, your posts will cause a "like" or attract a comment. On most platforms, this type of activity helps your post show up more often for viewers, as it is considered desirable.

Quality Doesn't Have to Be Time Consuming

Most locksmith companies are on the smaller side, with many falling between the official categories of a small or "micro" business. Customer communication often falls to the bottom of the pile of small business owners' responsibilities, as they're exceedingly busy. Especially when the director of marketing also happens to be the lead field technician who



Figure 1. People don't often like to be "sold to" on social media, so consider posts such as this one, which shows staff appreciation.

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spends his or her downtime restocking the warehouse and completing quotes.

Try coming up with several posts in one sitting and saving them for future use. Also consider signing up for a free platform such as Hootsuite, which allows you to program future posts on various social media platforms from one screen.

Social media is not like other means of communicating with customers. It welcomes more casual engagement, but that does not mean unprofessional. Keep an eye on your grammar and spelling, and keep topics appropriate for the workplace. In general, avoid politics and religion, similar to the old rule of thumb at family holiday dinners. Good, clean fun is welcomed.

Quality social media posts do not have to be revolutionary and produced with expensive equipment. Your standard smartphone and a couple easy-to-operate photo-editing apps will set you up for success.

Helpful Apps

The Usual Suspects

Facebook: Post links, photos, videos and text. Facebook business pages collect followers and those who have “liked” the page, as opposed to personal accounts that can send and accept “friend requests.” On Facebook, users can like posts and comment on them, easily sharing posts and tagging friends in comments.

Instagram: Post photos, videos and Boomerangs (short looped video clips; see below) with captions and hashtags. Instagram allows likes and comments on fellow users’ posts, and within comments and captions on images, users can tag other users.

Twitter: Tweet links, images and text in 140 characters or less, including hashtags. Instead of comments and likes, Twitter offers “replies” and “favorites.”



Figure 2. If you want to use a post to sell products or services, try a sports tie-in that can attract fans.

The Extra Helpers

Hootsuite: This app allows you to easily schedule future posts on several social media platforms from one site. There are a number of other features that provide assistance to the multitasking business owner.

Boomerang: This fun app pairs with other apps to allow users to upload something a bit more fun than a standard picture or video. This app lets you create videos from photo bursts, and then plays the video backwards and forwards in a loop. You can then post them to Instagram or Facebook, or even share via text.

Locksmiths can use the Boomerang app to capture an exciting moment while moving a safe or drilling out a door. You will want to play around with it to find an interesting way to use its features.

Photo Editing Apps: There are several photo editing apps available for Android and iPhone that allow you to add text, backgrounds and so much more. These apps can help spice up posts that might

fall flat without some extra information or details.

Note: **Instagram** allows users to apply filters and post collages from directly within the app. These extra helpers are not required to generate quality content on your social media, but you may find them helpful now or in the future.

The Locksmith’s 30-Day Social Media Challenge

Day 1 - Introduce yourself.

Consider a short video or post a selfie at work. Share your name and role at your company.

Day 2 - Share a picture of a lock.

Use a filter on the image, and be creative.

Day 3 - Post a “Did You Know?” question and answer about your business.

Day 4 - Post a hilarious lock or key meme. Google this one, and you will find several results. Share your favorite with your followers!

Day 5 - Show off some of your best work. Without breaching confidentiality and with permission, share a pic of your work! Consider something unique



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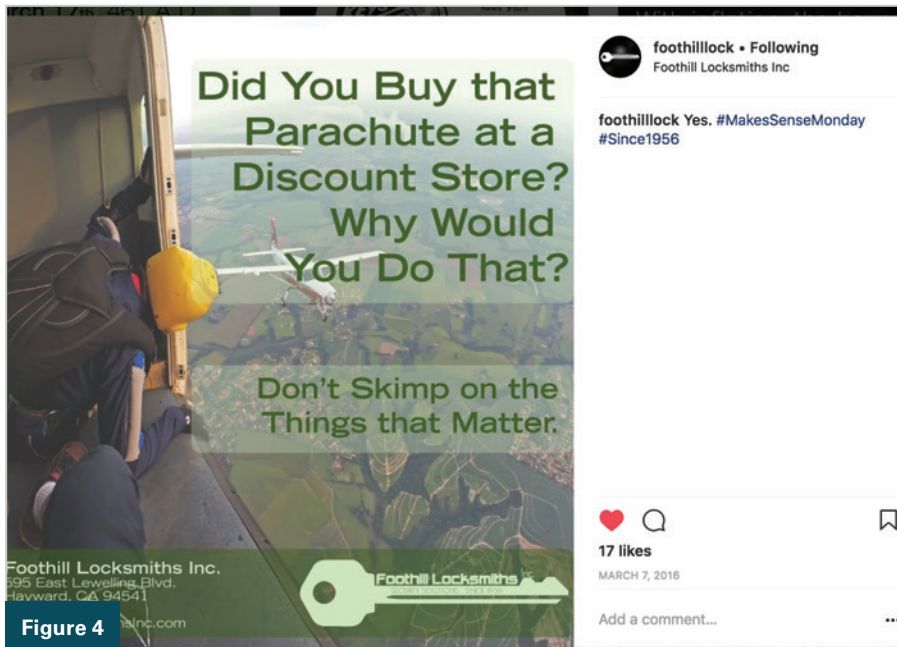
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Figures 3 and 4. Inspirational quotes and business mantras are popular on social media.

you have made a key for, a challenging safe move or a beautiful door you have worked on.

Day 6 - Philanthropic posting. Does your company support a local cause? Social media is the best place to brag about it! Bragging in this sense encourages others to contribute too.

Day 7 - Tell your followers about lock

bumping. Feel free to include a link to a video/article that offers an in-depth explanation.

Day 8 - Post a scenic picture from some point in your day. Simply wish your followers a happy day.

Day 9 - Post a picture of your storefront. If you do not have a storefront, post a picture holding your business card.

Invite your followers to stop by or give you a call.

Day 10 - Post about “National ____ Day.” Conduct a quick Google search of the date on the calendar and pick a quirky one.

Day 11 - Share a sports-themed image. Post about relevant sports teams depending on the season and location. Maybe post a photo of you in your favorite team’s attire, or of you as a student athlete.

Day 12 - Post early in the morning. Share a picture of your breakfast or morning coffee. Include a favorite quote or positive saying about success, motivation or passion.

Day 13 - Shout out another local business you love. Include a photo of you or your vehicle at the business, if possible. Be sure to “tag” that business in your social media post, which can invite more comments, promote sharing and engage more people.

Day 14 - Introduce another one of your employees. If you have several, this can go on for additional days or can recur weekly. Share his or her name, role, years with the company and a hobby or fun fact.

Day 15 - Share how you entered the locksmith profession. Post a picture from your early days (even if they were not too long ago!). Tag any brands, people or products that have been influential in your career.

Day 16 - Post an image of your desk/workspace and title it “Ask the Expert!” Experiment with angles and add a neat filter. Encourage your followers to ask you questions about keys, locks and safes. Be sure to reply to your followers publicly and in the comments. Or, make separate posts with their questions and your answers.

Day 17 - Share a link to your Yelp or Google account. Invite your followers to review your business.



Figure 5. Sharing success stories — with a quality photo — is a great way to draw customers' attention.



Figure 6. Sharing colorful posts about holidays or special events can be a good way to get customer engagement, particularly if you ask a question about their plans or traditions.

Day 18 - Post a picture with the text "Top 3 Security Tips You HAVE to Know." Invite your followers to stay tuned over the next three days for tips. Consider a theme like automotive, small business and residential tips. Think about highlighting an area you need to promote within your business.

Day 19 - Post the first security tip.

Day 20 - Post the second security tip.

Day 21 - Post the third security tip.

Day 22 - Encourage your followers to shop locally. Remind customers of the value small businesses provide their community. Include a quote from a famous entrepreneur. The image for this post could be a generic one or a picture from day-to-day operations in your business.

Day 23 - Share a picture of a key. Use filters, and get creative! Also, be sure it is not a customer's.

Day 24 - Do you have a pet? Time to post a picture and call him or her your company mascot!

Day 25 - Shout out one of your favorite brands you sell. Tag them in your social media post, and be sure to share why you love them.

Day 26 - Share a holiday-themed post. Post a festive image and ask if your followers are ready for the upcoming holi-

day. Think of holidays loosely and include spring/summer breaks, the Super Bowl, three-day weekends, pop culture events such as the Grammy Awards, etc.

Day 27 - Post your logo. Write something about the areas you serve and services you offer. Encourage your followers to say hi when they see you around town!

Day 28 - Share one of your favorite products that you carry. Consider a short video (Instagram allows 15 seconds) describing it. Or, opt for an image with a brief description of what the product does and why you love it.

Day 29 - Post a picture of work boots. They can be yours or an employee's. Caption it with a quote about hard work. (Google one if you need to!)

Day 30 - Share a staff picture. This can be a selfie or a more professional picture. Your caption could include your appreciation for your staff or customers.

Remember:

- Try to only post clear photographs that are in focus and not pixilated or distorted in any way.
- Spell check your captions and text posts.
- Avoid profanity.
- If you attend local events, share them

on your social media. Your followers want to know you are connected in the community and that you care.

- Connect with your local chamber of commerce online, especially if they are active on social media. You can always share their content to your page and use less of your own brainpower to generate content in the process! Other great places to follow are ALOA and small business organizations.
- It is probably best to not link to your personal social media accounts or those of your employees. Remind your employees to be mindful when they are wearing company-identifying clothing in the community and when posting on their social media accounts. 📸



Katelyn Lucas Radtke is a fourth-generation security professional based in the San Francisco Bay area. She is an expert contributor to *Blackhawk Living Magazine* and lead contributor to Give-A-Hoot.com, a website, blog and YouTube channel empowering communities by providing safety and security information, tips and education.

SIMPLEX L1000 *Part 4:*

Tyler J. Thomas, CJIL, CMKA, CRL,
covers servicing this unit.

BEFORE WE DELVE INTO SERVICING INFORMATION, it's important to be on the same page regarding terminology. Throughout this article, I use Kaba's part names, which can be found in *Kaba's Mechanical Lock Parts Price Book*. This

document is free to download on their website; simply search for it by title. One great benefit of this document is the inclusion of exploded diagrams (see *Figure 1*) for not only the L1000 but the entire Simplex line, which makes part identification simple. It's a good idea to print this document and keep it on hand.

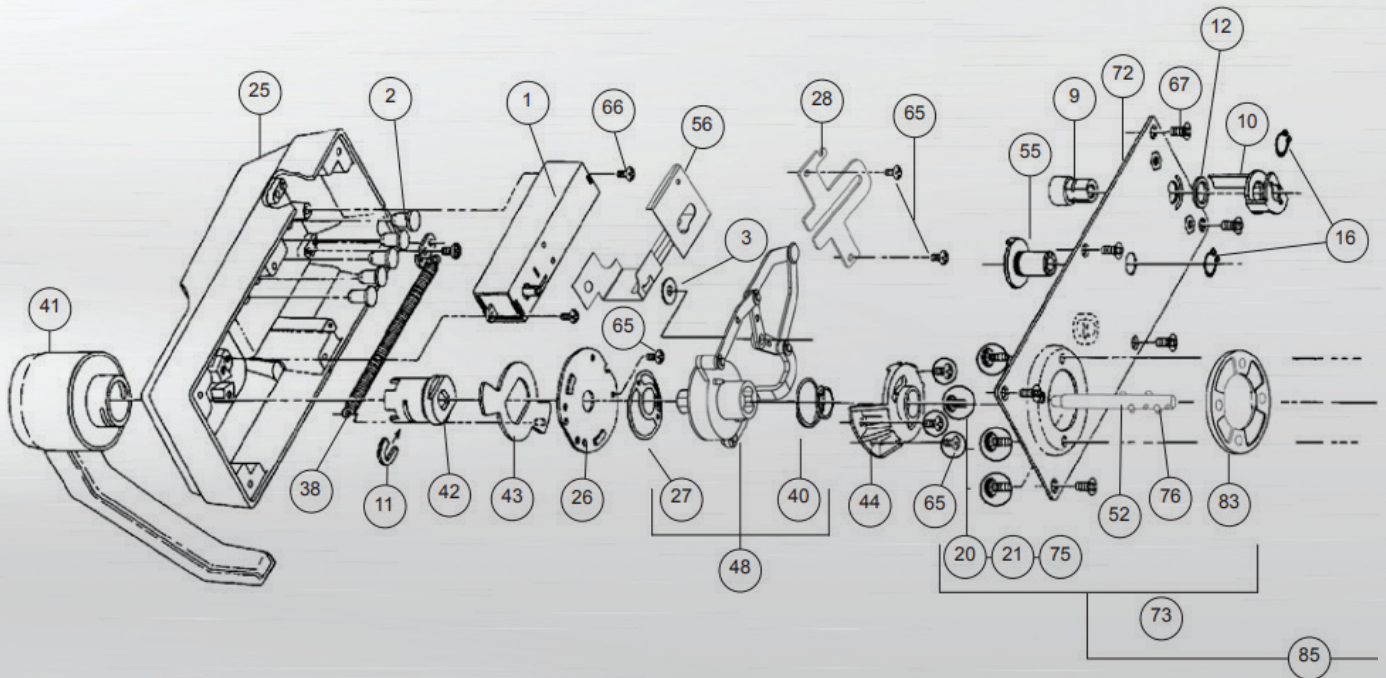


Figure 1. Kaba's *Mechanical Lock Parts Price Book* has exploded diagrams for the entire Simplex line.

“Never discount the possibility of the ever-present operator error!”

Servicing Inventory

There are some instances where servicing a Simplex L1000 won't require parts. For example, a latch may require lubrication, or the lock may be loose in the door. That's simple. There are plenty of instances, however, that will require replacement parts. For those situations, we keep a drawer full of Simplex L1000 parts to adequately cover any needed repairs (*Figure 2*). You do not have to do the same, but keeping a small inventory of commonly serviced, easily transported or stored parts will serve you well. Parts that we regularly use to service Simplex L1000s include:

- Combination Chamber (Part No. 7436600001)
- LH Clutch Assembly (Part No. 20178900001)
- RH Clutch Assembly (Part No. 20178800001)
- Latches of various backsets and finishes

Kaba does sell a L1000 service kit, which includes the clutch assembly, K/O drive shaft, combination chamber, stop plate, lever return spring, standard drive shaft and chamber shaft bushing. Because most of these parts are handed, the kits are handed as well. The LH service kit is part number 20303800001, and RH is part number 20303700001. A great strategy to stock initial parts is to purchase both service kits and then replace the parts as they are used.

Troubleshooting and Servicing

Due to the space limitations of an article, I cannot cover every single possible troubleshooting and servicing scenario available. With that said, I presume I don't need to tell you how to spot and repair, say, a defective latch or a broken outside lever return spring. Instead, I'll cover the most common scenario and its two most likely repairs.

The most common thing you'll hear when called to service a Simplex L1000 is either “It won't accept my code” or “I have to enter my code multiple times to get it to work.” If the lock isn't accepting the correct code or if it takes multiple attempts, then the problem is nearly always a combination chamber that won't reset. This is either due to a defective combination chamber and/or a clutch assembly that isn't allowing the combination chamber's shaft to be turned sufficiently enough to reset the combination chamber.

Let's start with the combination chamber to determine if that is the culprit. Start by removing the six screws on the backplate (*Figure 3*). With the screws removed, remove the backplate from



Figure 2. Keeping a small inventory of commonly serviced, easily transported or stored parts can be helpful and save you time.



Figure 3. To determine if the combination chamber is the issue, start by removing the six screws on the backplate.



Figure 4. With the screws removed, remove the backplate from the rest of the lock.

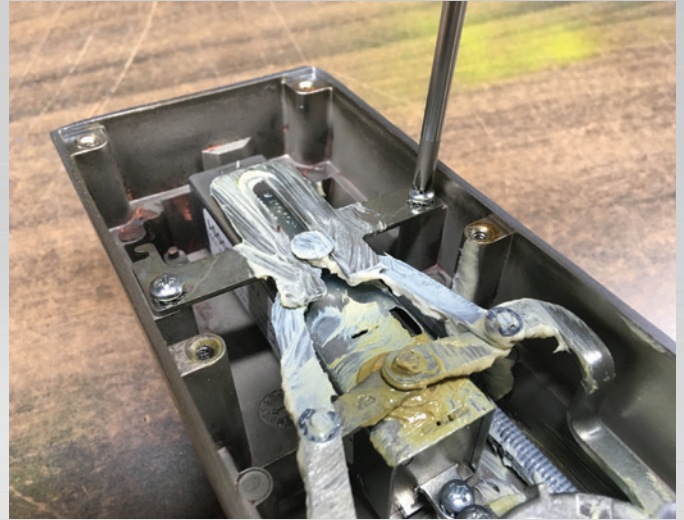


Figure 5. The author is removing the two screws holding the guide bracket.



Figure 6. The author is removing the chamber links from the combination chamber's control shaft.

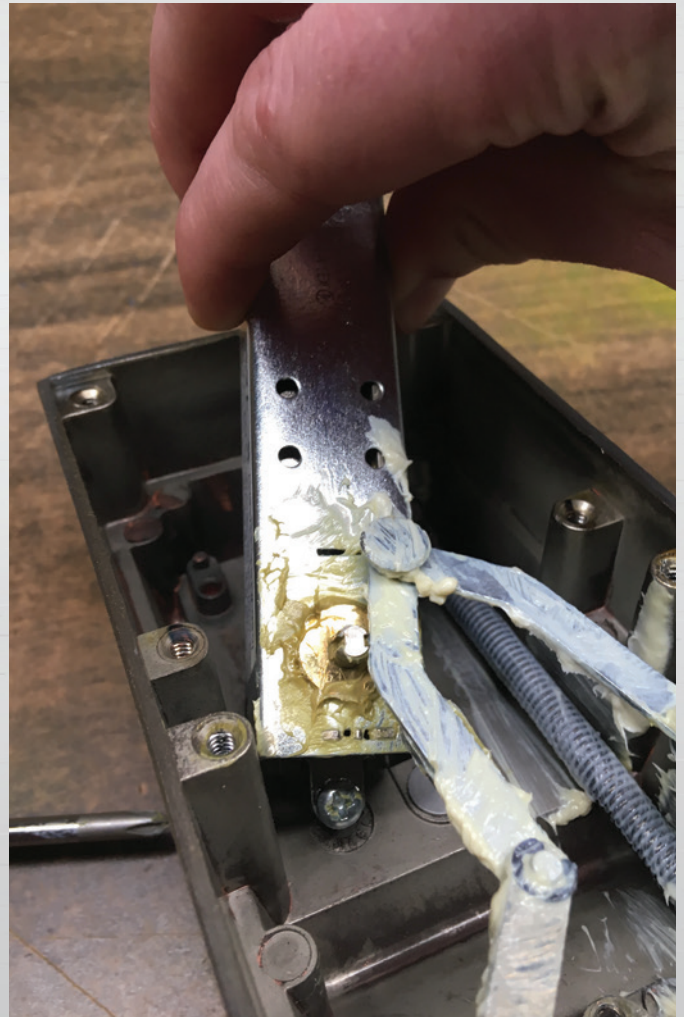


Figure 7. The author has removed the mounting screws and is carefully lifting the combination chamber out of the lock.



Figure 8. To replace the clutch assembly, start by removing the drive shaft assembly.

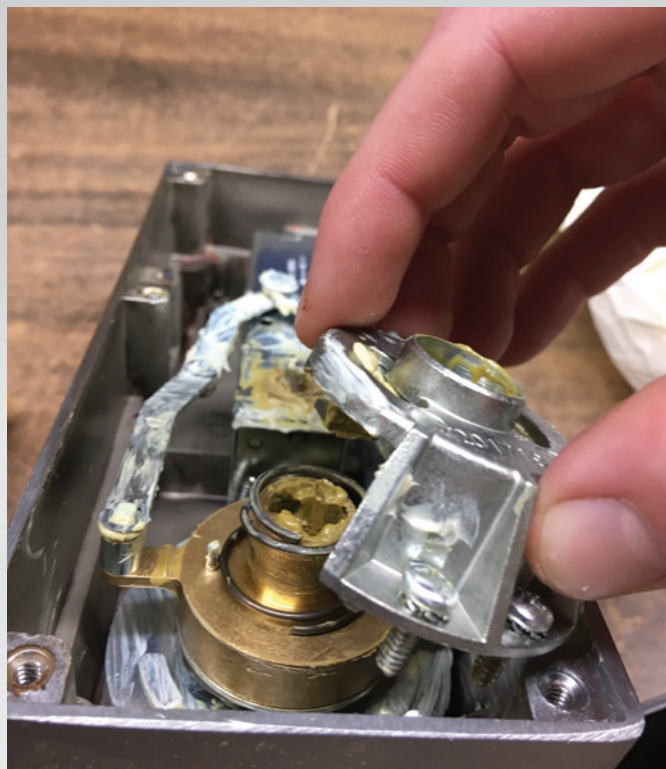


Figure 9. Next, remove the three screws from the clutch cover assembly.

the rest of the lock (*Figure 4*). Don't worry about springs or parts flying out — they won't (unless something has gone horribly wrong). Next, remove the two screws holding the guide bracket and set all three parts aside as well (*Figure 5*).

Finally, remove the chamber links from the combination chamber's control shaft (*Figure 6*). It's important to take note of the position of the chamber links prior to removing them, as their position is paramount to the operation of the lock upon reassembly. You can choose to memorize C on top of D or vice versa (this relationship changes based on lock handing), but the easiest way to remember the order is to always install the non-keyed chamber link first and the keyed chamber link on top of it. At this point, the only thing holding the combination chamber in the lock are two mounting screws. Remove the mounting screws and carefully lift the combination chamber out of the lock (*Figure 7*).

With the combination chamber in hand, we can test its function. This process was detailed — along with pictures — in part two of this series, but here's a quick recap: Orient the combination chamber so that the key stems are facing you. Turn the control shaft with a pair of pliers, or similar tool, counterclockwise to ensure that the combination chamber will reset itself. Next, enter the combination and rotate the control shaft clockwise to ensure that the combination works and the combination chamber will unlock. If everything operates as it should, the combination chamber is not the culprit. If everything is not operating as it should be, you may need to check that the right combination is being used. If the right combination is being used and the combination chamber still won't operate, it will need to be replaced.

If the combination chamber didn't need to be replaced, reinstall just the

combination chamber itself using the two mounting screws. If the combination chamber needed to be replaced, reassemble the lock and test for its function. If it's still not working, the clutch assembly will more than likely need to be replaced as well. Remove the guide bracket and chamber link arms, but keep the combination chamber installed in the lock.

To replace the clutch assembly, start by removing the drive shaft assembly (*Figure 8*). Next, remove the three screws from the clutch cover assembly and set them all to the side (*Figure 9*). The last pieces to remove are the clutch, the balance spring and the double wave spring (*Figure 10*). All three items are included in the clutch assembly kits.

All that's left is to reassemble the clutch assembly with the new parts, reinstall the clutch cover assembly and drive shaft assembly, reconnect the chamber links to the combination chamber, reinstall the



Figure 10. The last pieces of the drive shaft to remove are the clutch, the balance spring and the double wave spring.

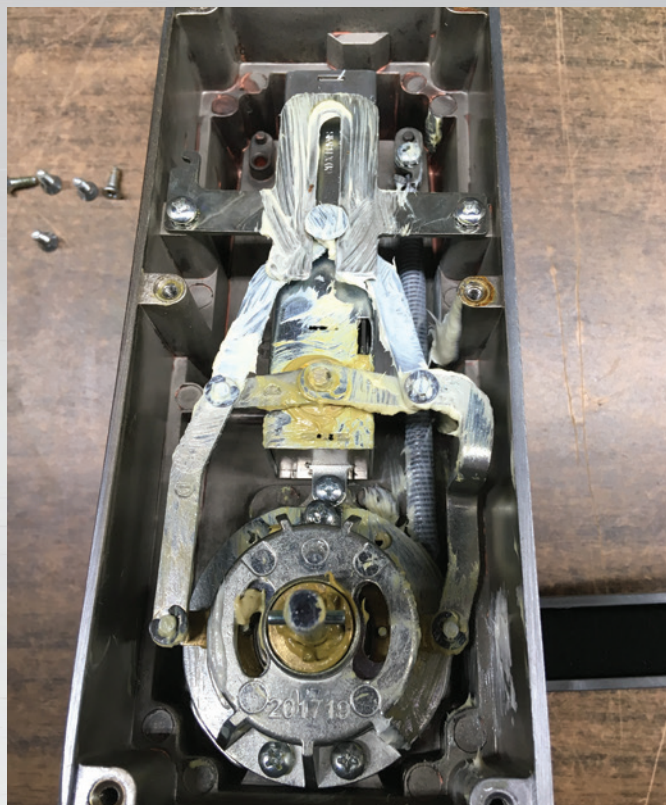


Figure 11. Notice the amount of white lithium grease used by the factory and where they placed it.

guide bracket, reinstall the backplate and then test for the lock's function. If at any point you need help during this process, consult the exploded diagram(s) in the *Mechanical Lock Parts Price Book*.

One more thing of note: I performed this breakdown on a brand-new lock. Notice the amount of white lithium grease used by the factory and where they placed it (*Figure 11*)? It's not a bad idea to reapply grease while you have the lock apart.

Other Considerations

Going a step further beyond clutch assembly replacement, I once learned from an Al Savage post on ClearStar where — in addition to the clutch assembly — Al would replace the stop plate and outside drive sleeve when he serviced or “rebuilt” L1000s. His reasoning was that because the stop plate was not hardened, it was susceptible to wear and often did. The

outside drive sleeve too would also wear. This wear, when combined, would cause a “loss of degrees of rotation” of the outside lever. In other words, it increased the likelihood of the combination chamber shaft not rotating enough to reset the combination chamber.

While I do see his point and his rationale (in fact, I agree with it), I will say that any rebuild I perform does not include these two parts unless the signs of wear are blatant *or* the lock is used in a high-traffic situation. It should be noted that, like clutch assemblies, the stop plate is handed and the outside drive sleeve is unique to the core in use. In other words, you need to stock left- and right-handed stop plates — which you will already have if you purchase the service kits — *and* six separate drive sleeves to service *all* L1000s you may encounter. If you are an institutional locksmith, this won't be an issue because you'll

already know your key system(s) and the appropriate drive sleeve(s). If you are a mobile or storefront locksmith, however, you will have to stock each item.

One final consideration is a user's habit. I have been called out to service a Simplex L1000 multiple times where the lock was operating perfectly fine. The problem? The users either weren't fully rotating the lever or they were letting the lever slowly return to its resting position to avoid making noise, thereby negating the clutches' ability to reset the combination chamber. Never discount the possibility of the ever-present operator error! ☹



Tyler J. Thomas, CJIL, CMKA, CRL, is a locksmith in Atlanta, GA. He helps maintain the website www.lockreference.com.

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SAVING PRIMUS, RYAN

Tom Gillespie CML, CIL, CCL, received a collection of Primus cylinders, but the catch was that he needed to generate a master key to render them usable.

THIS ARTICLE'S TITLE IS HOW I RESPONDED WHEN ALEX RYAN — ONE of our techs — walked in the shop and asked me, “What the heck are you doing cutting a key in half?”

Most locksmiths have a lot of “extra” take-off or worn-out cylinders. Used mortise, rim and KIL cylinders have a way of building up around our shop as well. Over time, we tend to save the factory original cylinders in good shape because many are made from quality machined brass. The off-brand, pot metal, damaged or low-quality cylinders usually end up as scrap. We recycle all of our paper and plastic, and the various types of metal get separated. They then go to a recycler, and the money received goes to our favorite charity.

Rarely are we in the market for more used cylinders of any style, but there is always an exception to any rule. Schlage Primus is an exception.

A close locksmith friend recently spoke to us about obtaining some LKM parts he needed for a government contractor job. We had extras of what he was looking for, so when he asked about price, we asked if he had anything to trade. He responded, “Do you need any Primus cylinders?”

He then showed us an assortment of cylinders, mostly Schlage originals. There were

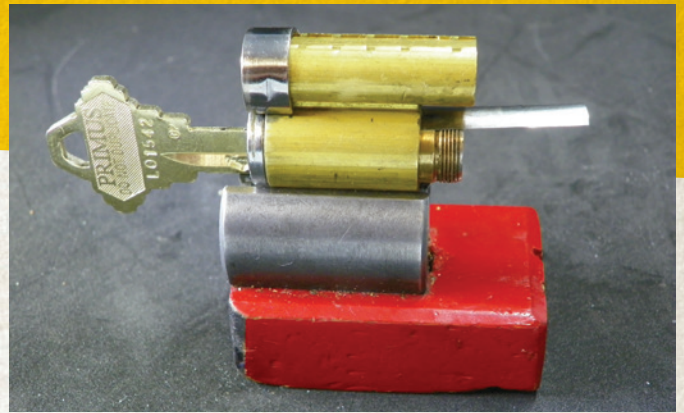
literally hundreds of them, and a majority of them were Primus. The catch was that there was only one operating Primus key, and it only turned a small group of the cylinders, but the entire building operated on the same master key. Hmmm... master-keyed, eh?

These all came from one very large building slated to be torn down. Many of these locks saw little use because the building was closed shortly after it was built because the company lost government contracts. My friend had serviced this company and received permission to remove any hardware he wanted prior to the building being demolished. Here is the story of saving Primus, Ryan.



Bucket O' Primus

Figure 1. This impressive amount of cylinders contains a large quantity of "like-new" Primus large format interchangeable core (LFIC) cylinders. This pile of hardware was not going to the recycler. The Schlage factory literature uses the terminology full size interchangeable core (FSIC) to delineate them from their small format interchangeable core (SFIC) products. This article will use the generic LFIC term.



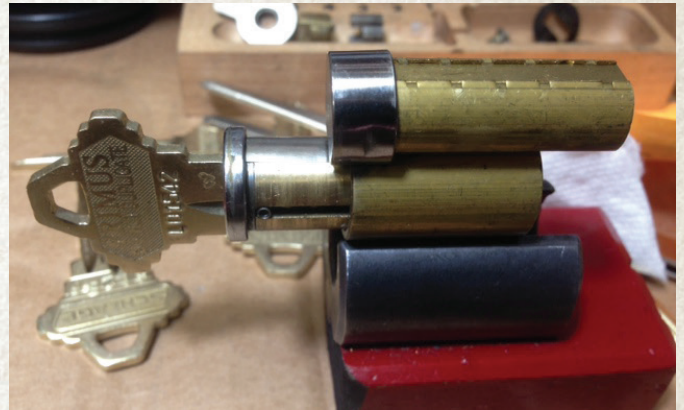
Shim Blank

Figure 2. By using a standard Primus key blank, any Primus can be shimmed at the shear line just like a standard cylinder, but if the side milling doesn't match, the plug won't rotate. On an LFIC, you can't use the control blank to shim the lock because it will lift the tip pin and prevent the shim from entering the shear line.



Finger Pin Trap

Figure 3. Cutting down any Primus key to a 9 depth in all positions, as shown, allows it to be inserted to act as a trap to hold the finger pins in place without lifting the pin stack above the shear line. Once the cylinder is shimmed and the key is inserted, it's ready to be removed for disassembly.



Plug Removal

Figure 4. Because the sidebar milling on the key does not match the cylinder, the plug won't turn. The follow tool is used to push the plug straight out of the housing. Although the finger pins are trapped by the cut-down blank, the sidebar and sidebar springs will eject themselves if you don't hold them.



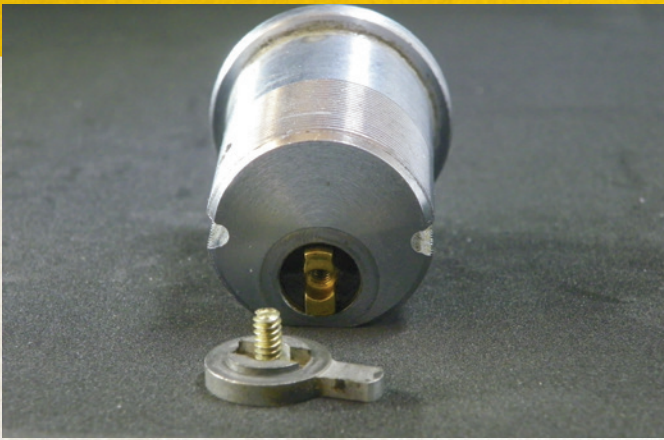
LFIC Dilemma

Figure 5. Primus shimming is easy when you have the bare cylinder in hand. The dilemma is that the LFIC cylinder has to be turned to remove it from the housing. The removal is normally accomplished by using any operating cuts on a control blank. The problem is that all we have is one lower-level operating key with the correct sidebar milling.



Attack Point

Figure 6. The LFIC mortise cylinder uses a single screw to attach the cam to the rear of the housing. The Adams Rite 02 cam shown can be switched out with various other common cam shapes to match the hardware being used.



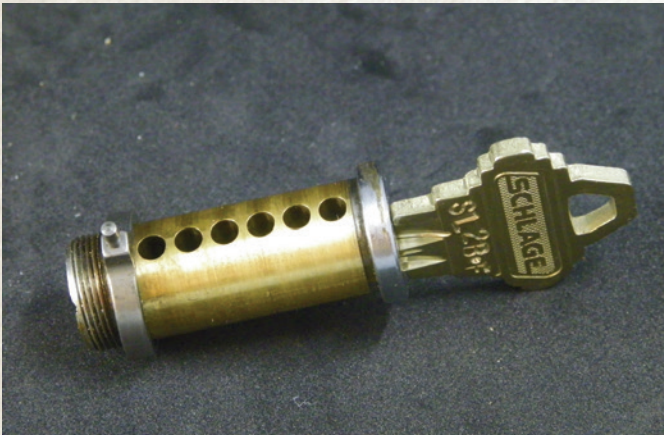
Access Point

Figure 7. By removing the screw, we can see an opening in the cam attachment plug. This plug engages the rear of the core, nestling inside the screw cap and engages the cap-retaining pin at the tail of the core.



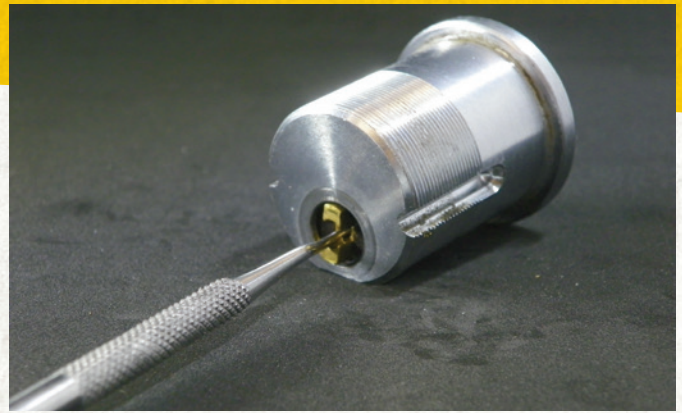
Rim Difference

Figure 9. The access point available on the rim cylinder cannot be reached in the same manner. The tailpiece assembly is fixed in place, and no access to the tip pin is available through the rear. Removing an LFIC from a rim cylinder can be a bit frustrating. Rumors say the original Schlage LFIC cores could be removed by carefully drilling a small hole in the side of the cylinder housing, lining it up to simply push in on the retainer pin with a wire or pick. I'll show you shortly why that won't work now, if it ever did.



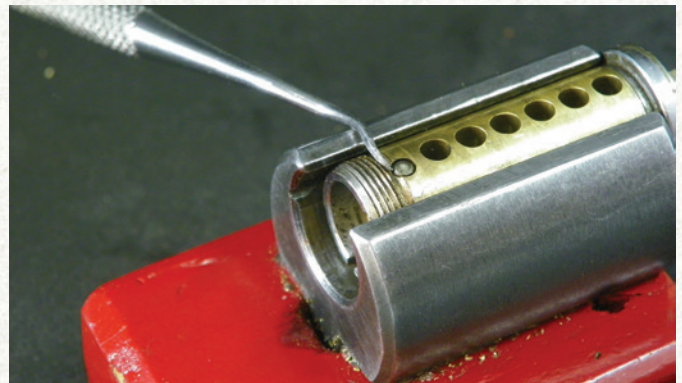
Ring Pin

Figure 11. The tip pin lifts another pin embedded in the ring collar that is held in place between the rear of the cylinder shell and threaded cap. Like the tip pin, although much smaller, this is a unique part that will make the cylinder unusable if lost.



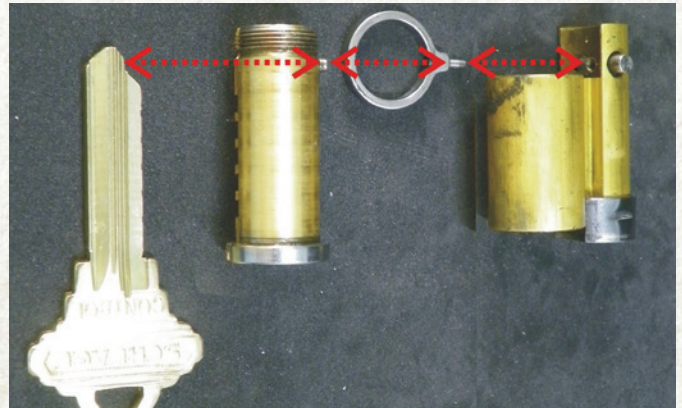
Probe Up

Figure 8. By using a probe or a pick inserted through the threaded screw hole, you can lift up on the tip pin that is normally activated by the extended tip of the control key. When the operating key is turned clockwise, it will withdraw the core-retaining pin and allow removal of the core.



Tip Pin

Figure 10. This pin is what the tip of the control key engages when it is inserted to remove a core. This pin is loose and will come out just like the operating pins. When an LFIC is rekeyed, care must be used to retain this pin and not dump it into the scrap brass pile. The diameter is smaller than standard pins, and the loss of it will render the cylinder ineffective.



Parts Layout

Figure 12. The retaining pin actually secures the core in the housing. The tip of the ring pin pushes upward to engage it in the hole at the rear of the upper housing. The control key lifts the tip pin, which lifts the ring pin that in turn engages the control pin, withdrawing it as the key turns.



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A nighttime photograph of the Las Vegas skyline, featuring the Flamingo Las Vegas, the New York-New York Wheel, and the Flamingo Las Vegas. The city is brightly lit against a dark, starry sky.

SAVE THE DATES!

A daytime photograph of a green field with a black wooden fence in the foreground. In the background, there are trees and a blue sky.

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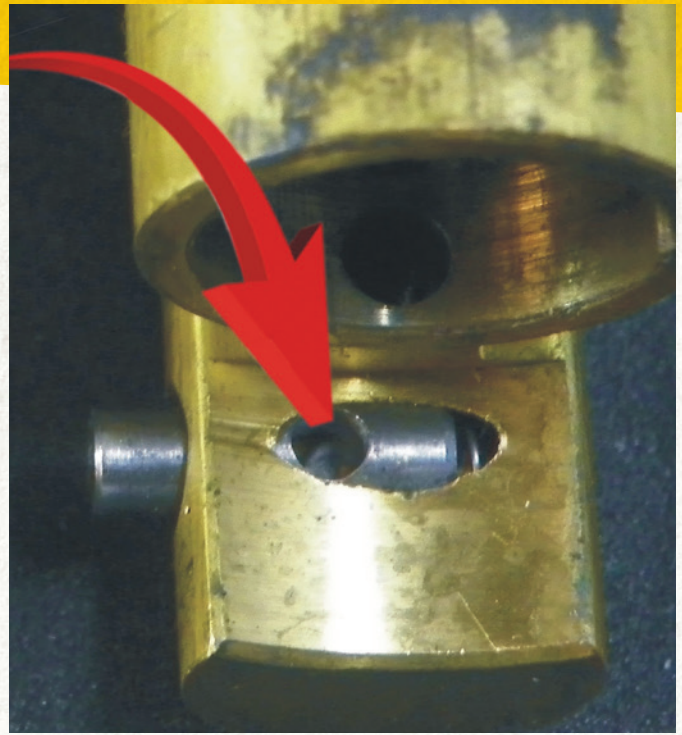
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Retaining Pin

Figure 13. The retaining pin is pressed into the housing and is projected outward by a stiff spring. As noted above, it's rumored that the early LFIC cores could be removed by drilling a small hole in the lock body and simply depressing this pin to withdraw the core.



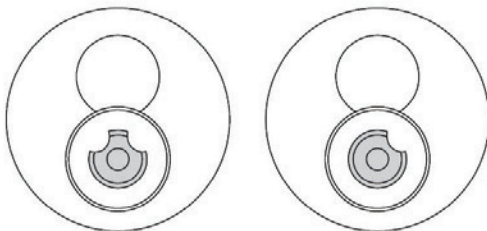
Pin Movement Blocked

Figure 14. The rumor will absolutely not work on all of the cylinders in our possession. I even tried some "old" used ones I found in the bottom of a parts kit. The red arrow points to a small spring steel finger that must be lifted by the ring collar pin before the pin will withdraw.

Full size interchangeable core (FSIC)

Schlage introduced its Full Size Interchangeable Core (FSIC) in 1984. Like the key-in-knob/key-in-lever cylinders, the core uses a cap pin and spring mechanism, but the cap pin also serves to drive the cam or tailpiece.

Housings and tailpieces manufactured before the Primus core was introduced only had clearance for the conventional cap pin. Now, all FSIC housings and tailpieces are made to accommodate both cap pin locations.

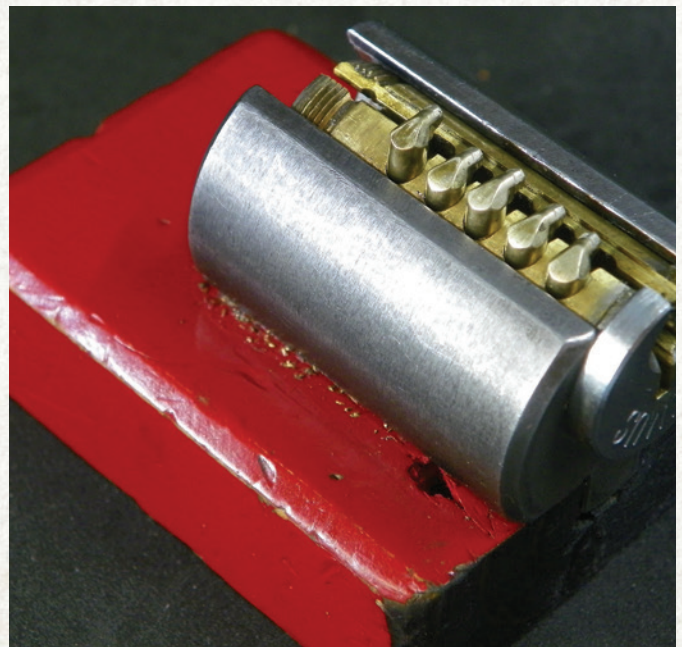


Current Design

Pre-1992

FSIC Cam Change

Figure 15. The accompanying chart is from the Schlage factory cylinder manual. The information states that when the Primus cylinders were introduced, the hole for the cap-retaining pin and spring at the rear of the plug was relocated to prevent interference with the sidebar. The cams were redesigned to work with any Schlage product.



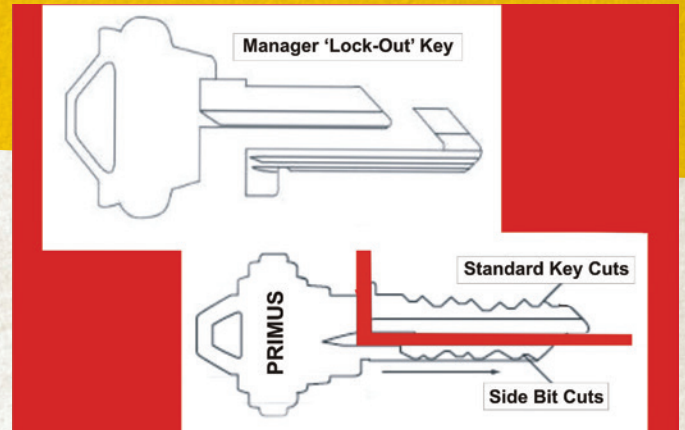
Unload the Plug

Figure 16. The plug was removed with the sole operating key and by the process described in step eight. Now we can remove the various components and decode the pins. Care must be taken to keep all bottom pins and master pins in the proper order. Our goal is to generate a master key that will work all or most of the Primus cylinders in this huge batch that came from the same commercial building.



Decode the Pins

Figure 17. Because we had an operating key, we had a good chance of decoding the pins to determine the available shearlines in this cylinder. Of course, if this cylinder was cross-keyed to pass a variety of cuts, the job would present an added challenge. The pins were laid out in order and decoded. I had the cuts of the master key — now what?



What If?

Figure 18. As I was trying to figure out what I'd do — since I had the MK cuts available — I pondered long enough to remember the old manager's lockout key used in apartments. The Weslock key pictured at the top was in two pieces. Insert the bottom half in the lock, and the pins drop behind the back cut and prevent the removal of that part while preventing use of the operating key. I just had to figure out how to do that to a Primus key.



Bow Block

Figure 19. As great as the idea seemed at first, I realized that doing it the way I show in my illustration would mean the bow of the key would prevent access to picking or manipulating the pins even though the sidebar finger pins would be aligned.



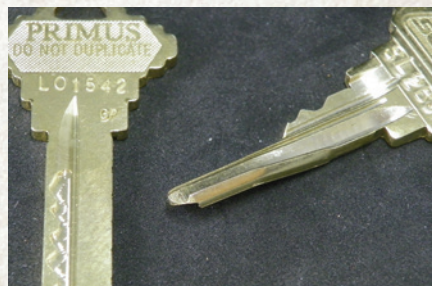
Half and Half

Figure 20. I needed the bottom half of the one and only Primus operating key to provide the side milling and the top half of any Primus key to provide the blade with the cuts of the master key to achieve the operating shearline.



1200 Method

Figure 21. I took a couple of our miscut or deleted Primus keys and decided to experiment. I tried cutting the top half off of one, saving the side milling, then cutting the bottom half off of the other saving the MK cuts in the blade. I was a little aggressive.



Weak Area

Figure 22. As you can see, I went too deep, too fast and twisted the blade quite severely. Actually, I was relieved that I decided to try it on an old key first because we would only get one chance to modify the Primus key supplied with the mountain of cylinders.



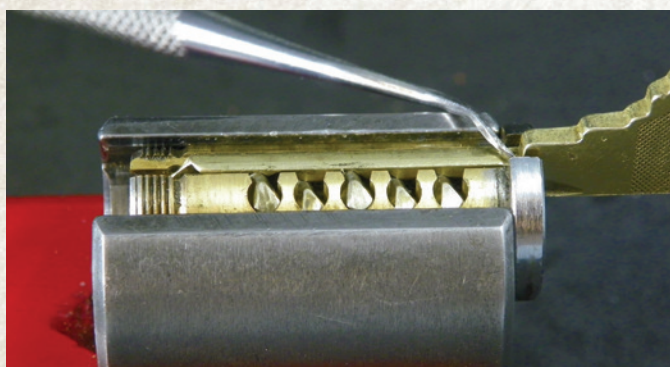
Dremel Method

Figure 23. While I was pondering which hacksaw to use or how to file a blank in half, Brad had silently picked up the original Primus key, gone out to his truck and brought in his Dremel. After attaching a new cutting blade, he carefully cut the original Primus key in half without my knowledge.



Blank and Half

Figure 24. Brad walked back in to the keying bench and set down the bottom half of the original operating key. He then took one of our Primus blanks and cut the depths of the decoded MK in it. Once more, he picked up the Dremel and cut that key in half.



Bottom Shoulder Position

Figure 26. I then noticed that although the sidebar configuration of this key was a mixture of left, center and right millings, all of the finger pins were pointed in the same direction. Looking closely revealed that the bottom shoulder had gone past the plug face.



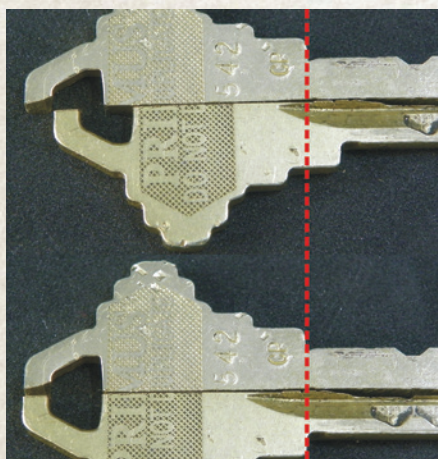
Let Down

Figure 25. I loaded the plug with the sidebar and finger pins in their proper positions. Sitting in the plug holder, I envisioned sliding the bottom half of the key in and smoothly turning it to overcome the sidebar. Imagine my disappointment when it wouldn't budge.



Bottom Shoulder Alignment

Figure 27. The solution was realigning the shoulder with the plug face where it would normally be stopped by the top shoulder of the key. With the finger pins in the correct alignment, the plug turned smoothly.



Offset and Reset

Figure 28. The top illustration shows the main problem with a two-piece key: It's two separate pieces. The bottom illustration shows both halves aligned as they should be. The slight gap above the first finger pin milling causes no problems.



Looks Like a Key

Figure 29. The "finished" product is shown here. The top half with the cuts of the system master key (0-2-1-0-0-3) provides access to all of the cylinders in the system. Because a lot of the cylinders were like new, these Primus cylinders can all be easily taken apart for rekeying to a "0" value and put back into service as needed.



Key Won't Slide

Figure 30. It took a little getting used to using this two-part key. At first, when you try to slide the combined unit into the lock, it hesitates. A little jiggling and slightly increased pressure lets it go in.



Bottom Half First

Figure 31. A simpler way to use it is to slide the bottom half in first, then slide the upper blade in on top of it. The finger pins offer no resistance to the lower blade portion, and the face of the cylinder shell acts as a stop for the bottom shoulder.



Top Half Next

Figure 32. The upper half slides smoothly on the top edge of the lower blade, which acts as a support. The angle of the upper key tip smoothly lifts the pin stacks as it enters the keyway. I would not have chosen these cuts as a master key, but I didn't write the system. It actually worked in our favor because we had a lot of blade material to work with.

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True Test

Figure 33. Now it's time for the true test. If everything was done according to plan, this key should turn the cylinder. If you take a close look, you'll see that the bottom shoulder has retracted slightly. This happened automatically as the spring-loaded finger pins settled into their operating position.



Key Turns

Figure 34. After both halves of the key were in place, normal operating torque was applied, and the key turned smoothly. It feels odd only because both halves have a slight movement when the key is used, and it's different than the feel of a solid-headed key.



It Works

Figure 35. Using the method of removing the cam screw and cam on the back of the mortise cylinder, we've reached in and applied lifting pressure to the pin normally activated by the tip of the control key. Holding the upward pressure while turning the key clockwise withdraws the control pin, allowing withdrawal of the large format interchangeable core.

The Conclusion

Like many of you, we always enjoy the challenge of doing something that "can't be done." When I was notified of this huge pile of Primus cylinders, it intrigued me. Although they are used, most are like new and can be resold at a discount with confidence. We'll disassemble them and replace all the pins and springs. We'll set them to our Primus sidebar and have a very usable product that will generate a respectable profit. Because these were swapped for other material that we weren't using, it was a fun exercise in doing something worthwhile that proved to take a little puzzle-solving ability.

Locksmiths and safe techs: Whether it's restoring an old lock by rebuilding it and making parts or servicing an antique vault, keep your fellow craftsmen in mind. Technical accomplishments, promoting your business, developing new ways of doing things and giving back to your community by organizing a lock service project at a church or school all make great material for articles in Keynotes and Safe & Vault Technology magazines. For more information on telling your story, contact wendya@madisonmilesmedia.com ☺



Tom Gillespie, CML, CIL, CCL, is a 49-year veteran of the security industry. Since 1969, he has expanded his experience in the retail, manufacturing and distribution segments of our industry. Tom has taught educational seminars throughout the U.S. and Canada. He has authored numerous books, newsletters and articles for security industry publications. He is semi-retired but is still active in locksmithing. Tom can be reached at tomxgillespie@gmail.com.

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KABA® POWERPLEX 2000 SERIES *Part 3*

Sal Dulcamaro continues to discuss installation of these units, beginning with the exterior assembly

IN PART 1, I DISCUSSED THE PRE-ASSEMBLY THAT INVOLVED HANDLING THE exterior and interior assemblies and installing the lock core. The exterior assembly (*Figure 1*) must now have a few other components attached to complete the lock being assembled on the door. The back of the assembly is shown with a number of labeled stickers on it (*Figure 2*). Below the top mounting post you can see the word “RESET.” That will become important if you need to do a hard reset where you return it to factory-programmed settings. There is a square-shaped spindle (*Figure 3*) that will connect the exterior assembly to the interior assembly. A spring in the interior handle will be very important later on in a lock malfunction. That doesn’t happen often, but will be critical when the spindle disengages from the exterior assembly and can be a nightmare to fix. I will discuss that when I write about troubleshooting later in the article series.

The square spindle is in place, and I am holding the cylindrical unit and plate assembly in my right hand (*Figure 4*) that I will slide over the spindle (*Figure 5*) and attach on the back of the exterior lock unit. I didn’t mention it earlier, but there are a number of spacers that can be added or removed from the attachment plate to adjust for door thickness. If you have a standard 1¾” thickness door, you don’t need to make any adjustment. If the door is thicker, you may need to add spacers, and if thinner, you may need to remove spacers.

There are two screws (visible in *Figure 4*) that hold the plate to the cylindrical unit. Those are the screws you would have had to remove if you had switched it from



Figure 1. The exterior assembly is shown.



Figure 2. Below the top mounting post you can see the word "RESET," which is needed for a hard reset to factory-programmed settings.



Figure 3. The square-shaped spindle will connect the exterior assembly to the interior assembly.



Figure 4



Figure 5

Figures 4 and 5. The author is holding the cylindrical unit and plate assembly in his right hand (*Figure 4*) that he will slide over the spindle (*Figure 5*) and attach on the back of the exterior lock unit.



Figure 6



Figure 7

Figures 6 and 7. There are three spacers (*Figure 6*) that go into the three ½" mounting holes on the inside of the door (*Figure 7*).



Figure 8. The lock comes standard with a 2¾" backset grade 1 latch.



Figure 9. The latch is installed in the edge bore hole.

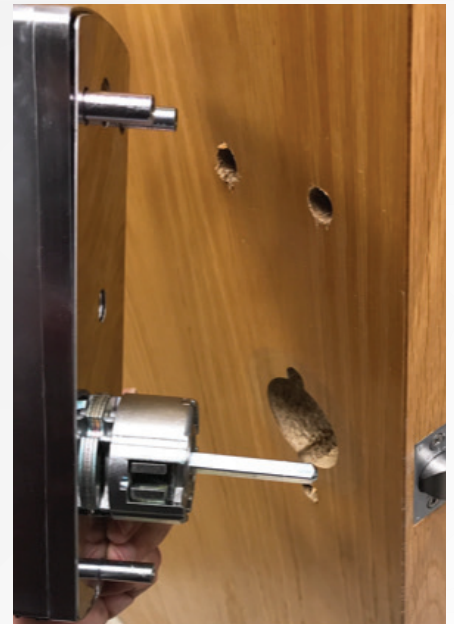


Figure 10. The combined assembly of the outside unit is ready to install on the door.



Figure 11. The mounting posts go through the three drilled $\frac{1}{2}$ " diameter holes.



Figure 12. The cylindrical unit is visible in the cross bore hole.



Figure 13. The inside unit is ready to install on the inside surface of the door.

the (factory default) setting of left hand to right hand. One thing to keep in mind when doing a left-hand installation and don't need to remove those screws: They are not always tightened from the factory. If you just leave it left handed and attach it as shown in *Figure 4*, the screws may come loose after installation. Make sure those two screws are fully tightened.

There are three spacers (*Figure 6*) that go into the three $\frac{1}{2}$ " mounting holes on the inside of the door (*Figure 7*). If you accidentally reamed those holes slightly larger with your drill, the spacers may tend to fall out of the holes. That is another reason why I drill from both sides of the door: Drilling all the way through from the outside makes it more likely that you will enlarge the holes slightly.

The lock comes standard with a 2- $\frac{3}{4}$ " backset grade 1 latch (*Figure 8*). If you have a grade 1 latch of a different backset, you can install the lock at that backset. There have been a few doors in the hospital that have had 5" backset door preps that I just used my jig and template with that cross bore hole to locate the three auxiliary mounting holes.



Figure 14. Line up the inside unit so that the square hole lines up with the spindle.

The latch is now installed in the edge bore hole (*Figure 9*). The combined assembly of the outside unit is ready to install on the door (*Figure 10*). Insert the combined assembly so that the cylindrical unit (with the latch retractor) connects with the inside end of the latch, while the mounting posts go through the three drilled $\frac{1}{2}$ " diameter holes (*Figure 11*).

The outside assembly is now affixed to



Figure 15. Provide sufficient counter pressure to start your screws.

the outside of the door, and the cylindrical unit is visible in the cross bore hole (*Figure 12*), with the spindle extending through the door. The inside unit (*Figure 13*) is ready to install on the inside surface of the door. Notice the square hole on the inside end of the handle. It isn't clear to view, but there is a spring trapped inside the handle that will put counterforce against the spindle so it won't separate



Figure 16. Once all three screws have been turned part way so the threads don't bind, tighten all three screws.



Figure 17. The lock assembly is complete, and the lock is functional.

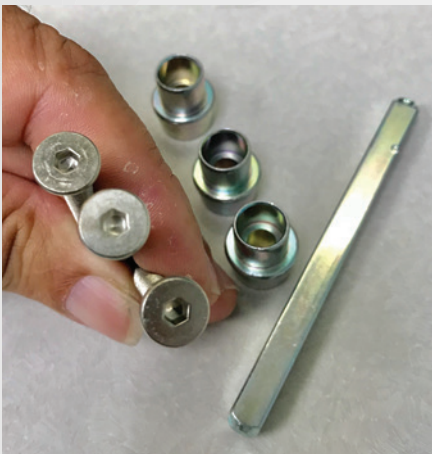


Figure 18. Your package may contain either Phillips-head or Allen mounting screws (shown).

from the outside unit. That relates to a malfunction that sometimes happens. I mentioned it earlier, but I will go into greater detail later in this article series.

Line up the inside unit (*Figure 14*) so that the square hole lines up with the spindle. The three holes in the metal plate of the inside unit will line up with the spacers that are pressed in place in the three mounting holes. If the holes are slightly oversized, the spacers may want to fall out. As you slide the unit over the spindle, the spring inside the handle will try to push back. You need to provide sufficient counter pressure to start your screws (*Figure 15*). It may be awkward to hold it in place while you are trying to attach the screws. It gets easier with practice. I never tighten one screw all the way down before I start the others. Otherwise, the pressure of that spring will make it more difficult. Once all three screws have been turned part way so the threads don't bind, tighten all three screws (*Figure 16*). If the hole locations are a tiny bit off, you may have to twist the position of the inside unit just slightly so the latch doesn't bind.

Reprogram the Lock

The lock assembly should be complete, and the lock should be functional (*Figure 17*). If you haven't already reprogrammed the lock, use the factory set combination 1-2-3-4-5-6-7-8 to test that the lock opens properly from the outside. The latch should retract, and it shouldn't bind while either retracting or extending. Remember that this is an electronic lock. Like most locks of that type, there is a clutch mechanism that only engages when you enter a correct operating code. If you just turn the handle, that's all that will happen: The handle will turn. The latch will not retract. If you enter a correct code first and then turn the handle, the latch will retract. The same should

apply when turning the inside lever. The latch should go in and out smoothly. The inside handle will always retract the latch. If it doesn't, something must be malfunctioning.

Mounting Screws

The mounting screws I used were the Phillips-head type. You may also find Allen-head type screws (*Figure 18*) in your package instead. The first few units that we installed came with Allen-head screws. After that, we got a few hundred units with only Phillips-head screws, but more recently we have been getting mostly units with Allen-head screws again. If you want to speed up your installations, you may want to prepare for the Allen head screws by getting a $\frac{1}{8}$ " Allen-type bit for your power accessories. Each package includes a $\frac{1}{8}$ " Allen wrench.

Alternate Installation Techniques

The door prep I just showed was the fastest and easiest installation of a PowerPlex. In the next part, I will demonstrate retrofitting a door that previously had a KABA 1000 or L1000 unit and another version of the PowerPlex. To be continued. ☺



Sal Dulcamaro started out in locksmithing in 1975 at age 17. He first practiced as a commercial locksmith before becoming an institutional locksmith in May 2014 for a large hospital. He has been a technical writer for more than 30 years, with more than 300 magazine articles published. He previously served as a contributing editor and a technical editor for *Reed's Security Reporter* magazine and a senior writer for *The National Locksmith*.



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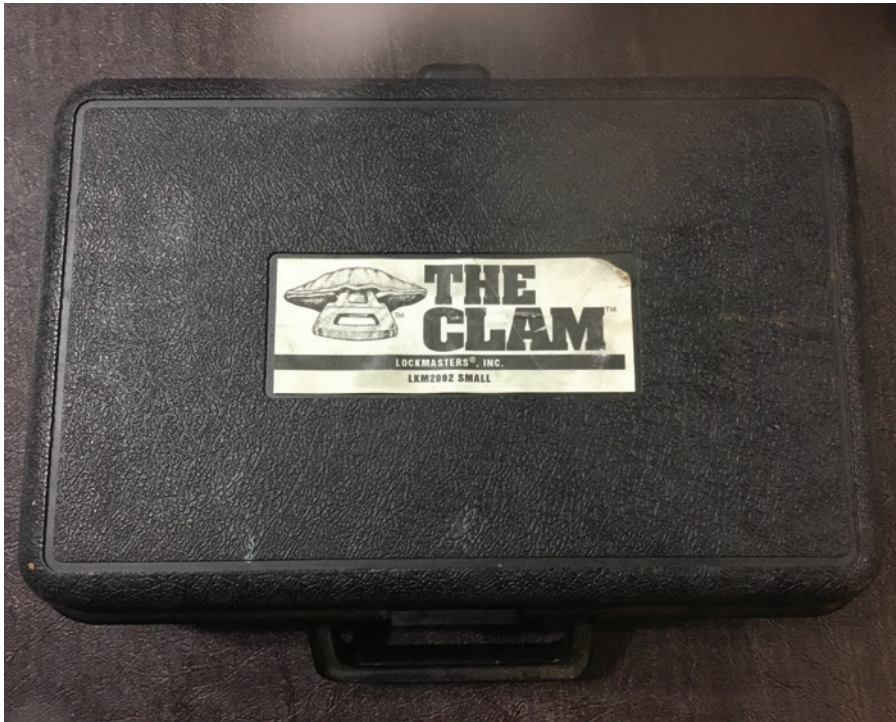


Figure 1. The Clam kit is made by Lockmasters.

Digging Up 'The Clam'

Tony Wiersielis, CPL, CFDI, rediscovers this handy tool and details how to use it.

LAST WEEK, MY NEW VAN WAS DELIVERED TO MY HOUSE. AS I WAS emptying the old one and loading up the new, I found a tool I hadn't used in a while. Because it's on the exotic and highly specialized side as tools go, I thought I'd show it to you.

This is called the "The Clam," (see *Figure 1*) and it's made by Lockmasters, makers of all kinds of nifty stuff.

You've probably seen one of those spy or crime movies in which somebody pushes a purloined key into wax, clay or a bar of soap. Then they make a key out of the impression, having returned the stolen key without being detected. Once the crime has been committed, nobody knows how the perpetrator got in.

I don't know about the rest of you, but I was never really convinced that people actually did this or how likely it was that it would work. It seemed plausible. I'll admit I never tried it, which was the only way I'd be sure that it worked (or not).



Figure 2. Number 1 is a stick of Wood's metal, number 2 is a spoon-like tool for melting and pouring the liquid metal, and numbers 3 and 4 are the actual "clam" tools in two sizes. Number 5 is a tool used to spread and level off the modeling clay. Number 6 is baby powder to keep the clay from sticking together. Number 7 used to hold a block of modeling clay.

When I saw this kit in a Lockmasters catalog, I was intrigued. I like tools, and I had a few bucks to spare, so I got one, tried it out, and it worked. The Clam is the real deal. Let's take a look.

The Kit

Figure 1 is the kit, well used (just not recently). I numbered each item for you. You'll see all of them in action soon. Number 1 is a stick of Wood's metal, which melts with the heat of a candle and hardens again in minutes. Number 2 is a spoon-like tool that you use to melt and pour the liquid metal.

Numbers 3 and 4 are the actual "clam" tools in two sizes. Number 5 is a tool used to spread and level off the modeling clay used in the process. Number 6 is baby powder that is used to keep the clay from sticking together. Number 7 is empty, but it held a block of modeling clay, which I've since replaced. There was also a tea light candle included in the kit, not shown.



Figure 3. The author had left clay in the tools from the last time he used them.



Figure 4



Figure 5

Figures 4 and 5. After kneading the clay, pack it into each side of the clam (Figure 4) and trim off the excess (Figure 5).

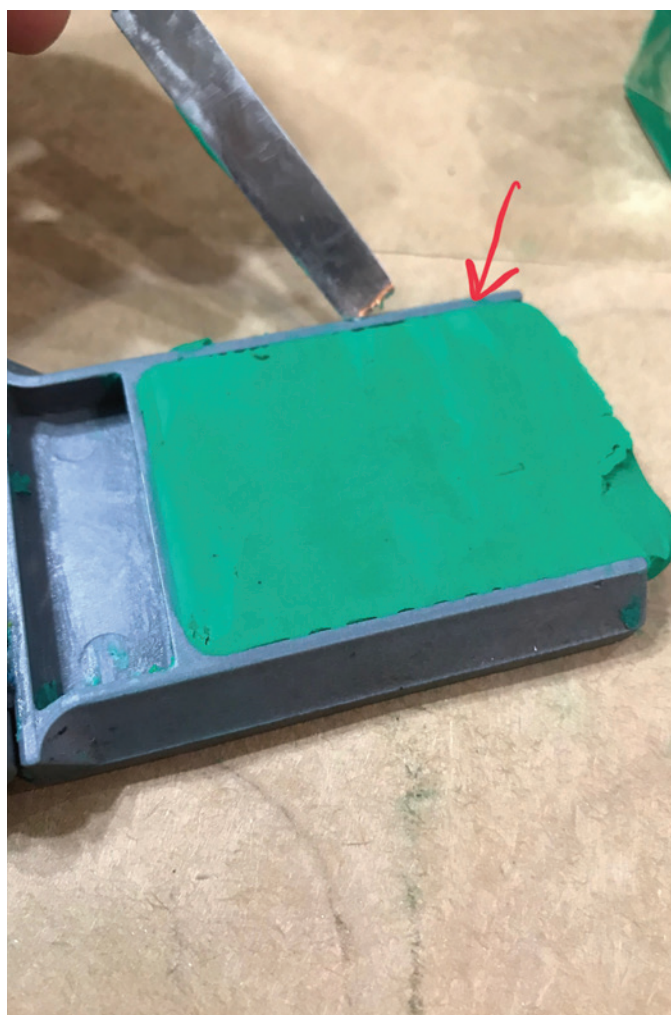


Figure 6. Smooth the clay until it's flat and level with the edge.

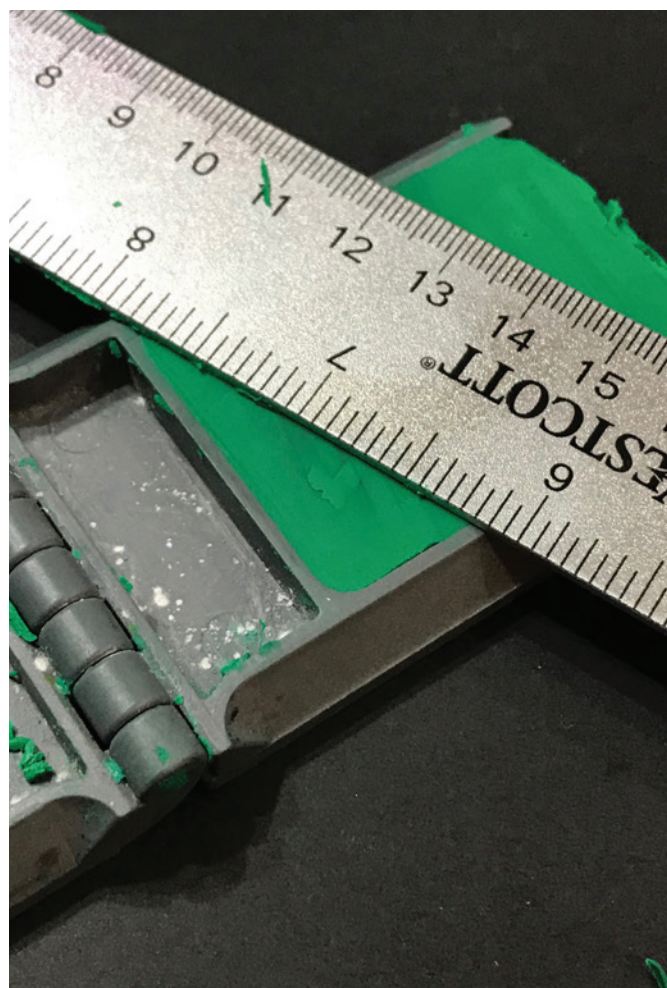


Figure 7. The author found that a thick aluminum ruler worked better than the tool in the kit for leveling the clay.



Figure 8



Figure 9

Figures 8 and 9. In *Figure 8*, the author is sprinkling baby powder on the clay, and he's smoothing it in *Figure 9*.

Figure 3 is both clam tools as I last left them. I'll be removing the old clay, as it hardened over time and isn't usable anymore. What's interesting about these tools is they are hinged so that they close perfectly flat against each other, which is important to the process.

Before we get into how it works, let me give you some background. I bought this at least 15 years ago (maybe more). At the time, it took me a few tries to produce a cast key that worked. It's not difficult to use, but don't expect to buy it, throw it in the truck and whip it out six months later and know what you're doing. It takes practice.

After not using it for quite a while, I was a bit rusty. I succeeded on the third try, with an Arrow key and cylinder. I took a lot of pictures and, to show you the best ones, you may see a Yale or Schlage key in the pictures as well. The process is the same, and you get to see some of the mistakes I made and learn from them.

How It's Done

The first step is to knead the clay and soften it enough to work it easily. When it's ready, pack it into each side of the clam (*Figure 4*) and trim off the excess (*Figure 5*). The

goal is to smooth the clay until it's flat and level with the edge, which I'm pointing to in *Figure 6*. As I was working, I felt I needed something stiffer than the tool provided, so I got a thick aluminum ruler at Staples for five dollars (*Figure 7*). It worked better, so I'm adding it to the kit.

In *Figure 8*, I'm sprinkling baby powder on the clay, and I'm gently smoothing it in *Figure 9*. The baby powder acts as a mold release so one side of the clay doesn't stick to the other when it's time to open the clam. It also makes it easier to remove the key after it's made its impression.



Figure 10. The author has placed the key on one side of the clay.



Figure 11. The author is squeezing both parts of the clam together after carefully closing the mold.



Figure 12



Figure 13

Figures 12-15. The author is separating the halves of the mold and gently removing the key. You can see the impressions left on each side.



Figure 14

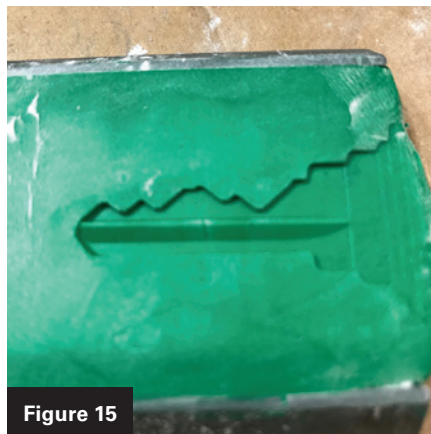


Figure 15

In *Figure 10*, I've carefully placed the key on one side of the clay, but I don't want to push it into the clay; that will occur when I close the clam. Notice that the shoulder of the key is into the mold about half an inch. That's so there will be something to turn the finished casting in the cylinder later.

Figure 11 shows me squeezing both parts of the clam together after carefully closing the mold. In *Figures 12-15*, I'm carefully separating the halves of the mold and gently removing the key, and you can see the impressions left on each side. Removing the key should be a delicate maneuver; you don't want to distort the impression.

In *Figure 16*, the tool is pointing to some grooves I carved in the clay. These allow any air in the impression to escape so I can completely fill the impression with the molten metal. If I don't do this, the mold won't fill, and I wind up with something like what's seen in *Figure 17*. Incidentally, if you do mess up the casting, you can clean it off and re-melt it.

In *Figure 18*, I've fashioned a small funnel out of the excess clay for pouring the metal. Again, I want to be careful not to distort the impression. I couldn't pour it

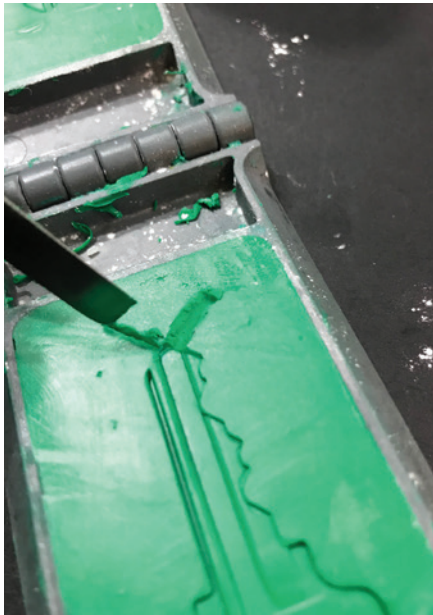


Figure 16. The tool is pointing to some grooves carved in the clay. These allow any air in the impression to escape so the impression will be completely filled with the molten metal.



Figure 17. This is what happens if air gets trapped in the impression.

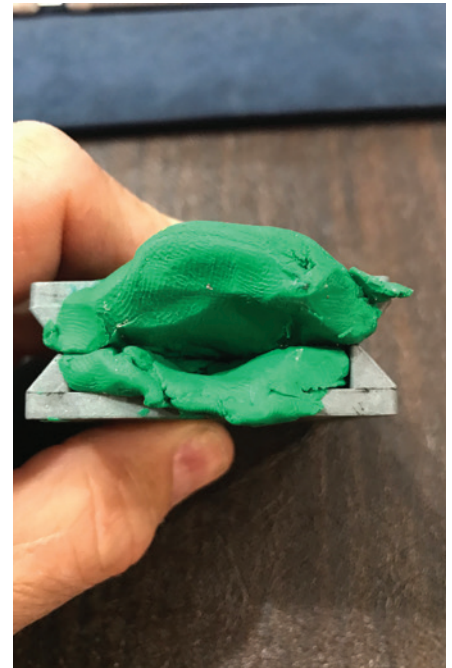


Figure 18. The author created a small funnel out of the excess clay for pouring the metal.

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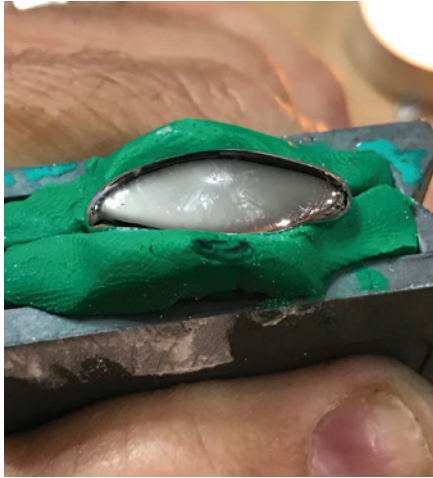


Figure 19. Hold the clam tightly as the metal solidifies.



Figure 20. After the metal hardens, carefully open the clam.

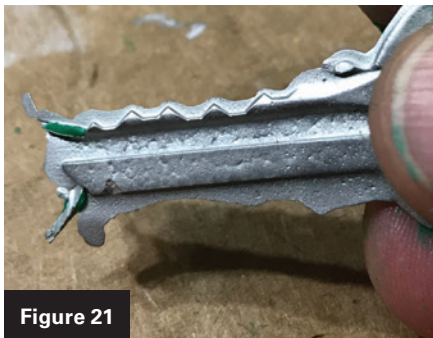


Figure 21

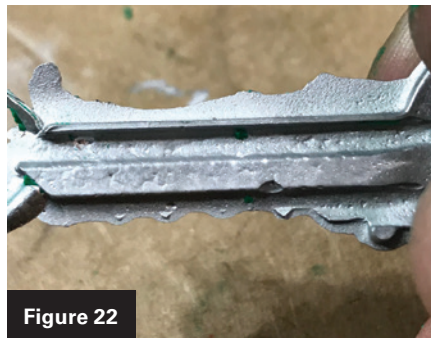


Figure 22

Figures 21 and 22. These images show both sides of the casting. The excess metal around the Yale key is what seeped out from the impression.



Figure 23

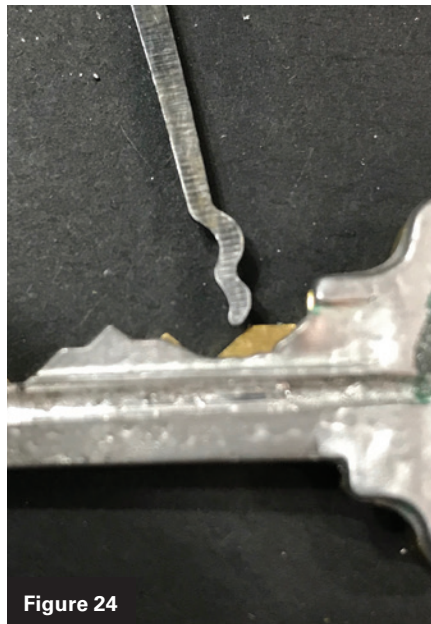


Figure 24

Figures 23 and 24. *Figure 23* shows the original compared with the cleaned-up casting, and *Figure 24* shows the casting on top of original.

and hold the camera, so I can't show you that, but *Figure 19* shows me holding the clam tightly as the metal solidifies. It will turn from bright and shiny to cloudy and dimpled as it cools.

It took 2-3 minutes to melt and about the same time to cool and harden the metal. You want to pour the metal slowly so it can get to the bottom of the impression.

When it hardened, I carefully opened the clam to reveal what's seen in *Figure 20*. *Figures 21* and *22* show both sides of the casting. The excess metal around the Yale key is what seeped out from the impression and is very similar to the "flash" that was around the parts of plastic models back in the day.

One of the reasons there was so much flash on this casting was because I didn't get the clay completely flat until I got the ruler. In this case, I wasn't level, but low. Consequently, there was room for leakage, and the impression was very shallow. The Arrow key had almost no flash when I was done because the clay was dead flat.

However much flash there was, I needed to file the casting carefully to remove it. *Figure 23* shows the original compared with the cleaned-up casting, and *Figure 24* shows the casting on top of original. The casting wasn't perfect; the pick is pointing at it in both pictures.

In *Figure 24*, you see the brass on the original instead of the casting in front of it. This means the metal didn't get to that spot. I noticed that what was there looked like the root of the first cut, so I cleaned it up and tried it (*Figures 25-26*), and it worked.

At this point, I could use the cast key, but not in daily usage because the Wood's metal is too soft. If the casting were perfect, I could use it to duplicate a brass key. With the imperfect casting, I would probably gauge it and cut it on a code machine. You can also use a caliper

and carefully measure the cuts on the impression to cut the key by code, and not have to cast the key at all.

I can tell you that most high-security keys can be impressed and cast with this tool. I had a Medeco under-counter lock box lying around the shop and cast a key that opened it in about 15 minutes.

How Would You Use This?

You could use this kit if you need to obtain and key a large number of locks and there's only one key — and you can't take it with you. Or, if the key is rare or historic and, again, can't leave the building. There are a number of situations where this tool could be helpful, if you think about it. Or you might not have a use for it at all.

There is also another use for this tool, which is within the dark arts of cloak and dagger, spies and master thieves.



Figure 25



Figure 26

Figures 25 and 26. Although the casting was imperfect, the author cleaned it up and tried it — and it worked.

Someone could take an impression of an important unattended key in less than a minute. The key could be cast somewhere else so the perpetrator could return at his leisure and cause all manner of trouble. That's something for a forensic locksmith to consider during an investigation. 🔑



Tony Wiersielis, CPL, CFDI, has more than 30 years of experience and has worked in most phases of the trade throughout the New York metropolitan area. He was named *Keynotes* Author of the Year for 2016.



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Meet the ALOA Education Staff Member

Get to know **Joe Peach**, ALOA Education's newest employee.

"I help ALOA members by offering technical assistance, helping with their continuing education and making sure that classes run smoothly."



Joe Peach, CPL

Assistant Education Manager

How long have you been with ALOA?

I started with ALOA in September of this year.

What was your background before coming to ALOA?

Before becoming a locksmith, I worked in construction, maintenance and warehousing. I got my start in the industry at an unemployment office job fair in 2001. A local locksmith company representative was there handing out pamphlets for

a locksmithing school. I took the classes and was hired on by the same company. I worked at that company for a total of 17 years: first as a service technician and then as a store manager for the last 10 years. When my wife received a promotion and we relocated to Dallas in June, I worked for a few months at a highly respected locksmith company in the Dallas area before I was offered the position here at ALOA.

What are your job duties?

My primary job duties are maintaining and organizing the equipment and supplies for the classes offered by the education department, maintaining the museum, providing technical support to our members, building maintenance and (in the not-too-distant future) teaching.

How do you help ALOA members?

I help ALOA members by offering technical assistance, helping with their continuing education and making sure that classes run smoothly.

What's your favorite part of your job?

Having not been here very long, everything so far is awesome. If I had to narrow it down, though, I would have to say helping our members with tech support.

What are your interests outside of work?

I enjoy spending time with my family, playing with my dogs and checking out local venues and attractions.

What's one interesting thing about you that ALOA members may not know?

I am a fan of the Rat Pack era. I am fascinated by the 50s and 60s. The suits, the hats, the music, the movies and the lifestyle all seem to pull me in. ☺

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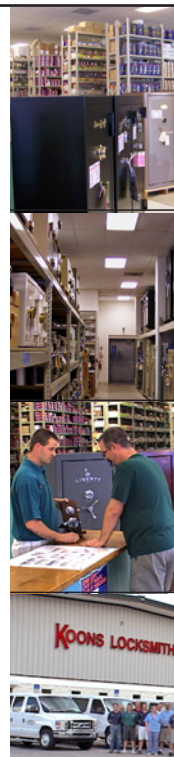
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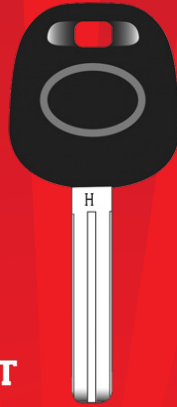
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